

# Online databases at the British Columbia Geological Survey

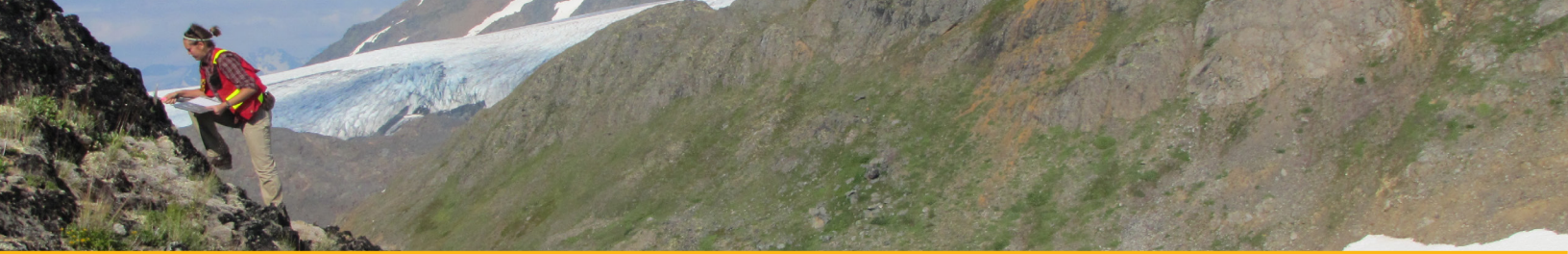


British Columbia Geological Survey  
Mines and Mineral Resources Division  
Ministry of Energy, Mines and Petroleum Resources

[www.empr.gov.bc.ca/geology](http://www.empr.gov.bc.ca/geology)







## Data: from the field to your computer

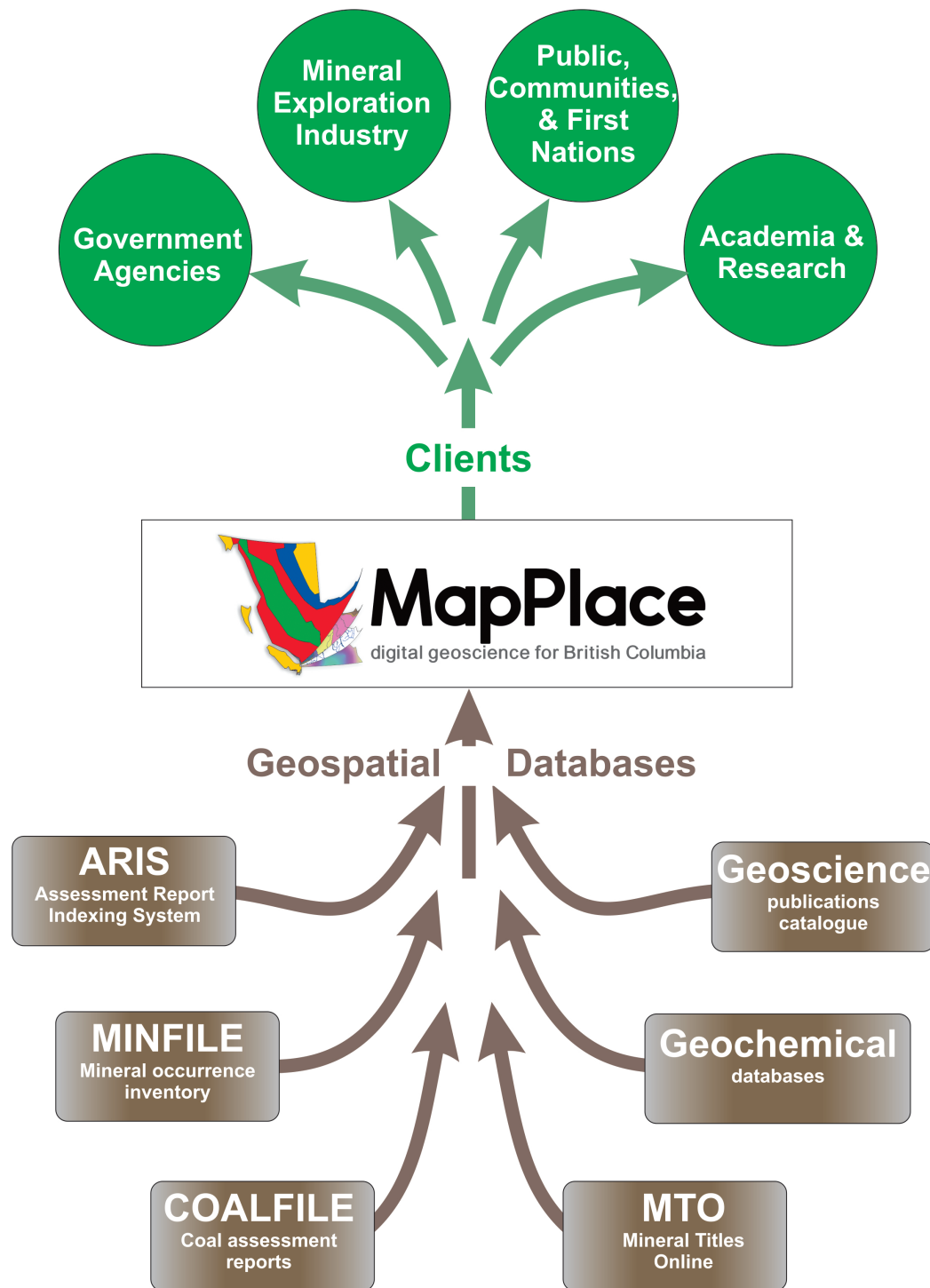
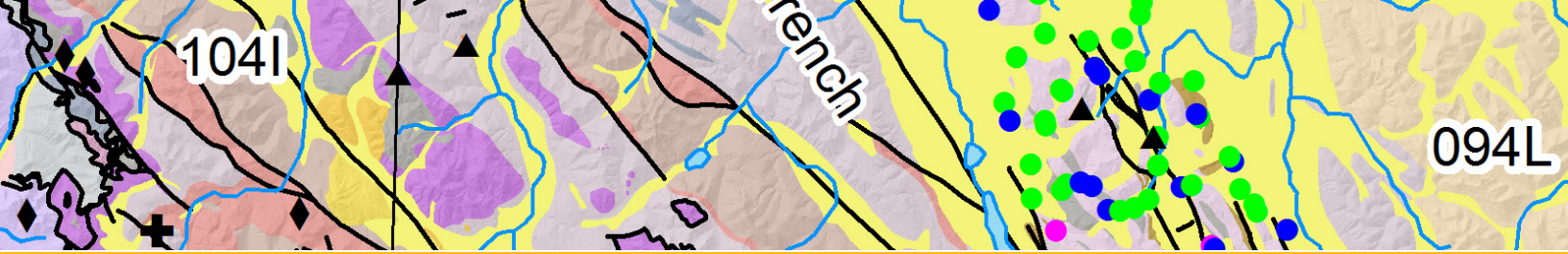
Founded in 1895, the British Columbia Geological Survey integrates historical data with active research programs and, drawing on continuously advancing geoscience concepts and technologies, creates new knowledge.

