

以小于 1g/L 为主,表明北区浅、中、深层地下水在垂向上存在着较密切的水力联系,而盆地南区补给区地下水水化学的垂向分布特征总体上表现为沿地下水的补给方向,自上而下,随着地下水埋藏深度的增大,地下水各主要离子浓度和矿化度逐渐增大,这一结论恰与北部沙漠高原区颗粒粗,入渗条件好而南部黄土高原区泥质含量高,入渗条件差的水文地质特点相吻合。

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Study on distribution law of TDS and main ion concentration in groundwater in the Ordos Cretaceous Artesian Basin

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Abstract: The distribution law of TDS and main ion concentration in groundwater with three circulating depths of shallow, middle and deep level has been studied in the Ordos Cretaceous Artesian Basin by 1124 hydrochemical samples. On the whole, TDS and main ion concentration in groundwater in the north of the basin are lower than those in the south of the basin. And fresh water is more rich in the north of the basin than that in the south. Fresh water in the north of the basin distributed mainly in shallow and middle level groundwater in both sides of ground watersheds and in Wuding River-Wulanmulun River groundwater regime in east of Anbiar Dongsheng-Sishili beam while in the south of the basin, except that groundwater in Luohandong aquifer is mainly fresh water, groundwater in Huanhe and Luohe aquifers is mainly brackish water and saline water.

Key words: groundwater; hydrochemical; distribution law; Ordos Cretaceous Artesian Basin

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• 院士建议 •

海河流域地面沉降严重,急待治理

海河流域的唐山、天津、河北、山东一带,1985年地面沉降量大于0.5m的面积已近6000km²,目前其范围仍在扩大,速度也在加快。整个海河地区中东部的沉降量大于1m的达700多平方公里。河北沧州附近尤为严重,沉降量大于2m的面积已覆盖全地区。预计2010年沧州、天津有些地带累计沉降量可能达到3.5m,令人忧虑。其沉降原因主要可以归结为毫无节制的过量汲取地下水。

对此,建议由国土资源部中国地质环境监测院牵头,组织天津、河北等有关地质钻探、水文钻探队伍承担并开展这项影响面极广、与人民生活至关重要的地面沉降防治工程,不宜再迟。

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