Evaluation of Groundwater Pollution by Oil Spillage Using Virtual Training

Virtual simulator was elaborated in Peoples’ Friendship University of Russia. It allows to create different cases of possible infiltration of oil and oil products. Forecasting problem solving involves several steps:

1. Estimation of volume of spilled oil and oil products;
2. Construction of sections within an assumed model in certain directions of spreading oil slick;
3. Evaluation of physical possibilities of oil penetration into soil with its viscosity permeability taking into account;
4. Calculation of oil balance according to the following parameters: volume of recovered oil, volume of evaporated oil, volume of oil soaked into the ground and soil;
5. Theoretical justification of the selected model of calculation of the infiltration of water polluted with oil products taking into account humidity and pollutant dispersion;
6. Calculations of possible reaching by pollutants the saturated zone in natural conditions of layer nutrition and in use conditions.

Processes are illustrated by pictures and calculation models. It is made for better understanding of development of processes of pollution the atmosphere, soil, ground, and groundwater.

Practice side of training is related to technologies and technological tools of pollution liquidation, organization of work, monitoring and post monitoring system, calculations of economic damage to environment including ground water.

Marketing of virtual complex is also taken into consideration.