

## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well Information

Well	GM 412-27	Wellbore No.	
Well Name	GM 412-27	Common Name	GM 412-27
Project	GV 27-06S-096W	Site	GM 24-27 Pad
Vertical Section Azimuth	305.97 (°)	North Reference	
Origin N/S		Origin E/W	
Spud Date	6/12/2011	UWI	GM 412-27
Active Datum	KB @5,628.0ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #2

Survey Name	Survey #2	Company	MOSTAR
Started	6/12/2011	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)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
6/12/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/12/2011	NORMAL	71.0	0.09	66.27	71.00	0.02	0.05	-0.03	0.13	0.13	0.00	66.27
	NORMAL	131.0	1.23	328.18	131.00	0.59	-0.25	0.54	2.08	1.90	-163.48	257.81
	NORMAL	222.0	2.99	312.54	221.93	3.02	-2.51	3.81	2.02	1.93	-17.19	333.96
	NORMAL	314.0	6.95	299.44	313.57	7.38	-9.13	11.72	4.45	4.30	-14.24	337.41
	NORMAL	405.0	10.82	302.96	403.46	14.74	-21.09	25.73	4.29	4.25	3.87	9.74
	NORMAL	497.0	14.08	309.02	493.29	26.49	-37.04	45.53	3.81	3.54	6.59	24.82
	NORMAL	589.0	18.48	309.99	581.58	42.91	-56.91	71.27	4.79	4.78	1.05	4.00
	NORMAL	680.0	21.99	307.00	666.95	62.44	-81.58	102.70	4.02	3.86	-3.29	342.17
	NORMAL	752.0	24.64	306.16	733.07	79.41	-104.47	131.19	3.71	3.68	-1.17	352.46
	NORMAL	843.0	26.77	304.70	815.06	102.27	-136.63	170.65	2.44	2.34	-1.60	342.78
	NORMAL	935.0	29.02	304.76	896.36	126.79	-172.01	213.68	2.45	2.45	0.07	0.74
	NORMAL	1,026.0	31.19	305.82	975.08	153.17	-209.25	259.32	2.46	2.38	1.16	14.23
	NORMAL	1,121.0	34.31	306.39	1,054.97	183.46	-250.76	310.70	3.30	3.28	0.60	5.88
	NORMAL	1,215.0	36.89	306.33	1,131.40	215.90	-294.82	365.42	2.74	2.74	-0.06	359.20
	NORMAL	1,309.0	39.35	305.97	1,205.34	250.12	-341.68	423.44	2.63	2.62	-0.38	354.70
	NORMAL	1,372.0	40.93	305.71	1,253.50	273.90	-374.60	464.05	2.52	2.51	-0.41	353.84
6/13/2011	NORMAL	1,473.0	43.40	307.30	1,328.36	314.24	-429.08	531.84	2.66	2.45	1.57	23.96
	NORMAL	1,536.0	43.50	306.60	1,374.10	340.29	-463.70	575.16	0.78	0.16	-1.11	281.48
	NORMAL	1,631.0	42.60	305.90	1,443.52	378.64	-516.00	640.01	1.07	-0.95	-0.74	207.71
	NORMAL	1,725.0	41.60	305.20	1,513.27	415.28	-567.27	703.02	1.18	-1.06	-0.74	204.88

