

Introduction

The main goal of this Project is to develop conceptual and numerical models of groundwater flow and chemical distribution of contaminants that can be used for studying the migration of contaminants in groundwater layers underneath the industrial wastes storages. Models developed during the project will be used to develop the methods of protection of groundwater in the region, to evaluate the efficiency of chosen remediation methods and to stabilize and manage groundwater flow underneath the industrial wastes storage.

The goals of the Project will be achieved using methods based on consequential approach to analysis of physical and geochemical processes of hydrological flows and contaminant transport. The goal will be achieved after a certain steps are performed: first, data analysis, then building, checking and calibration of the model, then collection of additional data and final use of the model for management of groundwater flow and developing remediation activities plan.

Completion of three tasks is implied by the Project:

1. Development of groundwater flow model.
2. Development of contaminant transport model.
3. Use of models, in order to plan remediation activities.

In order to complete the Task, the software for modeling and data representation was used (Visual Modflow Package, MS Office, Adobe Acrobat, Adobe Photoshop, etc.).

Obtained results will be used to build contaminant transport model and to develop a plan of remediation works aimed at reduction of industrial influence of wastes storages on groundwater.