

GROUNDWATER ENVIRONMENTAL ASSESSMENT AND MANAGEMENT OF DAQING CITY, CHINA

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We have conducted research about groundwater environmental assessment and management in well-known Daqing Oilfield and Daqing City. The research included: 1,Groundwater environmental quality assessment Groundwater quality 2-D model is set up. Phreatic water quality index is class 4-5 (national standard). Confined water quality index is class 1-3 (national standard).2,Groundwater quality change prediction Confined water level will decrease 0.3-1.0m/a. The salinity of confined water will increase 50-280mg in 10 years. 3, Dividing the water supply source conservation zone and water environmental function regionalization Two kinds of conservation zone on confined water are divided. Six kinds of function zone on surface water are divided. 4,Water environmental management information system Eight kinds of database are set up. We can assess water quality with the database directly. We can draw many types of maps with GIS. The research result give a conclusion that the groundwater quality of Daqing city is potentially threaten to pollution, some effective measures should be taken to prevent oil-mass pollute groundwater and protect the water supply source.