

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	RWF 414-25	Wellbore No.	00
Wellbore Legal Name	RWF 414-25	Common Wellbore Name	RWF 414-25
Project	RU 25-06S-094W	Site	RWF 23-25 Pad
Vertical Section Azimuth	242.30 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	2/7/2014	UWI	RWF 414-25
Active datum	KB @6,122.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	MOSTAR
Date Started	2/7/2014	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

6596

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 (°)
2/7/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2/7/2014	NORMAL	72.0	0.18	163.74	72.00	-0.11	0.03	0.02	0.25	0.25	0.00	163.74
	NORMAL	163.0	1.76	229.66	162.98	-1.15	-0.99	1.41	1.86	1.74	72.44	71.48
	NORMAL	254.0	3.52	244.16	253.89	-3.27	-4.57	5.57	2.05	1.93	15.93	28.13
2/8/2014	NORMAL	344.0	6.25	250.75	343.55	-6.09	-11.69	13.18	3.09	3.03	7.32	14.91
	NORMAL	435.0	9.59	246.27	433.67	-10.78	-23.31	25.64	3.73	3.67	-4.92	347.30
	NORMAL	526.0	12.84	243.90	522.92	-18.28	-39.33	43.32	3.61	3.57	-2.60	350.76
	NORMAL	596.0	15.59	240.56	590.77	-26.33	-54.51	60.50	4.10	3.93	-4.77	341.77
	NORMAL	687.0	18.24	243.30	677.83	-38.74	-77.89	86.97	3.04	2.91	3.01	18.06
	NORMAL	777.0	19.04	242.31	763.11	-51.89	-103.47	115.73	0.96	0.89	-1.10	337.95
	NORMAL	869.0	19.96	241.80	849.83	-66.28	-130.60	146.44	1.02	1.00	-0.55	349.28
	NORMAL	960.0	21.00	243.29	935.08	-80.95	-158.85	178.28	1.28	1.14	1.64	27.32
	NORMAL	1,055.0	21.81	242.82	1,023.52	-96.66	-189.76	212.94	0.87	0.85	-0.49	347.82
	NORMAL	1,113.0	22.25	243.11	1,077.29	-106.55	-209.13	234.70	0.78	0.76	0.50	14.02
2/10/2014	NORMAL	1,262.0	23.12	242.06	1,214.76	-133.02	-260.14	292.16	0.64	0.58	-0.70	334.55
	NORMAL	1,357.0	23.16	241.18	1,302.12	-150.76	-292.98	329.49	0.37	0.04	-0.93	276.19
	NORMAL	1,453.0	22.33	241.62	1,390.65	-168.53	-325.57	366.60	0.88	-0.86	0.46	168.62
	NORMAL	1,548.0	20.53	241.79	1,479.08	-184.99	-356.13	401.30	1.90	-1.89	0.18	178.10
	NORMAL	1,644.0	18.90	241.88	1,569.45	-200.27	-384.68	433.69	1.70	-1.70	0.09	178.98
	NORMAL	1,739.0	18.77	240.57	1,659.37	-215.03	-411.56	464.35	0.47	-0.14	-1.38	252.29
	NORMAL	1,835.0	18.37	239.51	1,750.37	-230.30	-438.05	494.90	0.55	-0.42	-1.10	219.66

2.1.2 Survey Stations (Continued)

