

DETERMINATION OF PROPERTIES OF GROUNDWATER SAMPLING WELLS AND SAMPLING BASIS

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EXPERTISE THESIS ABSTRACT

At the process of membership of European Union (EU), Turkey has been in position that nation legislations on water and environment to be adapted. The water framework directive (WFD) for water (2000/60/EC), as the most important directive of EU acquis, creates a framework for protection of all kinds of waters such as inland surface waters, transitional waters, coastal waters and groundwaters. The directive set forth the essential issues of monitoring groundwater, getting monitoring programs and water sampling. On this context, adaptation and application of WFD to national legislation of Turkey have been continued.

In this study, in order to get the essential issues on determination of water sampling wells and water sampling procedures proposed by the national and international regulations issued by TSE, ISO, ASTM, USGS and EPA have been investigated. A gap analysis which presents fundamentals of groundwater sampling and sampling wells in accordance with the EU acquis and current situation of our country is performed to identify shortcomings and recommendations are presented for the elimination of these shortcomings. A detailed work about sampling, transportation and preservation procedures has been put forward and a groundwater sampling protocol which is suitable for geographical and geological formations of our country has been prepared.

Key Words: Groundwater, groundwater sampling, monitoring, sampling well