A Big Earth Data Platform for Three Poles

**Data set of groundwater quality in the lower reaches of Tarim River (2000-2007)**

1、Description

In the lower reaches of Tarim River, groundwater is the only water source to maintain the survival of natural vegetation. The change of groundwater level directly affects the growth and decline of plants and controls the evolution and composition of plant communities. Strengthening the research on chemical characteristics of groundwater is an important content of water resources quality evaluation, which is of great significance to the utilization mode, sustainable development, management and protection and construction of ecological environment of watershed water resources.  
At fixed points and on a regular basis, 40 groundwater level monitoring wells in the lower reaches of the Tarim River were collected with groundwater samples, sealed and sent to the laboratory for chemical analysis. The analysis content includes 13 indexes including salinity, pH, CO3=, HCO3-, Cl-, SO4=, Ca++, Mg++, Na+, K+, etc. The analysis methods are as follows:  
(1) Salinity: gravimetric method;  
(2) Total alkalinity, HCO3- and CO3=: double indicator titration;  
(3) Cl-: silver nitrate titration;  
(4) SO4 =: EDTA volumetric method and barium chromate photometric method;  
(5) Total hardness: EDTA volumetric method;  
(6) Ca++, Mg++: EDTA volumetric method and atomic absorption spectrophotometry;

2、Keywords

Theme：Trace metals,Ground Water,Groundwater chemistry,alkalinity,Water Quality/Water Chemistry  
Discipline：Terrestrial Surface  
Places：Tarim River Basin, Xinjiang Uygur Autonomous Region  
Time：2000-2007

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：5.07MB

4.Data format：文本

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：42.0 | - |
| west：78.0 | - | east：91.0 |
| - | south：38.5 | - |

5、Time frame:2000-01-11 16:00:00+00:00--2008-01-11 03:59:59+00:00

6、Reference method

References to data:

HAO Xingming, CHEN Yaning. Data set of groundwater quality in the lower reaches of Tarim River (2000-2007). A Big Earth Data Platform for Three Poles, doi:10.11888/Hydro.tpdc.2706082013

References to articles:

7、Supporting project information

8、Data resource provider

name: CHEN Yaning  
unit: 中国科学院新疆生态与地理研究所  
email: chenyn@ms.xjb.ac.cn  
  
name: HAO Xingming  
unit: 中国科学院新疆生态与地理研究所  
email: haoxm@ms.xjb.ac.cn