

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	GM 514-14	Wellbore No.	
Well Name	GM 514-14	Common Name	GM 514-14
Project	SG 23-07S-096W	Site	GV 18-23 Pad
Vertical Section Azimuth	15.73 (°)	North Reference	
Origin N/S		Origin E/W	
Spud Date	1/6/2012	UWI	GM 514-14
Active Datum	KB @5,158.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	1/6/2012	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

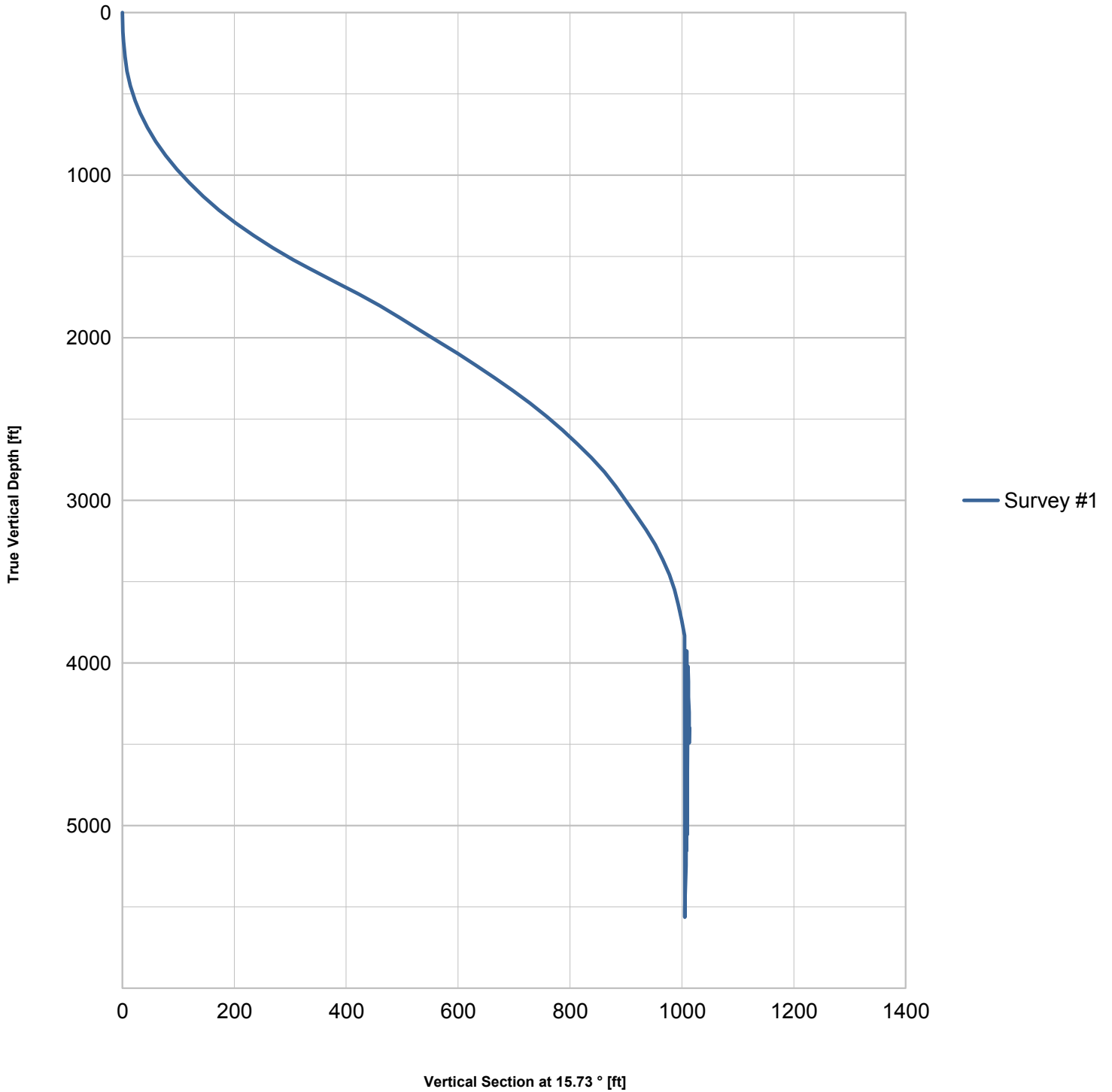
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
1/6/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/6/2012	NORMAL	118.0	0.97	347.20	117.99	0.97	-0.22	0.88	0.82	0.82	0.00	347.20
	NORMAL	180.0	2.73	331.00	179.96	2.78	-1.05	2.39	2.93	2.84	-26.13	335.25
	NORMAL	270.0	2.46	317.20	269.87	6.07	-3.40	4.92	0.75	-0.30	-15.33	239.84
	NORMAL	361.0	5.01	321.20	360.67	10.60	-7.22	8.24	2.82	2.80	4.40	7.83
	NORMAL	451.0	7.92	322.73	450.09	18.60	-13.44	14.26	3.24	3.23	1.70	4.15
	NORMAL	543.0	9.92	322.73	540.97	29.95	-22.08	22.84	2.17	2.17	0.00	0.00
	NORMAL	622.0	12.60	321.30	618.44	42.09	-31.59	31.95	3.41	3.39	-1.81	353.35