Since its inception, the Survey has provided information to help government, the mineral exploration industry, public safety agencies, environmental organizations, communities, First Nations, research organizations, and the general public make decisions related to the Earth sciences.

This information resides in free web-based databases that are integrated with MapPlace, our online service that allows clients to browse, visualize, and analyze multidisciplinary geoscience data, and create custom maps.

*Building on MapPlace, MapPlace 2 allows anyone with an Internet connection to mine multiple geoscience databases that are updated continuously. With a simpler interface, MapPlace 2 is easier to use, faster, handles larger datasets, provides access to third-party base maps and imagery and can be used on either a Mac or PC.*







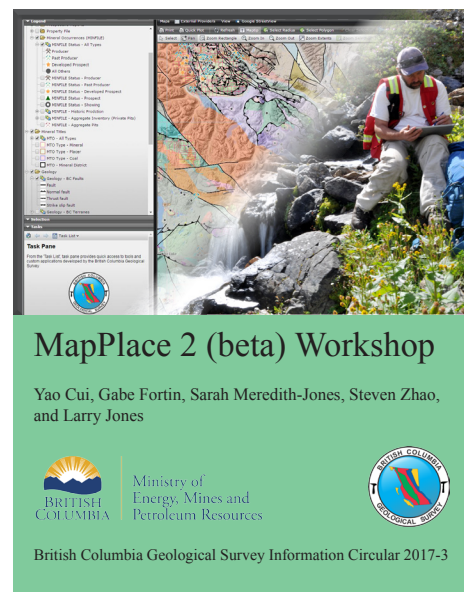
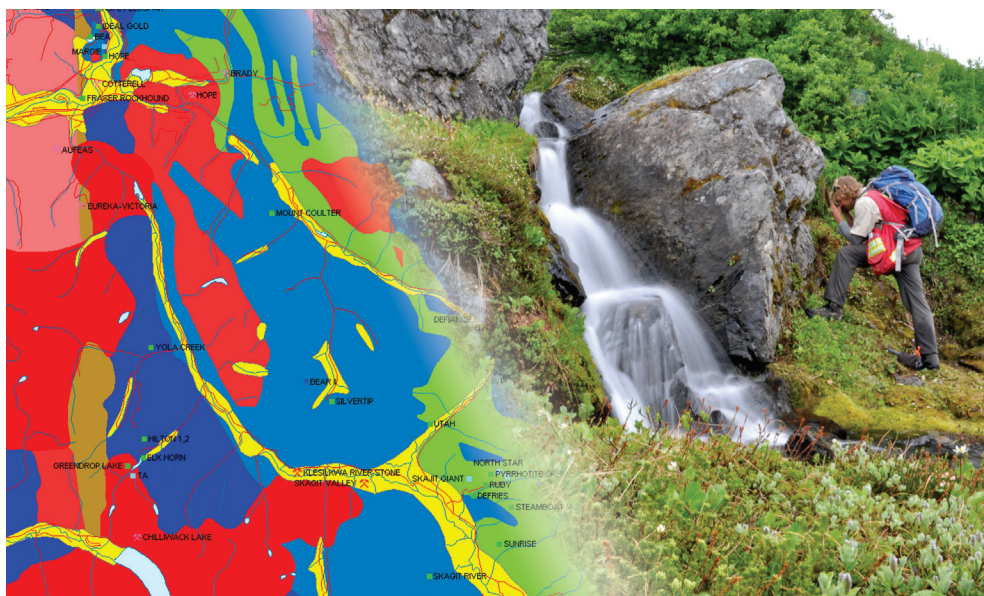


# MapPlace 2

MapPlace is more than just a viewing platform



Since 1995, MapPlace, our database-driven geospatial web service, has provided public geoscience data and custom map-making tools to help decision makers from diverse disciplines reduce the costs of accessing and analyzing information about the British Columbia land base. MapPlace 2 goes beyond simply displaying information. Databases are continuously updated and talk to each other, enabling users to conduct queries and generate custom results by connecting to current data from many sources.



MapPlace 2 beta is available at [www.empr.gov.bc.ca/mining/geoscience/MapPlace2](http://www.empr.gov.bc.ca/mining/geoscience/MapPlace2)

The British Columbia Geological Survey regularly offers workshops that use scenario-based exercises to help people get the most out of MapPlace 2.

