

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	SG 34-23	Wellbore No.	1
Well Name	SG 34-23	Common Name	SG 34-23
Project	SG 23-07S-096W	Site	SG 44-23 Pad
Vertical Section Azimuth	261.75 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	2/11/2013	UWI	SG 34-23
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	2/11/2013	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

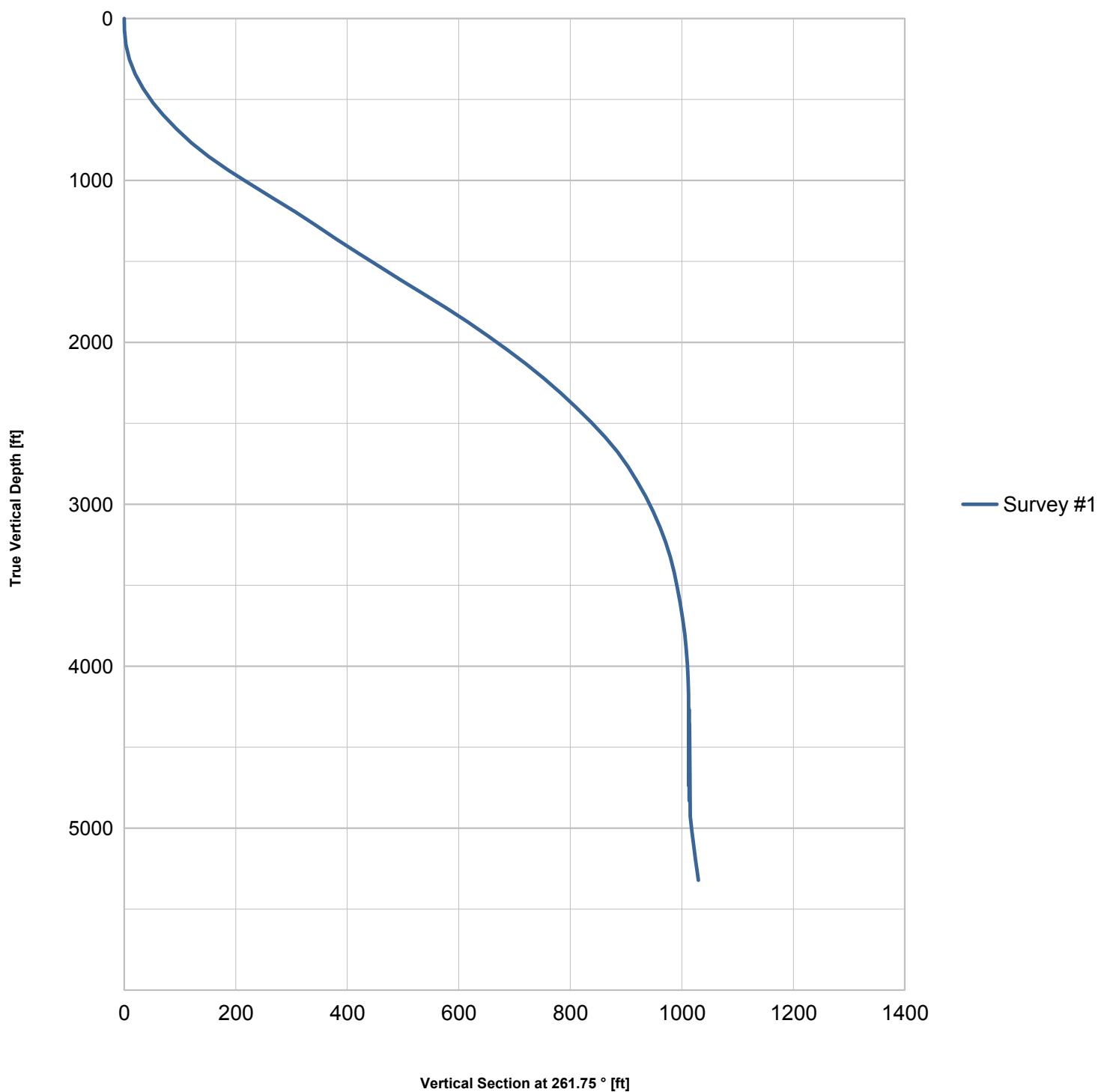
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
2/11/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2/11/2013	NORMAL	73.0	0.79	267.36	73.00	-0.02	-0.50	0.50	1.08	1.08	0.00	267.36
	NORMAL	163.0	2.55	257.26	162.96	-0.49	-3.08	3.11	1.98	1.96	-11.22	345.43
	NORMAL	254.0	5.37	259.54	253.73	-1.71	-9.24	9.39	3.10	3.10	2.51	4.33
	NORMAL	345.0	7.83	263.94	344.12	-3.14	-19.59	19.84	2.76	2.70	4.84	13.81
	NORMAL	435.0	10.47	263.58	432.97	-4.70	-33.82	34.14	2.93	2.93	-0.40	358.58
	NORMAL	526.0	12.49	261.56	522.14	-7.07	-51.77	52.25	2.26	2.22	-2.22	347.75
	NORMAL	599.0	14.21	261.53	593.17	-9.55	-68.44	69.10	2.36	2.36	-0.04	359.75
	NORMAL	690.0	16.37	261.65	680.94	-13.06	-92.18	93.10	2.37	2.37	0.13	0.90
	NORMAL	782.0	18.93	261.72	768.60	-17.09	-119.78	120.99	2.78	2.78	0.08	0.51
	NORMAL	873.0	21.22	262.10	854.07	-21.48	-150.70	152.22	2.52	2.52	0.42	3.44
	NORMAL	964.0	23.92	261.38	938.09	-26.51	-185.26	187.15	2.98	2.97	-0.79	353.82
	NORMAL	1,033.0	24.96	261.55	1,000.91	-30.75	-213.49	215.69	1.51	1.51	0.25	3.95
2/12/2013	NORMAL	1,151.0	25.45	262.72	1,107.67	-37.62	-263.27	265.94	0.59	0.42	0.99	46.01
	NORMAL	1,245.0	24.91	262.46	1,192.74	-42.77	-302.93	305.93	0.59	-0.57	-0.28	191.46
	NORMAL	1,339.0	23.26	262.46	1,278.55	-47.81	-340.96	344.29	1.76	-1.76	0.00	180.00
	NORMAL	1,432.0	23.71	261.74	1,363.85	-52.90	-377.66	381.35	0.57	0.48	-0.77	327.15
	NORMAL	1,526.0	25.05	261.96	1,449.47	-58.40	-416.07	420.15	1.43	1.43	0.23	3.98
