

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	SG 43-23	Wellbore No.	1
Well Name	SG 43-23	Common Name	SG 43-23
Project	SG 23-07S-096W	Site	SG 44-23 Pad
Vertical Section Azimuth	25.34 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	3/13/2013	UWI	SG 43-23
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	3/13/2013	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

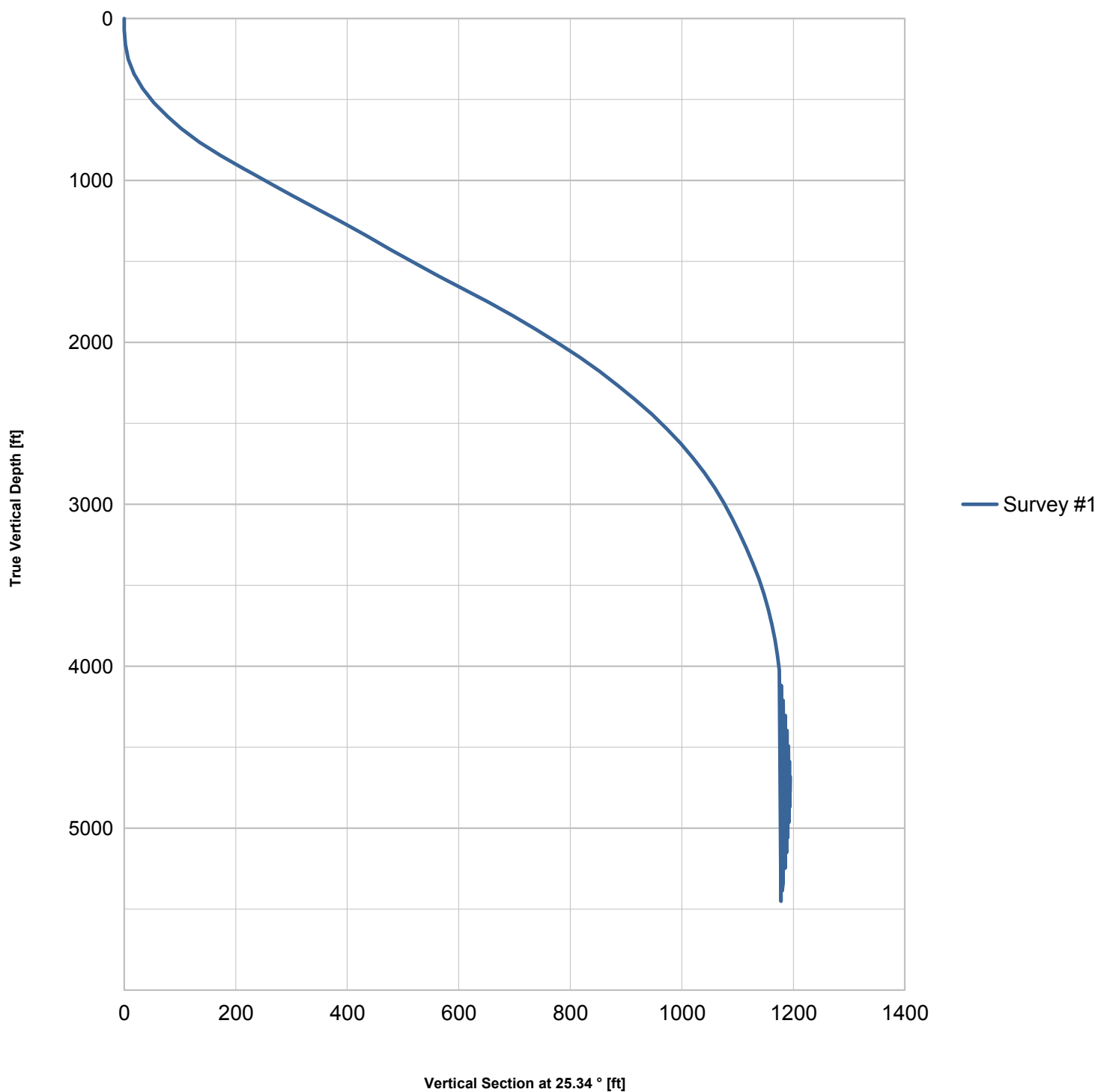
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
3/13/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/13/2013	NORMAL	70.0	0.26	37.62	70.00	0.13	0.10	0.16	0.37	0.37	0.00	37.62
3/14/2013	NORMAL	70.0	0.26	37.62	70.00	0.13	0.10	0.16	0.00	0.00	0.00	0.00
	NORMAL	162.0	2.20	23.29	161.97	1.91	0.92	2.12	2.12	2.11	-15.58	343.78
	NORMAL	253.0	4.75	23.47	252.80	6.97	3.11	7.64	2.80	2.80	0.20	0.34
	NORMAL	344.0	8.01	24.96	343.22	16.18	7.29	17.74	3.59	3.58	1.64	3.65
	NORMAL	435.0	11.61	25.58	432.88	30.19	13.92	33.25	3.96	3.96	0.68	1.99
	NORMAL	525.0	14.52	24.87	520.54	48.60	22.58	53.59	3.24	3.23	-0.79	356.50
	NORMAL	616.0	17.33	27.51	608.04	70.98	33.64	78.55	3.19	3.09	2.90	15.73
	NORMAL	690.0	19.43	26.41	678.26	91.78	44.21	101.87	2.88	2.84	-1.49	350.10
	NORMAL	782.0	22.72	24.88	764.09	121.61	58.49	134.94	3.63	3.58	-1.66	349.79
	NORMAL	873.0	26.73	25.09	846.73	156.10	74.57	173.00	4.41	4.41	0.23	1.35
	NORMAL	964.0	27.17	25.44	927.85	193.40	92.17	214.24	0.51	0.48	0.38	19.98
	NORMAL	995.0	27.20	25.25	955.43	206.20	98.24	228.40	0.30	0.10	-0.61	288.98
3/15/2013	NORMAL	1,088.0	27.80	24.42	1,037.92	245.17	116.27	271.34	0.77	0.65	-0.89	327.06
	NORMAL	1,151.0	28.40	24.51	1,093.49	272.18	128.56	301.01	0.95	0.95	0.14	4.08
	NORMAL	1,245.0	28.27	24.48	1,176.23	312.78	147.06	345.62	0.14	-0.14	-0.03	186.24
	NORMAL	1,339.0	29.04	22.96	1,258.72	354.04	165.18	390.67	1.13	0.82	-1.62	315.90
	NORMAL	1,432.0	26.73	23.93	1,340.91	393.95	182.47	434.14	2.53	-2.48	1.04	169.32
3/16/2013	NORMAL	1,526.0	26.78	23.62	1,424.85	432.68	199.53	476.44	0.16	0.05	-0.33	289.57
