

# 1 General

## 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

## 1.2 Well Information

Well	GM 333-27	Wellbore No.	
Well Name	GM 333-27	Common Name	GM 333-27
Project	GV 27-06S-096W	Site	GM 24-27 Pad
Vertical Section Azimuth	18.23 (°)	North Reference	
Origin N/S		Origin E/W	
Spud Date	3/22/2011	UWI	GM 333-27
Active Datum	KB @5,628.0ft (above Mean Sea Level)		

# 2 Survey Name

## 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	3/22/2011	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 (°)
3/22/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/22/2011	NORMAL	74.0	0.26	37.53	74.00	0.13	0.10	0.16	0.35	0.35	0.00	37.53
	NORMAL	165.0	2.82	49.13	164.96	1.76	1.92	2.27	2.82	2.81	12.75	12.77
	NORMAL	256.0	5.01	38.41	255.74	6.34	6.08	7.93	2.53	2.41	-11.78	336.12
	NORMAL	348.0	7.57	33.22	347.18	14.56	11.90	17.55	2.85	2.78	-5.64	344.89
	NORMAL	439.0	9.75	31.51	437.14	26.14	19.21	30.84	2.41	2.40	-1.88	352.42
	NORMAL	531.0	12.66	25.53	527.38	41.89	27.63	48.43	3.40	3.16	-6.50	335.28
3/23/2011	NORMAL	623.0	14.79	15.51	616.76	62.30	35.12	70.16	3.46	2.32	-10.89	306.92
	NORMAL	714.0	16.56	14.63	704.37	86.05	41.50	94.71	1.96	1.95	-0.97	351.93
	NORMAL	730.0	17.05	14.40	719.69	90.53	42.66	99.33	3.09	3.06	-1.44	352.16
3/24/2011	NORMAL	730.0	17.05	14.40	719.69	90.53	42.66	99.33	0.00	0.00	0.00	0.00
	NORMAL	788.0	16.70	15.70	775.19	106.78	47.03	116.14	0.89	-0.60	2.24	133.47
	NORMAL	880.0	15.30	15.00	863.63	131.23	53.75	141.46	1.54	-1.52	-0.76	187.51
	NORMAL	971.0	13.80	18.50	951.71	153.13	60.30	164.30	1.91	-1.65	3.85	151.31
	NORMAL	1,065.0	13.60	18.50	1,043.03	174.24	67.36	186.57	0.21	-0.21	0.00	180.00
	NORMAL	1,159.0	13.70	17.30	1,134.38	195.35	74.18	208.75	0.32	0.11	-1.28	288.87
	NORMAL	1,254.0	14.00	17.30	1,226.61	217.06	80.94	231.49	0.32	0.32	0.00	0.00
	NORMAL	1,348.0	14.00	16.90	1,317.82	238.79	87.63	254.22	0.10	0.00	-0.43	269.81
	NORMAL	1,443.0	14.20	16.10	1,409.96	260.98	94.20	277.35	0.29	0.21	-0.84	315.35
	NORMAL	1,537.0	13.90	17.30	1,501.15	282.84	100.76	300.17	0.44	-0.32	1.28	136.42
	NORMAL	1,631.0	13.20	16.80	1,592.53	303.90	107.22	322.18	0.76	-0.74	-0.53	189.26

