Sub-basin-specific Pb and Sr sources in Zn-Pb deposits of the Lower Windsor Group, Nova Scotia, Canada[1]

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Several carbonate-hosted lead-zinc deposits, displaying replacement and/or open-space-filling textures occur in the Lower Windsor Group (Viséan) of Nova Scotia, Canada. Many of these deposits are distributed within four sub-basins (Kennetcook, Musquodoboit, Shubenacadie and River Denys) over a distance of about 300 km.

Lead isotope ratios in galena from eight deposits and strontium isotope ratios in ore-stage calcite from two deposits and in sphalerite from one deposit collectively indicate derivation of these elements directly from sources specific to each sub-basin. These sources were identified as immediately underlying basement components or sedimentary rocks derived from them.

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