

## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well Information

Well	GM 424-34	Wellbore No.	
Well Name	GM 424-34	Common Name	GM 424-34
Project	GV 34-06S-096W	Site	GM 23-34 Pad
Vertical Section Azimuth	206.94 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	7/30/2013	UWI	GM 424-34
Active Datum	KB @5,383.0ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	7/30/2013	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 (°)
7/30/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/30/2013	NORMAL	103.0	1.76	204.17	102.98	-1.44	-0.65	1.58	1.71	1.71	0.00	204.17
	NORMAL	133.0	2.90	207.51	132.96	-2.54	-1.19	2.80	3.83	3.80	11.13	8.46
	NORMAL	164.0	3.17	202.50	163.92	-4.02	-1.88	4.44	1.22	0.87	-16.16	312.99
	NORMAL	194.0	3.52	200.21	193.86	-5.65	-2.51	6.18	1.25	1.17	-7.63	337.96
	NORMAL	224.0	4.31	210.85	223.79	-7.49	-3.41	8.22	3.57	2.63	35.47	47.99
	NORMAL	254.0	5.28	211.03	253.69	-9.64	-4.70	10.72	3.23	3.23	0.60	0.98
	NORMAL	284.0	5.63	211.20	283.55	-12.08	-6.17	13.56	1.17	1.17	0.57	2.73
	NORMAL	315.0	5.81	211.38	314.40	-14.72	-7.78	16.65	0.58	0.58	0.58	5.78
	NORMAL	345.0	6.77	211.03	344.22	-17.53	-9.48	19.92	3.20	3.20	-1.17	357.54
	NORMAL	376.0	8.09	201.88	374.96	-21.12	-11.23	23.92	5.71	4.26	-29.52	313.53
	NORMAL	406.0	9.24	207.16	404.62	-25.22	-13.12	28.43	4.66	3.83	17.60	37.30
	NORMAL	447.0	11.26	204.18	444.96	-31.80	-16.26	35.72	5.09	4.93	-7.27	343.82
	NORMAL	477.0	12.57	203.39	474.31	-37.47	-18.76	41.90	4.40	4.37	-2.63	352.52
	NORMAL	507.0	13.60	204.76	503.53	-43.67	-21.53	48.69	3.59	3.43	4.57	17.43
7/31/2013	NORMAL	537.0	14.83	204.27	532.61	-50.37	-24.59	56.05	4.12	4.10	-1.63	354.18
	NORMAL	568.0	15.88	204.46	562.51	-57.85	-27.97	64.25	3.39	3.39	0.61	2.83
	NORMAL	598.0	16.97	205.06	591.28	-65.55	-31.53	72.72	3.68	3.63	2.00	9.13
	NORMAL	628.0	17.81	203.83	619.91	-73.72	-35.24	81.68	3.06	2.80	-4.10	335.78
	NORMAL	659.0	18.91	203.74	649.33	-82.65	-39.17	91.43	3.55	3.55	-0.29	358.48
	NORMAL	689.0	20.05	204.09	677.61	-91.80	-43.23	101.42	3.82	3.80	1.17	6.01

