

Table 3.3 Comparison of leachate characteristics from active and closed landfills based on selected pollution parameters.

Parameter /Landfill No.	Standard	Sanitary		Open dump	
		(Active) 1	(Closed) 3	(Active) 4	(Closed) 10
Biochemicals Oxygen Demand (BOD) @ 20°C, 5 Days (mg/L)	20	11360 ± 703.42	2497 ± 221.31	1160 ± 98.49	925 ± 6.00
Chemical Oxygen Demand (COD) (mg/L)	400	16000 ± 1130.62	4000 ± 312.77	2982 ± 308.64	2880 ± 128.55
BOD ₅ /COD	NA	0.71 ± 0.08	0.62 ± 0.09	0.39 ± 0.05	0.32 ± 0.07
Total Suspended Solids (TSS) (mg/L)	50	130 ± 13.45	800 ± 14.55	3000 ± 146.27	200 ± 17.58
Ammoniacal Nitrogen (NH ₃ N) (mg/L)	5	21.3 ± 3.17	3200 ± 185.00	29.0 ± 3.60	650 ± 8.89
Total Carbon (TOC) (mg/L)	NA	4700 ± 145.26	45070 ± 1044.46	281 ± 16.70	23000 ± 836.48
Total Nitrogen (TKN) (mg/L)	NA	98 ± 13.45	1700 ± 149.66	119 ± 6.24	600 ± 43.30
pH @ 25°C	6.0 – 9.0	8.05 ± 0.05	8.19 ± 0.17	8.39 ± 0.11	8.30 ± 0.11
<u>HEAVY METAL</u>					
Leads as Pb (mg/L)	0.1	0.06 ± 0.02	0.11 ± 0.01	NA	0.5 ± 0.17
Cadmium as Cd (mg/L)	0.01	ND < 0.002	ND < 0.002	NA	ND < 0.002
Copper as Cu (mg/L)	0.2	0.02 ± 0.01	ND < 0.01	NA	0.12 ± 0.02
Iron as Fe (mg/L)	5	4.44 ± 0.11	2.62 ± 0.11	NA	10.41 ± 0.74
Zinc as Zn (mg/L)	2	0.18 ± 0.03	0.19 ± 0.03	NA	0.80 ± 0.05
Magnesium as Mg (mg/L)	NA	23.01 ± 0.90	180.79 ± 5.31	NA	186.62 ± 10.76

ND: Not detected; NA: Not available