## 2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
6/13/2011	NORMAL	1,819.0	40.80	304.30	1,583.99	450.57	-618.14	764.92	1.06	-0.85	-0.96	216.20
	NORMAL	1,914.0	41.70	304.50	1,655.42	485.96	-669.82	827.54	0.96	0.95	0.21	8.41
	NORMAL	2,008.0	41.20	304.80	1,725.87	521.34	-721.01	889.74	0.57	-0.53	0.32	158.45
	NORMAL	2,102.0	41.60	306.60	1,796.39	557.62	-771.48	951.90	1.34	0.43	1.91	72.10
	NORMAL	2,196.0	40.80	305.70	1,867.11	594.14	-821.48	1,013.82	1.06	-0.85	-0.96	216.20
	NORMAL	2,291.0	41.40	306.90	1,938.70	631.12	-871.80	1,076.26	1.04	0.63	1.26	53.20
	NORMAL	2,385.0	41.40	307.50	2,009.21	668.70	-921.32	1,138.41	0.42	0.00	0.64	90.23
	NORMAL	2,479.0	40.20	306.40	2,080.37	705.62	-970.39	1,199.82	1.49	-1.28	-1.17	210.51
6/14/2011	NORMAL	2,574.0	39.10	305.20	2,153.52	741.09	-1,019.55	1,260.44	1.41	-1.16	-1.26	214.38
	NORMAL	2,668.0	40.30	305.00	2,225.84	775.61	-1,068.68	1,320.47	1.28	1.28	-0.21	353.85
	NORMAL	2,762.0	41.40	303.60	2,296.94	810.25	-1,119.47	1,381.93	1.52	1.17	-1.49	319.69
	NORMAL	2,856.0	42.60	304.80	2,366.80	845.61	-1,171.49	1,444.79	1.54	1.28	1.28	34.24
	NORMAL	2,951.0	42.10	306.20	2,437.01	882.77	-1,223.59	1,508.78	1.12	-0.53	1.47	118.45
	NORMAL	3,045.0	41.10	304.80	2,507.30	919.01	-1,274.39	1,571.19	1.45	-1.06	-1.49	222.39
	NORMAL	3,139.0	40.60	306.40	2,578.41	954.80	-1,324.38	1,632.66	1.23	-0.53	1.70	116.14
	NORMAL	3,234.0	40.80	306.80	2,650.43	991.73	-1,374.11	1,694.61	0.35	0.21	0.42	52.67
	NORMAL	3,328.0	42.60	308.30	2,720.61	1,029.85	-1,423.67	1,757.11	2.19	1.91	1.60	29.56
	NORMAL	3,422.0	43.40	308.20	2,789.36	1,069.54	-1,474.02	1,821.17	0.85	0.85	-0.11	355.09
	NORMAL	3,517.0	42.40	307.50	2,858.95	1,109.22	-1,525.08	1,885.80	1.17	-1.05	-0.74	205.22
	NORMAL	3,611.0	41.20	306.90	2,929.02	1,147.10	-1,574.98	1,948.44	1.35	-1.28	-0.64	198.21
	NORMAL	3,706.0	41.70	306.90	3,000.23	1,184.86	-1,625.27	2,011.31	0.53	0.53	0.00	0.00
	NORMAL	3,800.0	41.10	307.30	3,070.74	1,222.36	-1,674.85	2,073.46	0.70	-0.64	0.43	156.36
	NORMAL	3,894.0	40.40	306.80	3,141.95	1,259.33	-1,723.82	2,134.81	0.82	-0.74	-0.53	204.81
	NORMAL	3,989.0	39.70	306.40	3,214.67	1,295.78	-1,772.90	2,195.94	0.79	-0.74	-0.42	200.04
	NORMAL	4,083.0	37.90	305.70	3,287.93	1,330.44	-1,820.51	2,254.83	1.97	-1.91	-0.74	193.42
	NORMAL	4,177.0	36.70	306.80	3,362.70	1,364.12	-1,866.45	2,311.79	1.46	-1.28	1.17	151.38
	NORMAL	4,272.0	35.00	307.10	3,439.70	1,397.56	-1,910.91	2,367.42	1.80	-1.79	0.32	174.22
	NORMAL	4,366.0	33.10	306.90	3,517.58	1,429.23	-1,952.94	2,420.04	2.02	-2.02	-0.21	183.29
	NORMAL	4,460.0	30.20	308.50	3,597.59	1,459.37	-1,991.98	2,469.34	3.21	-3.09	1.70	164.53
	NORMAL	4,555.0	28.10	307.50	3,680.56	1,487.87	-2,028.43	2,515.58	2.27	-2.21	-1.05	192.62
	NORMAL	4,649.0	25.80	306.20	3,764.34	1,513.43	-2,062.51	2,558.17	2.53	-2.45	-1.38	193.79
	NORMAL	4,743.0	23.50	305.70	3,849.77	1,536.45	-2,094.24	2,597.37	2.46	-2.45	-0.53	184.95
	NORMAL	4,837.0	21.20	306.10	3,936.71	1,557.40	-2,123.20	2,633.11	2.45	-2.45	0.43	176.40
	NORMAL	4,932.0	18.50	303.80	4,026.05	1,575.91	-2,149.60	2,665.36	2.96	-2.84	-2.42	195.05
	NORMAL	5,026.0	16.80	302.20	4,115.63	1,591.45	-2,173.49	2,693.82	1.88	-1.81	-1.70	195.17
	NORMAL	5,120.0	15.70	301.00	4,205.87	1,605.24	-2,195.89	2,720.04	1.22	-1.17	-1.28	196.40
	NORMAL	5,214.0	14.20	299.90	4,296.69	1,617.53	-2,216.79	2,744.18	1.62	-1.60	-1.17	190.18
	NORMAL	5,309.0	12.30	303.80	4,389.15	1,628.97	-2,235.30	2,765.88	2.21	-2.00	4.11	156.69
	NORMAL	5,403.0	10.60	306.60	4,481.28	1,639.70	-2,250.56	2,784.53	1.90	-1.81	2.98	163.26
	NORMAL	5,497.0	10.20	307.50	4,573.74	1,649.92	-2,264.11	2,801.50	0.46	-0.43	0.96	158.34
	NORMAL	5,592.0	9.10	304.80	4,667.39	1,659.33	-2,276.95	2,817.42	1.25	-1.16	-2.84	201.04
	NORMAL	5,686.0	9.10	304.50	4,760.21	1,667.78	-2,289.18	2,832.28	0.05	0.00	-0.32	269.85
	NORMAL	5,781.0	6.90	304.30	4,854.28	1,675.25	-2,300.09	2,845.50	2.32	-2.32	-0.21	180.63
6/16/2011	NORMAL	5,875.0	5.50	298.90	4,947.73	1,680.61	-2,308.70	2,855.61	1.61	-1.49	-5.74	199.95
	NORMAL	5,970.0	5.80	313.30	5,042.27	1,686.11	-2,316.18	2,864.89	1.52	0.32	15.16	85.28
	NORMAL	6,064.0	3.80	318.20	5,135.94	1,691.69	-2,321.71	2,872.65	2.17	-2.13	5.21	170.85
	NORMAL	6,158.0	1.90	327.70	5,229.82	1,695.32	-2,324.62	2,877.14	2.08	-2.02	10.11	170.75
	NORMAL	6,253.0	1.60	60.10	5,324.79	1,697.32	-2,324.31	2,878.06	2.67	-0.32	97.26	140.89
	NORMAL	6,347.0	1.80	65.10	5,418.74	1,698.59	-2,321.83	2,876.81	0.26	0.21	5.32	39.08
	NORMAL	6,442.0	1.60	66.80	5,513.70	1,699.74	-2,319.26	2,875.40	0.22	-0.21	1.79	166.70
	NORMAL	6,536.0	1.40	87.00	5,607.67	1,700.32	-2,316.91	2,873.83	0.60	-0.21	21.49	120.62
6/17/2011	NORMAL	6,630.0	1.40	113.40	5,701.64	1,699.93	-2,314.71	2,871.82	0.68	0.00	28.09	103.20
	NORMAL	6,725.0	1.60	141.90	5,796.61	1,698.42	-2,312.82	2,869.41	0.80	0.21	30.00	89.54
	NORMAL	6,819.0	1.10	123.40	5,890.59	1,696.89	-2,311.26	2,867.25	0.70	-0.53	-19.68	212.08
	NORMAL	6,913.0	0.90	134.10	5,984.57	1,695.88	-2,309.98	2,865.62	0.29	-0.21	11.38	142.23
	NORMAL	7,007.0	1.30	168.40	6,078.56	1,694.32	-2,309.23	2,864.10	0.80	0.43	36.49	76.64
	NORMAL	7,102.0	1.40	167.00	6,173.53	1,692.14	-2,308.75	2,862.43	0.11	0.11	-1.47	341.04