## 2.1.2 Survey Stations (Continued)

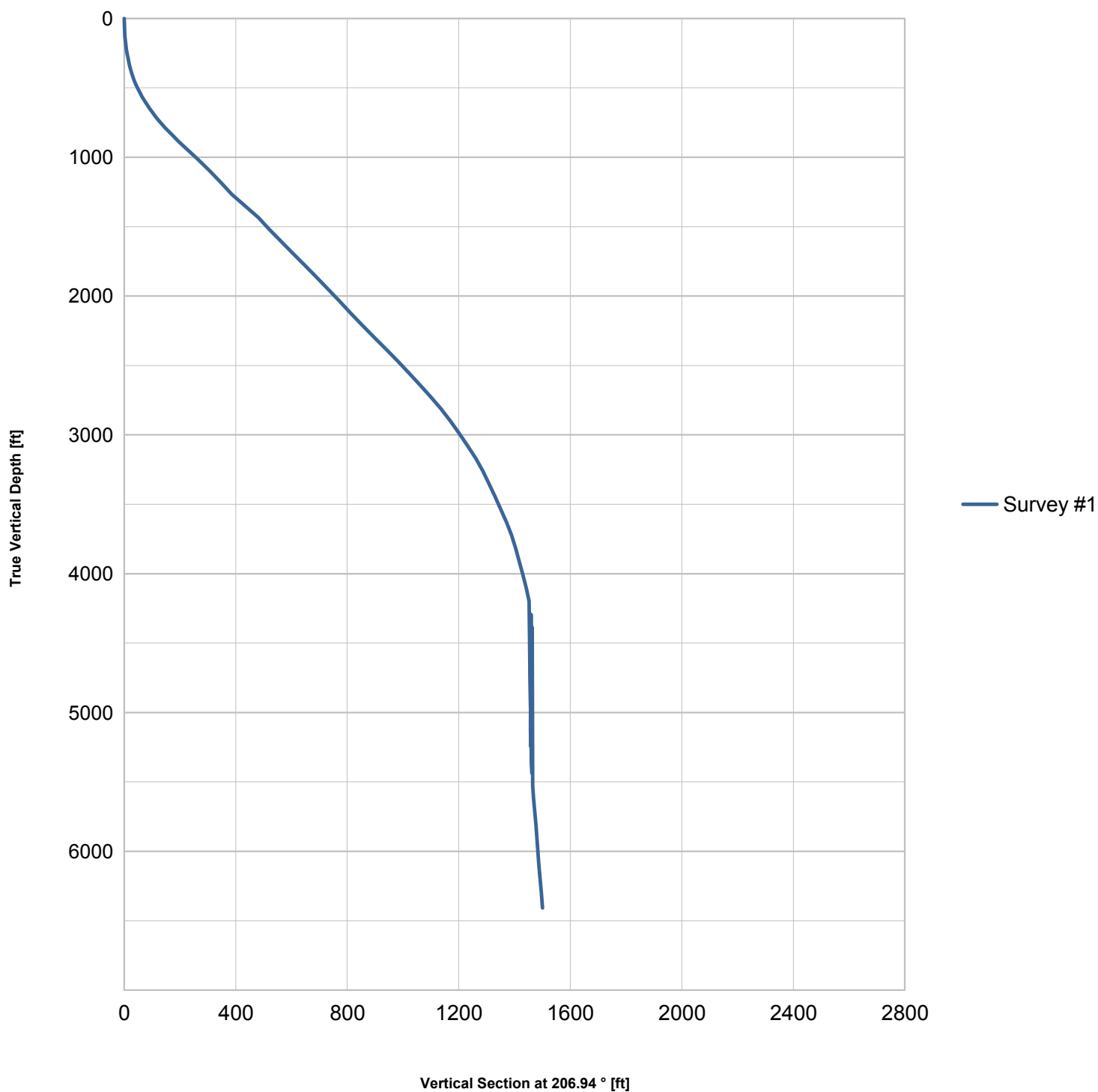
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
7/31/2013	NORMAL	719.0	21.54	204.01	705.66	-101.52	-47.57	112.06	4.97	4.97	-0.27	358.87
	NORMAL	749.0	22.51	204.71	733.47	-111.77	-52.21	123.30	3.35	3.23	2.33	15.47
	NORMAL	779.0	23.61	205.58	761.07	-122.41	-57.21	135.04	3.84	3.67	2.90	17.61
	NORMAL	809.0	24.97	206.64	788.42	-133.49	-62.64	147.38	4.76	4.53	3.53	18.26
	NORMAL	840.0	25.87	206.47	816.41	-145.39	-68.59	160.69	2.91	2.90	-0.55	355.29
	NORMAL	871.0	26.41	206.71	844.24	-157.60	-74.70	174.34	1.78	1.74	0.77	11.19
	NORMAL	914.0	27.39	206.08	882.59	-175.03	-83.35	193.80	2.37	2.28	-1.47	343.50
8/1/2013	NORMAL	967.0	28.18	206.03	929.48	-197.22	-94.20	218.50	1.49	1.49	-0.09	358.29
	NORMAL	1,062.0	28.35	207.43	1,013.15	-237.40	-114.44	263.48	0.72	0.18	1.47	76.24
	NORMAL	1,157.0	26.29	208.58	1,097.55	-275.90	-134.89	307.07	2.24	-2.17	1.21	166.14
	NORMAL	1,251.0	24.31	206.73	1,182.53	-311.47	-153.56	347.24	2.27	-2.11	-1.97	200.93
	NORMAL	1,346.0	24.75	206.20	1,268.96	-346.77	-171.13	386.68	0.52	0.46	-0.56	333.19
	NORMAL	1,441.0	34.92	206.73	1,351.26	-389.01	-192.20	433.87	10.71	10.71	0.56	1.72
	NORMAL	1,536.0	24.57	205.06	1,433.63	-431.31	-212.85	480.93	10.93	-10.89	-1.76	183.86
	NORMAL	1,631.0	25.23	206.20	1,519.80	-467.36	-230.15	520.92	0.86	0.69	1.20	36.54
	NORMAL	1,727.0	26.50	206.82	1,606.18	-504.84	-248.85	562.80	1.35	1.32	0.65	12.30
	NORMAL	1,822.0	26.29	207.96	1,691.28	-542.33	-268.28	605.03	0.58	-0.22	1.20	113.02
	NORMAL	1,918.0	26.24	206.38	1,777.37	-580.13	-287.68	647.51	0.73	-0.05	-1.65	265.20
	NORMAL	2,013.0	25.89	209.46	1,862.71	-617.00	-307.21	689.23	1.47	-0.37	3.24	105.88
	NORMAL	2,109.0	25.54	208.22	1,949.20	-653.49	-327.30	730.86	0.67	-0.36	-1.29	236.40
	NORMAL	2,204.0	25.06	206.29	2,035.09	-689.57	-345.90	771.45	1.00	-0.51	-2.03	238.93
	NORMAL	2,299.0	24.84	207.00	2,121.23	-725.39	-363.87	811.52	0.39	-0.23	0.75	126.62
	NORMAL	2,395.0	26.02	206.56	2,207.93	-762.19	-382.44	852.74	1.24	1.23	-0.46	350.70
	NORMAL	2,491.0	26.37	205.24	2,294.07	-800.31	-400.95	895.11	0.71	0.36	-1.38	300.40
	NORMAL	2,586.0	26.64	203.66	2,379.08	-838.90	-418.49	937.46	0.79	0.28	-1.66	290.24
	NORMAL	2,681.0	25.85	207.79	2,464.30	-876.74	-436.69	979.44	2.09	-0.83	4.35	115.23
	NORMAL	2,776.0	24.44	208.66	2,550.29	-912.30	-455.78	1,019.80	1.53	-1.48	0.92	165.70
	NORMAL	2,872.0	25.14	207.17	2,637.44	-947.87	-474.61	1,060.04	0.98	0.73	-1.55	317.57
	NORMAL	2,966.0	23.21	206.82	2,723.20	-982.17	-492.09	1,098.53	2.06	-2.05	-0.37	184.09
