

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	SG 311-23	Wellbore No.	OH
Well Name	SG 311-23	Common Name	SG 311-23
Project	SG 23-07S-096W	Site	GV 18-23 Pad
Vertical Section Azimuth	285.17 (°)	North Reference	
Origin N/S		Origin E/W	
Spud Date	2/18/2012	UWI	SG 311-23
Active Datum	KB @5,158.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	MOSTAR
Date Started	2/18/2012	Ended	2/22/2012
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

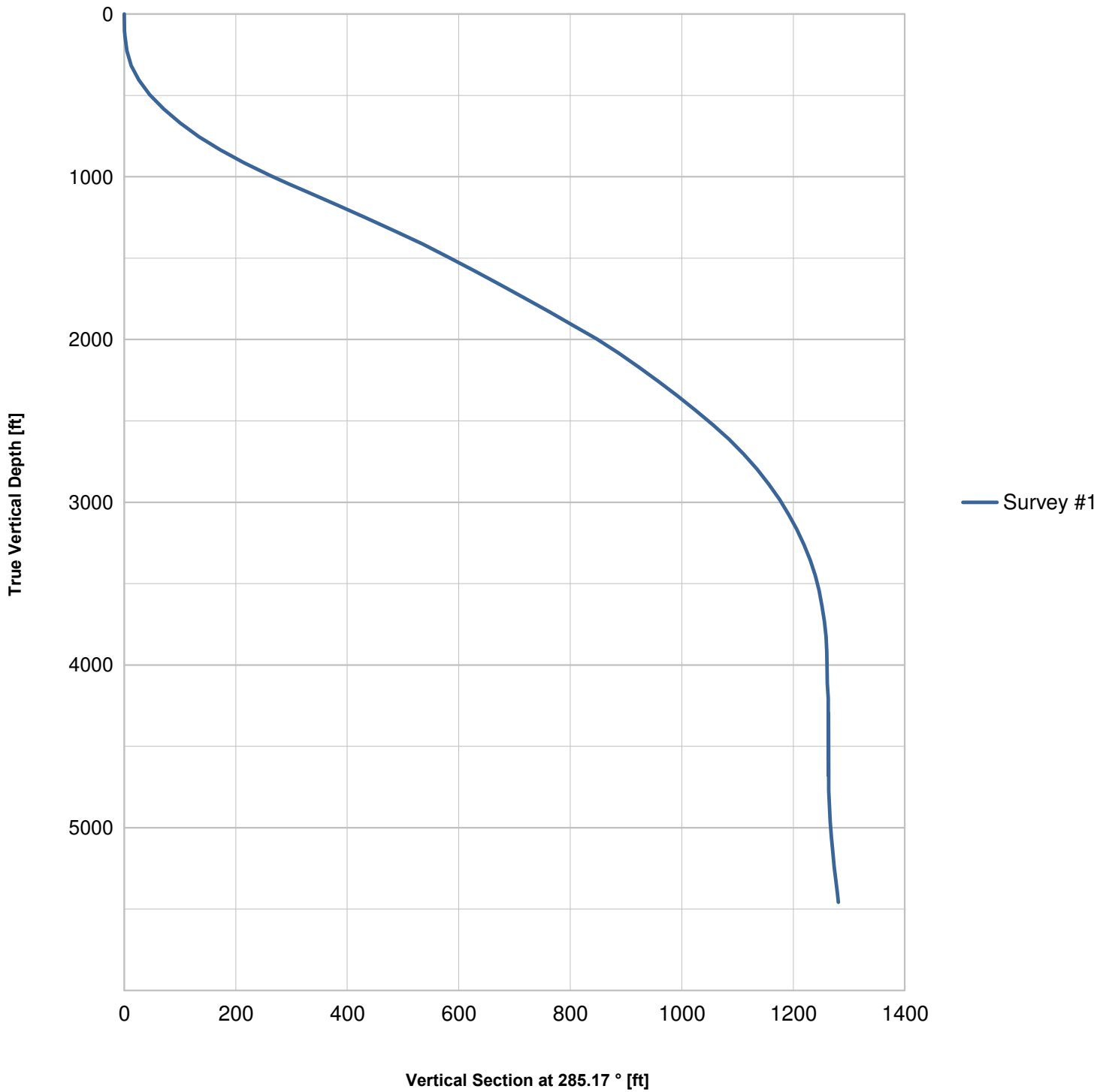
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
2/18/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2/18/2012	NORMAL	105.0	0.70	285.20	105.00	0.17	-0.62	0.64	0.67	0.67	0.00	285.20
	NORMAL	136.0	1.50	269.40	135.99	0.21	-1.21	1.22	2.74	2.58	-50.97	331.22
	NORMAL	226.0	3.30	263.20	225.91	-0.11	-4.96	4.76	2.02	2.00	-6.89	348.69
	NORMAL	318.0	6.80	276.80	317.54	0.23	-13.00	12.60	3.99	3.80	14.78	25.75
	NORMAL	408.0	10.60	284.30	406.49	2.90	-26.32	26.16	4.40	4.22	8.33	20.36
	NORMAL	499.0	14.20	287.30	495.35	8.29	-45.09	45.69	4.02	3.96	3.30	11.62
	NORMAL	590.0	17.50	289.60	582.88	16.20	-68.64	70.49	3.69	3.63	2.53	11.89
	NORMAL	681.0	20.40	287.30	668.94	25.51	-96.68	99.99	3.29	3.19	-2.53	344.47
	NORMAL	772.0	23.50	285.90	753.34	35.20	-129.28	133.99	3.45	3.41	-1.54	349.77
	NORMAL	862.0	26.20	285.00	835.00	45.26	-165.73	171.80	3.03	3.00	-1.00	351.62
	NORMAL	953.0	30.40	285.90	915.10	56.77	-207.30	214.93	4.64	4.62	0.99	6.20
	NORMAL	1,045.0	32.10	285.40	993.75	69.64	-253.26	262.66	1.87	1.85	-0.54	351.11
	NORMAL	1,105.0	33.20	284.70	1,044.27	78.04	-284.52	295.03	1.94	1.83	-1.17	340.76
2/19/2012	NORMAL	1,168.0	34.20	284.20	1,096.68	86.76	-318.37	329.98	1.65	1.59	-0.79	344.29
	NORMAL	1,262.0	33.40	283.10	1,174.80	99.11	-369.18	382.25	1.07	-0.85	-1.17	216.96
	NORMAL	1,357.0	32.90	284.00	1,254.33	111.28	-419.68	434.18	0.74	-0.53	0.95	135.83
	NORMAL	1,451.0	32.80	286.80	1,333.31	124.81	-468.83	485.15	1.62	-0.11	2.98	94.94
	NORMAL	1,546.0	30.90	284.50	1,414.00	138.36	-517.08	535.27	2.37	-2.00	-2.42	211.60