	NORMAL	713.0	16.10	319.00	706.59	59.37	-46.08	44.65	3.90	3.85	-2.53	349.63
	NORMAL	804.0	17.70	322.30	793.66	79.84	-62.82	59.82	2.05	1.76	3.63	32.53
	NORMAL	895.0	19.40	323.90	879.93	102.99	-80.18	77.40	1.95	1.87	1.76	17.43
	NORMAL	986.0	22.70	323.00	964.84	129.24	-99.66	97.38	3.64	3.63	-0.99	353.98
	NORMAL	1,077.0	25.10	323.20	1,048.03	158.72	-121.79	119.76	2.64	2.64	0.22	2.03
	NORMAL	1,171.0	27.50	322.70	1,132.30	191.95	-146.89	144.94	2.56	2.55	-0.53	354.50
	NORMAL	1,266.0	30.80	322.50	1,215.25	228.71	-174.99	172.70	3.48	3.47	-0.21	358.22
1/7/2012	NORMAL	1,360.0	33.60	322.70	1,294.79	268.50	-205.41	202.75	2.98	2.98	0.21	2.26
	NORMAL	1,454.0	36.20	322.70	1,371.88	311.27	-238.00	235.09	2.77	2.77	0.00	0.00
	NORMAL	1,548.0	38.10	322.30	1,446.80	356.31	-272.56	269.07	2.04	2.02	-0.43	352.59
	NORMAL	1,643.0	39.90	323.60	1,520.62	404.02	-308.57	305.24	2.08	1.89	1.37	24.95
	NORMAL	1,716.0	41.30	324.80	1,576.05	442.56	-336.35	334.80	2.20	1.92	1.64	29.61
1/9/2012	NORMAL	1,829.0	42.00	325.50	1,660.49	504.19	-379.26	382.49	0.74	0.62	0.62	33.87

