

GEOCHEMISTRY OF WASTE EFFLUENTS FROM VEHICLE SERVICE STATIONS

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In the transportation of passengers and goods, automobiles play a major role. With the increasing population, the demand for vehicles, roads and highways has also increased. Vehicles release contaminant emissions while in motion and some of them are deposited on their bodies. When vehicles are serviced in stations, these contaminants can be collected for investigations.

Under the present study, seven such stations have been monitored from where effluent samples have been collected regularly and analyzed for vital environmental parameters. Pb, Zn, Cd, Cu and Fe were the dominant trace elements found in effluents. The averages (in ppb), Pb-235.86, Zn-1802.36, Cd-6.8, Cu-23.52 and Fe -2973.67, indicate their relative abundances in effluents in vehicle service stations. The analysis further indicates that at some instances Fe, Pb, and Zn levels reach or exceed their maximum tolerance limits. High pH levels tend to fix the trace elements in clay suspensions.