

## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well Information

Well	RMV 103-27	Wellbore No.	OH
Well Name	RMV 103-27	Common Name	RMV 103-27
Project	RU 27-06S-094W	Site	RMV 28-27 Pad
Vertical Section	275.51 (°)	North Reference	True
Azimuth		Origin E/W	
Origin N/S		UWI	RMV 103-27
Spud Date	8/5/2012		
Active Datum	KB @5,323.0ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	MOSTAR
Date Started	7/10/2012	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)	Buidl Rate (%/100ft)	Turn (%/100ft)	TFace (°)
7/10/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8/5/2012	NORMAL	76.0	0.35	291.01	76.00	0.08	-0.22	0.22	0.46	0.46	0.00	291.01
	NORMAL	163.0	2.46	296.28	162.97	1.01	-2.14	2.23	2.43	2.43	6.06	6.14
	NORMAL	255.0	4.05	287.14	254.82	2.84	-7.01	7.25	1.81	1.73	-9.93	337.32
	NORMAL	345.0	5.72	273.52	344.49	4.05	-14.53	14.85	2.25	1.86	-15.13	318.31
	NORMAL	436.0	8.97	272.37	434.73	4.62	-26.15	26.47	3.57	3.57	-1.26	356.84
8/6/2012	NORMAL	511.0	12.22	273.83	508.44	5.39	-39.91	40.25	4.35	4.33	1.95	5.44
	NORMAL	602.0	14.68	278.31	596.94	7.70	-60.93	61.39	2.93	2.70	4.92	25.15
	NORMAL	693.0	17.36	277.00	684.40	11.03	-85.82	86.49	2.97	2.95	-1.44	351.69
	NORMAL	784.0	20.00	272.87	770.60	13.46	-114.85	115.61	3.24	2.90	-4.54	331.42
	NORMAL	874.0	22.81	274.10	854.39	15.48	-147.63	148.43	3.16	3.12	1.37	9.65
	NORMAL	965.0	26.02	273.83	937.24	18.07	-185.15	186.03	3.53	3.53	-0.30	357.89
	NORMAL	1,061.0	27.78	275.15	1,022.85	21.49	-228.44	229.45	1.94	1.83	1.38	19.33
	NORMAL	1,157.0	28.97	274.89	1,107.31	25.48	-273.89	275.07	1.25	1.24	-0.27	353.96
	NORMAL	1,253.0	30.24	275.85	1,190.78	29.92	-321.10	322.49	1.41	1.32	1.00	20.90
	NORMAL	1,348.0	31.43	275.85	1,272.35	34.89	-369.54	371.18	1.25	1.25	0.00	0.00
	NORMAL	1,444.0	32.53	275.68	1,353.78	39.99	-420.13	422.03	1.15	1.15	-0.18	355.25
	NORMAL	1,539.0	32.40	275.68	1,433.93	45.04	-470.87	473.02	0.14	-0.14	0.00	180.00
	NORMAL	1,635.0	31.43	275.33	1,515.42	49.91	-521.39	523.77	1.03	-1.01	-0.36	190.65
	NORMAL	1,670.0	31.87	275.77	1,545.21	51.69	-539.67	542.14	1.42	1.26	1.26	27.87
8/8/2012	NORMAL	1,748.0	32.75	274.96	1,611.14	55.58	-581.18	583.83	1.26	1.13	-1.04	333.46

## 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 (°)
8/8/2012	NORMAL	1,843.0	30.99	275.23	1,691.81	60.03	-631.13	633.98	1.86	-1.85	0.28	177.0
	NORMAL	1,938.0	28.97	275.76	1,774.10	64.57	-678.39	681.45	2.14	-2.13	0.56	177.0
	NORMAL	2,034.0	28.97	274.79	1,858.09	68.85	-724.68	727.95	0.49	0.00	-1.01	268.0
	NORMAL	2,129.0	28.92	277.86	1,941.22	73.91	-770.37	773.91	1.56	-0.05	3.23	9.0
	NORMAL	2,225.0	29.63	278.13	2,024.96	80.44	-816.86	820.81	0.75	0.74	0.28	1.0