8/2/2013	NORMAL	3,061.0	22.42	207.52	2,810.76	-1,014.94	-508.91	1,135.37	0.88	-0.83	0.74	161.36
	NORMAL	3,156.0	20.35	207.35	2,899.22	-1,045.68	-524.87	1,170.00	2.18	-2.18	-0.18	181.64
	NORMAL	3,251.0	18.81	206.12	2,988.72	-1,074.11	-539.20	1,201.84	1.68	-1.62	-1.29	194.41
	NORMAL	3,345.0	18.46	207.08	3,077.79	-1,100.97	-552.65	1,231.87	0.50	-0.37	1.02	139.22
	NORMAL	3,440.0	16.70	209.28	3,168.36	-1,126.27	-566.17	1,260.55	1.98	-1.85	2.32	160.36
	NORMAL	3,536.0	14.46	209.81	3,260.82	-1,148.70	-578.88	1,286.31	2.34	-2.33	0.55	176.62
	NORMAL	3,631.0	13.14	209.54	3,353.08	-1,168.39	-590.10	1,308.95	1.39	-1.39	-0.28	182.67
	NORMAL	3,725.0	12.92	207.52	3,444.66	-1,187.01	-600.22	1,330.13	0.54	-0.24	-2.15	243.10
	NORMAL	3,820.0	12.75	207.96	3,537.28	-1,205.68	-610.05	1,351.23	0.21	-0.18	0.46	150.32
	NORMAL	3,916.0	12.13	207.79	3,631.03	-1,223.96	-619.72	1,371.91	0.65	-0.65	-0.18	183.30
	NORMAL	4,011.0	9.67	204.10	3,724.31	-1,240.08	-627.63	1,389.86	2.69	-2.59	-3.88	194.03
	NORMAL	4,107.0	7.91	205.24	3,819.18	-1,253.42	-633.74	1,404.52	1.84	-1.83	1.19	174.91
	NORMAL	4,202.0	7.60	207.87	3,913.31	-1,264.88	-639.46	1,417.33	0.50	-0.33	2.77	132.44
	NORMAL	4,298.0	7.74	211.13	4,008.45	-1,276.03	-645.77	1,430.13	0.48	0.15	3.40	73.78
	NORMAL	4,393.0	6.72	208.84	4,102.69	-1,286.37	-651.76	1,442.06	1.12	-1.07	-2.41	194.64
	NORMAL	4,489.0	5.23	198.91	4,198.17	-1,295.43	-655.89	1,452.01	1.88	-1.55	-10.34	209.88
	NORMAL	4,584.0	3.82	189.59	4,292.88	-1,302.65	-657.82	1,459.32	1.67	-1.48	-9.81	202.95
	NORMAL	4,679.0	1.76	202.78	4,387.76	-1,307.12	-658.91	1,463.79	2.26	-2.17	13.88	169.20
	NORMAL	4,774.0	2.55	26.64	4,482.73	-1,306.57	-658.53	1,463.13	4.53	0.83	-185.41	182.29
8/3/2013	NORMAL	4,870.0	1.23	12.32	4,578.68	-1,303.66	-657.35	1,460.00	1.45	-1.38	-14.92	192.63
	NORMAL	4,966.0	2.02	351.05	4,674.64	-1,300.98	-657.39	1,457.63	1.02	0.82	-22.16	311.69
	NORMAL	5,061.0	0.53	306.93	4,769.62	-1,299.06	-658.01	1,456.20	1.77	-1.57	-46.44	192.68
	NORMAL	5,157.0	0.70	277.83	4,865.61	-1,298.71	-658.94	1,456.32	0.36	0.18	-30.31	283.49
	NORMAL	5,253.0	1.50	258.59	4,961.59	-1,298.88	-660.75	1,457.29	0.91	0.83	-20.04	325.39
	NORMAL	5,347.0	0.92	312.90	5,055.57	-1,298.61	-662.51	1,457.84	1.30	-0.62	57.78	142.20
	NORMAL	5,442.0	1.10	288.88	5,150.56	-1,297.80	-663.93	1,457.76	0.48	0.19	-25.28	280.72
	NORMAL	5,537.0	1.05	251.56	5,245.55	-1,297.78	-665.62	1,458.51	0.73	-0.05	-39.28	247.40
	NORMAL	5,633.0	1.32	234.68	5,341.52	-1,298.69	-667.36	1,460.11	0.46	0.28	-17.58	299.08