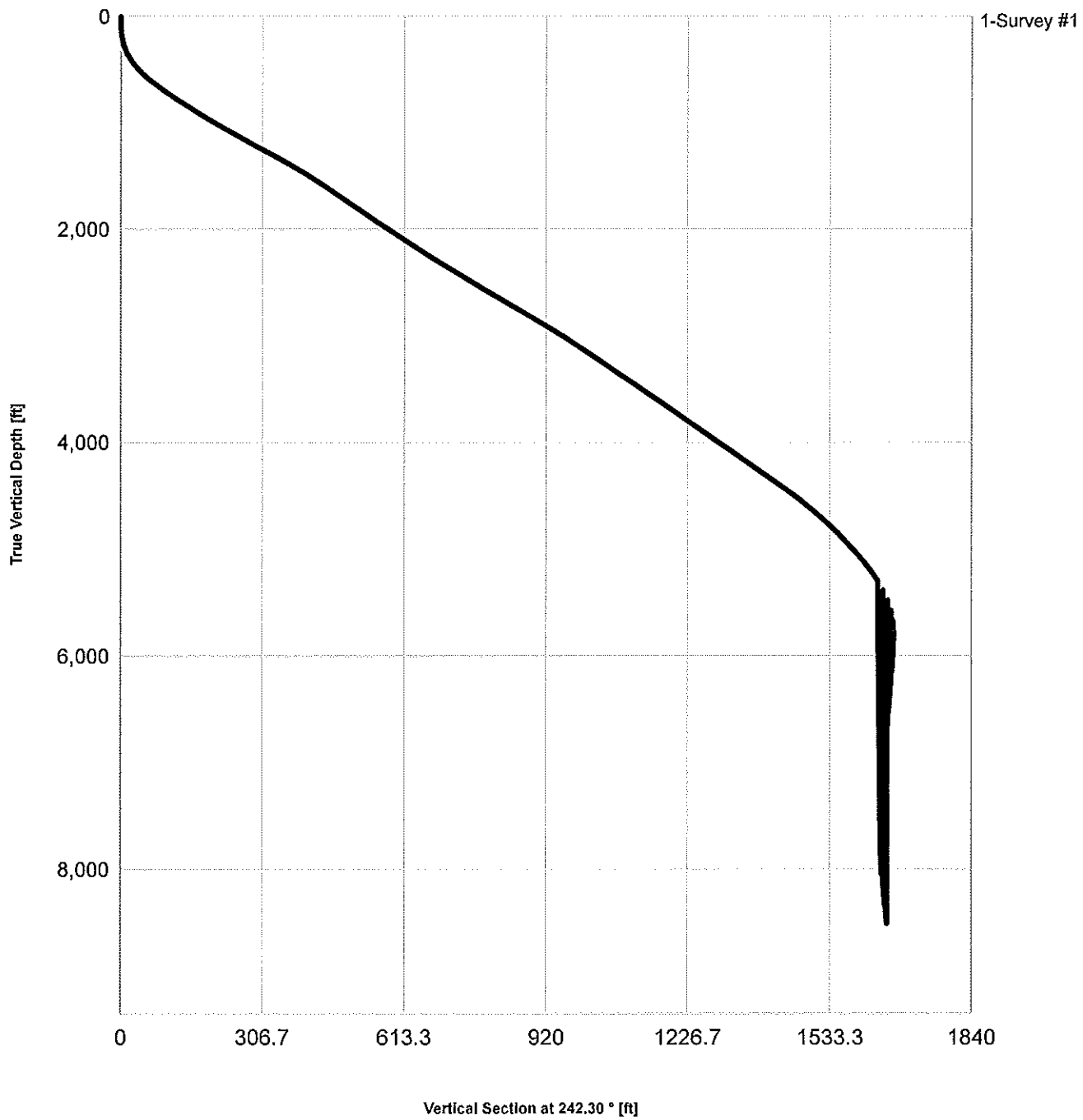
Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
2/10/2014	NORMAL	1,931.0	18.42	239.25	1,841.46	-245.73	-464.12	525.15	0.10	0.05	-0.27	301.23
	NORMAL	2,026.0	19.12	239.77	1,931.41	-261.24	-490.46	555.68	0.76	0.74	0.55	13.69
	NORMAL	2,122.0	19.34	241.97	2,022.05	-276.62	-518.08	587.29	0.79	0.23	2.29	74.15
	NORMAL	2,217.0	19.60	241.71	2,111.62	-291.57	-545.99	618.95	0.29	0.27	-0.27	341.44
	NORMAL	2,312.0	19.69	240.92	2,201.09	-308.90	-574.01	650.88	0.30	0.09	-0.83	288.35
	NORMAL	2,408.0	20.04	241.97	2,291.38	-322.49	-602.66	683.50	0.52	0.36	1.09	46.05
	NORMAL	2,503.0	20.79	241.09	2,380.41	-338.29	-631.79	716.63	0.85	0.79	-0.93	337.33
	NORMAL	2,599.0	20.66	243.03	2,470.20	-354.20	-661.80	750.60	0.73	-0.14	2.02	101.63
	NORMAL	2,694.0	21.01	242.59	2,558.99	-369.64	-691.85	784.39	0.40	0.37	-0.46	335.70
	NORMAL	2,790.0	21.50	243.29	2,648.46	-385.47	-722.85	819.19	0.57	0.51	0.73	27.71
	NORMAL	2,885.0	21.80	242.94	2,736.76	-401.32	-754.11	854.23	0.34	0.32	-0.37	336.55
	NORMAL	2,981.0	21.58	241.71	2,825.96	-417.80	-785.53	889.71	0.53	-0.23	-1.28	243.60
	NORMAL	3,076.0	20.53	245.31	2,914.62	-433.04	-816.05	923.82	1.75	-1.11	3.79	130.74
	NORMAL	3,171.0	20.40	244.34	3,003.62	-447.17	-846.11	957.00	0.38	-0.14	-1.02	248.57
2/11/2014	NORMAL	3,266.0	19.30	244.87	3,092.98	-461.00	-875.25	989.23	1.17	-1.16	0.56	170.96
	NORMAL	3,362.0	18.95	244.43	3,183.68	-474.47	-903.67	1,020.66	0.39	-0.36	-0.46	202.18
	NORMAL	3,457.0	18.99	243.73	3,273.52	-487.97	-931.45	1,051.52	0.24	0.04	-0.74	279.64
	NORMAL	3,552.0	18.81	244.08	3,363.40	-501.50	-959.08	1,082.28	0.22	-0.19	0.37	147.96
	NORMAL	3,648.0	18.90	244.87	3,454.25	-514.87	-987.08	1,113.29	0.28	0.09	0.82	70.96
	NORMAL	3,743.0	18.73	240.48	3,544.18	-528.92	-1,014.28	1,143.90	1.50	-0.18	-4.62	261.08
	NORMAL	3,838.0	18.50	240.48	3,634.21	-543.86	-1,040.67	1,174.21	0.24	-0.24	0.00	180.00
	NORMAL	3,934.0	18.33	242.32	3,725.29	-558.38	-1,067.29	1,204.53	0.63	-0.18	1.92	107.17
	NORMAL	4,029.0	18.02	242.23	3,815.55	-572.17	-1,093.52	1,234.16	0.33	-0.33	-0.09	185.13
	NORMAL	4,125.0	18.29	242.06	3,906.77	-586.14	-1,119.97	1,264.08	0.29	0.28	-0.18	348.82
	NORMAL	4,220.0	18.55	243.55	3,996.90	-599.86	-1,146.67	1,294.09	0.57	0.27	1.57	61.80