	NORMAL	2,321.0	29.89	276.02	2,108.30	86.30	-864.14	868.43	1.12	0.27	-2.20	28.0
	NORMAL	2,416.0	30.46	276.37	2,190.43	91.46	-911.61	916.18	0.63	0.60	0.37	1.0
	NORMAL	2,510.0	30.37	274.52	2,271.50	95.98	-958.98	963.76	1.00	-0.10	-1.97	26.0
	NORMAL	2,606.0	29.80	274.44	2,354.56	99.73	-1,006.95	1,011.88	0.60	-0.59	-0.08	18.0
	NORMAL	2,702.0	28.70	274.70	2,438.32	103.47	-1,053.71	1,058.78	1.15	-1.15	0.27	17.0
	NORMAL	2,797.0	29.01	274.79	2,521.53	107.26	-1,099.40	1,104.62	0.33	0.33	0.09	0.0
	NORMAL	2,893.0	28.97	274.17	2,605.50	110.90	-1,145.79	1,151.14	0.32	-0.04	-0.65	26.0
	NORMAL	2,988.0	28.92	274.79	2,688.63	114.49	-1,191.62	1,197.11	0.32	-0.05	0.65	9.0
	NORMAL	3,084.0	29.14	274.26	2,772.57	118.16	-1,238.06	1,243.69	0.35	0.23	-0.55	31.0
	NORMAL	3,179.0	28.44	274.88	2,855.83	121.81	-1,283.67	1,289.43	0.80	-0.74	0.65	15.0
	NORMAL	3,275.0	28.57	274.09	2,940.19	125.39	-1,329.34	1,335.24	0.42	0.14	-0.82	28.0
	NORMAL	3,371.0	27.69	276.11	3,024.85	129.40	-1,374.42	1,380.49	1.35	-0.92	2.10	13.0
	NORMAL	3,466.0	27.47	275.58	3,109.06	133.88	-1,418.17	1,424.47	0.35	-0.23	-0.56	22.0
	NORMAL	3,562.0	26.07	276.72	3,194.77	138.50	-1,461.16	1,467.71	1.55	-1.46	1.19	16.0
	NORMAL	3,657.0	25.01	276.55	3,280.48	143.23	-1,501.84	1,508.66	1.12	-1.12	-0.18	18.0
	NORMAL	3,753.0	23.91	275.76	3,367.86	147.50	-1,541.36	1,548.40	1.20	-1.15	-0.82	19.0
	NORMAL	3,848.0	22.68	277.25	3,455.12	151.74	-1,578.69	1,585.96	1.44	-1.29	1.57	15.0
8/9/2012	NORMAL	3,944.0	21.19	277.51	3,544.17	156.35	-1,614.25	1,621.81	1.56	-1.55	0.27	17.0
	NORMAL	4,039.0	19.43	275.58	3,633.26	160.13	-1,647.00	1,654.77	1.98	-1.85	-2.03	19.0
	NORMAL	4,135.0	17.98	275.76	3,724.19	163.17	-1,677.64	1,685.55	1.51	-1.51	0.19	17.0
	NORMAL	4,231.0	16.00	276.02	3,815.99	166.04	-1,705.54	1,713.60	2.06	-2.06	0.27	17.0
	NORMAL	4,326.0	15.34	277.16	3,907.46	168.98	-1,731.03	1,739.26	0.77	-0.69	1.20	15.0
	NORMAL	4,422.0	13.93	276.02	4,000.34	171.78	-1,755.12	1,763.51	1.50	-1.47	-1.19	19.0
	NORMAL	4,516.0	12.75	273.91	4,091.81	173.67	-1,776.72	1,785.19	1.36	-1.26	-2.24	20.0
	NORMAL	4,612.0	10.99	275.23	4,185.75	175.23	-1,796.41	1,804.93	1.85	-1.83	1.38	17.0
8/10/2012	NORMAL	4,707.0	10.51	274.44	4,279.08	176.72	-1,814.06	1,822.65	0.53	-0.51	-0.83	19.0
	NORMAL	4,803.0	8.88	273.47	4,373.71	177.85	-1,830.19	1,838.81	1.71	-1.70	-1.01	18.0
	NORMAL	4,899.0	7.34	272.06	4,468.74	178.52	-1,843.71	1,852.34	1.62	-1.60	-1.47	18.0
	NORMAL	4,994.0	6.46	273.03	4,563.06	179.02	-1,855.12	1,863.73	0.93	-0.93	1.02	17.0
	NORMAL	5,089.0	5.19	270.57	4,657.56	179.35	-1,864.75	1,873.35	1.36	-1.34	-2.59	18.0
	NORMAL	5,184.0	4.66	279.18	4,752.21	180.00	-1,872.86	1,881.49	0.96	-0.56	9.06	12.0
