

Survey of Corrosion and Scaling of Urban Drinking Water Supply Reservoirs (Case Study: Ilam City)

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Abstract : Corrosion and scaling are one of the most complicated and costly problems of drinking water supply. Corrosion has adverse effect on general health and public acceptance of water source and drinking water supply costs. The present study aimed to determine the potentials of corrosion and scaling of potable water supply reservoirs of Ilam city in June 2013 and August 2014 by Langelier Index (LI) and Reynar. The results of experiments and calculations show that the mean index of LSI in the first and second sampling stages is 0.34, 0.2, respectively and the mean index RSI in the first and second stages of sampling is 7.15 and 7.22, respectively. Based on LSI index of reservoirs water in the first phase, none of stations are corrosive and only one station in the second sampling phase has corrosive tendency. According to RSI index, there is no corrosive tendency in two phases. Based on the results, the water of drinking water reservoirs in Ilam city has no corrosion tendency and the analyses and results of Langelier Index (LI) and Ryznar are in relatively good condition.

Keywords : corrosion, scaling, water reservoirs, langelier and ryznar indices, Ilam city

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