

Appendix 10B Background concentration of COPCs measured at Tuen Mun AQMS Station

COPCs	Annual Concentration ^{[1][2]}	Maximum Daily Concentration ^[2]	Concentration Unit
Antimony (Sb)	-	-	-
Arsenic (As)	2.36	11	ng/m ³
Beryllium (Be)	0.04	0.11	ng/m ³
Cadmium (Cd)	0.61	4.70	ng/m ³
Chromium (Cr)	3.36	14	ng/m ³
Chromium (Cr (VI)) ^[3]	0.11	0.11	ng/m ³
Cobalt (Co)	-	-	-
Copper (Cu)	50.98	170	ng/m ³
Lead (Pb)	14.58	46	ng/m ³
Manganese (Mn)	17.65	75	ng/m ³
Mercury (Hg)	0.18	0.20	ng/m ³
Nickel (Ni)	5.84	18	ng/m ³
Thallium (Tl)	-	-	-
Vanadium(V)	11.75	51	ng/m ³
Zinc (Zn)	75.88	280	ng/m ³
Polychlorinated biphenyls (PCBs)	-	-	-
Dioxins ^{[3][4]}	0.03	0.075	pg I-TEQ/m ³
Total Polynuclear Aromatic Hydrocarbons (PAHs) ^[3]	322.48	547.59	ng/m ³
Hydrochloric acid (HCl)	-	-	-
Hydrogen fluoride (HF)	-	-	-
Ammonia (NH ₃)	-	-	-
Selenium (Se)	0.50	2.0	ng/m ³
TOC	-	-	-

Notes:

[1] All values presented are maximum arithmetic means.

[2] The concentrations of all species are derived from chemical analysis of respirable suspended particulates samples collected by high-volume samplers (2018-2022). (Source: <https://www.aqhi.gov.hk/en/download/air-quality-reports0c72.html>)

[3] The background concentration of Cr(VI), dioxins, total PAHs are measured at Tsuen Wan Air Quality Monitoring Station.

The annual concentration and maximum daily concentration of Cr(VI) and total PAHs are extracted from the summary of Toxi Air Pollutants Concentration in Hong Kong (2019-2023). (<https://www.aqhi.gov.hk/en/download/tap.html>)

The annual concentration and maximum daily concentration of dioxins are extracted from the summary of Ambient Dioxins Level in Hong Kong (2018 to Oct 2023). (<https://www.aqhi.gov.hk/en/download/air-quality-reportsf0e5.html>)

The annual concentration and maximum daily concentration of CH₂O extracted from the Air Quality Reports (2018-2022)- Annual Air Quality Monitoring Results Table C6. (<https://www.aqhi.gov.hk/en/download/air-quality-reports77ba.html>)

[4] The ambient level of dioxins is expressed here as toxic equivalent (I-TEQ) concentration of 2,3,7,8-Tetrachlorodibenzodioxin (TCDD) based on the International Toxic Equivalency Factors (I-TEF) of the North Atlantic Treaty Organisation (NATO/CCMS).

[5] The annual concentrations and daily maximum concentrations of the above COPCs measured at Tuen Mun AQMS/Tsuen Wan AQMS are added as background concentrations for calculating the cumulative concentrations for chronic and acute health impacts respectively.