**Contact:** Gabe Fortin, [gabe.fortin@gov.bc.ca](mailto:gabe.fortin@gov.bc.ca)

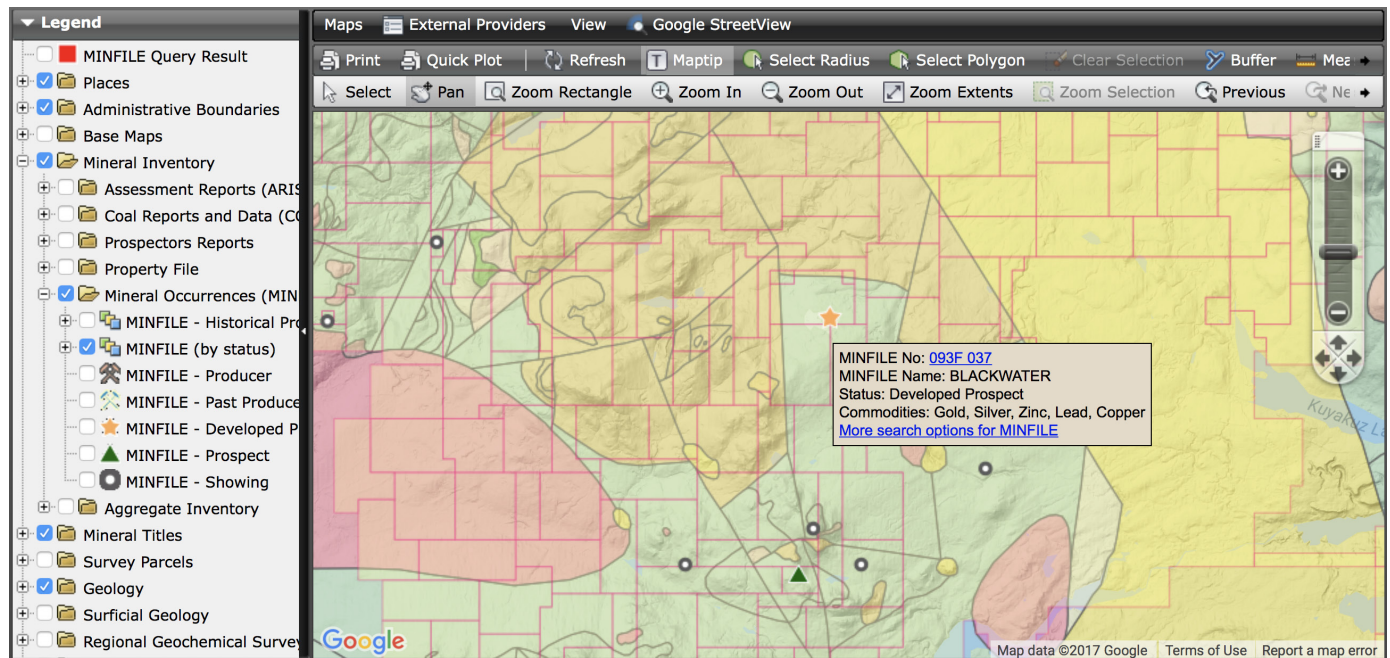






## Through MapPlace 2, Survey databases talk to each other.

Geological maps, ARIS, MINFILE, COALFILE, Property File, geochemical surveys, mineral titles, topographic maps, and the British Columbia Geological Survey publication catalogue can be queried simultaneously, and the output projected onto base imagery of choice.



<a href="#">MINFILE Home page</a> <a href="#">ARIS Home page</a> <a href="#">MINFILE Search page</a> <a href="#">Property File Search</a>			
<b>MINFILE Record Summary</b>			
<b>MINFILE No 093F 037</b>			
<a href="#">XML Extract/Inventory Report</a>			
		Print Preview	PDF
		File Created:	31-Aug-89
		Last Edit:	14-Dec-15
		-- SELECT REPORT --	New Window
		by George Owslack(GO)	
		by Garry J. Payle(GJP)	
<b>SUMMARY</b>			
<b>Summary Help</b>			
<b>Name</b>	BLACKWATER, BLACKWATER-DAVIDSON, PEM, SILVER, GOLD, MT. DAVIDSON		
<b>Status</b>	Developed Prospect		
<b>Latitude</b>	53° 10' 22" N		
<b>Longitude</b>	124° 51' 29" W		
<b>Commodities</b>	Gold, Silver, Zinc, Lead, Copper		
<b>Tectonic Belt</b>	Intermontane		
<b>Capsule Geology</b>	The Blackwater property is located about 7 kilometres northeast of Mount Davidson, about 160 kilometres south of Vanderhoof.		
	Topographically, the Blackwater deposit forms an S-shape due to resistive silicification and inferred glacial scour within a cirque valley on the north side of Mt. Davidson. The Blackwater wedge occupies a roughly 5 kilometre square area and is juxtaposed against Ootsa Lake Group rocks across steeply dipping normal faults on the west and north, implying the Blackwater block is a high-standing remnant or horst in the region, preserving a Late Cretaceous volcanic edifice		
	In the Blackwater region, Hazelton Group consists of a lower unit of felsic tuffs and sediments, named the Entiako Formation and an upper unit of felsic to mafic volcanic flows and volcanoclastic and sedimentary rocks, termed the Naglico Formation. Hazelton Group rocks are overlain by post-accretion Upper Jurassic volcanoclastic, sedimentary and mafic to felsic volcanic rocks of the Bower Lake Group. The Hazelton and Bower Lake groups in the area are collectively intruded by Late Cretaceous granitic to granodioritic plutons exposed within the Nechako uplift. Rocks of the Hazelton and Bower Lake groups are overlain by Upper Cretaceous and Paleocene continental volcanic arc intermediate volcanic rocks and related sedimentary rocks of the Kasalka Group. Widespread Eocene volcanic arc related extensional felsic volcanic rocks and minor sedimentary rocks of the Eocene to Oligocene Ootsa Lake Group overlie the older rocks and are themselves overlain on higher ridges by basalt and andesite of the Eocene Endako Group		
	The Blackwater project area is underlain by intercalated volcanic and volcanoclastic felsic to intermediate lapilli and ash tuff, volcanic breccia and andesitic flows. These strata form a local wedge of laterally discontinuous strata. The Blackwater wedge is thought to dip generally northwest and is of limited aerial extent. On the west the Blackwater wedge is faulted against younger massive felsic volcanic rocks of the Ootsa Lake Group. The fault is a north trending, presumed steep dipping structure. A similar relationship exists on the north side where Blackwater host rocks are also juxtaposed next to Ootsa Lake Group strata across an east-northeast trending fault. Although displacement across the faults is not known, the relative age of rocks across the two faults implies that the Blackwater block is a horst or high standing remnant west and north of which the Ootsa Lake Group dropped to the west and north. East and south of the Blackwater block the relationship to the country rocks is unknown but presumed stratigraphic. Likely the Blackwater strata are underlain by Bower Lake Group beds as at Capoose Lake.		
	The Blackwater wedge consists of a sequence of felsic to intermediate composition volcanic rocks. Individual mappable lithologies include felsic tuffs and lapilli tuffs, volcanoclastic and epiclastic heterolithic breccias, and massive to layered andesites. Dark reddish-brown anhedral equant, garnet crystal fragments up to a centimetre in diameter are common as an accessory in the heterolithic breccia and locally make up 1 to 2 per cent of the rock.		