	NORMAL	4,316.0	18.37	243.11	4,087.96	-613.50	-1,173.83	1,324.48	0.24	-0.19	-0.46	217.53
	NORMAL	4,411.0	18.20	242.41	4,178.17	-627.14	-1,200.33	1,354.29	0.29	-0.18	-0.74	231.93
	NORMAL	4,506.0	18.07	242.67	4,268.45	-640.78	-1,226.57	1,383.86	0.16	-0.14	0.27	148.22
2/12/2014	NORMAL	4,602.0	18.15	241.97	4,359.69	-654.64	-1,252.99	1,413.70	0.24	0.08	-0.73	289.85
	NORMAL	4,697.0	18.07	242.50	4,449.99	-668.40	-1,279.12	1,443.23	0.19	-0.08	0.56	116.15
	NORMAL	4,793.0	16.13	241.88	4,541.74	-681.56	-1,304.09	1,471.45	2.03	-2.02	-0.65	185.07
	NORMAL	4,888.0	14.77	242.15	4,633.30	-693.44	-1,326.44	1,496.76	1.43	-1.43	0.28	177.10
	NORMAL	4,984.0	14.64	242.85	4,726.16	-704.69	-1,348.05	1,521.13	0.23	-0.14	0.73	126.53
	NORMAL	5,080.0	13.36	243.11	4,819.31	-715.24	-1,368.74	1,544.35	1.33	-1.33	0.27	177.31
	NORMAL	5,175.0	11.96	243.91	4,911.99	-724.54	-1,387.37	1,565.16	1.49	-1.47	0.84	173.25
	NORMAL	5,271.0	11.96	244.61	5,005.91	-733.18	-1,405.29	1,585.05	0.15	0.00	0.73	90.34
	NORMAL	5,366.0	11.08	243.73	5,099.00	-741.44	-1,422.37	1,604.01	0.94	-0.93	-0.93	190.86
	NORMAL	5,461.0	9.80	241.79	5,192.42	-749.30	-1,437.88	1,621.22	1.40	-1.35	-2.04	194.40
	NORMAL	5,557.0	8.35	243.91	5,287.22	-756.23	-1,451.14	1,636.36	1.55	-1.51	2.21	168.06
	NORMAL	5,652.0	6.72	246.89	5,381.39	-761.44	-1,462.45	1,648.79	1.76	-1.72	3.14	167.99
	NORMAL	5,746.0	5.45	247.51	5,474.86	-765.31	-1,471.63	1,658.72	1.35	-1.35	0.66	177.35
	NORMAL	5,841.0	3.56	244.70	5,569.57	-768.30	-1,478.47	1,666.16	2.00	-1.99	-2.96	185.26
2/13/2014	NORMAL	5,937.0	1.85	241.62	5,665.45	-770.31	-1,482.53	1,670.69	1.79	-1.78	-3.21	183.32
	NORMAL	6,033.0	0.18	20.75	5,761.44	-770.90	-1,483.84	1,672.13	2.07	-1.74	144.93	176.61
	NORMAL	6,128.0	0.57	49.49	5,856.44	-770.45	-1,483.42	1,671.55	0.44	0.41	30.25	40.60
	NORMAL	6,224.0	1.27	17.94	5,952.42	-769.13	-1,482.73	1,670.33	0.87	0.73	-32.86	307.63
2/14/2014	NORMAL	6,319.0	1.05	21.45	6,047.40	-767.32	-1,482.09	1,668.92	0.24	-0.23	3.69	163.85
	NORMAL	6,414.0	1.36	31.30	6,142.38	-765.55	-1,481.19	1,667.29	0.39	0.33	10.37	38.74
	NORMAL	6,509.0	1.32	35.78	6,237.36	-763.70	-1,479.96	1,665.35	0.12	-0.04	4.72	113.13
	NORMAL	6,605.0	0.92	38.50	6,333.34	-762.20	-1,478.84	1,663.65	0.42	-0.42	2.83	173.79
