

# MINFILE: British Columbia's mineral occurrence database

# Shaw, K.<sup>1,a</sup>, Norris, J.<sup>1</sup>, and Cui, Y.<sup>1</sup>

<sup>1</sup> British Columbia Geological Survey, British Columbia Geological Survey,

Ministry of Energy, Mines and Low Carbon Innovation, Victoria, BC, V8W 9N3 a corresponding author: Kerri.Shaw@gov.bc.ca

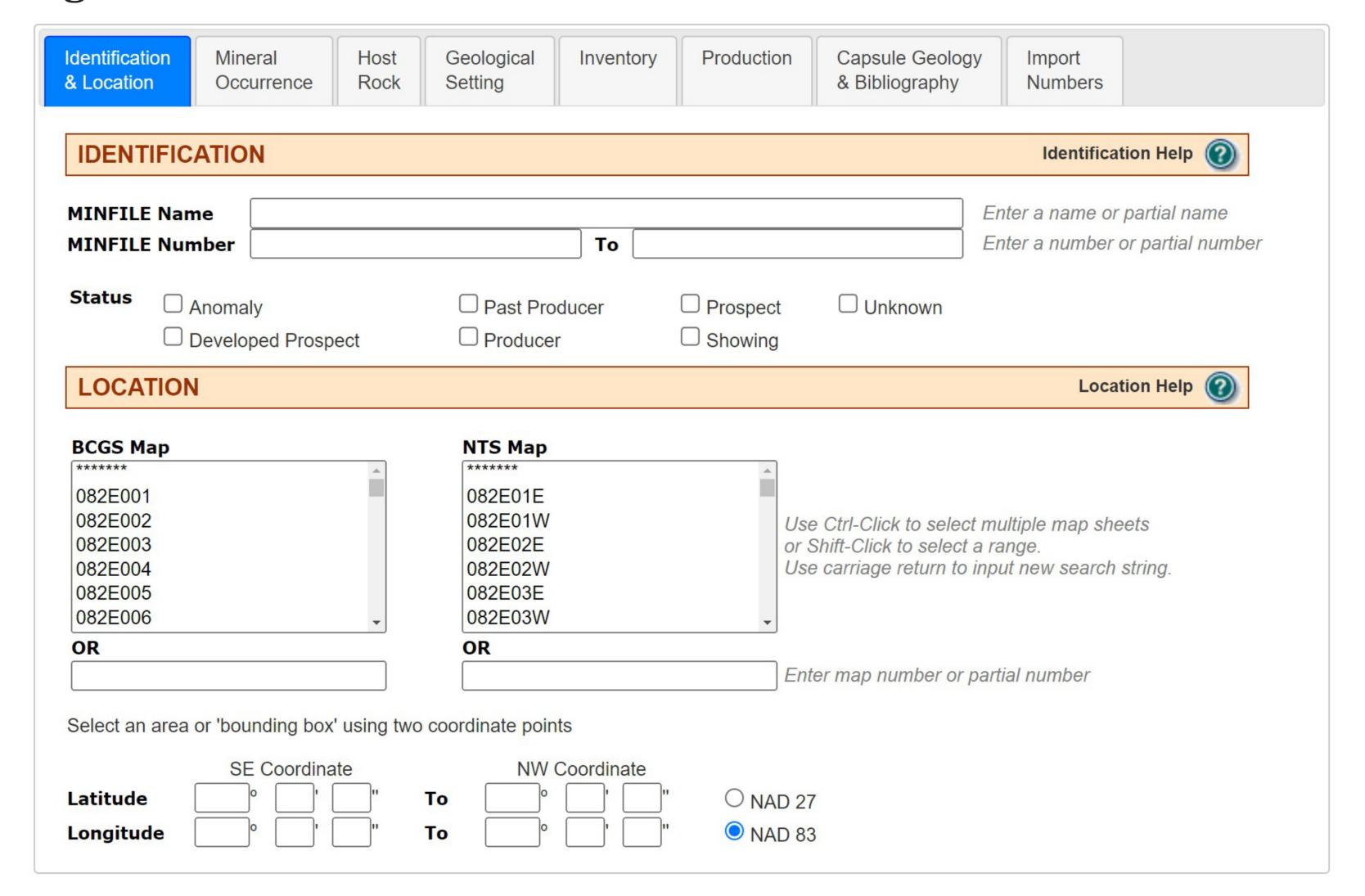


## Highlights

MINFILE is a searchable database documenting over 16,000 metallic, industrial mineral, and coal occurrences throughout British Columbia.

