

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	GM 522-28	Wellbore No.	00
Wellbore Legal Name	GM 522-28	Common Wellbore Name	GM 522-28
Project	GV 28-06S-096W	Site	GM 323-28 Pad
Vertical Section Azimuth	4.33 (°)	North reference	
Origin N/S		Origin E/W	
Spud date	1/26/2015	UWI	GM 522-28
Active datum	KB @5,500.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	MOSTAR
Date Started	1/26/2015	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 (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
1/26/2015	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/26/2015	NORMAL	83.0	0.79	313.78	83.00	0.40	-0.41	0.36	0.95	0.95	0.00	313.78
	NORMAL	113.0	0.92	345.24	112.99	0.77	-0.62	0.72	1.60	0.43	104.87	90.62
	NORMAL	143.0	1.14	352.10	142.99	1.30	-0.73	1.24	0.84	0.73	22.87	32.73
	NORMAL	174.0	1.50	4.75	173.98	2.01	-0.73	1.95	1.49	1.16	40.81	45.43
	NORMAL	205.0	2.11	11.17	204.97	2.97	-0.59	2.92	2.07	1.97	20.71	21.57
	NORMAL	234.0	2.59	8.01	233.94	4.15	-0.40	4.11	1.71	1.66	-10.90	343.31
	NORMAL	265.0	3.12	11.87	264.90	5.67	-0.12	5.64	1.82	1.71	12.45	21.87
	NORMAL	294.0	3.65	11.79	293.85	7.34	0.23	7.34	1.83	1.83	-0.28	359.45
	NORMAL	324.0	4.62	12.66	323.77	9.46	0.69	9.48	3.24	3.23	2.90	4.13
	NORMAL	415.0	6.95	7.04	414.30	18.50	2.16	18.61	2.63	2.56	-6.18	343.53
1/27/2015	NORMAL	505.0	9.54	6.95	503.37	31.31	3.73	31.50	2.88	2.88	-0.10	359.67
	NORMAL	596.0	12.13	3.70	592.74	48.34	5.26	48.60	2.92	2.85	-3.57	345.13
	NORMAL	686.0	14.55	4.32	680.30	69.05	6.73	69.36	2.69	2.69	0.69	3.68
	NORMAL	776.0	16.44	4.58	767.03	93.02	8.59	93.40	2.10	2.10	0.29	2.23
	NORMAL	868.0	18.15	4.14	854.86	120.29	10.67	120.75	1.86	1.86	-0.48	355.42
	NORMAL	959.0	20.04	3.70	940.85	149.99	12.70	150.52	2.08	2.08	-0.48	355.44
	NORMAL	1,053.0	22.59	3.79	1,028.42	184.08	14.93	184.68	2.71	2.71	0.10	0.78
	NORMAL	1,147.0	25.27	4.40	1,114.33	222.11	17.66	222.81	2.86	2.85	0.65	5.55
	NORMAL	1,175.0	25.71	4.75	1,139.60	234.12	18.63	234.86	1.66	1.57	1.25	19.08
1/28/2015	NORMAL	1,247.0	26.68	4.58	1,204.21	265.80	21.21	266.64	1.35	1.35	-0.24	355.50

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (%/100usft)	Build Rate (%/100usft)	Turn (%/100usft)	Tface (°)
1/28/2015	NORMAL	1,341.0	26.20	5.37	1,288.38	307.49	24.84	308.49	0.63	-0.51	0.84	144.12
	NORMAL	1,435.0	25.63	6.07	1,372.92	348.37	28.93	349.56	0.69	-0.61	0.74	152.09
	NORMAL	1,530.0	26.90	4.23	1,458.11	390.23	32.69	391.59	1.59	1.34	-1.94	326.51
	NORMAL	1,624.0	25.36	4.58	1,542.51	431.51	35.86	432.98	1.65	-1.64	0.37	174.44