## 2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
6/17/2011	NORMAL	7,196.0	2.10	173.20	6,267.49	1,689.31	-2,308.29	2,860.39	0.77	0.74	6.60	18.25
	NORMAL	7,290.0	2.00	169.30	6,361.43	1,685.99	-2,307.78	2,858.03	0.18	-0.11	-4.15	232.43
	NORMAL	7,385.0	1.90	178.80	6,456.37	1,682.78	-2,307.44	2,855.87	0.36	-0.11	10.00	111.90
	NORMAL	7,479.0	1.90	187.80	6,550.32	1,679.68	-2,307.62	2,854.19	0.32	0.00	9.57	94.50
	NORMAL	7,574.0	1.80	201.60	6,645.27	1,676.73	-2,308.39	2,853.08	0.48	-0.11	14.53	109.49
	NORMAL	7,668.0	1.40	213.10	6,739.23	1,674.40	-2,309.56	2,852.66	0.54	-0.43	12.23	146.90
	NORMAL	7,763.0	1.80	209.60	6,834.20	1,672.13	-2,310.93	2,852.43	0.43	0.42	-3.68	344.52
	NORMAL	7,839.0	1.80	214.10	6,910.16	1,670.10	-2,312.19	2,852.26	0.19	0.00	5.92	92.25
	NORMAL	7,884.0	1.80	214.10	6,955.14	1,668.93	-2,312.98	2,852.22	0.00	0.00	0.00	0.00