An occurrence is defined as in-situ bedrock or placer mineralization, on surface, in drill holes, or in underground workings; generally, it does not include float, geochemical or geophysical anomalies.

The data can be queried in many ways, including by: location, production (commodities by year or tonnes mined), inventory (resource/reserve or assay data), minerals, commodities, deposit type or characteristics, host rock, geological setting, and age.



Data are accessible online:

**MINFILE** MINFILE/pc

MapPlace2

**BC Data Catalogue** 

### Upcoming changes

We are embarking on a multi-phase, multi-year initiative to update and modernize MINFILE

#### Phase 1

- Modernization of database and web applications to current standards and technology
- Spatial extension and minor enhancements

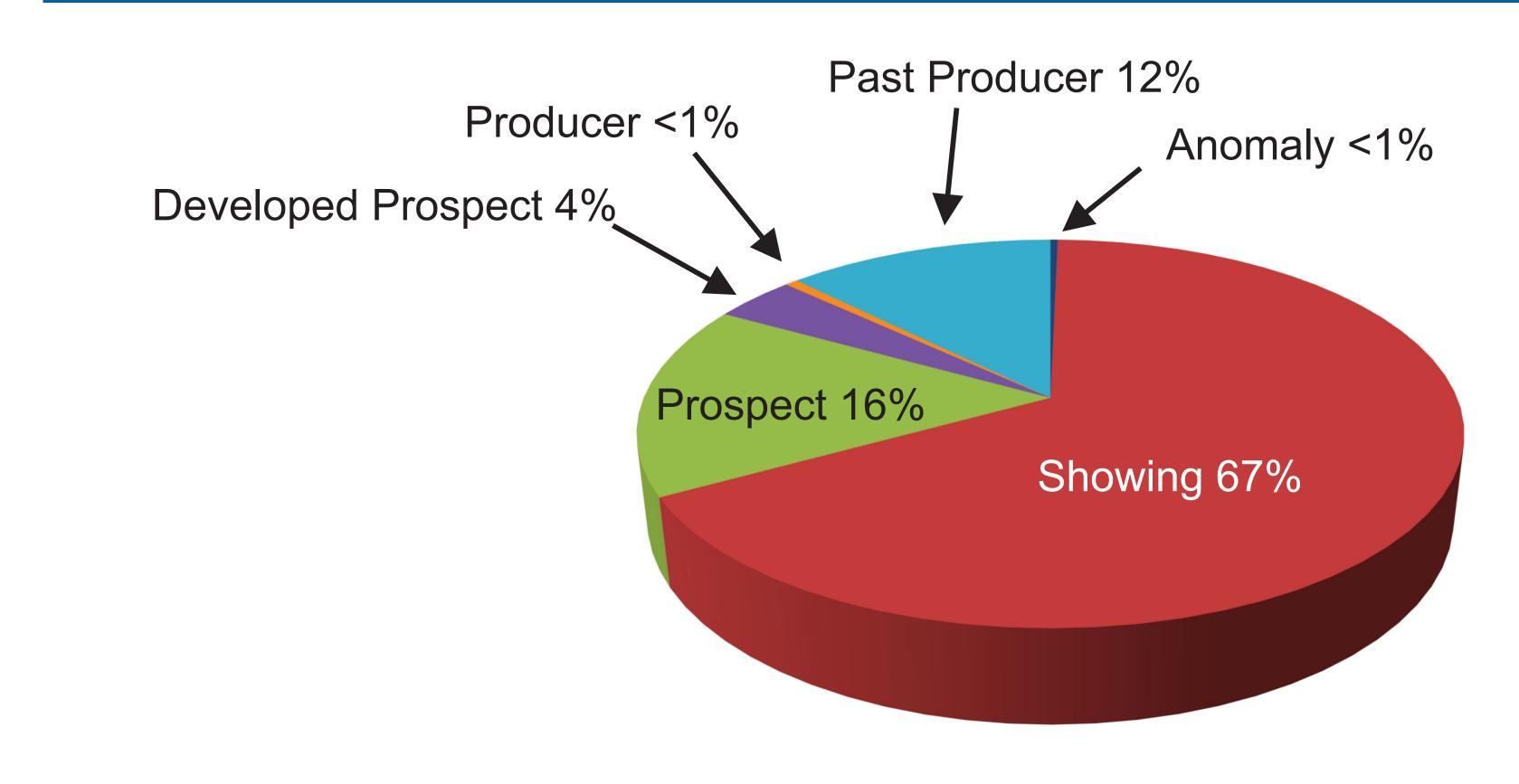
#### Phase 2

- Major enhancements
- Integration with a geoscience Spatial Data Infrastructure (gSDI)

### Examples of how to use MINFILE data

MINFILE data can be queried in different ways. Here are some examples of using MINFILE data to answer basic questions.

#### What are the proportions for different stages of development?



Anomaly: Occurrences of interest that do not have documented in-situ mineralization.

Showing: Occurrences hosting minor in-situ mineralization.

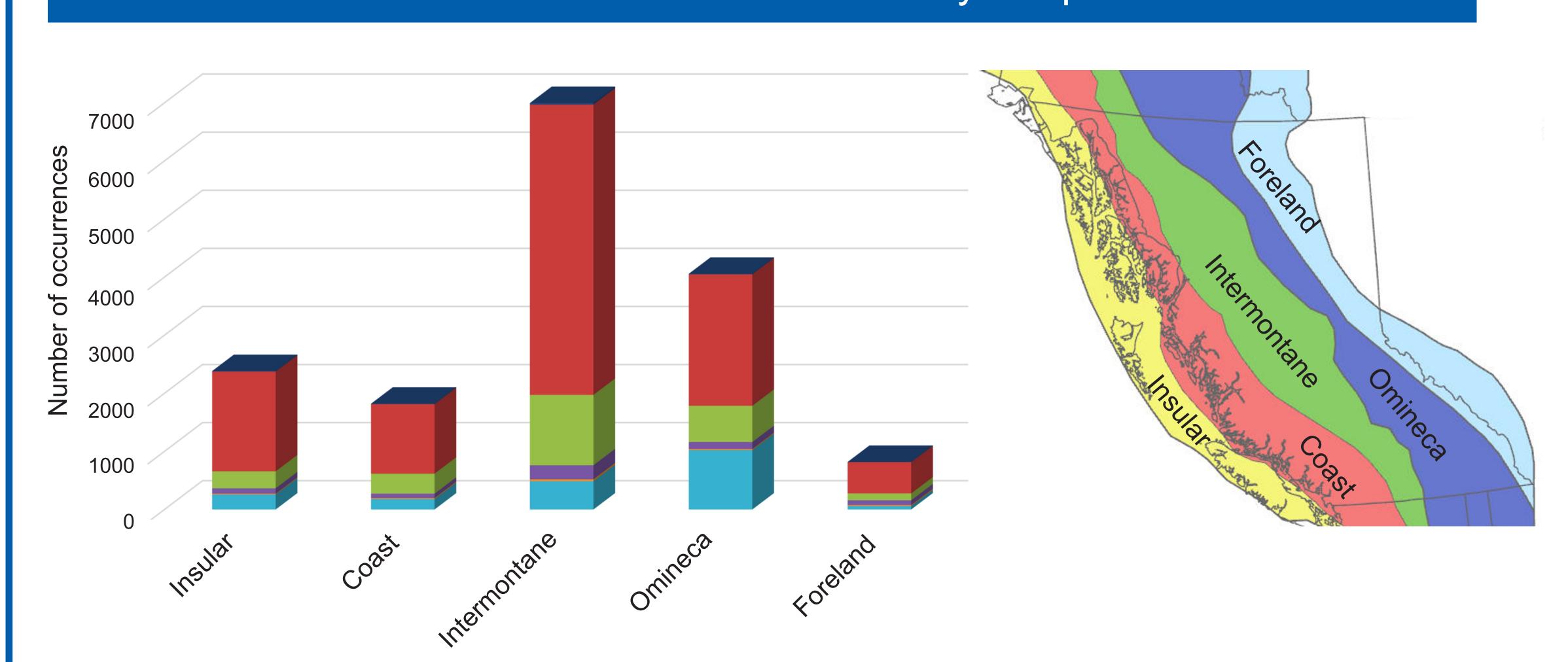
Prospect: Occurrences documented as containing mineralization that warrants further exploration.

