

Table S1. Characteristics of the crude oil contaminated water collected from a pit resulting from oil and gas exploitation in Chakwal, Pakistan

Parameter	Value	NEQS
pH	7.49 (0.1)	6-9
Chemical oxygen demand (COD) (mg/l)	1440 (73.5)	150
Biochemical oxygen demand (BOD ₅) (mg/l)	645 (15.4)	80
Hydrocarbons (mg/l)	300 (9.7)	10
Dissolved oxygen (mg/l)	0.83 (0.03)	NG
Total dissolved solids (TDS) (mg/l)	8250 (113)	3500
Chlorides (Cl ⁻) (mg/l)	1370 (73)	1000
Sulphates (SO ₄ ²⁻) (mg/l)	465 (9.3)	600
Nitrogen (mg/l)	0.85 (0.04)	NG
Phosphorous (P) (mg/l)	0.63 (0.02)	NG
Sodium (Na ⁺) (mg/l)	2467 (143)	NG
Potassium (K ⁺) (mg/l)	1356 (64)	NG
Cadmium (Cd) (mg/l)	1.05 (0.06)	0.1
Chromium (Cr) (mg/l)	0.83 (0.03)	1.0
Copper (Cu) (mg/l)	0.23 (0.01)	1.0
Iron (Fe) (mg/l)	1.38 (0.08)	8
Nickel (Ni) (mg/l)	0.56 (0.03)	1.0
Lead (Pb) (mg/l)	0.65 (0.02)	0.5

NG = not given in NEQS list, NEQS = National environmental quality standards. Each value is a mean of three replicates; standard deviations are presented in parentheses.