

Table 2: The annual means \pm standard error of physico-chemical parameters, macro elements, heavy metals and coliform and fecal bacteria in water of coastal, drainages and inside Gulf (the Tarout Bay) Arabian Gulf Saudi Arabia

M \pm S.E OF	Coastal	Drainage	Inside	PME, 2006	ANZECC, 2000
NH ₃ mg/l	0.276 b \pm 0.036	1.023 c \pm 0.219	0.024 a \pm 0.002	0.1	0.001-0.001
NO ₂ mg/l	0.013 a \pm 0.005	0.097 a \pm 0.026	0.005 b \pm 0.000	sum	0.002-0.008
NO ₃ mg/l	0.93 a \pm 0.06	1.25 a \pm 0.15	1.20 a \pm 0.17	1.5	0.7
TDN mg/l	1.24 b \pm 0.07	2.72 c \pm 0.43	0.03 a \pm 0.00		
PO ₄ mg/l	0.263 a \pm 0.031	0.764 b \pm 0.080	0.623 b \pm 0.085	0.1	0.002-0.005
Tpo ₄ mg/l	0.390 a \pm 0.032	0.816 c \pm 0.079	0.580 b \pm 0.076	0.5	
Chlo a μ g/l	24.69 a \pm 2.49	19.39 a \pm 3.66	17.92 a \pm 2.08		0.5-4.5mg/m3
H ₂ s μ g/l	3.234 a \pm 0.385	2.983 a \pm 0.491	4.448 a \pm 0.769	0.002	
Temp ^o C	25.31 a \pm 0.43	27.39 a \pm 0.65	26.35 a \pm 0.54		
D.O mg/l	8.499 b \pm 0.315	6.537 a \pm 0.445	6.913 a \pm 0.182	>5	
D.O Sat	101.56 a \pm 3.63	81.86 a \pm 5.39	85.06 a \pm 2.16		
PH	8.17 b \pm 0.05	7.96 a \pm 0.04	8.09 b \pm 0.01	Δ 0.2	8.0-8.4
Salinityppt	41.23 b \pm 0.77	18.83 a \pm 2.06	44.60 c \pm 0.21	Δ 0	
EC mS/cm	59.966 b \pm 0.906	29.797 a \pm 2.996	65.914 c \pm 0.286		
Talk mg/l	156.96 b \pm 2.62	184.86 c \pm 6.65	103.44 a \pm 7.45		
CO ₂ mg/l	2.06 a \pm 0.14	2.19 a \pm 0.21	1.94 a \pm 0.13		
N/P ₀₄ Ratio	9.4 b \pm 0.85	3.30 a \pm 0.34	3.06 a \pm 0.51		
N/Tpo ₄ Ratio	5.838 c \pm 0.925	3.028 b \pm 0.309	1.537 a \pm 0.206		
Ca	794.29 b \pm 8.83	584.66 a \pm 81.73	708.74 b \pm 63.31	1200	
Mg	1551.83 b \pm 27.17	700.59 a \pm 38.94	1218.01 b \pm 272.23		
K	1048.03 b \pm 12.87	486.58 a \pm 170.78	831.13 b \pm 183.66		
Na	12410 b \pm 0.65	4930 a \pm 0.70	17530 c \pm 0.08	14000	
Coliform bacteria	1035 c \pm 216.11	294.5 a \pm 68.64	613.78 b \pm 78.5		
Fecal coliform bacteria	11.33 a \pm 3.18	23 b \pm 1.41	19.16 b \pm 2.5		
Hg ppm	0.0102 a \pm 0.0089	0.00379 a \pm 0.0022	0.0006 a \pm 0.00003	0.0004	
As ppm	0.02293 a \pm 0.0118	0.0232 a \pm 0.0025	0.0021a \pm 0.0005	0.05	0.05
Zn ppm	.0021 a \pm 0.0005	0.0031 a \pm 0.0005	0.0038 b \pm 0.0007	0.8	0.2
Ni ppm	0.0017 a \pm 0.0006	0.0017 a \pm 0.0002	0.0024 a \pm 0.0002	0.05	0.05
Fe ppm	ND	ND	0.0004 \pm 0.0001	0.5	0.05
Cr ppm	0.0018 a \pm 0.0003	0.0016 a \pm 0.0003	0.0176 b \pm 0.0021	0.05	0.044