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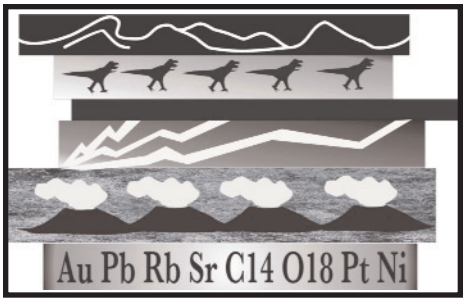
New Series



Great Mining Camps of Canada: Announcing a New Series

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INTRODUCTION

Everyone can agree that the mining industry has played a key role in the economic and social development of Canada. Why, then, are its history and significance fading from view and becoming less accessible in the digital information age. If you do a 'google search' on Canadian mining history, you will get almost 2.8 million hits, very few of which will lead you anywhere near the subject of this series.

Here is an example from the west coast of Canada. In 2005, the host and the director of a popular weekday CBC radio show produced a book titled, *The BC Almanac Book of the Greatest British Columbians*. It groups hundreds of individuals under chapter headings such as Lawmakers, Conservationists, Crusaders/Reformers, Scientists/Inventors/Innovators, Journalists, and so on. I was only able to find five individuals listed who have any link to mining or geoscience. There is a two-sentence entry (probably the shortest) for Billy Barker of gold rush fame; then there are Glen Woodsworth and Dick Culbert, who are listed as mountaineers rather than geologists; James Dunsmuir, the Vancouver Island coal baron, is remembered for his exploitation of coal miners; and finally, there is Frederick Augustus Heinz, an American who came to BC between 1896 and 1907 to build the Trail smelter and a railway before selling them to the CPR. He is listed in a chapter named 'Rogues and Rascals'. How could this happen in a province that was converted from Hudson's Bay Company land into a Crown Colony because of the Cariboo Gold Rush, and which has such an impressive legacy of geological research and mineral development?

One of the reasons, I am sorry to say, is that the geologists, miners, engineers, prospectors and companies who collectively make up the mining industry have not done a good job of compiling their wonderful stories or making them easily available. When you stop to think that the revenues from the mining and petroleum industries pay the salaries, directly and indirectly, of every geoscientist and mining and petroleum engineer in Canada, it is a sad situation.

While a few fine books have been published that focus on both the history and geology of individual mines or camps (Lew Green's, *Great Years: Gold Mining in the Bridge River Valley* comes to mind), it is far too difficult for anyone except a dedicated researcher or insider in the field to know where to look for information on most camps. For anyone, including the average geologist, without access to a major geological library or a local library or archive near a mining camp, the starting point is hard to find.

What is the answer? *How about a Geoscience Canada series* of short (10,000 - 20,000 word), illustrated papers prepared by geologists who are familiar with the camps, sometimes in collaboration with historians. In addition to a summary of the economic geology, these papers could attempt to answer several key questions, including:

- What impact did the camp have on regional transportation and development?
- What did it contribute to our knowledge of economic geology and exploration techniques?
- Did it introduce any improvements in mining, transportation or construction technology?
- How was it found and followed?
- How would you find another like it today?
- What is its legacy?

After publication, these will be posted on the GAC website for easy access by the general public, and the selected references therein would quickly lead the reader to a detailed investigation of the history or geology. In addition to the opportunities for collaboration between geologists and local historians, this might also bring GAC and CIM members and non-members closer together. The benefits will be obvious to all those who want and need to know more about this subject, including government and academic researchers. In time, as the collection grows, it will become an important national resource.

Are there enough worthy topics to sustain a series for long? Even with my limited knowledge of the entire country, I quickly compiled a list of over 50 camps that would be likely candidates, and that does not include coal or industrial mineral mines. Herein, 'mining camp' also includes those great, stand-alone mines such as Sullivan in BC. My

list is quite subjective because it excludes many mines that were too small and/or short-lived, or were not particularly 'significant'. It does not include every vein, porphyry copper or VMS occurrence that has ever been mined - only those that seem 'special' because they were:

- unusually rich,
- unusually efficient because of their low-grade,
- unusually large and long-lived (globally significant),
- pioneers of new districts or deposit types,
- able to overcome tremendous geographic or engineering challenges, or
- important contributors to science and technology.

A good example of the last on the list would be the Buchans Mine in Newfoundland, which played a central role in determining the genesis of VMS mineralization as well as in the pioneering application of electromagnetic and geochemical exploration (Cathro et al. 1993). Even with a publication rate of four papers per year, it would require more than 12 years to cover my preliminary list, by which time a number of the current producers would be near or past closure. Using the Cordillera as an example, Myra Falls, Eskay Creek, Cantung and Highland Valley will fall into this category.