Developed Prospect: Occurrences on which exploration and development have progressed to a stage that allows a reasonable estimate of the amount(s) of one of more of the potentially mineable commodities.

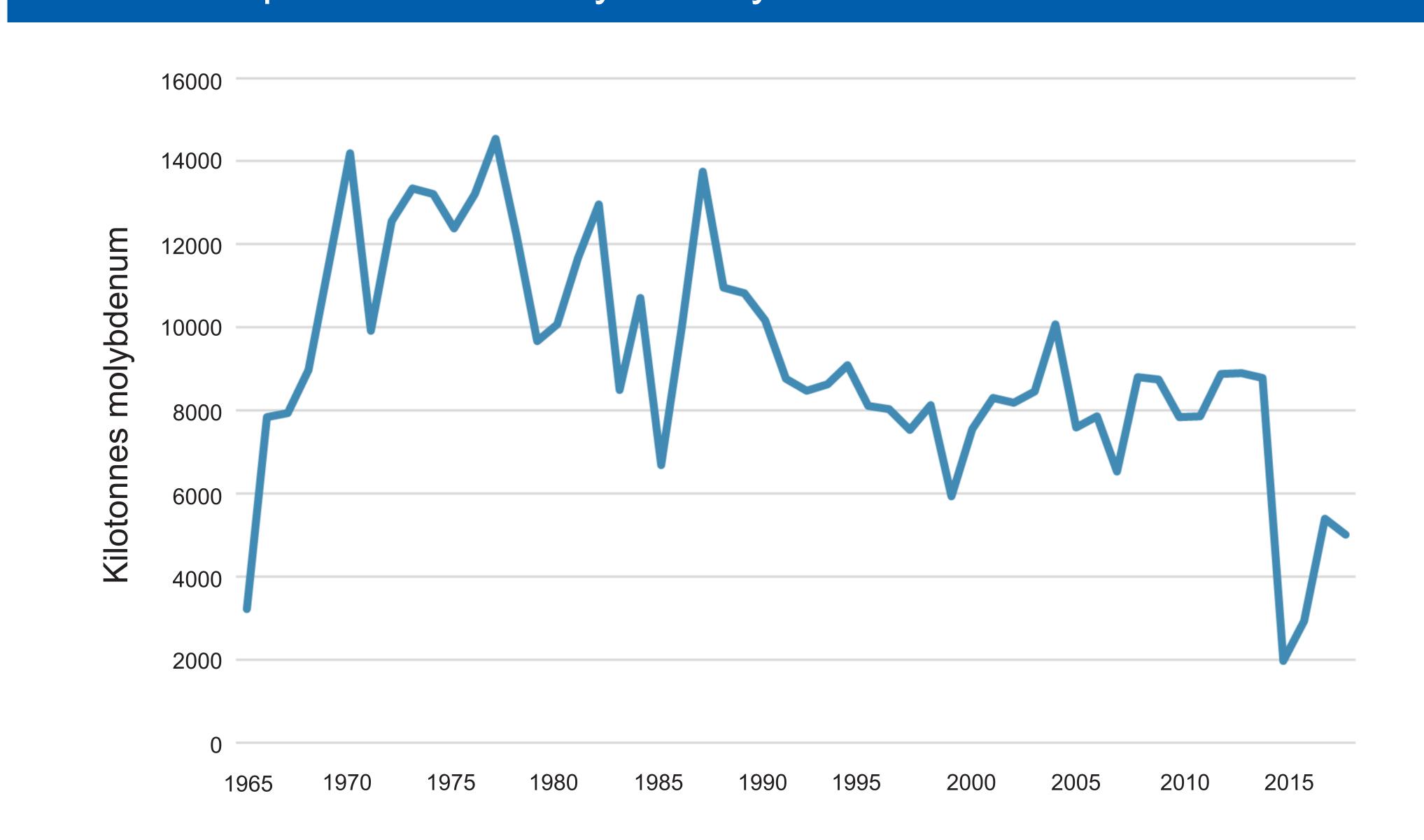
Producer: Currently producing mine.

