

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	SG 533-23	Wellbore No.	1
Well Name	SG 533-23	Common Name	SG 533-23
Project	SG 23-07S-096W	Site	SG 44-23 Pad
Vertical Section Azimuth	278.15 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	2/6/2013	UWI	SG 533-23
Active Datum	KB @5,051.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	Scientific Drilling
Date Started	2/6/2013	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

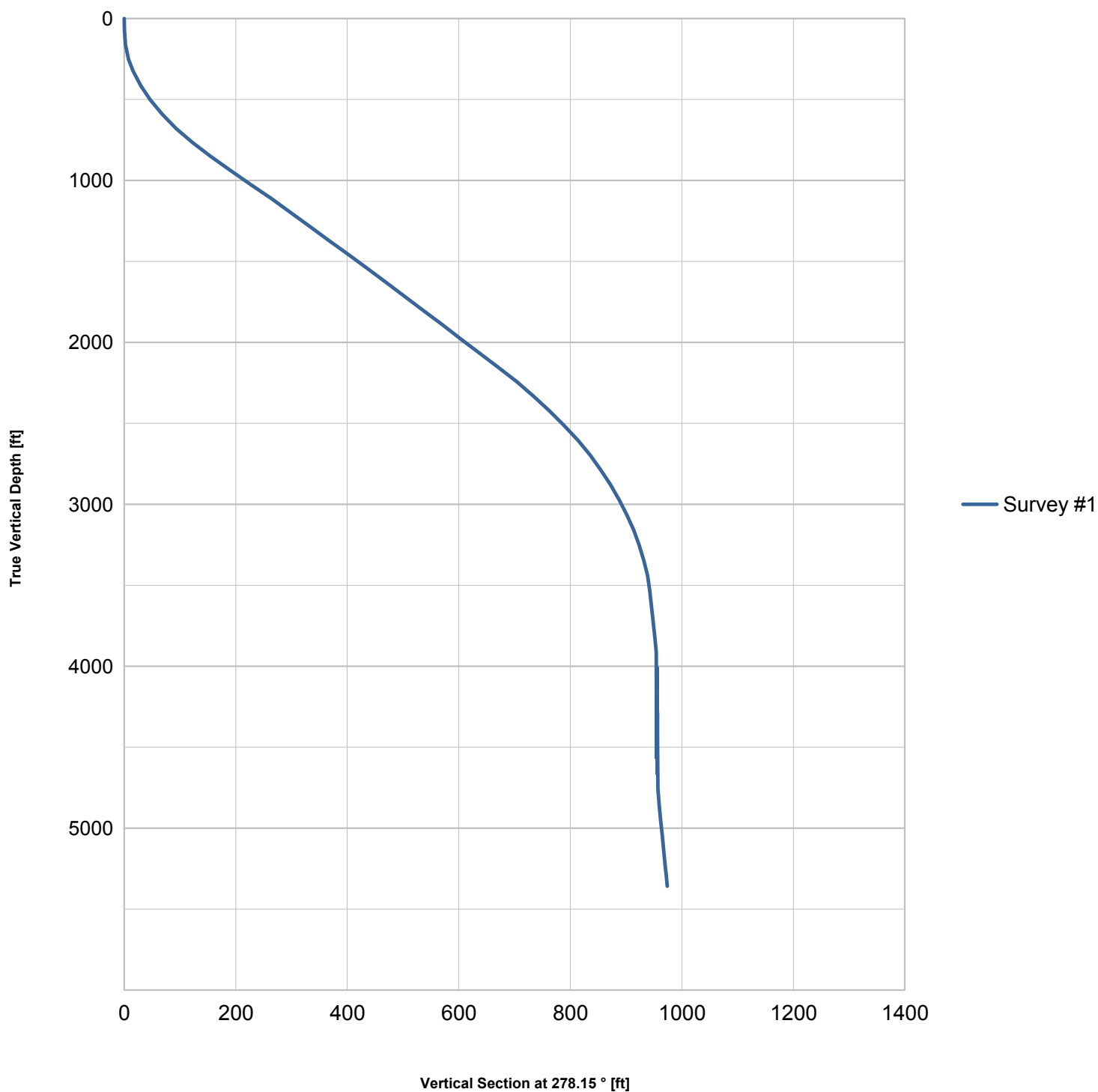
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
2/6/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2/6/2013	NORMAL	72.0	0.62	289.34	72.00	0.13	-0.37	0.38	0.86	0.86	0.00	289.34
	NORMAL	162.0	1.85	275.01	161.98	0.42	-2.27	2.31	1.40	1.37	-15.92	338.67
	NORMAL	253.0	5.10	277.91	252.80	1.10	-7.75	7.82	3.58	3.57	3.19	4.54
	NORMAL	326.0	7.64	279.02	325.34	2.31	-15.75	15.92	3.48	3.48	1.52	3.33
	NORMAL	416.0	9.99	278.73	414.27	4.43	-29.38	29.71	2.61	2.61	-0.32	358.77
	NORMAL	507.0	12.03	277.17	503.59	6.81	-46.59	47.09	2.27	2.24	-1.71	350.92
	NORMAL	598.0	14.90	277.69	592.08	9.56	-67.60	68.27	3.16	3.15	0.57	2.67