### 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 (°)
8/3/2013	NORMAL	5,729.0	1.76	235.91	5,437.49	-1,300.16	-669.48	1,462.38	0.46	0.46	1.28	4.91
	NORMAL	5,822.0	2.15	228.53	5,530.44	-1,302.12	-671.97	1,465.25	0.50	0.42	-7.94	323.43
	NORMAL	5,918.0	2.46	219.12	5,626.36	-1,304.91	-674.62	1,468.94	0.51	0.32	-9.80	304.56
	NORMAL	6,013.0	2.99	218.51	5,721.25	-1,308.43	-677.45	1,473.36	0.56	0.56	-0.64	356.56
8/4/2013	NORMAL	6,109.0	1.98	184.76	5,817.16	-1,312.04	-679.15	1,477.35	1.81	-1.05	-35.16	219.31
	NORMAL	6,205.0	2.42	167.53	5,913.09	-1,315.67	-678.85	1,480.45	0.82	0.46	-17.95	294.82
	NORMAL	6,301.0	2.64	179.13	6,009.00	-1,319.86	-678.38	1,483.98	0.58	0.23	12.08	72.62
	NORMAL	6,396.0	2.33	194.25	6,103.91	-1,323.92	-678.82	1,487.79	0.76	-0.33	15.92	122.73
	NORMAL	6,492.0	2.37	197.85	6,199.83	-1,327.70	-679.91	1,491.66	0.16	0.04	3.75	76.64
	NORMAL	6,587.0	2.50	214.47	6,294.75	-1,331.28	-681.68	1,495.65	0.75	0.14	17.49	87.94
	NORMAL	6,655.0	2.46	212.36	6,362.68	-1,333.73	-683.30	1,498.57	0.15	-0.06	-3.10	245.29
	NORMAL	6,700.0	2.46	212.36	6,407.64	-1,335.37	-684.34	1,500.50	0.00	0.00	0.00	0.00

### 3 Charts

#### 3.1 Vertical Section View



### 3.2 Plan View