FIRST PAPER

A paper on The History and Geology of the Keno Hill Silver Camp, Yukon Territory will introduce this new series in an upcoming issue of Geoscience Canada. Keno Hill (Figs. 1, 2) has been chosen because it is a perfect example of why this series is needed. Historical information is widely disseminated and much of the mining geology is unpublished or hard to obtain. The camp is extensive (70 silver occurrences including 16 large producers and 19 smaller ones within an area 21 km long and 2 to 6.5 km wide). It is significant because it is Canada's second largest primary silver producer. Its history extends for almost

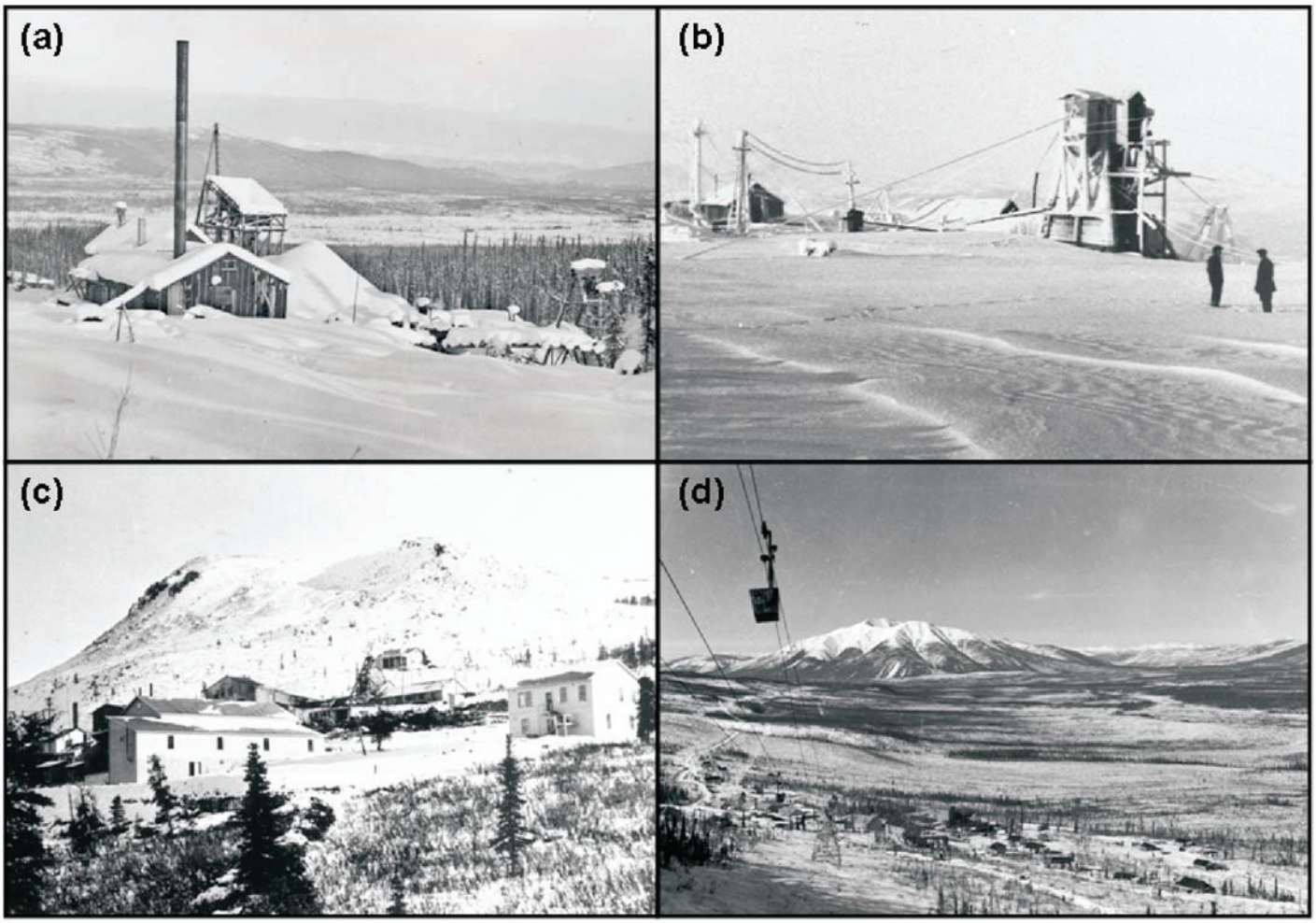

Figure 1. Early images from the Keno Hill camp: a) The Aitken shaft at the Silver King Mine on Galena Hill, ca. 1917. This was the first mine in the camp. View looking northeast with the South McQuesten River valley in the background (Schellinger Collection, print 5805, Yukon Archives); b) The Keno Mine of Keno Hill Limited, ca. 1922. Located on top of Keno Hill, it was the second mine in the camp (A.K. Schellinger Collection, Mayo Historical Society); c) Wernecke Townsite of Treadwell Yukon Company, Limited on Keno Hill, ca. 1925. View looking east with the first mill in the camp on the left and the headframe in the center (Ed Kunze Collection, Mayo Historical Society); d) View from Galena Hill looking west down the aerial tramline from the Hector-Calumet Mine, with the Elsa mine, mill and townsite in the foreground, 1939. Mount Haldane (Lookout Mountain) is in the centre, with the Silver King Mine and the road to Mayo on the left and the South McQuesten River on the right (W.S. Hare fonds, print 6869, Yukon Archives).

a century following the 1898 Klondike Gold Rush, including 75 years of near-continuous production that ended in 1989. Moreover, it was economically important as the mainstay of the Territorial economy for over 40 years. Although some salvage mining is still possible, it has been closed for 15 years and can realistically be described as 'mined out', even at the currently high price of silver.

Producing this series will require the help of a few regional coordinators to find authors and manage the flow of papers from each of the major geological regions of Canada: BC and YT (I can handle this initially), the Prairie Provinces and NT; Ontario and western NU, Quebec and eastern NU; and Atlantic Canada. If anyone would like to become involved or have constructive suggestions, they can reach me at bobcat62@telus.net. The biggest challenge is always to find the authors, particularly geologists who also feel comfortable researching and summarizing history.

Figure 2. Keno City, Yukon, painted in September 1964 by Dr. Maurice H. Haycock. The village, which is still occupied, sprang up as a typical boom-town at the foot of Keno Hill during a staking rush in 1919.