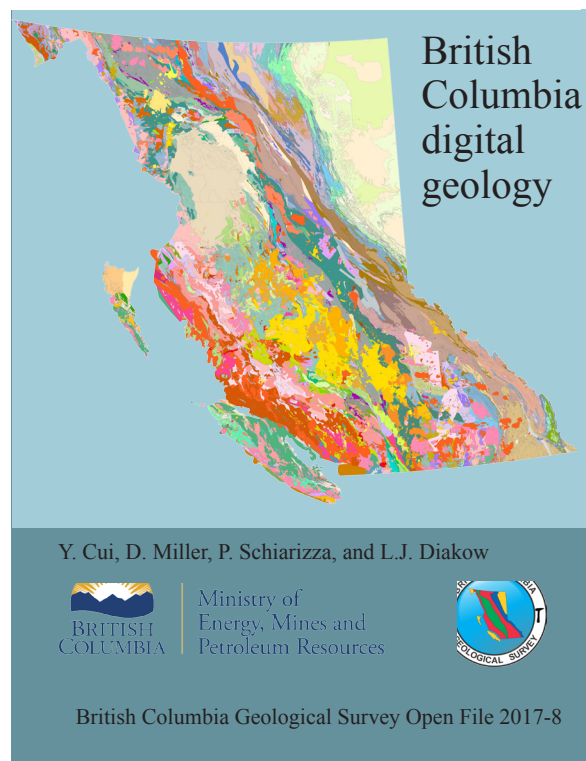


# British Columbia Digital Geology

British Columbia digital geology is much more than a traditional provincial compilation.

*The Survey provides digital coverage of British Columbia's bedrock geology. In contrast to traditional hard-copy paper compilations, this digital geology is not just a static map at a single scale.*

- The bedrock geology of the entire province is held in a database, and people can download shapefiles to conduct computations and generate customized products. People can use either GIS software or MapPlace 2, the Survey's geospatial web service.
- For much of the province, the database offers details presented on 1:50,000-scale maps. In some cases, field observations too detailed to include in the original published sources are in the database.
- As Survey geologists carry out new field mapping, their data can be efficiently integrated into the database at the highest level of detail, using novel in-house techniques.



For the latest edition visit

[www.empr.gov.bc.ca/Mining/Geoscience/BedrockMapping/Pages/BCGeoMap.aspx](http://www.empr.gov.bc.ca/Mining/Geoscience/BedrockMapping/Pages/BCGeoMap.aspx)

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# MINFILE

MINFILE is an inventory documenting more than 14,600 metallic mineral, industrial mineral, and coal occurrences in British Columbia.

MINFILE can be queried by

- location
- identification number
- mineralogy
- commodity
- host rock
- deposit type
- geological setting
- age
- production
- references



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## Assessment Report Indexing System (ARIS)

ARIS is the searchable database of 36,600 assessment reports submitted to the Ministry. These reports summarize results from exploration programs on mineral claims. After a one-year confidentiality period, the reports become an open resource for planning mineral exploration, investment, research, land use, and resource management.

*ARIS archives previous exploration results so that explorationists can advance projects without duplicating previous work. Between 1967 and 2016, about \$2.5 billion of exploration expenditures has been reported in ARIS.*



Retrieve data about

- geology
- geochemistry
- geophysics
- sampling
- drilling
- prospecting
- physical work

**Contact:** Jessica Norris, [jessica.norris@gov.bc.ca](mailto:jessica.norris@gov.bc.ca) or Ted Fuller, [ted.fuller@gov.bc.ca](mailto:ted.fuller@gov.bc.ca)