	NORMAL	1,620.0	24.25	261.08	1,534.90	-64.18	-454.85	459.35	0.94	-0.85	-0.94	204.25
	NORMAL	1,713.0	25.41	260.11	1,619.30	-70.57	-493.37	498.39	1.32	1.25	-1.04	340.21
	NORMAL	1,806.0	25.40	261.21	1,703.31	-77.04	-532.74	538.28	0.51	-0.01	1.18	91.71

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 (°)
2/12/2013	NORMAL	1,899.0	24.62	261.13	1,787.59	-83.08	-571.59	577.60	0.84	-0.84	-0.09	182.45
2/13/2013	NORMAL	1,993.0	23.58	259.97	1,873.39	-89.37	-609.46	615.97	1.22	-1.11	-1.23	203.96
	NORMAL	2,087.0	22.15	261.73	1,960.01	-95.20	-645.51	652.49	1.69	-1.52	1.87	155.25
	NORMAL	2,181.0	21.62	261.21	2,047.23	-100.39	-680.16	687.52	0.60	-0.56	-0.55	199.85
	NORMAL	2,275.0	20.00	260.93	2,135.10	-105.57	-713.15	720.92	1.73	-1.72	-0.30	183.38
	NORMAL	2,369.0	19.77	261.53	2,223.49	-110.45	-744.75	752.89	0.33	-0.24	0.64	138.70
	NORMAL	2,463.0	17.38	263.29	2,312.59	-114.43	-774.42	782.82	2.61	-2.54	1.87	167.63
	NORMAL	2,556.0	17.24	261.25	2,401.38	-118.15	-801.83	810.49	0.67	-0.15	-2.19	256.04
	NORMAL	2,651.0	15.47	262.50	2,492.53	-121.94	-828.31	837.24	1.90	-1.86	1.32	169.35
	NORMAL	2,746.0	14.91	261.20	2,584.21	-125.47	-852.95	862.13	0.69	-0.59	-1.37	210.68
	NORMAL	2,840.0	12.92	264.38	2,675.45	-128.35	-875.36	884.72	2.27	-2.12	3.38	160.52
	NORMAL	2,933.0	10.39	264.61	2,766.53	-130.15	-894.06	903.49	2.72	-2.72	0.25	179.06
	NORMAL	3,026.0	10.02	262.41	2,858.05	-132.01	-910.43	919.95	0.58	-0.40	-2.37	225.41
	NORMAL	3,121.0	8.53	267.15	2,951.81	-133.45	-925.66	935.23	1.76	-1.57	4.99	155.18
	NORMAL	3,215.0	7.99	262.24	3,044.84	-134.68	-939.10	948.70	0.94	-0.57	-5.22	230.15
	NORMAL	3,310.0	6.48	268.27	3,139.08	-135.73	-951.00	960.63	1.78	-1.59	6.35	156.27
	NORMAL	3,404.0	5.97	266.06	3,232.52	-136.23	-961.18	970.78	0.60	-0.54	-2.35	204.07
	NORMAL	3,498.0	4.94	269.41	3,326.10	-136.61	-970.10	979.66	1.15	-1.10	3.56	164.48
	NORMAL	3,593.0	3.43	270.93	3,420.84	-136.60	-977.03	986.52	1.59	-1.59	1.60	176.56