	NORMAL	1,718.0	24.40	4.40	1,627.78	470.93	38.96	472.53	1.02	-1.02	-0.19	184.43
	NORMAL	1,813.0	25.01	3.17	1,714.09	510.55	41.58	512.23	0.84	0.64	-1.29	319.32
	NORMAL	1,907.0	24.53	1.68	1,799.44	549.90	43.25	551.59	0.84	-0.51	-1.59	231.77
	NORMAL	2,001.0	25.41	3.44	1,884.65	589.53	45.03	591.25	1.23	0.94	1.87	40.97
	NORMAL	2,095.0	25.19	2.73	1,969.64	629.65	47.19	631.41	0.40	-0.23	-0.76	233.74
	NORMAL	2,189.0	25.89	5.37	2,054.45	670.06	50.07	671.93	1.42	0.74	2.81	59.60
	NORMAL	2,283.0	25.71	4.23	2,139.08	710.83	53.49	712.84	0.56	-0.19	-1.21	249.55
	NORMAL	2,378.0	25.54	2.29	2,224.74	751.84	55.83	753.91	0.90	-0.18	-2.04	257.67
	NORMAL	2,472.0	25.71	2.91	2,309.50	792.45	57.67	794.54	0.34	0.18	0.66	57.90
	NORMAL	2,566.0	24.79	5.37	2,394.52	832.44	60.55	834.63	1.48	-0.98	2.62	132.35
1/29/2015	NORMAL	2,660.0	24.04	4.58	2,480.11	871.14	63.93	873.48	0.87	-0.80	-0.84	203.17
	NORMAL	2,754.0	23.52	3.08	2,566.13	908.96	66.46	911.38	0.85	-0.55	-1.60	228.63
	NORMAL	2,848.0	22.90	4.67	2,652.52	945.92	68.96	948.42	0.94	-0.66	1.69	135.42
	NORMAL	2,943.0	22.59	4.14	2,740.13	982.54	71.78	985.15	0.39	-0.33	-0.56	213.22
	NORMAL	3,037.0	21.67	4.40	2,827.21	1,017.85	74.42	1,020.56	0.98	-0.98	0.28	174.04
	NORMAL	3,131.0	20.26	6.78	2,914.99	1,051.32	77.67	1,054.18	1.75	-1.50	2.53	149.98
	NORMAL	3,225.0	19.91	6.78	3,003.27	1,083.37	81.48	1,086.43	0.37	-0.37	0.00	180.00
	NORMAL	3,320.0	18.46	4.49	3,092.99	1,114.43	84.57	1,117.64	1.72	-1.53	-2.41	206.35
	NORMAL	3,414.0	18.11	4.31	3,182.24	1,143.84	86.83	1,147.13	0.38	-0.37	-0.19	189.08
	NORMAL	3,508.0	16.66	4.05	3,271.95	1,171.85	88.88	1,175.21	1.54	-1.54	-0.28	182.94
	NORMAL	3,603.0	16.22	3.26	3,363.06	1,198.68	90.60	1,202.10	0.52	-0.46	-0.83	206.56
	NORMAL	3,697.0	15.60	3.79	3,453.46	1,224.40	92.18	1,227.86	0.68	-0.66	0.56	167.07
	NORMAL	3,791.0	15.08	3.44	3,544.11	1,249.21	93.75	1,252.73	0.56	-0.55	-0.37	189.93
	NORMAL	3,885.0	14.46	5.28	3,635.01	1,273.11	95.56	1,276.69	0.83	-0.66	1.96	143.78
	NORMAL	3,980.0	14.02	3.88	3,727.09	1,296.40	97.43	1,300.05	0.59	-0.46	-1.47	217.37
	NORMAL	4,074.0	13.32	3.70	3,818.43	1,318.57	98.90	1,322.27	0.75	-0.74	-0.19	183.39
	NORMAL	4,168.0	12.09	2.29	3,910.12	1,339.21	99.99	1,342.93	1.35	-1.31	-1.50	193.46
	NORMAL	4,261.0	11.21	3.44	4,001.21	1,357.96	100.93	1,361.71	0.98	-0.95	1.24	165.78
	NORMAL	4,355.0	10.77	2.29	4,093.48	1,375.86	101.82	1,379.62	0.52	-0.47	-1.22	205.92
	NORMAL	4,449.0	9.98	1.77	4,185.94	1,392.78	102.43	1,396.54	0.85	-0.84	-0.55	186.50
