

Supplementary Tables

Table S1. Kruskal-Wallis rank sum test for treatment effects

Site	Alpha Diversity	chi-squared	df	p-value
Shallow Shelf	Richness	11.44	7	0.12
	Shannon Diversity	14.33	7	0.05
	Pielou's evenness	13.83	7	0.05
Shallow Slope	Richness	5.26	7	0.63
	Shannon Diversity	14.00	7	0.05
	Pielou's evenness	14.45	7	0.04
Deep Shelf	Richness	3.71	7	0.81
	Shannon Diversity	10.20	7	0.18
	Pielou's evenness	12.44	7	0.09
Deep Slope	Richness	3.25	7	0.86
	Shannon Diversity	3.84	7	0.80
	Pielou's evenness	6.65	7	0.47

Table S2. Concentration of metals and NO₃ in the different treatments

	Metal concentration nmol/L	NO₃ concentration umol/L
Mn	6.02	0.10
Fe	11.99	0.20
Co	0.12	0.002
Ni	17.97	0.30
Cu	6.97	0.13
Zn	19.99	0.39
Mix	all together	1.12

Supplementary Figure legends

Figure S1. OTU Richness of heterotrophic prokaryotes in response to Co, Cu, Fe, Mn, Ni, Zn and the combination of all (Mix), and in unamended controls (Ctrl), experiments performed with water collected from (A) surface-coastal, (B) deep-coastal (C) surface-open ocean, and (D) deep-open ocean.

Figure S2. Shannon diversity index of heterotrophic prokaryotes in response to Co, Cu, Fe, Mn, Ni, Zn and the combination of all (Mix), and in unamended controls (Ctrl), experiments performed with water collected from (A) surface-coastal, (B) deep-coastal (C) surface-open ocean, and (D) deep-open ocean.

Figure S3. Relative abundance of prokaryotic 16S rRNA sequences, at the phylum level, in response to Co, Cu, Fe, Mn, Ni, Zn and the combination of all (Mix), and in unamended controls (Ctrl), experiments performed with water collected from (A) surface-coastal, (B) deep-coastal (C) surface-open ocean, and (D) deep-open ocean. Only phyla with a relative abundance $\geq 1\%$ are included.

Figure S4. Relative abundance of prokaryotic 16S rRNA sequences, at the genus level, in response to Co, Cu, Fe, Mn, Ni, Zn and the combination of all (Mix), and in unamended controls (Ctrl), experiments performed with water collected from (A) surface-coastal, (B) deep-coastal (C) surface-open ocean, and (D) deep-open ocean.

Figure S5. Total abundance of reads of the 16S rRNA sequences of the genus *Thalassolituus*, in response to Co, Cu, Fe, Mn, Ni, Zn and the combination of all (Mix), and in unamended controls (Ctrl), experiments performed with water collected from surface-coastal, deep-coastal, surface-open ocean, and deep-open ocean.