

عنوان مقاله:

(Assessment of Influence of Landfill Leachate on Groundwater Quality: A Case Study Albourz Landfill (Qom, Iran)

محل انتشار:

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خلاصه مقاله:

Background and Aim of the Study: The landfill leachate is contains various contaminates that can effect on quality of surface water and wells. In this study influence of the leachate from Albourz landfill in Qom (Qom, Iran) was investigated on quality of groundwater. **Material and Methods:** In this experimental study, Samples were collected from wells around the landfill site. Various physical, chemical and biological parameters were detected. All tests were performed according to the Standard methods for the examination of water and wastewater. Findings were compared with Iran national drinking water standard. **Results:** Findings show that the highest level of pH 7.76 mg/l, nitrate 34.12 mg/l, phosphate 8.84 mg/l, total hardness 2095 mg/l, electrical conductivity 14850 s/cm, total dissolved solids 5841 mg/l, Ca²⁺ 2.5 mg/l, Mg²⁺ 30.11 mg/l, Na⁺ 112 mg/l, K⁺ 28.8 mg/l, Cl⁻ 66.75 mg/l, SO₄²⁻ 110.1 mg/l and biological oxygen demand 4.5 mg/l. The results of microbiological tests were reported negative. **Conclusion:** Results obtained in this study confirm that the quality of the groundwater resource underlying Albourz landfill hasn't been significantly impacted. The results of experiment of the following specific parameters Po³⁻ 4, TH and TDS are above the highest permissible levels allowed by Iran national Standards for Drinking Water.

کلمات کلیدی:

Water Quality, ground water, landfill leachate

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