	NORMAL	4,544.0	8.88	9.76	4,279.66	1,408.23	103.92	1,412.06	1.80	-1.16	8.41	133.93
	NORMAL	4,638.0	8.09	10.38	4,372.63	1,421.89	106.35	1,425.86	0.85	-0.84	0.66	173.70
	NORMAL	4,733.0	7.08	9.32	4,466.80	1,434.24	108.50	1,438.34	1.07	-1.06	-1.12	187.36
	NORMAL	4,827.0	6.33	8.88	4,560.16	1,445.08	110.24	1,449.28	0.80	-0.80	-0.47	183.70
	NORMAL	4,921.0	5.58	8.45	4,653.65	1,454.72	111.71	1,459.00	0.80	-0.80	-0.46	183.19
1/30/2015	NORMAL	5,015.0	4.88	12.14	4,747.26	1,463.15	113.22	1,467.52	0.83	-0.74	3.93	156.16
	NORMAL	5,110.0	4.40	11.52	4,841.95	1,470.67	114.80	1,475.14	0.51	-0.51	-0.65	185.66
	NORMAL	5,204.0	4.31	9.06	4,935.67	1,477.69	116.07	1,482.24	0.22	-0.10	-2.62	243.05
	NORMAL	5,298.0	4.00	8.45	5,029.43	1,484.42	117.11	1,489.03	0.33	-0.33	-0.65	187.81
	NORMAL	5,393.0	3.17	11.96	5,124.24	1,490.27	118.14	1,494.94	0.90	-0.87	3.69	166.94
	NORMAL	5,487.0	2.77	16.27	5,218.11	1,494.99	119.32	1,499.73	0.49	-0.43	4.59	152.97
	NORMAL	5,581.0	2.46	19.26	5,312.02	1,499.08	120.62	1,503.91	0.36	-0.33	3.18	157.74
	NORMAL	5,675.0	2.24	23.21	5,405.94	1,502.67	122.01	1,507.59	0.29	-0.23	4.20	145.60
	NORMAL	5,769.0	2.37	25.41	5,499.86	1,506.11	123.57	1,511.14	0.17	0.14	2.34	35.34
	NORMAL	5,864.0	2.37	34.73	5,594.78	1,509.50	125.53	1,514.67	0.41	0.00	9.81	94.66
	NORMAL	5,958.0	1.58	42.20	5,688.72	1,512.06	127.51	1,517.37	0.88	-0.84	7.95	165.66
	NORMAL	6,052.0	1.01	65.58	5,782.70	1,513.36	129.13	1,518.79	0.82	-0.61	24.87	148.46
	NORMAL	6,146.0	0.57	98.01	5,876.69	1,513.64	130.35	1,519.16	0.65	-0.47	34.50	149.97
1/31/2015	NORMAL	6,240.0	0.31	128.59	5,970.69	1,513.42	131.01	1,518.99	0.36	-0.28	32.53	152.51
	NORMAL	6,335.0	0.66	156.72	6,065.69	1,512.75	131.43	1,518.36	0.44	0.37	29.61	48.84
	NORMAL	6,429.0	0.70	175.97	6,159.68	1,511.68	131.68	1,517.31	0.25	0.04	20.48	89.79
	NORMAL	6,523.0	1.05	194.25	6,253.67	1,510.28	131.51	1,515.89	0.47	0.37	19.45	47.95

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (%/100usft)	Build Rate (%/100usft)	Turn (%/100usft)	Tface (°)
1/31/2015	NORMAL	6,617.0	1.14	204.97	6,347.65	1,508.59	130.90	1,514.17	0.24	0.10	11.40	71.70
	NORMAL	6,712.0	1.54	207.87	6,442.63	1,508.61	129.91	1,512.12	0.43	0.42	3.05	11.07
	NORMAL	6,806.0	1.63	213.85	6,536.59	1,504.38	128.57	1,509.79	0.20	0.10	6.36	64.46
	NORMAL	6,900.0	2.24	229.58	6,630.54	1,502.08	126.43	1,507.34	0.85	0.65	16.73	49.09
	NORMAL	6,994.0	2.59	231.78	6,724.45	1,499.57	123.36	1,504.61	0.39	0.37	2.34	15.94
	NORMAL	7,054.0	2.59	231.78	6,784.39	1,497.90	121.23	1,502.77	0.00	0.00	0.00	0.00