



MVT Deposit

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MVT Type Deposit

- Mississippi Valley-type (MVT) deposits are epigenetic stratabound carbonate-hosted sulphide bodies composed predominantly of sphalerite and galena.
- These deposits account for approximately 25 percent of the world's lead and zinc resources.
- They are so-named because several classic MVT districts are located in carbonate rocks within the drainage basin of the Mississippi River in the central United States (US).
- Important Canadian districts include Pine Point, Cornwallis, Nanisivik, Newfoundland Zinc, Gays River, Monarch-Kicking Horse, and Robb Lake

MVT Type Deposit

- MVT deposits are stratabound, carbonate-hosted sulphide bodies, composed predominantly of zinc and lead, bound in sphalerite and galena.
- The deposits occur mainly in dolostone as open-space fillings, collapse breccias and/or as replacement of the carbonate host rock.
- Less commonly, sulphide and gangue minerals occupy primary carbonate porosity. The deposits are epigenetic, having been emplaced after lithification of the host rock.
- MVT deposits originate from saline basinal metalliferous fluids at temperatures in the range of 75°-200°C.
- They are located in carbonate platform settings, typically in relatively undeformed orogenic foreland rocks, commonly in foreland thrust belts,

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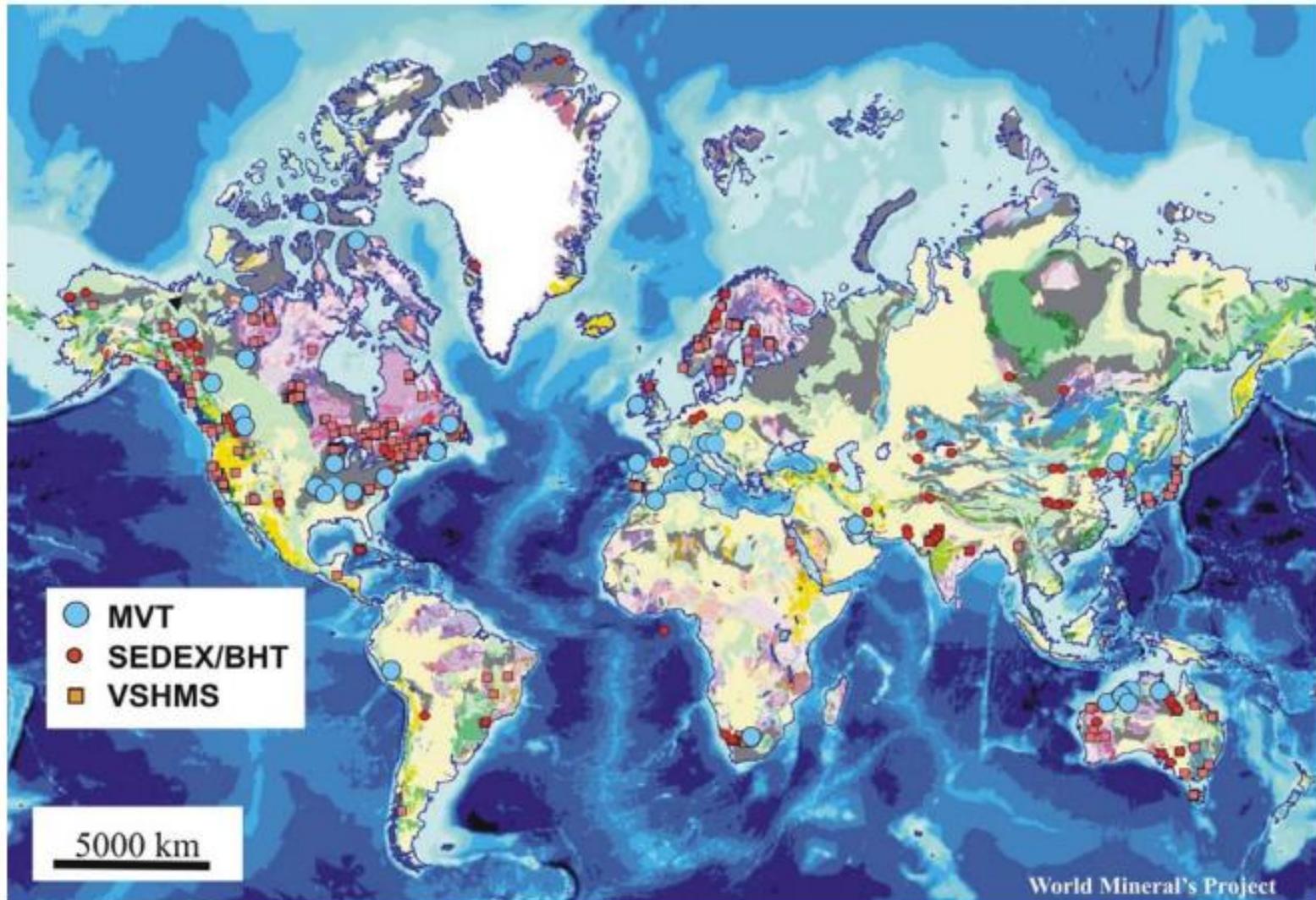