	NORMAL	1,640.0	29.20	284.50	1,495.37	150.14	-562.65	582.34	1.81	-1.81	0.00	180.00
	NORMAL	1,735.0	28.90	287.90	1,578.42	163.00	-606.94	628.44	1.77	-0.32	3.58	101.78

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 (°)
2/19/2012	NORMAL	1,830.0	28.20	285.90	1,661.87	176.21	-650.37	673.82	1.25	-0.74	-2.11	232.91
	NORMAL	1,924.0	27.90	285.00	1,744.83	187.99	-692.97	718.02	0.55	-0.32	-0.96	234.27
	NORMAL	2,019.0	27.30	284.00	1,829.02	199.01	-735.58	762.03	0.80	-0.63	-1.05	217.23
	NORMAL	2,113.0	27.10	287.10	1,912.63	210.52	-776.97	804.98	1.52	-0.21	3.30	99.41
	NORMAL	2,208.0	25.70	287.70	1,997.72	223.15	-817.27	847.19	1.50	-1.47	0.63	169.48
	NORMAL	2,302.0	23.60	288.60	2,083.15	235.35	-854.53	886.34	2.27	-2.23	0.96	170.27
2/20/2012	NORMAL	2,397.0	21.90	288.40	2,170.75	247.00	-889.36	923.01	1.79	-1.79	-0.21	182.51
	NORMAL	2,491.0	22.00	287.30	2,257.94	257.77	-922.81	958.11	0.45	0.11	-1.17	283.16
	NORMAL	2,586.0	20.50	287.00	2,346.48	267.93	-955.71	992.52	1.58	-1.58	-0.32	184.01
	NORMAL	2,680.0	19.40	285.90	2,434.84	277.02	-986.46	1,024.58	1.24	-1.17	-1.17	198.32
	NORMAL	2,775.0	18.90	283.30	2,524.58	284.88	-1,016.61	1,055.74	1.04	-0.53	-2.74	238.40
	NORMAL	2,869.0	16.90	287.30	2,614.03	292.45	-1,044.48	1,084.61	2.50	-2.13	4.26	150.31
	NORMAL	2,963.0	15.60	288.20	2,704.27	300.46	-1,069.53	1,110.89	1.41	-1.38	0.96	169.47
	NORMAL	3,058.0	13.60	287.50	2,796.20	307.81	-1,092.32	1,134.80	2.11	-2.11	-0.74	184.70
	NORMAL	3,153.0	12.10	283.80	2,888.82	313.54	-1,112.64	1,155.92	1.80	-1.58	-3.89	206.95
	NORMAL	3,247.0	10.90	285.40	2,980.93	318.25	-1,130.78	1,174.66	1.32	-1.28	1.70	165.90
	NORMAL	3,342.0	9.60	289.10	3,074.41	323.23	-1,146.92	1,191.54	1.53	-1.37	3.89	154.95
	NORMAL	3,436.0	8.40	288.00	3,167.25	327.92	-1,160.86	1,206.22	1.29	-1.28	-1.17	187.62
	NORMAL	3,531.0	7.40	290.80	3,261.35	332.23	-1,173.18	1,219.24	1.13	-1.05	2.95	160.33
	NORMAL	3,625.0	6.20	290.30	3,354.69	336.14	-1,183.60	1,230.32	1.28	-1.28	-0.53	182.58