	NORMAL	5,280.0	3.91	290.87	4,847.95	181.79	-1,879.76	1,888.53	1.20	-0.78	12.18	13.0
	NORMAL	5,375.0	3.65	301.51	4,942.74	184.53	-1,885.37	1,894.38	0.79	-0.27	11.20	11.0
	NORMAL	5,471.0	2.77	334.11	5,038.60	188.21	-1,888.99	1,898.33	2.07	-0.92	33.96	13.0
	NORMAL	5,567.0	1.23	52.87	5,134.55	190.92	-1,889.18	1,898.78	2.92	-1.60	82.04	15.0
	NORMAL	5,662.0	1.19	160.27	5,229.54	190.61	-1,888.03	1,897.61	2.05	-0.04	113.05	14.0
	NORMAL	5,758.0	1.36	151.13	5,325.51	188.67	-1,887.15	1,896.54	0.28	0.18	-9.52	30.0
	NORMAL	5,853.0	1.63	151.74	5,420.48	186.49	-1,885.96	1,895.15	0.28	0.28	0.64	0.0
	NORMAL	5,949.0	1.10	108.41	5,516.46	185.00	-1,884.44	1,893.50	1.17	-0.55	-45.14	22.0
	NORMAL	6,045.0	0.31	225.39	5,612.45	184.53	-1,883.75	1,892.77	1.32	-0.82	121.85	16.0
8/11/2012	NORMAL	6,140.0	0.44	192.96	5,707.45	183.99	-1,884.02	1,892.98	0.26	0.14	-34.14	28.0
	NORMAL	6,236.0	0.40	175.74	5,803.45	183.30	-1,884.07	1,892.97	0.14	-0.04	-17.94	24.0
	NORMAL	6,331.0	0.48	185.05	5,898.44	182.57	-1,884.08	1,892.91	0.11	0.08	9.80	4.0
	NORMAL	6,427.0	1.10	7.69	5,994.44	183.08	-1,884.00	1,892.87	1.65	0.65	-184.75	18.0
	NORMAL	6,523.0	0.79	14.72	6,090.43	184.64	-1,883.70	1,892.73	0.34	-0.32	7.32	16.0
8/13/2012	NORMAL	6,618.0	0.22	17.88	6,185.42	185.44	-1,883.48	1,892.59	0.60	-0.60	3.33	17.0
	NORMAL	6,713.0	0.09	154.91	6,280.42	185.55	-1,883.39	1,892.51	0.31	-0.14	144.24	16.0
	NORMAL	6,809.0	0.31	187.16	6,376.42	185.22	-1,883.40	1,892.48	0.25	0.23	33.59	4.0
	NORMAL	6,904.0	0.66	183.65	6,471.42	184.42	-1,883.46	1,892.47	0.37	0.37	-3.69	35.0
	NORMAL	7,000.0	0.97	206.94	6,567.41	183.15	-1,883.87	1,892.75	0.47	0.32	24.26	5.0
	NORMAL	7,096.0	0.48	222.67	6,663.40	182.13	-1,884.51	1,893.29	0.55	-0.51	16.39	16.0
	NORMAL	7,191.0	0.75	250.09	6,758.39	181.62	-1,885.36	1,894.09	0.41	0.28	28.86	6.0

## 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 (°)
8/13/2012	NORMAL	7,287.0	0.97	213.35	6,854.38	180.73	-1,886.40	1,895.04	0.61	0.23	-38.27	272.70
	NORMAL	7,382.0	1.14	170.81	6,949.37	179.12	-1,886.69	1,895.17	0.82	0.18	-44.78	260.43
8/14/2012	NORMAL	7,478.0	1.50	153.85	7,045.34	177.05	-1,885.98	1,894.27	0.55	0.38	-17.67	303.97
	NORMAL	7,573.0	1.23	132.67	7,140.32	175.25	-1,884.69	1,892.80	0.60	-0.28	-22.29	231.53
	NORMAL	7,669.0	0.88	57.52	7,236.30	174.94	-1,883.31	1,891.40	1.37	-0.36	-78.28	220.26
	NORMAL	7,763.0	0.57	34.85	7,330.30	175.72	-1,882.43	1,890.60	0.44	-0.33	-24.12	211.82
	NORMAL	7,858.0	0.35	348.79	7,425.29	176.39	-1,882.22	1,890.46	0.43	-0.23	-48.48	217.61
	NORMAL	7,954.0	0.35	305.90	7,521.29	176.85	-1,882.51	1,890.79	0.27	0.00	-44.68	248.56
	NORMAL	8,008.0	0.35	305.90	7,575.29	177.04	-1,882.78	1,891.08	0.00	0.00	0.00	0.00