	NORMAL	1,620.0	27.82	25.10	1,508.38	471.94	217.32	519.55	1.32	1.11	1.57	33.79

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 (°)
3/16/2013	NORMAL	1,713.0	28.44	27.91	1,590.40	511.17	236.89	563.37	1.57	0.67	3.02	66.16
	NORMAL	1,806.0	29.55	27.18	1,671.74	551.14	257.73	608.42	1.25	1.19	-0.78	342.00
	NORMAL	1,899.0	28.74	25.85	1,752.97	591.66	277.96	653.70	1.12	-0.87	-1.43	218.07
	NORMAL	1,993.0	26.61	26.76	1,836.21	630.80	297.29	697.35	2.31	-2.27	0.97	169.18
	NORMAL	2,087.0	25.77	26.07	1,920.56	667.95	315.75	738.82	0.95	-0.89	-0.73	199.62
	NORMAL	2,181.0	24.40	24.06	2,005.69	704.04	332.65	778.67	1.72	-1.46	-2.14	210.98
	NORMAL	2,275.0	23.31	25.49	2,091.66	738.56	348.57	816.68	1.31	-1.16	1.52	152.70
	NORMAL	2,369.0	21.48	27.60	2,178.57	770.60	364.55	852.48	2.13	-1.95	2.24	157.26
	NORMAL	2,463.0	19.55	28.90	2,266.60	799.62	380.13	885.38	2.11	-2.05	1.38	167.33
	NORMAL	2,556.0	19.33	28.88	2,354.30	826.72	395.08	916.27	0.24	-0.24	-0.02	181.72
	NORMAL	2,651.0	17.61	25.95	2,444.40	853.42	408.96	946.33	2.06	-1.81	-3.08	206.97
	NORMAL	2,746.0	15.65	27.36	2,535.43	877.72	421.14	973.51	2.11	-2.06	1.48	169.04
	NORMAL	2,840.0	15.01	26.38	2,626.08	899.89	432.38	998.35	0.73	-0.68	-1.04	201.57
	NORMAL	2,933.0	13.00	27.54	2,716.31	919.95	442.56	1,020.85	2.18	-2.16	1.25	172.61
	NORMAL	3,026.0	11.94	26.28	2,807.12	937.85	451.66	1,040.92	1.18	-1.14	-1.35	193.78
	NORMAL	3,121.0	10.55	25.64	2,900.29	954.51	459.78	1,059.45	1.47	-1.46	-0.67	184.82
	NORMAL	3,215.0	9.42	26.34	2,992.86	969.16	466.91	1,075.74	1.21	-1.20	0.74	174.21
	NORMAL	3,310.0	8.40	27.87	3,086.72	982.26	473.61	1,090.45	1.10	-1.07	1.61	167.68
	NORMAL	3,404.0	7.83	27.29	3,179.78	994.02	479.75	1,103.71	0.61	-0.61	-0.62	187.89
	NORMAL	3,498.0	7.08	29.86	3,272.98	1,004.73	485.57	1,115.88	0.87	-0.80	2.73	157.30
	NORMAL	3,593.0	7.19	25.25	3,367.25	1,015.19	491.02	1,127.66	0.61	0.12	-4.85	278.58