FIG. 1. Distribution of Mississippi Valley-type deposits and districts worldwide (from Sangster, 1990). Numbers on symbols are the deposit numbers of the World Mineral Deposits Database.

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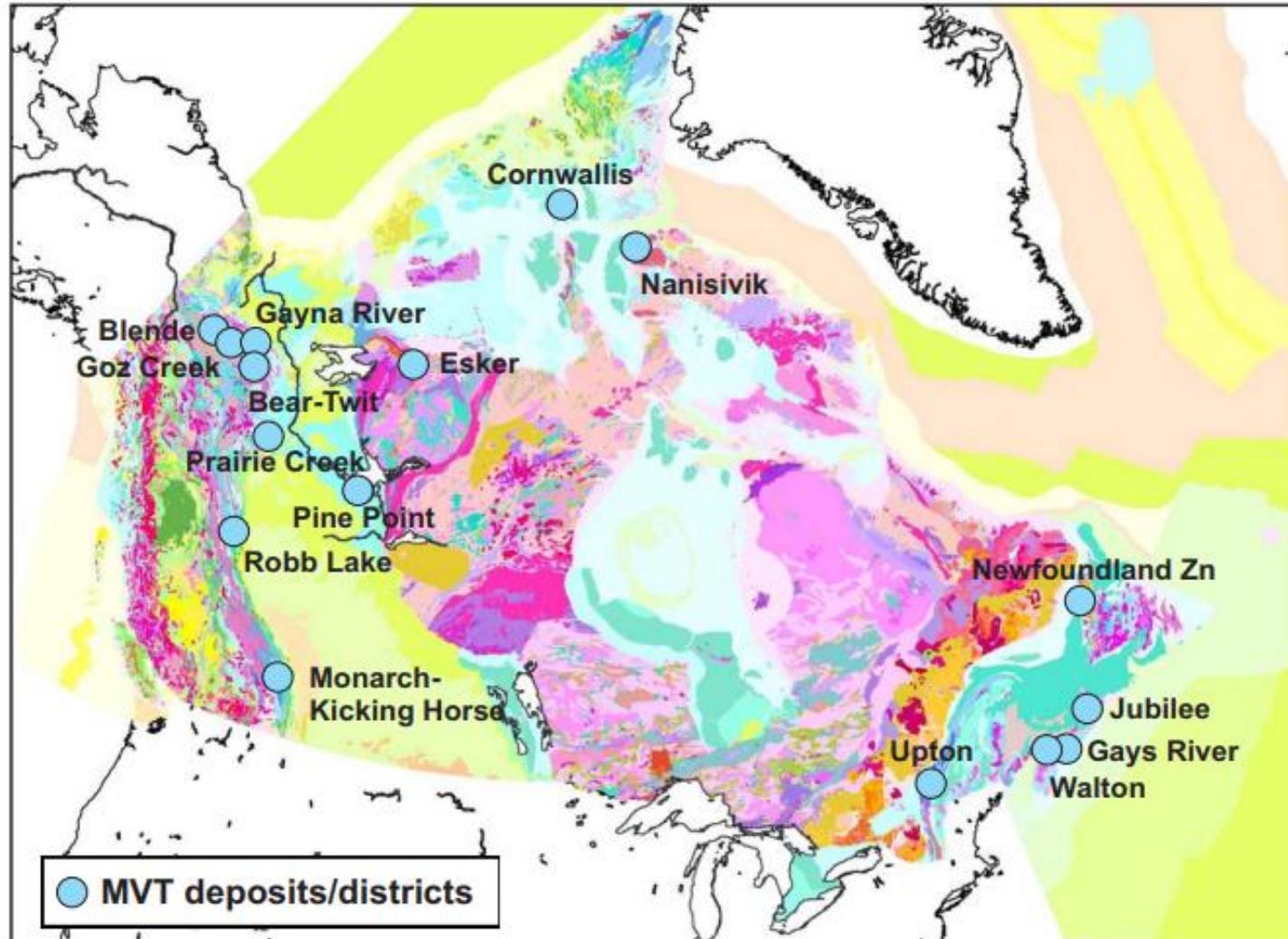