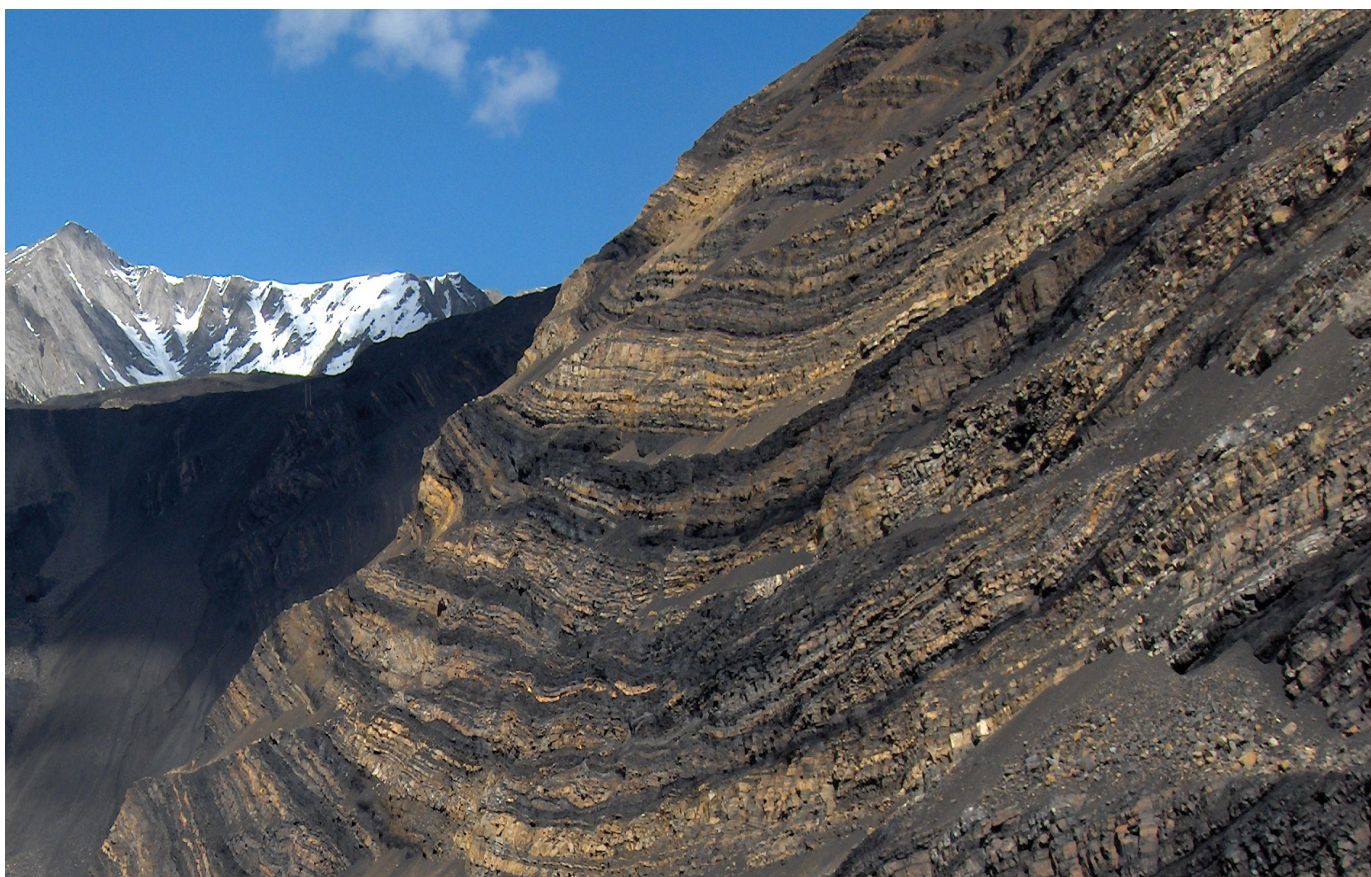


## COALFILE

COALFILE is a collection of assessment reports, maps, and data from boreholes, trenching, and sampling dating from 1900. These data are available for download and viewing through MapPlace 2.

COALFILE contains

- 1000 reports
- 5600 maps
- 15,500 boreholes
- 3640 trenches
- information about 550 bulk samples
- 480 coal ash analyses



