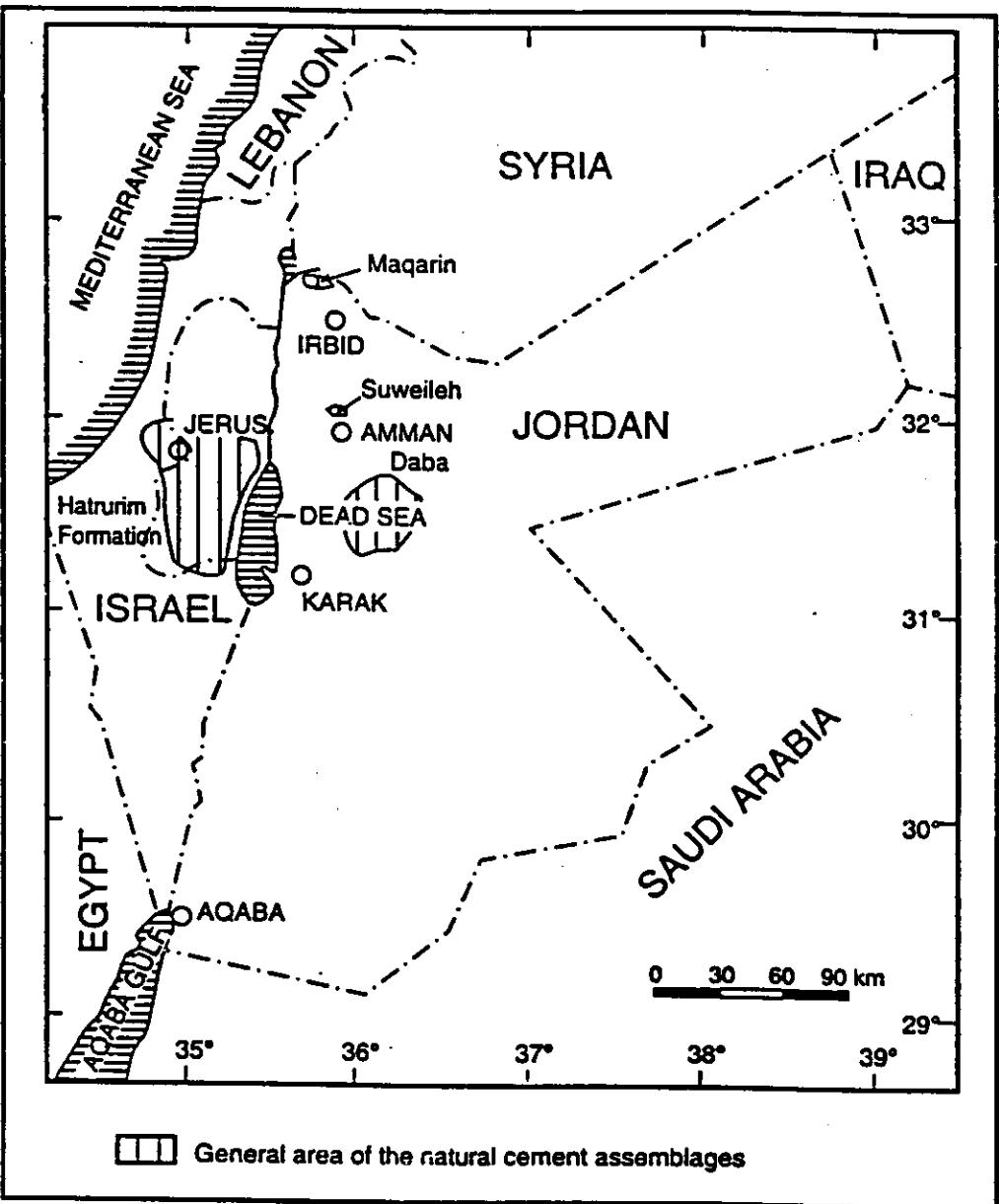


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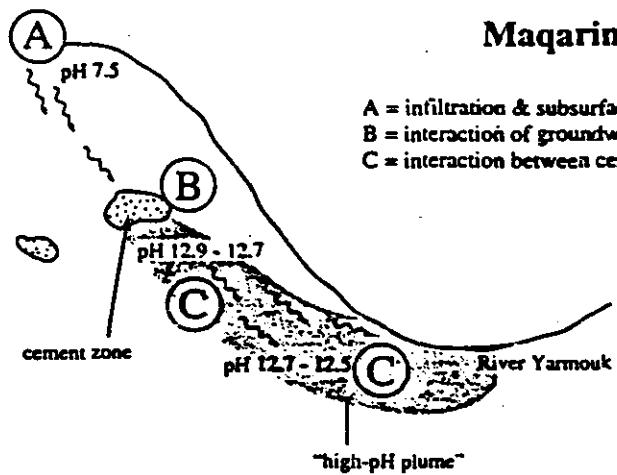
CONCRETE & GROUNDWATER

ALKALINE WATERS IN JORDAN



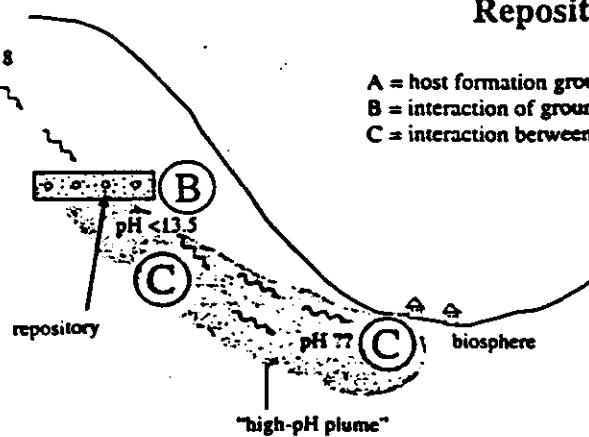
Maqarin

A = infiltration & subsurface evolution of groundwater
B = interaction of groundwater with cement materials
C = interaction between cement leachates and rock



Repository

A = host formation groundwater
B = interaction of groundwater with cement minerals
C = interaction between cement leachates and rock



An example of the results of the radionuclide speciation and solubility test: predicted versus observed molar concentrations in the Jebel Awq spring, Semail ophiolite, northern Oman.

Element	Prediction	Observed	Comments
Selenium	5×10^{-3}	$< 3 \times 10^{-9}$	conservative
Palladium	10^{-10}	6.6×10^{-9}	acceptable
Tin	10^{-19}	$< 2 \times 10^{-9}$	nonconservative
Zirconium	5×10^{-4}	$< 1 \times 10^{-9}$	conservative
Nickel	6×10^{-7}	$< 1 \times 10^{-8}$	conservative
Thorium	5×10^{-10}	$< 2 \times 10^{-10}$	acceptable
Uranium	8×10^{-4}	4.2×10^{-11}	conservative