FIG. 2. Distribution of Mississippi Valley-type deposits/districts plotted on a simplified geological map of Canada (Map D1860A). Districts shown are, Cornwallis; Nanisivik, Pine Point, Prairie Creek, Robb Lake, Monarch-Kicking Horse, Blende, Bear-Twit, Gayna River, Goz Creek, Gays River, Jubilee, Walton, Newfoundland Zn, Upton, and Esker.

MVT Ores

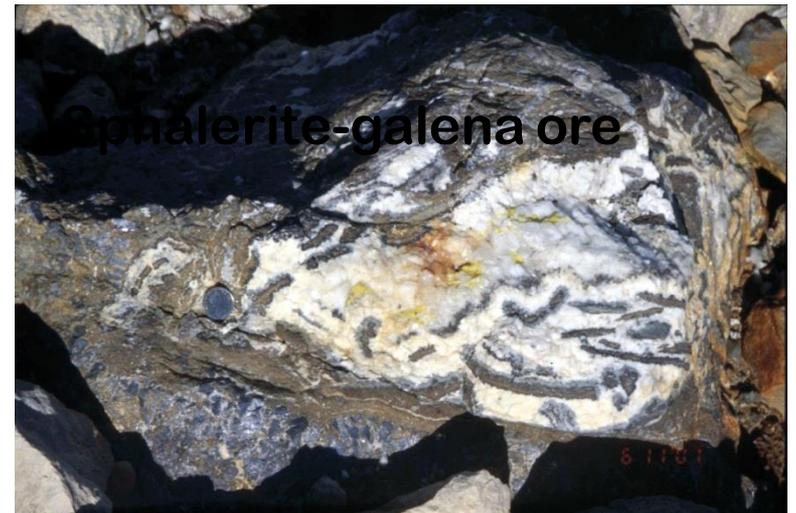
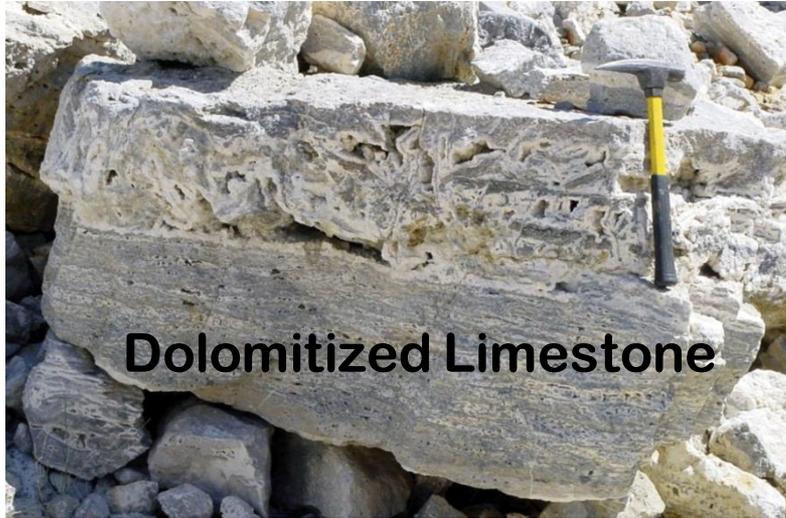
Sphalerite and Galena in brecciated, dolomitized limestone



Geological Setting of Pine Point



Pine Point Ore and Host Textures



Any
Questions??

Thank You !!!