**Contact:** Jessica Norris, [jessica.norris@gov.bc.ca](mailto:jessica.norris@gov.bc.ca)

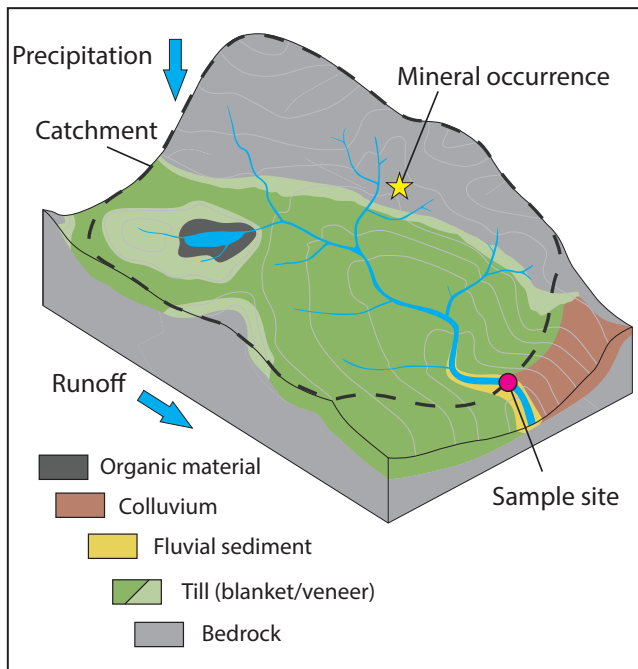






## Geochemical databases

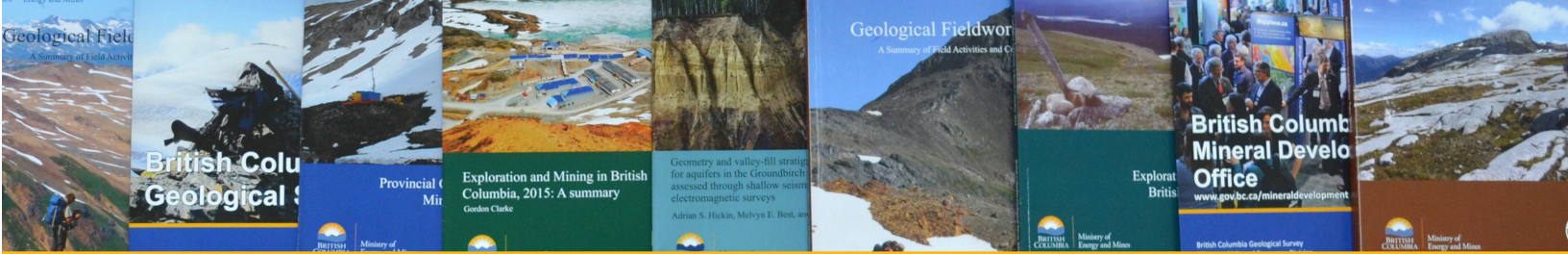
The British Columbia Geological Survey maintains geochemical databases that contain multi-element analyses from rock, till, stream- and lake-sediment, water, and coal ash samples. These databases include over 5 million determinations from more than 85,000 samples. Continuously updated, the databases are integrated with, and can be accessed through, MapPlace 2, the Survey's geospatial web service.



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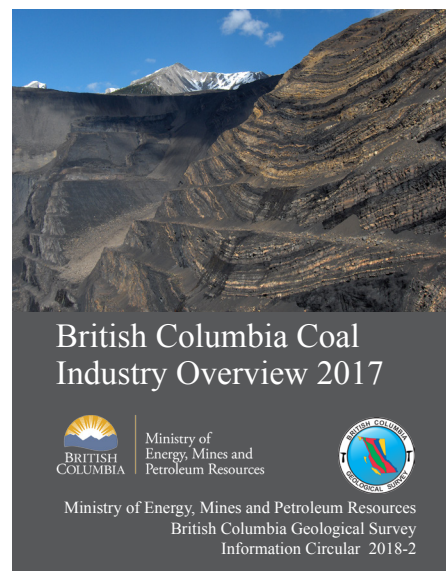
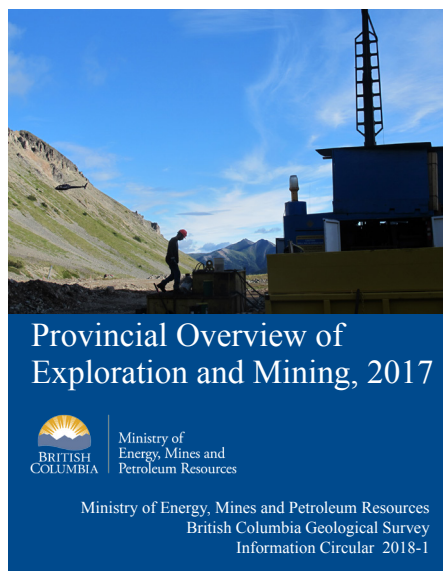
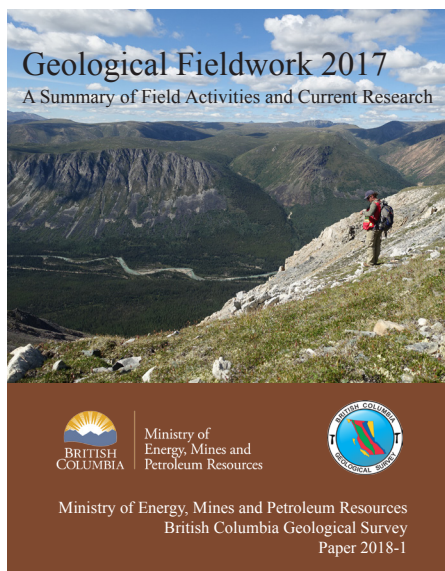






## Publications catalogue

Reports and maps produced by the British Columbia Geological Survey since 1874 can be searched for, and downloaded from, our publications catalogue at no cost. The Survey publishes geological Papers, Open Files, GeoFiles, Geoscience Maps, and Information Circulars.



*Each year in January, the British Columbia Geological Survey releases its Geological Fieldwork volume, highlighting field activities and current research. Other annual publications include the Provincial Overview of Exploration and Mining in British Columbia, and the British Columbia Coal Industry Overview.*



To receive notice of our latest releases, email:  
**[Geological.Survey@gov.bc.ca](mailto:Geological.Survey@gov.bc.ca)**