2/15/2014	NORMAL	6,700.0	1.45	37.89	6,428.32	-760.65	-1,477.62	1,661.86	0.56	0.56	-0.64	358.33
	NORMAL	6,796.0	1.27	26.55	6,524.29	-758.74	-1,476.40	1,659.89	0.34	-0.19	-11.81	230.64
	NORMAL	6,892.0	1.14	23.91	6,620.27	-756.92	-1,475.54	1,658.28	0.15	-0.14	-2.75	201.81
	NORMAL	6,987.0	0.97	28.75	6,715.25	-755.35	-1,474.77	1,656.87	0.20	-0.18	5.09	154.74
	NORMAL	7,083.0	1.14	20.93	6,811.24	-753.74	-1,474.04	1,655.47	0.23	0.18	-8.15	315.78
	NORMAL	7,178.0	0.66	359.04	6,906.23	-752.31	-1,473.71	1,654.52	0.61	-0.51	-23.04	205.00

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)	Bulld Rate (°/100usft)	Turn (°/100usft)	Tface (°)
2/15/2014	NORMAL	7,273.0	1.98	34.02	7,001.20	-750.41	-1,472.80	1,652.83	1.57	1.39	36.82	49.70
	NORMAL	7,369.0	1.67	34.99	7,097.15	-747.88	-1,471.07	1,650.12	0.32	-0.32	1.01	174.79
	NORMAL	7,465.0	1.45	28.84	7,193.12	-745.67	-1,469.68	1,647.87	0.29	-0.23	-6.41	214.22
2/16/2014	NORMAL	7,560.0	1.05	14.95	7,288.09	-743.78	-1,468.88	1,646.27	0.53	-0.42	-14.62	210.34
	NORMAL	7,656.0	0.70	8.62	7,384.08	-742.35	-1,468.56	1,645.33	0.38	-0.36	-6.59	192.29
	NORMAL	7,751.0	0.57	25.76	7,479.08	-741.35	-1,468.27	1,644.61	0.24	-0.14	18.04	132.76
	NORMAL	7,846.0	0.66	35.60	7,574.07	-740.48	-1,467.75	1,643.74	0.15	0.09	10.36	54.55
	NORMAL	7,941.0	0.70	357.63	7,669.06	-739.46	-1,467.45	1,643.00	0.47	0.04	-39.97	255.90
	NORMAL	8,037.0	0.97	327.31	7,765.05	-738.19	-1,467.91	1,642.82	0.53	0.28	-31.58	285.67
	NORMAL	8,132.0	1.41	319.23	7,860.03	-738.62	-1,469.11	1,643.16	0.49	0.46	-8.51	335.05
	NORMAL	8,226.0	1.89	295.50	7,954.00	-735.08	-1,471.27	1,644.35	0.88	0.51	-25.24	292.84
	NORMAL	8,320.0	1.10	255.51	8,047.97	-734.64	-1,473.54	1,646.15	1.34	-0.84	-42.54	214.02
	NORMAL	8,416.0	1.05	257.97	8,143.95	-735.05	-1,475.29	1,647.90	0.07	-0.05	2.56	138.52
	NORMAL	8,511.0	1.45	269.66	8,238.93	-735.24	-1,477.34	1,649.80	0.50	0.42	12.31	38.45
	NORMAL	8,606.0	1.67	264.74	8,333.89	-735.38	-1,479.93	1,652.15	0.27	0.23	-5.18	326.19
2/17/2014	NORMAL	8,702.0	1.67	261.22	8,429.85	-735.72	-1,482.70	1,654.77	0.11	0.00	-3.67	268.24
	NORMAL	8,725.0	1.63	260.34	8,452.84	-735.82	-1,483.35	1,655.39	0.21	-0.17	-3.83	211.91
	NORMAL	8,775.0	1.63	260.34	8,502.82	-736.06	-1,484.76	1,656.75	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