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 (°)
1/9/2012	NORMAL	1,925.0	41.40	323.70	1,732.17	556.24	-416.25	422.56	1.40	-0.63	-1.88	242.72
	NORMAL	2,019.0	40.20	322.50	1,803.32	605.36	-453.12	459.85	1.52	-1.28	-1.28	212.71
	NORMAL	2,114.0	38.90	321.60	1,876.57	653.06	-490.31	495.68	1.50	-1.37	-0.95	203.44
	NORMAL	2,208.0	38.80	321.30	1,949.78	699.18	-527.06	530.11	0.23	-0.11	-0.32	241.90
	NORMAL	2,303.0	39.00	321.10	2,023.71	745.67	-564.44	564.72	0.25	0.21	-0.21	327.79
	NORMAL	2,397.0	39.40	320.70	2,096.56	791.77	-601.91	598.94	0.50	0.43	-0.43	327.55
	NORMAL	2,492.0	37.60	320.40	2,170.90	837.44	-639.48	632.71	1.90	-1.89	-0.32	185.81
	NORMAL	2,586.0	35.60	322.00	2,246.37	881.10	-674.61	665.21	2.36	-2.13	1.70	155.14
	NORMAL	2,681.0	33.90	323.00	2,324.42	924.05	-707.58	697.62	1.89	-1.79	1.05	161.87
	NORMAL	2,775.0	31.80	323.90	2,403.38	965.00	-737.95	728.80	2.29	-2.23	0.96	167.29
	NORMAL	2,870.0	29.00	325.00	2,485.32	1,004.10	-765.91	758.85	3.00	-2.95	1.16	169.23
1/10/2012	NORMAL	2,964.0	27.30	324.30	2,568.19	1,040.27	-791.56	786.72	1.84	-1.81	-0.74	190.69
	NORMAL	3,059.0	26.10	323.70	2,653.06	1,074.81	-816.65	813.16	1.29	-1.26	-0.63	192.39
	NORMAL	3,153.0	24.40	325.10	2,738.08	1,107.40	-840.00	838.20	1.92	-1.81	1.49	161.28
	NORMAL	3,248.0	22.30	322.70	2,825.30	1,137.83	-862.15	861.49	2.43	-2.21	-2.53	203.27
	NORMAL	3,342.0	19.90	322.10	2,912.99	1,164.65	-882.79	881.70	2.56	-2.55	-0.64	184.86
	NORMAL	3,437.0	18.80	321.10	3,002.62	1,189.32	-902.33	900.15	1.21	-1.16	-1.05	196.29
	NORMAL	3,532.0	18.50	324.10	3,092.63	1,213.44	-920.79	918.37	1.06	-0.32	3.16	108.78
	NORMAL	3,626.0	17.50	323.60	3,182.03	1,236.90	-937.92	936.30	1.08	-1.06	-0.53	188.55
	NORMAL	3,721.0	15.50	321.10	3,273.12	1,258.28	-954.37	952.42	2.23	-2.11	-2.63	198.35
	NORMAL	3,815.0	13.50	319.30	3,364.12	1,276.37	-969.41	965.76	2.18	-2.13	-1.91	191.83
	NORMAL	3,910.0	11.80	321.30	3,456.81	1,292.36	-982.72	977.54	1.85	-1.79	2.11	166.53
	NORMAL	4,004.0	8.40	318.30	3,549.34	1,304.99	-993.30	986.83	3.66	-3.62	-3.19	187.32
	NORMAL	4,099.0	6.50	320.00	3,643.53	1,314.29	-1,001.37	993.60	2.01	-2.00	1.79	174.22
	NORMAL	4,193.0	5.10	329.90	3,737.05	1,321.98	-1,006.88	999.51	1.83	-1.49	10.53	149.31
	NORMAL	4,288.0	5.00	320.70	3,831.68	1,328.84	-1,011.62	1,004.82	0.86	-0.11	-9.68	258.39
	NORMAL	4,382.0	2.50	329.00	3,925.48	1,333.77	-1,015.28	1,008.57	2.71	-2.66	8.83	171.87
	NORMAL	4,477.0	2.50	311.00	4,020.39	1,336.90	-1,017.91	1,010.88	0.82	0.00	-18.95	261.01
	NORMAL	4,571.0	0.20	152.30	4,114.36	1,338.10	-1,019.38	1,011.63	2.86	-2.45	-168.83	181.55
	NORMAL	4,666.0	0.60	52.10	4,209.36	1,338.26	-1,018.91	1,011.91	0.70	0.42	-105.47	242.59
	NORMAL	4,760.0	1.20	55.80	4,303.35	1,339.12	-1,017.71	1,013.06	0.64	0.64	3.94	7.38
	NORMAL	4,855.0	0.30	178.00	4,398.34	1,339.43	-1,016.87	1,013.59	1.46	-0.95	128.63	169.42
	NORMAL	4,949.0	0.30	165.30	4,492.34	1,338.95	-1,016.80	1,013.14	0.07	0.00	-13.51	263.65
1/11/2012	NORMAL	5,044.0	3.40	202.80	4,587.28	1,336.11	-1,017.83	1,010.13	3.33	3.26	39.47	40.80
	NORMAL	5,138.0	1.10	84.50	4,681.23	1,333.62	-1,018.01	1,007.69	4.30	-2.45	-125.85	193.88
	NORMAL	5,233.0	1.10	78.70	4,776.21	1,333.89	-1,016.21	1,008.44	0.12	0.00	-6.11	267.10
	NORMAL	5,327.0	0.80	90.30	4,870.20	1,334.06	-1,014.67	1,009.02	0.38	-0.32	12.34	153.05
	NORMAL	5,422.0	0.10	285.60	4,965.19	1,334.08	-1,014.09	1,009.20	0.94	-0.74	-173.37	181.69
	NORMAL	5,516.0	0.40	243.20	5,059.19	1,333.96	-1,014.46	1,008.97	0.35	0.32	-45.11	305.92
	NORMAL	5,611.0	0.80	248.10	5,154.19	1,333.56	-1,015.37	1,008.35	0.42	0.42	5.16	9.76
	NORMAL	5,705.0	0.90	252.20	5,248.18	1,333.09	-1,016.68	1,007.54	0.12	0.11	4.36	33.37
	NORMAL	5,800.0	1.20	253.90	5,343.16	1,332.58	-1,018.35	1,006.60	0.32	0.32	1.79	6.78
	NORMAL	5,895.0	1.00	265.50	5,438.14	1,332.24	-1,020.13	1,005.79	0.31	-0.21	12.21	137.63
	NORMAL	5,975.0	1.20	280.30	5,518.13	1,332.34	-1,021.65	1,005.47	0.43	0.25	18.50	62.41
	NORMAL	6,020.0	1.20	280.30	5,563.12	1,332.51	-1,022.58	1,005.38	0.00	0.00	0.00	0.00

### 3 Charts

#### 3.1 Vertical Section View



3.2 Plan View

