



MINFILE NTS 092J – PEMBERTON

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*Researched and compiled by: D.G. Bailey, R.G. Gaba, M. McLean, G.J. Payie, K.J. Mountjoy,
B.N. Church and L.D. Jones*

The geology of the Pemberton map sheet is characterized by a number of Paleozoic and Mesozoic terranes intruded to a large extent by plutonic rocks of the Coast Crystalline Complex and dissected by mainly northwest striking regional fault systems. The 243 documented mineral deposits and occurrences of the map area are as diverse as the terranes which contain them, and include porphyry copper and molybdenum deposits, volcanogenic massive sulphide mineralization, mesothermal base and precious metal vein deposits, and a variety of precious and base metal epithermal deposits.

The map area is noted for its historical gold production. The Bridge River camp, to the north of Pemberton, has produced over twice as much gold as either of the next two largest producers in British Columbia, Hedley and Premier. More than 87 tonnes of gold were recovered from **Bralorne** (092JNE001), in the Bridge River camp, while a neighbouring **Pioneer** mine (092JNE004), produced over 41 tonnes. Southwest of Pemberton, the **Northair** mine (092JW 012) produced over 5 tonnes of gold and 26 tonnes of silver. Industrial minerals, such as jade, granite (**Marchesi Granite** (092JNE144)) and slate (**Jervis Inlet Slate** (092JW 029)) are also of significance in the map area.

While deposits such as Bralorne exhibit strong structural control, no less important is the categorization of mineral occurrences of the map sheet according to lithostratigraphic assemblages and terranes. Thus, for example, tectonic and depositional environments can be extracted from the MINFILE database in terms of current genetic or empirical exploration models. This MINFILE release, therefore, is not simply a catalogue of the mineral occurrences of the map area, but also a useful research tool for further studies.

Work by the BC Geological Survey has contributed a great deal towards a greater understanding of the genesis and controls of gold mineralization of the Bridge River camp, and its position within a regional structural and stratigraphic framework. This work, as well as that of other agencies and individuals referenced in MINFILE, provides a solid base for research and exploration of the area.

SELECTED REGIONAL REFERENCES (NTS 092J - PEMBERTON)

Green, Lewis (2000): *The Great Years; Gold Mining in the Bridge River Valley*, Tricouni Press.

Church, B.N and Jones, L.D. (1999): *Metallogeny of the Bridge River Mining Camp* (092J10, 15 & 092O02), GeoFile 1999-01, British Columbia Geological Survey.