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 (°)
3/24/2011	NORMAL	1,726.0	13.50	16.10	1,684.96	324.93	113.43	344.11	0.36	0.32	-0.74	331.34
	NORMAL	1,820.0	14.60	18.90	1,776.15	346.69	120.31	366.92	1.38	1.17	2.98	33.08
	NORMAL	1,914.0	15.30	18.00	1,866.97	369.69	127.98	391.17	0.78	0.74	-0.96	341.21
	NORMAL	2,009.0	15.90	18.30	1,958.47	393.96	135.94	416.72	0.64	0.63	0.32	7.80
	NORMAL	2,103.0	14.20	17.30	2,049.24	417.20	143.41	441.12	1.83	-1.81	-1.06	188.20
	NORMAL	2,197.0	14.10	16.90	2,140.39	439.16	150.16	464.10	0.15	-0.11	-0.43	224.16
	NORMAL	2,291.0	14.20	16.80	2,231.54	461.16	156.83	487.07	0.11	0.11	-0.11	346.21
	NORMAL	2,386.0	14.60	20.40	2,323.55	483.53	164.37	510.68	1.03	0.42	3.79	67.68
	NORMAL	2,480.0	14.10	20.60	2,414.62	505.36	172.53	533.96	0.53	-0.53	0.21	174.44
	NORMAL	2,574.0	12.80	16.40	2,506.04	526.06	179.49	555.81	1.73	-1.38	-4.47	214.89
	NORMAL	2,668.0	12.30	18.00	2,597.80	545.58	185.53	576.23	0.65	-0.53	1.70	145.97
	NORMAL	2,763.0	13.30	18.90	2,690.44	565.54	192.20	597.28	1.07	1.05	0.95	11.72
	NORMAL	2,857.0	14.40	16.10	2,781.70	587.00	198.94	619.77	1.37	1.17	-2.98	327.28
	NORMAL	2,951.0	14.90	13.20	2,872.65	609.99	204.94	643.49	0.94	0.53	-3.09	302.87
	NORMAL	3,046.0	15.70	15.40	2,964.28	634.28	211.14	668.49	1.04	0.84	2.32	37.03
	NORMAL	3,140.0	14.40	17.80	3,055.06	657.67	218.09	692.89	1.53	-1.38	2.55	155.54
	NORMAL	3,235.0	13.90	17.10	3,147.17	679.82	225.06	716.11	0.56	-0.53	-0.74	198.55
3/25/2011	NORMAL	3,329.0	14.40	19.00	3,238.32	701.67	232.19	739.08	0.73	0.53	2.02	43.81
	NORMAL	3,423.0	14.40	18.00	3,329.37	723.83	239.60	762.46	0.26	0.00	-1.06	269.52
	NORMAL	3,517.0	14.20	18.70	3,420.46	745.87	246.91	785.68	0.28	-0.21	0.74	139.50
	NORMAL	3,612.0	14.40	18.90	3,512.51	768.09	254.47	809.14	0.22	0.21	0.21	13.97
	NORMAL	3,706.0	15.10	19.70	3,603.41	790.67	262.39	833.07	0.78	0.74	0.85	16.61
	NORMAL	3,801.0	14.70	20.80	3,695.22	813.59	270.84	857.48	0.52	-0.42	1.16	145.27
	NORMAL	3,895.0	14.90	21.20	3,786.10	836.01	279.44	881.46	0.24	0.21	0.43	27.26
	NORMAL	3,989.0	14.50	19.20	3,877.02	858.39	287.68	905.30	0.69	-0.43	-2.13	230.79
	NORMAL	4,084.0	14.90	18.90	3,968.91	881.17	295.55	929.40	0.43	0.42	-0.32	349.08
	NORMAL	4,178.0	13.10	19.00	4,060.12	902.68	302.94	952.14	1.92	-1.91	0.11	179.28
	NORMAL	4,272.0	12.50	19.70	4,151.78	922.33	309.83	972.96	0.66	-0.64	0.74	165.85
	NORMAL	4,367.0	11.20	19.40	4,244.76	940.71	316.36	992.47	1.37	-1.37	-0.32	182.57
	NORMAL	4,461.0	10.10	18.20	4,337.14	957.15	321.97	1,009.84	1.19	-1.17	-1.28	190.81