	NORMAL	690.0	16.95	278.09	680.55	13.03	-92.60	93.51	2.23	2.23	0.43	3.26
	NORMAL	782.0	20.37	278.45	767.70	17.28	-121.73	122.95	3.72	3.72	0.39	2.10
	NORMAL	873.0	21.76	277.97	852.61	21.94	-154.10	155.65	1.54	1.53	-0.53	352.70
	NORMAL	964.0	22.50	277.87	936.91	26.67	-188.05	189.93	0.81	0.81	-0.11	357.04
2/7/2013	NORMAL	1,057.0	22.50	277.87	1,022.83	31.54	-223.31	225.52	0.00	0.00	0.00	0.00
	NORMAL	1,088.0	23.83	277.76	1,050.91	33.30	-236.38	237.72	1.07	1.07	-0.09	358.09
	NORMAL	1,151.0	21.62	277.57	1,109.01	36.54	-260.49	263.04	3.51	-3.51	-0.30	181.81
	NORMAL	1,245.0	21.62	277.81	1,196.40	41.18	-294.82	297.68	0.09	0.00	0.26	90.11
	NORMAL	1,339.0	21.66	276.94	1,283.78	45.63	-329.19	332.34	0.34	0.04	-0.93	276.70
	NORMAL	1,432.0	21.84	276.28	1,370.16	49.59	-363.43	366.79	0.33	0.19	-0.71	306.05
	NORMAL	1,526.0	22.01	275.47	1,457.36	53.19	-398.34	401.86	0.37	0.18	-0.86	298.96
	NORMAL	1,620.0	21.37	278.87	1,544.70	57.51	-432.80	436.58	1.50	-0.68	3.62	118.56
	NORMAL	1,713.0	21.00	278.84	1,631.42	62.68	-466.01	470.18	0.40	-0.40	-0.03	181.66

