## FLOW CONDITIONS

- · 2-D domain is fully saturated
- Initial pressure is hydrostatic (101325 Pa at top right (east) corner)
- Regional pressure gradient of -0.0023 m/m drives flow from west to east
- Well extracts 6.1 m<sup>3</sup> per day
- Recharge flux is 0.21 m/yr

## TRANSPORT CONDITIONS

- 100 m x 20 m <u>kryptonite mineral deposit</u> is located within the aquifer:
  - REGION kryptonite\_deposit COORDINATES 200. 0. 560. #m 300. 1. 580. #m
    /
    END
- The mineral kryptonite(s) dissolves (at rate 1.d-6 mol/m²/sec) into 3 species:
  - KrA(aq) is conservative (no precipitation and no sorption)
  - KrB(aq) is non-conservative (precipitates as KrB(s) at rate 1.d-6 mol/m²/sec but doesn't sorb)
  - KrC(aq) is non-conservative (doesn't precipitate but sorbs with a linear distribution coefficient of 1.d6 kg/m³
- Initial concentrations of KrA(aq), KrB(aq), and KrC(aq) are 1.d-10 mol/L
- Initial concentration of Cs137(aq) is 1.d-20
- Initial volume fraction of kryptonite(s) is 0.01 in the kryptonite\_deposit and 0. everywhere else
- Initial volume fraction of KrB(s) is 0. everywhere
- Run the simulation to 150 years