	NORMAL	4,555.0	9.20	15.90	4,429.80	972.21	326.60	1,025.59	1.04	-0.96	-2.45	202.06
	NORMAL	4,650.0	8.70	15.90	4,523.65	986.42	330.65	1,040.35	0.53	-0.53	0.00	180.00
	NORMAL	4,744.0	7.50	20.80	4,616.71	999.00	334.78	1,053.59	1.47	-1.28	5.21	152.50
	NORMAL	4,838.0	5.50	21.00	4,710.10	1,008.94	338.57	1,064.21	2.13	-2.13	0.21	179.45
	NORMAL	4,932.0	4.20	28.20	4,803.76	1,016.18	341.81	1,072.10	1.52	-1.38	7.66	158.47
	NORMAL	5,026.0	2.50	25.40	4,897.60	1,021.06	344.32	1,077.53	1.82	-1.81	-2.98	184.10
	NORMAL	5,121.0	1.80	42.10	4,992.53	1,024.04	346.21	1,080.95	0.98	-0.74	17.58	146.31
3/26/2011	NORMAL	5,215.0	0.50	47.30	5,086.51	1,025.42	347.50	1,082.66	1.39	-1.38	5.53	178.01
	NORMAL	5,309.0	1.20	334.90	5,180.50	1,026.59	347.38	1,083.73	1.23	0.74	-77.02	263.17
	NORMAL	5,404.0	1.30	303.80	5,275.48	1,028.09	346.07	1,084.75	0.71	0.11	-32.74	262.63
	NORMAL	5,498.0	1.20	293.80	5,369.46	1,029.08	344.28	1,085.13	0.25	-0.11	-10.64	240.43
	NORMAL	5,593.0	1.20	277.10	5,464.44	1,029.60	342.38	1,085.03	0.37	0.00	-17.58	261.65
	NORMAL	5,687.0	1.10	294.10	5,558.42	1,030.09	340.58	1,084.93	0.38	-0.11	18.09	114.72
	NORMAL	5,781.0	0.40	330.20	5,652.41	1,030.74	339.59	1,085.25	0.86	-0.74	38.40	163.12
	NORMAL	5,876.0	0.40	299.60	5,747.41	1,031.20	339.14	1,085.53	0.22	0.00	-32.21	254.70
	NORMAL	5,970.0	0.90	283.80	5,841.40	1,031.53	338.14	1,085.54	0.56	0.53	-16.81	332.26
	NORMAL	6,065.0	1.50	244.70	5,936.38	1,031.18	336.29	1,084.63	1.03	0.63	-41.16	285.60
	NORMAL	6,159.0	0.90	234.70	6,030.36	1,030.23	334.58	1,083.19	0.67	-0.64	-10.64	194.29
	NORMAL	6,253.0	0.50	158.80	6,124.36	1,029.42	334.12	1,082.28	0.98	-0.43	-80.74	211.93
	NORMAL	6,348.0	1.30	132.20	6,219.34	1,028.31	335.07	1,081.52	0.93	0.84	-28.00	318.69
	NORMAL	6,442.0	0.70	63.70	6,313.33	1,027.85	336.37	1,081.49	1.31	-0.64	-72.87	211.97
	NORMAL	6,537.0	0.50	62.30	6,408.33	1,028.30	337.26	1,082.19	0.21	-0.21	-1.47	183.49
3/27/2011	NORMAL	6,631.0	0.50	206.60	6,502.33	1,028.12	337.44	1,082.08	1.01	0.00	153.51	162.15
	NORMAL	6,725.0	1.30	208.00	6,596.31	1,026.81	336.76	1,080.62	0.85	0.85	1.49	2.27
	NORMAL	6,820.0	1.80	227.70	6,691.28	1,024.86	335.15	1,078.26	0.76	0.53	20.74	56.95
	NORMAL	6,914.0	2.30	237.20	6,785.22	1,022.84	332.47	1,075.51	0.64	0.53	10.11	39.01
	NORMAL	7,008.0	2.70	227.70	6,879.13	1,020.33	329.25	1,072.12	0.61	0.43	-10.11	309.18

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 (°)
3/27/2011	NORMAL	7,102.0	2.60	221.00	6,973.03	1,017.23	326.21	1,068.22	0.35	-0.11	-7.13	248.78
	NORMAL	7,178.0	2.70	224.00	7,048.95	1,014.64	323.84	1,065.02	0.22	0.13	3.95	55.71