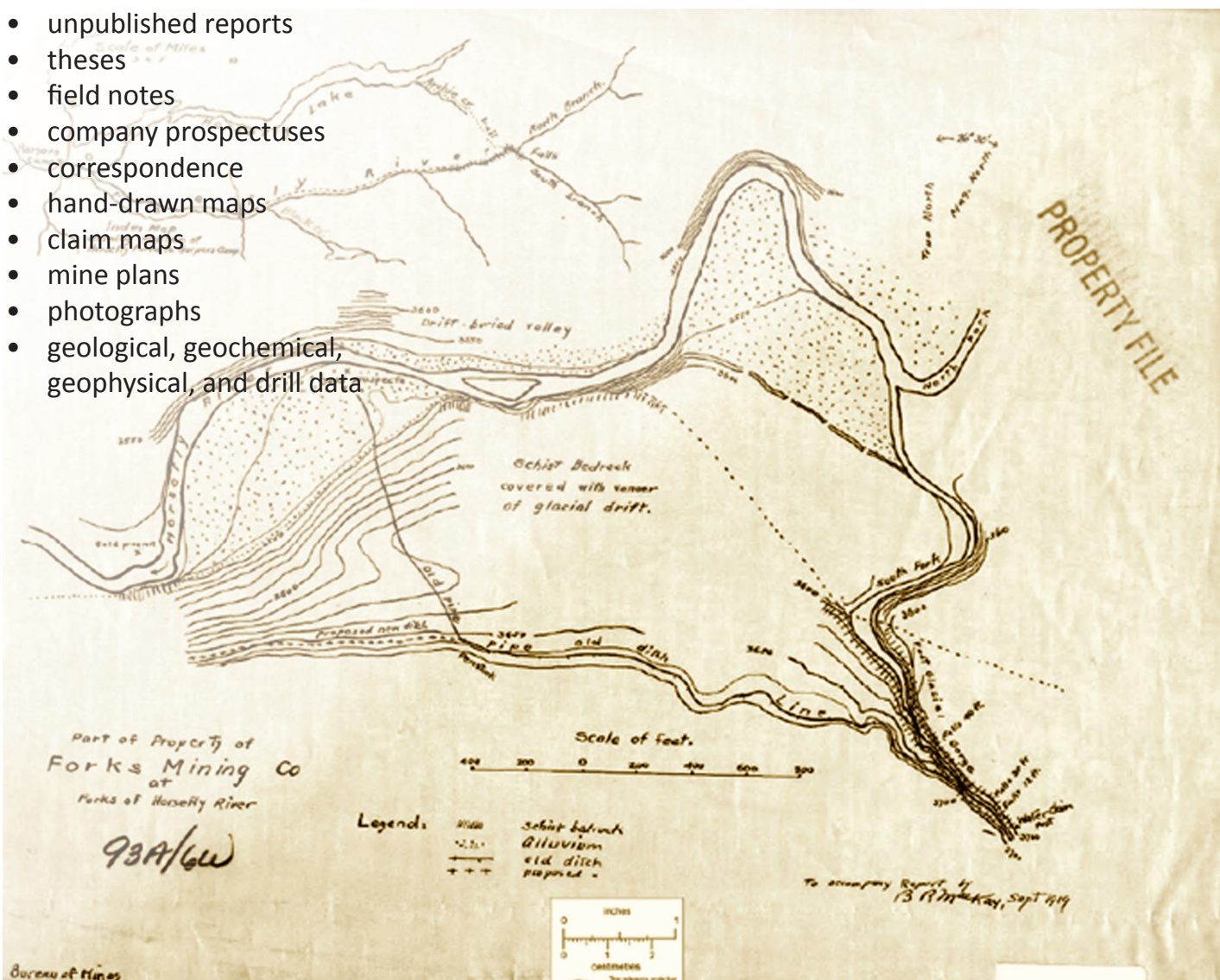




## Property File

Property File is a collection of over 65,500 documents donated to the Survey over the last 150 years by government, university, industry, and individuals. Previously available only in hard copy, these documents now can be searched for, and downloaded from, the Property File database.

- unpublished reports
- theses
- field notes
- company prospectuses
- correspondence
- hand-drawn maps
- claim maps
- mine plans
- photographs
- geological, geochemical, geophysical, and drill data



