

Influence of the chosen process parameters on the efficiency of seawater desalination: SWRO pilot plant results at Urla Bay seashore

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Received 18 January 2009; Accepted 11 April 2009

ABSTRACT

The most widely used desalination method used in order to produce potable water from seawater is reverse osmosis (RO). In this study, desalination tests were performed at a seashore of Urla Bay, Izmir, Turkey. The tests were carried out at different pressures (55–62 bar) using a single RO module at different feed seawater temperatures (10–15°C). Variables such as pH, conductivity, TDS, salinity, turbidity, relative rejection of some ions (Na⁺, K⁺, Ca²⁺, Mg²⁺, HCO₃⁻) and B levels in permeates collected were measured.

Keywords: Boron; Desalination; Reverse osmosis; Seawater; SWRO; Water

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Presented at EuroMed 2008, Desalination for Clean Water and Energy Cooperation among Mediterranean Countries of Europe and the MENA Region, 9–13 November 2008, King Hussein Bin Talal Convention Center, Dead Sea, Jordan.