	NORMAL	3,687.0	3.18	264.66	3,514.69	-136.80	-982.44	991.90	0.47	-0.27	-6.67	232.23
	NORMAL	3,781.0	3.00	261.31	3,608.55	-137.42	-987.47	996.97	0.27	-0.19	-3.56	223.43
	NORMAL	3,876.0	2.51	261.83	3,703.44	-138.09	-991.99	1,001.53	0.52	-0.52	0.55	177.34
	NORMAL	3,970.0	2.24	283.24	3,797.36	-137.96	-995.81	1,005.30	0.98	-0.29	22.78	117.44
	NORMAL	4,064.0	1.51	297.42	3,891.31	-136.97	-998.70	1,008.02	0.91	-0.78	15.09	154.51
	NORMAL	4,158.0	1.44	295.54	3,985.28	-135.89	-1,000.86	1,010.00	0.09	-0.07	-2.00	213.72
	NORMAL	4,251.0	1.17	322.44	4,078.25	-134.63	-1,002.50	1,011.44	0.71	-0.29	28.92	126.84
2/14/2013	NORMAL	4,346.0	0.24	264.97	4,173.25	-133.88	-1,003.29	1,012.11	1.12	-0.98	-60.49	191.00
	NORMAL	4,438.0	0.74	247.09	4,265.24	-134.13	-1,004.03	1,012.88	0.56	0.54	-19.43	333.92
	NORMAL	4,532.0	0.57	315.15	4,359.24	-134.03	-1,004.91	1,013.75	0.79	-0.18	72.40	134.91
	NORMAL	4,625.0	0.75	114.56	4,452.24	-133.96	-1,004.69	1,013.51	1.40	0.19	171.41	168.29
	NORMAL	4,721.0	0.84	143.25	4,548.23	-134.78	-1,003.69	1,012.65	0.42	0.09	29.89	91.86
	NORMAL	4,815.0	0.92	172.23	4,642.22	-136.08	-1,003.18	1,012.33	0.48	0.09	30.83	94.51
	NORMAL	4,909.0	1.14	186.38	4,736.20	-137.76	-1,003.18	1,012.57	0.36	0.23	15.05	56.36
	NORMAL	5,004.0	1.41	203.49	4,831.18	-139.77	-1,003.75	1,013.42	0.49	0.28	18.01	63.41
	NORMAL	5,099.0	2.37	209.67	4,926.13	-142.55	-1,005.19	1,015.24	1.03	1.01	6.51	15.09
	NORMAL	5,193.0	2.55	219.23	5,020.04	-145.86	-1,007.48	1,017.98	0.48	0.19	10.17	71.14
	NORMAL	5,287.0	2.88	222.72	5,113.93	-149.21	-1,010.40	1,021.35	0.39	0.35	3.71	28.36
	NORMAL	5,380.0	3.12	223.84	5,206.81	-152.75	-1,013.74	1,025.17	0.27	0.26	1.20	14.28
	NORMAL	5,430.0	2.90	219.43	5,256.74	-154.71	-1,015.48	1,027.18	0.64	-0.44	-8.82	224.28
	NORMAL	5,495.0	2.90	219.43	5,321.65	-157.25	-1,017.57	1,029.61	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