**Contact:** Kirk Hancock, [kirk.hancock@gov.bc.ca](mailto:kirk.hancock@gov.bc.ca)

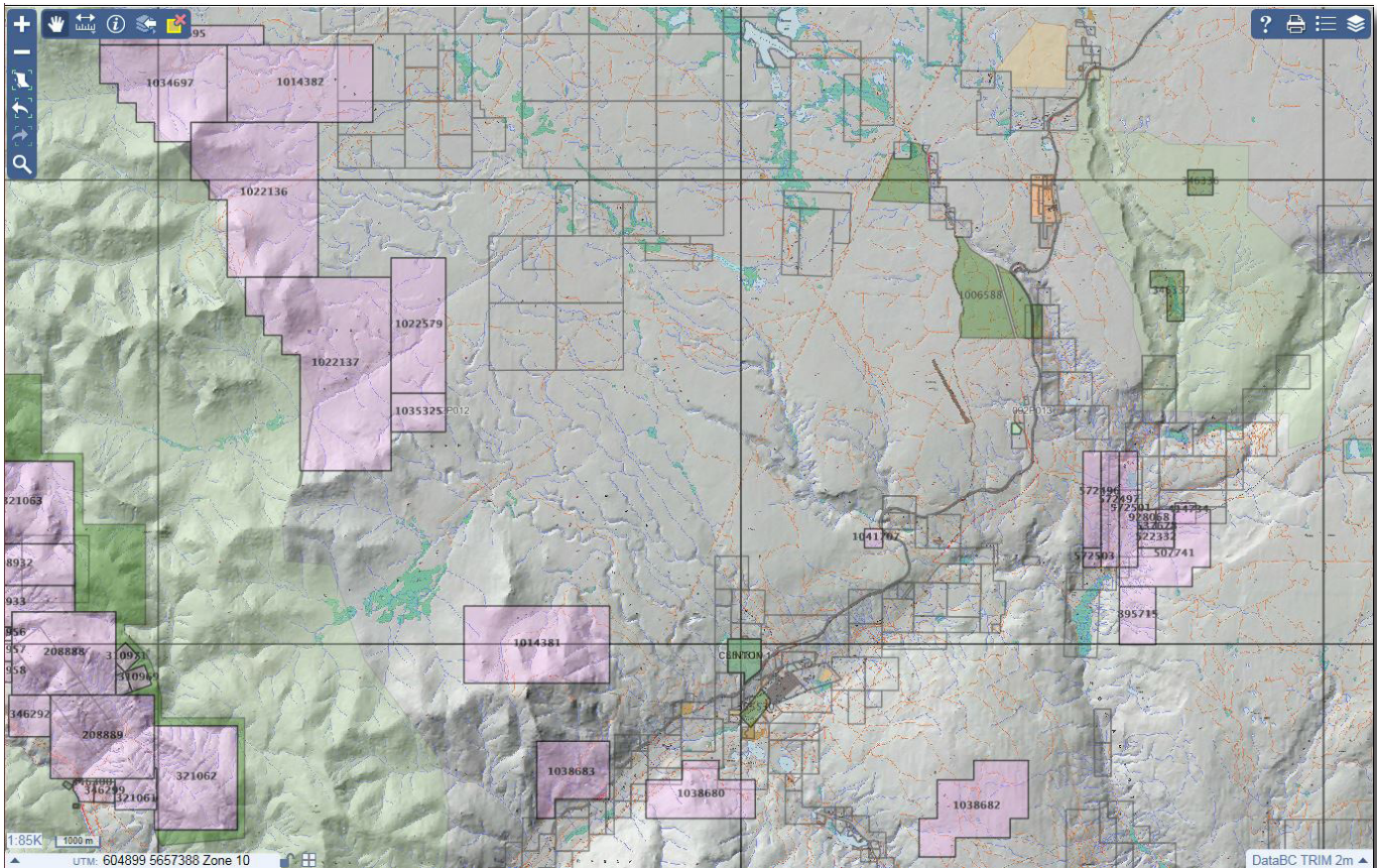






# Mineral Titles Online (MTO)

Mineral Titles Online (MTO) is a GIS-based system that enables the exploration industry to electronically acquire and maintain mineral, placer, and coal rights.



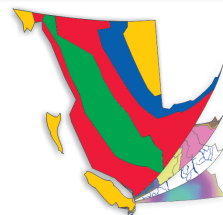
Mineral Titles data can be managed at [www.mtonline.gov.bc.ca](http://www.mtonline.gov.bc.ca) and can also be viewed and queried on MapPlace [www.empr.gov.bc.ca/mining/geoscience/MapPlace2](http://www.empr.gov.bc.ca/mining/geoscience/MapPlace2)



MineralTitles  
OnlineBC

[www.mtonline.gov.bc.ca](http://www.mtonline.gov.bc.ca)

Contact: [Mineral.Titles@gov.bc.ca](mailto:Mineral.Titles@gov.bc.ca)



MapPlace  
digital geoscience for British Columbia

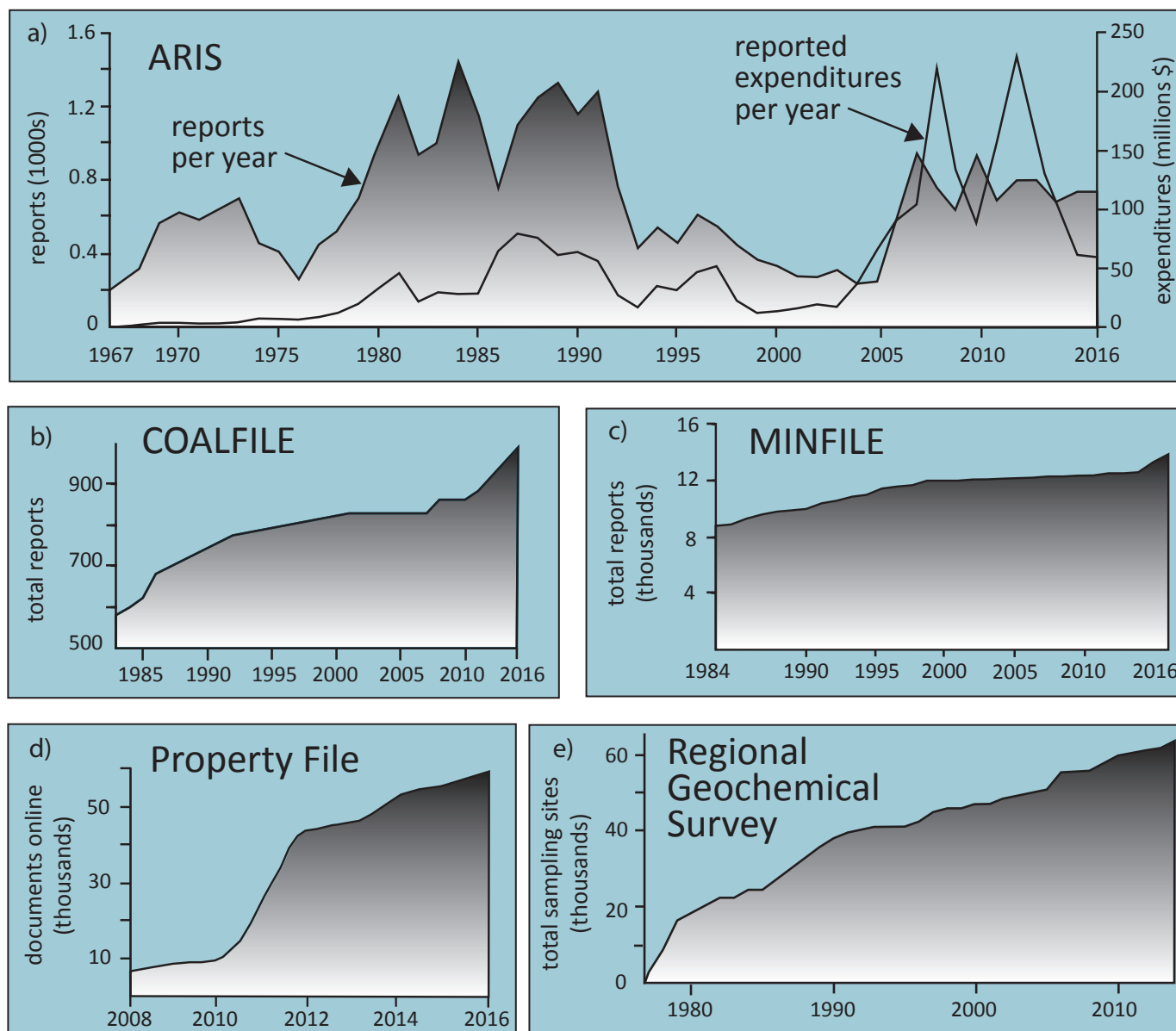






## Growth of databases

British Columbia Geological Survey databases continue to grow as new data arrive and as historical data are digitized.



All the BCGS databases are recorded in the B.C. Data Catalogue, with links to applications and downloads. <https://catalogue.data.gov.bc.ca>







# British Columbia Geological Survey

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