Past Producer: Past producing mine.

#### What is the distribution of mineral occurrences by morphotectonic belts?

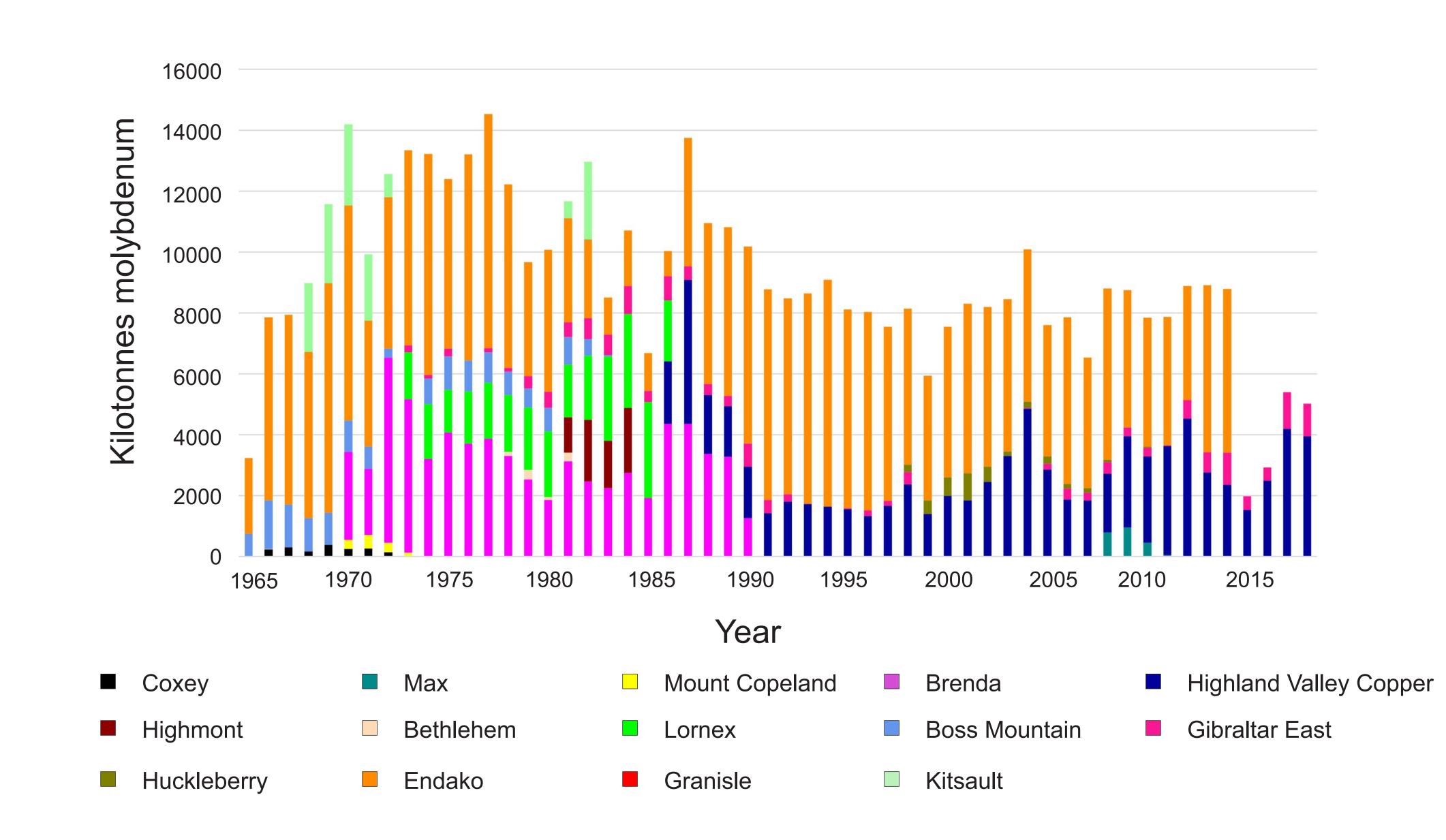


#### What is the production history of molybdenum since 1965?



#### What is the production history of molybdenum for specific mines?

The example above can be expanded into more detail, with the production of individual mines.



