

## **Polonium-210**

### **Water**

A certified solution of polonium-209 is used as internal recovery monitor. Polonium is concentrated by co-precipitation and deposited on a silver disc. This separates polonium-210 from lead-210 and produces a source suitable for alpha spectrometry. The disc is counted on an alpha spectrometer, and the result calculated using the net peak integrals for Po-209 and Po-210. Unless there are reasons to the contrary, the polonium-210 result is decay corrected to the lead/polonium separation date.

### **Soil (also silt or sediments, other solids)**

A certified solution of polonium-209 is used as internal recovery monitor. The soil is wet ashed and decomposed with mixed acids. Polonium is deposited on a silver disc, separating polonium-210 from lead-210 and producing a source suitable for alpha spectrometry. The disc is counted on an alpha spectrometer, and the result calculated using the net peak integrals for Po-209 and Po-210. Unless there are reasons to the contrary, the polonium-210 result is decay corrected to the lead/polonium separation date.