

ABSTRACT

From Kalalanwala village District Kasur and Kot Asad Ullah

District Lahore, seventy ground water samples and 24 soil samples (0-90 cm depth) were collected for chemical analysis. Temperature, pH, Conductivity, Dissolved Oxygen, Total Dissolved Solids, Fluoride, Sulfate, Zinc, Iron, Phosphate, Copper, Manganese, Lead, Nickel, Chromium and Cadmium were determined in water samples. The concentrations of Copper, Nickel, Chromium, Cadmium and Lead could not be found in any water sample with exception of one sample that contained Nickel and Lead. Except a few samples, all the water samples had fluoride concentrations beyond the permissible limit (1.5 mg/l) prescribed by the World Health Organization, 1993. The bone deformity in the area is suggested to be the result of high concentration of Fluoride. Soil samples were analyzed for Zinc, Copper, Iron, Manganese, Chromium, Lead, Nickel, Phosphorus, Potassium, pH, Conductivity, Percentage Organic Matter and percentage water saturation. All the soil samples contained considerable quantity of heavy metals except Nickel that was not detected in all the samples.