### Linking Canadian mineral occurrence data

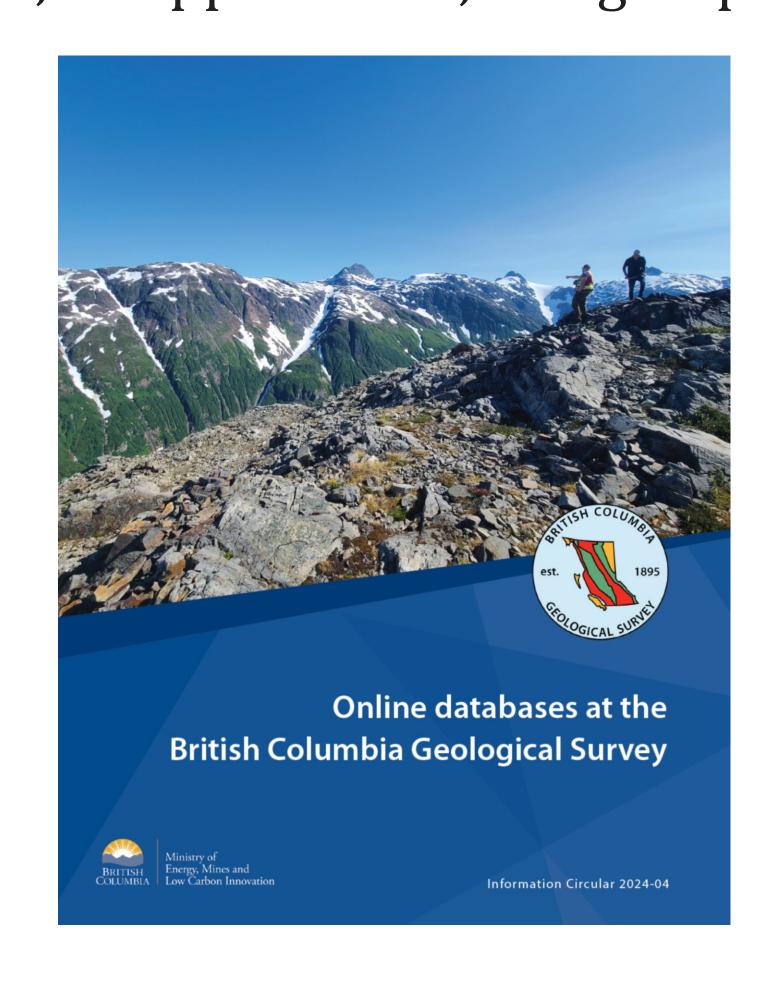
The Information and Data Management Working Group (IDM) of the National Geological Surveys Committee (NGSC) commissioned a pilot project to integrate mineral occurrence data from eight participating provinces and territories (British Columbia, Yukon, Saskatchewan, Manitoba, Ontario, Quebec, Nova Scotia, and Newfoundland and Labrador).

With the aim to improve the findability, accessibility, and interoperability of the datasets, mineral occurrence data for the British Columbia Geological Survey was mapped to the Earth Science Markup Language (ERML) Lite standard.

The pilot project focussed on mineral occurrence type, commodity type, exploration activity type, geological age, and mineral deposit model type. Although not yet public, the delivery of these integrated data through a single pan-Canadian WMS/WFS service is being considered.

#### Online databases

The British Columbia Geological Survey is modernizing information systems to improve the operation of the mineral inventory database, its applications, and geospatial web services.



Recommended citation: Shaw, K., Norris, J. and Cui, Y., 2024. MINFILE: British Columbia's mineral occurrence database. British Columbia Ministry of Energy, Mines and Low Carbon Innovation, British Columbia Geological Survey GeoFile 2024-08 (poster)