National Physical Laboratory
Hampton Road
Teddington
Middlesex
United Kingdom
TW11 0LW
www.npl.co.uk/products-services/radioactivity/environmental-pte

Version 1
15th of August, 2023

Dear Colleague,

NPL ENVIRONMENTAL RADIOACTIVITY PROFICIENCY TEST EXERCISE 2023

I am pleased to inform you that the 2023 NPL Environmental Radioactivity Proficiency Test Exercise (PTE) is about to begin. This is the 29th in a series of similar exercises carried out by NPL since 1989. The exercises are designed to help users identify analytical problems and to support accreditation. The Nuclear Metrology Group at NPL is UKAS-accredited to ISO:IEC 17043:2010 to conduct these exercises.

There are five sample types in this year's exercise, described overleaf. All are solutions prepared from standardised single-nuclide solutions traceable to national standards of radioactivity.

Participants are requested not to discuss their results with third parties until the reporting deadline (see overleaf) has passed. An exercise report will be drafted in July/July 2024 for comments and will be emailed to all participants. A final version will be published in August 2024 and will be disseminated to the participants by email and will also be available on the NPL website. Also, NPL will be hosting a post-exercise forum at 'CARM 2024' at which the results will be presented and discussed. Note that all submitted results will be treated in confidence and will be coded in the final report.

The Participation Fee for the PTE is £350. Additionally, there is a charge of £650 for each sample ordered. Dispatch costs will be advised; any sites requiring special arrangements for delivery must advise on the Enquiry Form and will be charged accordingly. Full charges including dispatch costs will be confirmed by an NPL Quotation on receipt of a completed Enquiry Form.

If you decide to participate, it would be helpful if you could ensure your official purchase order is issued as early as possible after receipt of our quotation in order to avoid any delays in getting the samples to you. **Please note that any orders for Sample Type A1 from overseas laboratories will require an export license.**

Further Information

Any queries, or requests for additional information should be emailed to PTE@npl.co.uk

TIMETABLE

The timetable for the 2023 NPL Environmental PTE is as follows:

Please order samples by	1st October 2023
Dispatch of samples	1st November 2023 to 31st January 2024
Deadline for submission of results	31st May 2024
Report to be issued	August 2024
Discussion forum at CARM	November 2024 (Provisional)

SAMPLE TYPES

Sample Type*	Radionuclides	Activity Concentration Range
Alpha Beta (AB)	H-3, Ni-63, Sr-90 and Am-241 in 20 g of 2 M HNO_3 (with 10 ppm Ni, Sr and Ce)	1-20 Bq g^{-1}
Alpha One (A1)	Ra-226, Am-241 and Cm-244 in 500 g of 2 M HNO3 (with 10 ppm Sr and Ce)	5-100 Bq kg^{-1}
Beta One (B1)	H-3, C-14 and Cl-36 in 500 g of 0.01 M NaOH (with 10 ppm Na_2CO_3)	0.1-1 Bq g^{-1}
Gamma High (GH)	Na-22, Co-60, Ba-133, Cs-137 and Eu-155 in 100 g of 1 M HNO_3 (with 10 ppm Na, Co, Ba, Cs and Eu)	1-50 Bq g^{-1}
Gamma Low (GL)	Mn-54, Zn-65, Ce-139 and Pb-210 in 500 g of 1 M HNO_3 (with 10 ppm Mn, Zn, Ce and Pb)	1-50 Bq kg^{-1}

*Please note all samples are provided in HDPE bottles.

Please be aware that there are trace impurities of Ba-133 and Co-60 present in the gamma low sample type. These impurities may be measurable but are not reportable.

We hope you will decide to participate, and we look forward to another useful exercise.
Yours faithfully,

Elsje van Es

(Co-ordinator of NPL's Environmental Radioactivity PTE)