Inorganic geochemistry of stream sediment in Ireland

This Periodic Table presents the inorganic geochemical data for 56 elements measured in the Tellus survey (sub 150 µm) stream sediment samples across Ireland. Samples were collected from low order streams between 2011 and 2017, as part of the Tellus geochemical survey project of Geological Survey Ireland.

Data here are shown for 8861 sites across the west, north and southeast of Ireland. Sample sites are distributed at a typical density of at least one site per 4 km², and together they represent a variety of geological domains in Ireland, covering an area of over 32000 km² (46% of the country).

Each sample was prepared and chemically measured by a number of techniques. Laboratory tests are for multi-element total analyses of major, minor and trace elements by X-ray fluorescence spectrometry (XRFS), and for gold, palladium and platinum precious metals by lead collection fire assay fusion with an ICP finish. Analyses by XRFS were conducted by Malvern Panalytical Ltd., UK. Precious metals analyses were conducted by Activation Laboratories, Canada and by ALS Minerals Ltd., Ireland.

The Tellus survey would like to acknowledge the efforts of all project partners, contractors and especially field samplers, and the kind co-operation of all landowners and stakeholders.

All data and publications are freely available at www.gsi.ie/tellus.