	NORMAL	3,687.0	5.98	20.83	3,460.62	1,025.09	495.27	1,138.43	1.39	-1.29	-4.70	200.54
	NORMAL	3,781.0	5.19	21.49	3,554.18	1,033.62	498.57	1,147.55	0.84	-0.84	0.70	175.68
	NORMAL	3,876.0	4.11	19.82	3,648.86	1,040.82	501.30	1,155.23	1.15	-1.14	-1.76	186.31
	NORMAL	3,969.0	3.69	15.60	3,741.65	1,046.84	503.24	1,161.49	0.55	-0.45	-4.54	212.26
	NORMAL	4,064.0	3.08	12.21	3,836.48	1,052.28	504.60	1,166.99	0.68	-0.64	-3.57	196.48
	NORMAL	4,158.0	2.40	16.24	3,930.37	1,056.63	505.68	1,171.39	0.75	-0.72	4.29	166.19
3/17/2013	NORMAL	4,251.0	1.95	23.25	4,023.31	1,059.96	506.85	1,174.90	0.56	-0.48	7.54	152.88
	NORMAL	4,346.0	1.98	24.37	4,118.25	1,062.94	508.17	1,178.16	0.05	0.03	1.18	52.56
	NORMAL	4,438.0	2.46	23.66	4,210.18	1,066.19	509.61	1,181.72	0.52	0.52	-0.77	356.37
	NORMAL	4,532.0	2.30	17.66	4,304.10	1,069.84	511.00	1,185.60	0.31	-0.17	-6.38	234.32
	NORMAL	4,625.0	1.63	10.31	4,397.04	1,072.92	511.80	1,188.73	0.77	-0.72	-7.90	196.97
	NORMAL	4,721.0	1.37	8.38	4,493.01	1,075.40	512.21	1,191.15	0.28	-0.27	-2.01	190.03
	NORMAL	4,815.0	0.83	7.35	4,586.99	1,077.18	512.46	1,192.87	0.57	-0.57	-1.10	181.58
	NORMAL	4,909.0	0.61	355.71	4,680.98	1,078.36	512.51	1,193.95	0.28	-0.23	-12.38	207.89
	NORMAL	5,004.0	0.43	264.40	4,775.98	1,078.83	512.12	1,194.21	0.79	-0.19	-96.12	214.74
	NORMAL	5,099.0	0.81	228.44	4,870.98	1,078.35	511.26	1,193.41	0.55	0.40	-37.85	295.38
	NORMAL	5,193.0	1.28	227.55	4,964.96	1,077.20	509.99	1,191.82	0.50	0.50	-0.95	357.58
	NORMAL	5,287.0	1.51	237.59	5,058.93	1,075.83	508.17	1,189.80	0.36	0.24	10.68	51.83
	NORMAL	5,380.0	1.76	244.20	5,151.89	1,074.55	505.85	1,187.66	0.34	0.27	7.11	40.36
	NORMAL	5,475.0	2.35	240.42	5,246.83	1,072.95	502.84	1,184.93	0.64	0.62	-3.98	345.17
	NORMAL	5,569.0	2.57	239.51	5,340.75	1,070.93	499.35	1,181.61	0.24	0.23	-0.97	349.48
	NORMAL	5,615.0	2.46	240.34	5,386.70	1,069.92	497.60	1,179.94	0.25	-0.24	1.80	162.09
	NORMAL	5,680.0	2.46	240.34	5,451.64	1,068.54	495.18	1,177.66	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