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 (°)
2/8/2013	NORMAL	1,806.0	21.23	278.42	1,718.18	67.71	-499.13	503.69	0.30	0.25	-0.45	326.47
	NORMAL	1,899.0	21.12	279.59	1,804.90	72.96	-532.31	537.27	0.47	-0.12	1.26	105.13
	NORMAL	1,993.0	20.94	280.24	1,892.64	78.77	-565.53	570.99	0.31	-0.19	0.69	127.96
	NORMAL	2,087.0	20.62	280.42	1,980.52	84.75	-598.34	604.31	0.35	-0.34	0.19	168.80
	NORMAL	2,181.0	21.18	280.09	2,068.34	90.72	-631.34	637.83	0.61	0.60	-0.35	347.97
	NORMAL	2,275.0	21.02	280.20	2,156.03	96.68	-664.65	671.64	0.18	-0.17	0.12	166.15
	NORMAL	2,369.0	19.45	279.71	2,244.23	102.30	-696.67	704.14	1.68	-1.67	-0.52	185.93
	NORMAL	2,463.0	18.10	279.10	2,333.23	107.25	-726.52	734.38	1.45	-1.44	-0.65	187.99
	NORMAL	2,556.0	16.70	277.02	2,421.97	111.17	-754.05	762.19	1.65	-1.51	-2.24	202.97
	NORMAL	2,651.0	15.84	278.25	2,513.16	114.70	-780.42	788.80	0.98	-0.91	1.29	158.75
	NORMAL	2,746.0	14.42	278.77	2,604.87	118.37	-804.95	813.60	1.50	-1.49	0.55	174.79
	NORMAL	2,840.0	12.60	278.53	2,696.26	121.67	-826.66	835.56	1.94	-1.94	-0.26	181.65
	NORMAL	2,933.0	11.15	281.68	2,787.27	125.00	-845.49	854.68	1.71	-1.56	3.39	157.45
	NORMAL	3,026.0	10.25	280.06	2,878.65	128.26	-862.45	871.92	1.02	-0.97	-1.74	197.69
	NORMAL	3,121.0	8.70	282.30	2,972.35	131.27	-877.79	887.54	1.68	-1.63	2.36	167.72
	NORMAL	3,215.0	8.26	280.13	3,065.33	133.97	-891.38	901.37	0.58	-0.47	-2.31	214.96
	NORMAL	3,310.0	6.84	281.26	3,159.50	136.28	-903.65	913.84	1.50	-1.49	1.19	174.59
	NORMAL	3,404.0	5.26	278.43	3,252.97	138.00	-913.40	923.74	1.71	-1.68	-3.01	189.29
	NORMAL	3,498.0	4.66	276.47	3,346.62	139.06	-921.46	931.87	0.66	-0.64	-2.09	194.80
	NORMAL	3,593.0	3.38	281.20	3,441.39	140.04	-928.04	938.52	1.39	-1.35	4.98	167.83
	NORMAL	3,687.0	1.75	293.56	3,535.29	141.15	-932.08	942.67	1.82	-1.73	13.15	167.36
	NORMAL	3,781.0	1.78	278.92	3,629.25	141.95	-934.83	945.52	0.48	0.03	-15.57	266.47
	NORMAL	3,876.0	1.80	267.21	3,724.20	142.11	-937.78	948.46	0.38	0.02	-12.33	267.27
	NORMAL	3,970.0	2.07	262.41	3,818.15	141.81	-940.94	951.54	0.33	0.29	-5.11	326.61
	NORMAL	4,064.0	1.36	286.97	3,912.11	141.92	-943.69	954.28	1.07	-0.76	26.13	145.84
	NORMAL	4,158.0	1.19	1.52	4,006.09	143.22	-944.73	955.49	1.65	-0.18	79.31	132.27
	NORMAL	4,251.0	1.16	10.91	4,099.07	145.11	-944.53	955.56	0.21	-0.03	10.10	103.53
	NORMAL	4,346.0	0.67	353.93	4,194.06	146.60	-944.40	955.65	0.58	-0.52	-17.87	200.65
2/9/2013	NORMAL	4,438.0	0.65	283.91	4,286.05	147.26	-944.97	956.30	0.82	-0.02	-76.11	233.75
	NORMAL	4,532.0	0.67	47.46	4,380.05	147.76	-945.08	956.48	1.24	0.02	131.44	151.31
	NORMAL	4,625.0	0.83	65.08	4,473.04	148.41	-944.07	955.57	0.30	0.17	18.95	64.27
	NORMAL	4,721.0	0.30	247.31	4,569.04	148.61	-943.67	955.21	1.18	-0.55	-185.18	180.59
	NORMAL	4,815.0	0.81	241.48	4,663.03	148.20	-944.48	955.95	0.55	0.54	-6.20	350.76
	NORMAL	4,909.0	1.50	235.73	4,757.01	147.19	-946.08	957.39	0.74	0.73	-6.12	347.58
	NORMAL	5,004.0	2.02	231.73	4,851.97	145.45	-948.42	959.46	0.56	0.55	-4.21	344.70
	NORMAL	5,099.0	2.22	236.35	4,946.90	143.39	-951.27	961.99	0.28	0.21	4.86	42.84
	NORMAL	5,193.0	2.25	236.39	5,040.83	141.36	-954.32	964.72	0.03	0.03	0.04	3.00
	NORMAL	5,287.0	2.32	232.58	5,134.76	139.19	-957.37	967.43	0.18	0.07	-4.05	292.83
	NORMAL	5,380.0	2.48	228.94	5,227.68	136.72	-960.38	970.06	0.24	0.17	-3.91	314.56
	NORMAL	5,446.0	2.64	228.39	5,293.61	134.77	-962.59	971.98	0.25	0.24	-0.83	351.00
	NORMAL	5,511.0	2.80	227.85	5,358.54	132.71	-964.89	973.96	0.25	0.25	-0.83	350.63

3 Charts

3.1 Vertical Section View



3.2 Plan View

