

About Tellus

Tellus is a national programme to gather geochemical and geophysical data across the island of Ireland, examining the chemical and physical properties of our soils, rocks and waters. The data will help to inform the management of Ireland's environment and natural resources. Tellus is undertaken by Geological Survey Ireland and is funded by the Department of the Environment, Climate and Communications.

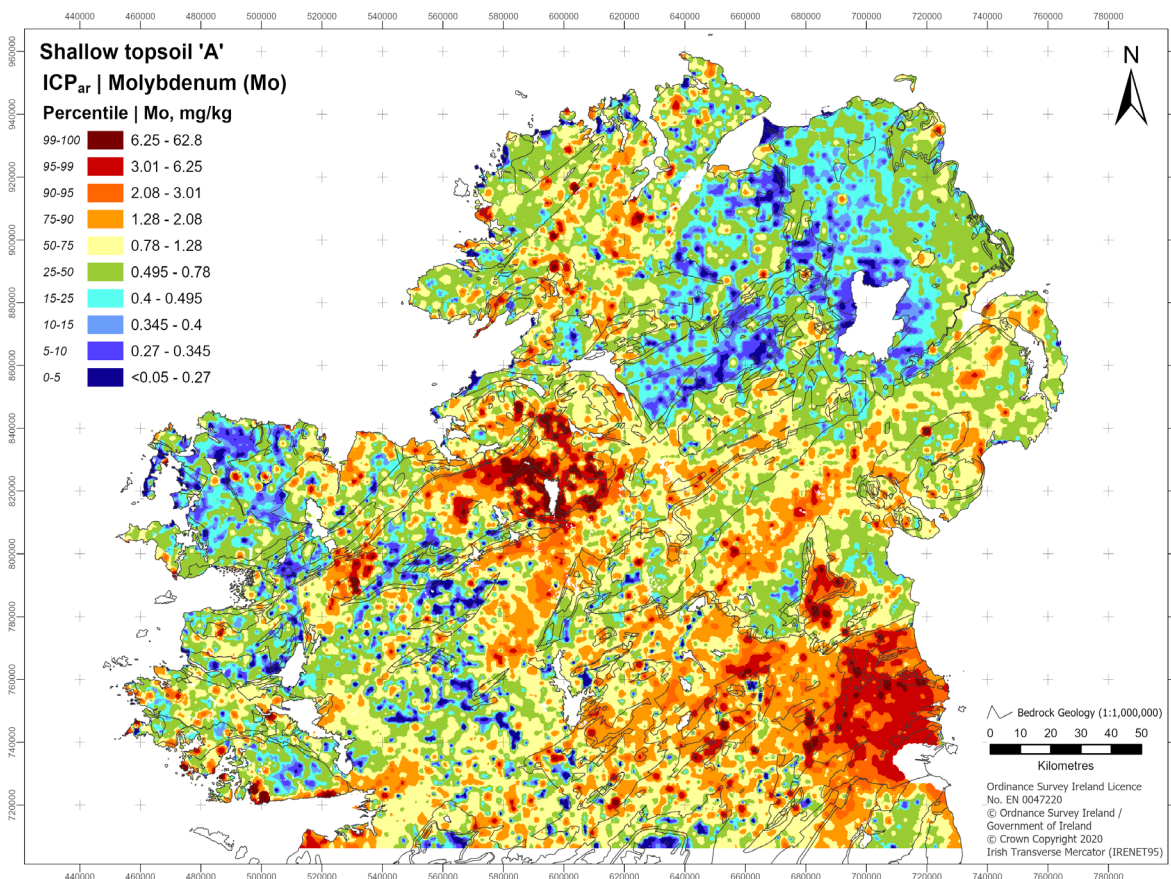
Molybdenum | Mo

Shallow topsoil samples were collected from the northern half of Ireland between 2004 and 2019, as part of the Tellus geochemical survey projects of Geological Survey Ireland and the Geological Survey of Northern Ireland. The map represents almost 17,000 sites covering an area of just over 50,000 km² and incorporates a wide variety of geological domains in Ireland. Samples were collected at a typical density of one sample per 4 km² in Ireland and one sample per 2 km² in Northern Ireland.

Laboratory analyses comprised soil pH (CaCl₂), loss-on-ignition at 450°C and multi-element partial-extract analyses of major, minor and trace elements by ICP following aqua regia digestion.

The map displays the distribution of measured Molybdenum (Mo) concentrations in shallow topsoil and demonstrates strong bedrock control on topsoil composition. Molybdenum tends to be complexed by organic matter and is typically enriched in black shales. Thus, relatively high concentrations of Mo occur in soils overlying the Namurian shales around Lough Allen and east of Westport in County Mayo. The broad zone of high Mo in the east midlands reflects the abundance of black shales in the Carboniferous "calp" succession, as does the narrow zone of high Mo concentrations in the Longford-Down inlier in counties Cavan, Monaghan and Armagh. Localized Mo anomalies in south Connemara reflect the occurrence of Mo-Cu mineralization in the Galway Granite batholith. Similar anomalies in County Donegal are associated with some of the Donegal granite intrusions.

Geochemical Data in Shallow Topsoil Molybdenum | (Mo)



Free data & maps at www.gsi.ie/tellus

Geological Survey Ireland is a division of
the Department of the Environment, Climate and Communications



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