

# ENVIRONMENTAL RADIOACTIVITY TESTING LABORATORIES



## EICHROM SERVICE OFFER - WATER ANALYSIS

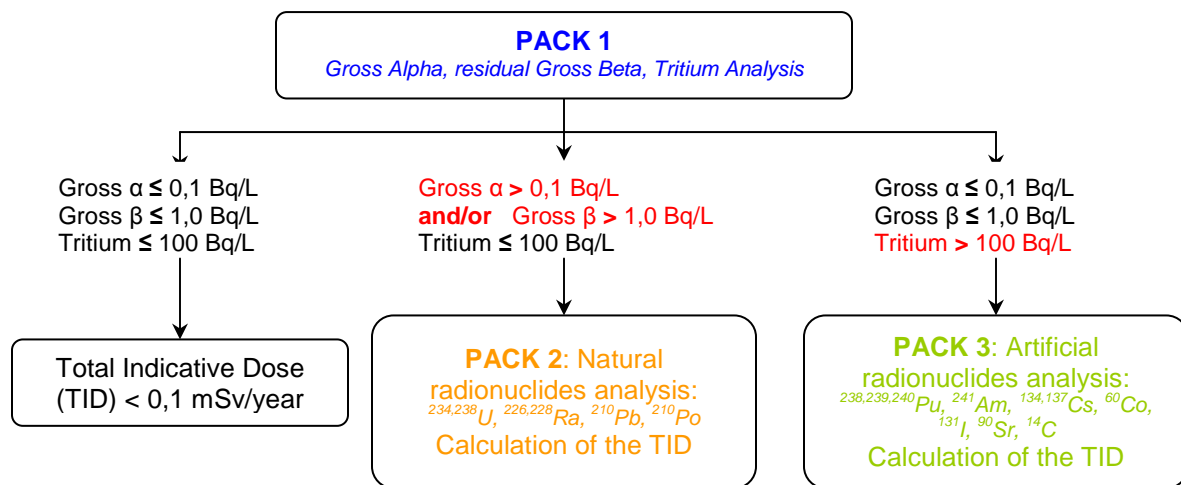
Experts in the radioactivity measurement field, Eichrom Laboratories propose you their services for all types of water:

- *Drinking water:* The Drinking Water Directive 98/83/EC and various national laws define some radioactive parameters to be analyzed within the framework of quality control of water intended for human consumption.  
Eichrom Laboratories are one of the few European Laboratories able to perform all regulatory analysis in its own premises.
- *Environmental waters:* residual waters, rejected waters, sea waters, thermal waters...

In order to answer your various requests, Eichrom Laboratories have created three “Packs”, covering a wide range of analysis that you may need:

- **PACK 1** includes the routine analysis: Gross Alpha, residual Gross Beta, Tritium.
- **PACK 2** includes all natural radionuclides to look for in case of Gross Alpha and/or residual Gross Beta excessive results, and the corresponding Total Indicative Dose calculation.
- **PACK 3** includes all artificial radionuclides to look for in case of Tritium excessive result or if Pack 2 analysis do not totally explain the reasons of the excessive results, and the corresponding Total Indicative Dose calculation

### Example of French routine and complementary analysis\*:



\* as indicated in the DGS/EA4/2007/232 document from 13th, June, 2007

Should you need any other specific or complementary analysis, we would arrange a **personalized offer**.

If necessary, we can also achieve lower detection limits and determine some other nuclides such as Thorium isotopes, Curium, Gamma emitters...Please do not hesitate to contact us for any further details.

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## Eichrom Water Packs



PACK 1 includes the routine analysis: Gross Alpha, residual Gross Beta and Tritium.

P	Analysis	Analysis reference	Packaging	Results lead time	If the results of these analysis do not comply with the legal thresholds, further specific analysis could be performed in order to calculate the corresponding Total Indicative Dose (TID).
A	Gross Alpha	NF M60-801	Square Polyethylene bottle with no acid content 250 mL (minimum)	15 days <sup>1</sup>	
C	Gross Beta	NF M60-800			
K	Potassium-40	NF T 90-019			
1	Tritium	NF M60-802-1			

Pack 2 and Pack 3, detailed below, include all analysis to perform in case of Gross Alpha and/or Gross Beta and/or Tritium excessive results. These Packs include the calculation on the corresponding Total Indicative Dose.

P	Analysis	Analysis reference	Packaging	Results lead time
A	Uranium <sup>234,238</sup>	NF M60-805-5	Square Polyethylene bottle with no acid content 10 L (minimum)	8 weeks <sup>1</sup>
C	Radium <sup>226</sup>	In-house		
K	Radium <sup>228</sup>	In-house		
	Polonium <sup>210</sup>	In-house		
	Lead <sup>210</sup>	In-house		
2	TID Calculation	In accordance with current local regulations		

P	Analysis	Analysis reference	Packaging	Results lead time
A	Cobalt <sup>60</sup>	ISO 10-703	Square Polyethylene bottle with no acid content 10 L (minimum)	8 weeks <sup>1</sup>
C	Iodine <sup>131</sup>			
K	Cesium <sup>134/137</sup>	NF M 60-806-3		
	Strontium <sup>90</sup>	NF M 60-802-2		
	Carbon <sup>14</sup>	NF M 60-804		
	Plutonium <sup>238/239/240</sup>			
3	Americium <sup>241</sup>			
	TID Calculation	In accordance with current local regulations		

<sup>1</sup> After reception of the sample in our laboratory

To perform the specific complementary analysis, we use **Eichrom extraction chromatographic resins**, products which have become standard technology in the field of radiochemistry, with methods used by accredited laboratories and regulatory agencies worldwide (ITN in Portugal, AIEA in Austria, NPL in the United Kingdom ...).

**Please note that, according to your needs, other analysis can be performed. Please do not hesitate to contact us for any further information.**