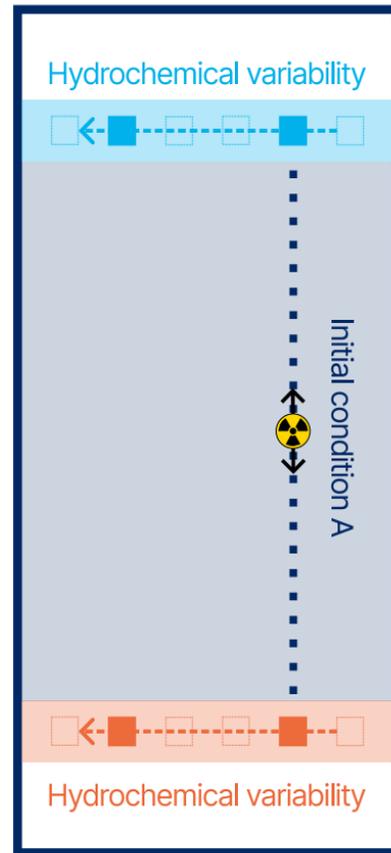
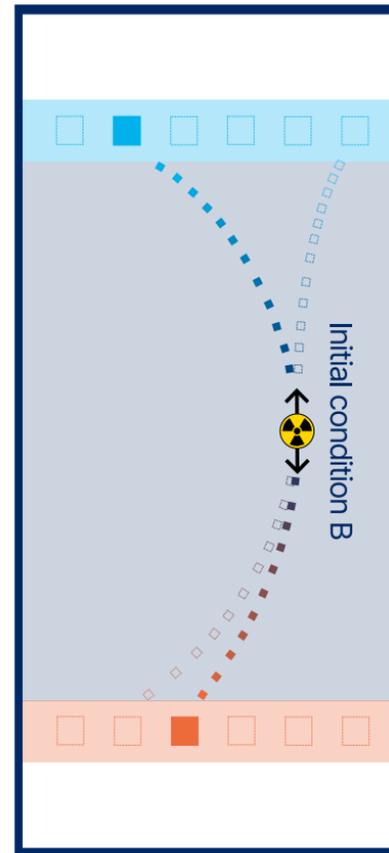


**Scenario A**  
Profile without initial gradient



Activation of aquifers

**Scenario B**  
Profile with initial gradient



Aquifers have long been active

**Hanging wall aquifer with variable groundwater composition**

Dirichlet boundary

**Containment providing rock zone (CRZ):**  
160 m Opalinus Clay and  
50 m Liassic shales

Clay mineral content:

- 28 wt.% illite
- 5 wt.% montmorillonite

Average rock properties:

- Water content porosity 16 %
- Bulk density (dry) 2307 kg/m<sup>3</sup>

Dirichlet boundary

**Footwall aquifer with variable groundwater composition**