	NORMAL	3,720.0	4.80	285.40	3,449.25	338.98	-1,192.24	1,239.40	1.55	-1.47	-5.16	196.12
	NORMAL	3,814.0	3.60	288.20	3,543.00	340.95	-1,198.84	1,246.28	1.29	-1.28	2.98	171.70
	NORMAL	3,909.0	2.60	303.00	3,637.86	343.05	-1,203.48	1,251.31	1.34	-1.05	15.58	148.56
	NORMAL	4,003.0	2.70	297.00	3,731.76	345.22	-1,207.24	1,255.51	0.31	0.11	-6.38	286.81
	NORMAL	4,098.0	1.30	291.90	3,826.70	346.63	-1,210.23	1,258.77	1.48	-1.47	-5.37	184.70
	NORMAL	4,193.0	0.10	311.40	3,921.69	347.09	-1,211.30	1,259.92	1.27	-1.26	20.53	178.41
	NORMAL	4,287.0	0.50	211.60	4,015.69	346.80	-1,211.57	1,260.11	0.56	0.43	-106.17	249.41
	NORMAL	4,382.0	1.40	227.00	4,110.67	345.65	-1,212.64	1,260.83	0.98	0.95	16.21	23.63
	NORMAL	4,476.0	1.10	260.10	4,204.65	344.71	-1,214.37	1,262.26	0.82	-0.32	35.21	128.54
	NORMAL	4,571.0	0.40	28.80	4,299.65	344.85	-1,215.11	1,263.01	1.46	-0.74	135.47	166.98
	NORMAL	4,665.0	0.30	102.80	4,393.64	345.08	-1,214.71	1,262.68	0.46	-0.11	78.72	137.73
	NORMAL	4,760.0	0.40	174.80	4,488.64	344.70	-1,214.44	1,262.32	0.44	0.11	75.79	114.88
	NORMAL	4,854.0	0.40	224.40	4,582.64	344.13	-1,214.64	1,262.36	0.36	0.00	52.77	114.80
	NORMAL	4,949.0	1.00	215.40	4,677.63	343.22	-1,215.35	1,262.81	0.64	0.63	-9.47	345.09
	NORMAL	5,043.0	1.10	219.70	4,771.62	341.86	-1,216.40	1,263.47	0.14	0.11	4.57	40.40
	NORMAL	5,138.0	1.30	228.80	4,866.60	340.45	-1,217.79	1,264.45	0.29	0.21	9.58	48.23
	NORMAL	5,232.0	1.90	230.00	4,960.56	338.74	-1,219.79	1,265.93	0.64	0.64	1.28	3.80
	NORMAL	5,327.0	2.10	237.10	5,055.50	336.79	-1,222.46	1,267.99	0.33	0.21	7.47	54.68
2/21/2012	NORMAL	5,421.0	2.40	236.20	5,149.43	334.75	-1,225.54	1,270.43	0.32	0.32	-0.96	352.83
	NORMAL	5,516.0	3.30	231.60	5,244.31	331.95	-1,229.33	1,273.36	0.98	0.95	-4.84	343.44
	NORMAL	5,610.0	3.30	230.70	5,338.16	328.56	-1,233.55	1,276.54	0.06	0.00	-0.96	269.55
	NORMAL	5,685.0	3.30	230.40	5,413.03	325.81	-1,236.88	1,279.04	0.02	0.00	-0.40	269.85
	NORMAL	5,730.0	3.30	230.40	5,457.96	324.16	-1,238.88	1,280.53	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

