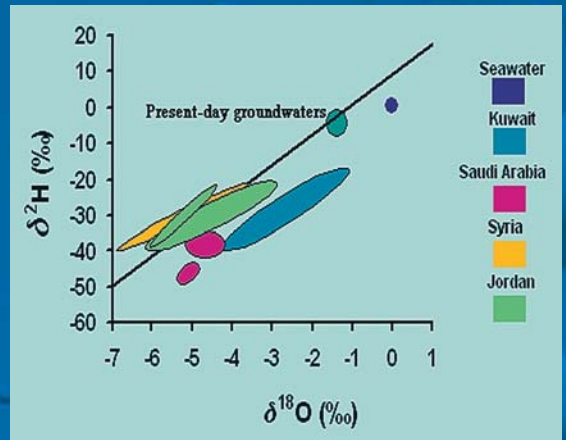




Are our ground- water resources renewable?

The answer is.....a qualified Yes! But it depends on the time frame and location we are interested in. Many of the fresh groundwater reserves are in regions where climate is now arid or semi-arid. They were mostly recharged when the climate was wetter thousands of years ago. How do we know this? Through the much lower relative concentrations of the heavy isotopes of hydrogen and oxygen in the waters (^2H and ^{18}O), as well as dating using natural radioisotopes such as ^{14}C . Only through the use of nuclear techniques can such information be gained and used, as a warning to be judicious in exploitation of these reserves. Currently, most of the 84 TC projects address groundwater problems.



Isotopes form a valuable tool for fingerprinting palaeowaters of different ages.