Maurice Haycock (1900-1988) was a distinguished mineralogist who spent his entire career with the Mines Branch in Ottawa. Following his discharge from the Canadian Army in 1917 when his true age (16) was discovered, he obtained a B.Sc. from Acadia University, spent a year in Baffin Island mapping for the Geological Survey of Canada, and received his Ph.D. from Princeton in1931. He began to paint as a hobby in the 1930s and, starting in 1941, became a regular travelling and painting companion of A.Y. Jackson (1882-1974), a member of the famous Group of Seven. His painting gear soon became a regular part of his luggage during his annual northern field trips, during which he traveled over 500,000 km between 1949 and 1988. His trips ranged from Alaska to Greenland but were predominantly in Canada, with a strong emphasis on visiting and recording historic sites, mines and GSC or exploration camps. Jackson accompanied him on many of these northern trips, including the 1964 visit to Keno Hill and the GSC's Operation Keno. In 1980, the Royal Canadian Geographical Society awarded its Massey Medal to Maurice Haycock.

This oil painting has been reproduced with the kind permission of Dr. Haycock's daughter Kathy and the owners, Maureen and Alan Archer of West Vancouver, BC. The digital image was produced by Bill Wengzynowski.

In a few cases, most of the information that is needed to produce a paper is already available from recent publications such as the GSC's EXTECH reports or Sullivan Deposit study. While the latter (Lydon et al. 2000) has far too much scientific detail and is too expensive for the general public, it includes a chapter on history - so producing a short paper from the book for this series would be a simple task. The year before the mine closed, the book was published with financial support from the Mineral Deposits Division of the GAC. Only 600 copies were printed, which were sold at the bargain price of $85. It is now out of print and is hard to find, although a few large libraries have it.

SERIES OUTLINE

A simple outline of the content of papers for the proposed series looks like this:

Series Purpose

The purpose of this series is

- to draw together geological and historical information on mining camps, both published and unpublished,
- to make this information easily accessible in summary form,
- to show why the camp is/was important to the economic and social development of Canada, and thereby,
- to raise the public profile of mining and economic geology.

Intended Readers

The series is aimed at a wide audience with varying levels of knowledge about mining and geology.

- The primary audience is historians, researchers and resource-policy makers, as well as students and the general public; and,
- the secondary audience is geoscientists and others directly involved in the mineral industry.

Mode of Delivery

Each paper in the series will be

- published in Geoscience Canada initially,
- available on-line in PDF format after publication and found by a Google search for "Canadian mining history", and
- searchable by keyword using Adobe Acrobat Reader.

The papers could also be collated into a Geoscience Canada Reprint Series, if the GAC or MDD Publications Committee chooses to re-publish them as one or more volume(s).

Series Scope

Any mining camp that is or was both geologically **and** historically important for the economic and social development of Canada could be included in this series. The series will not be restricted to metallic minerals and could include coal, iron or other minerals. Also, it could include active mining camps if they are nearing the perceived end of operation. The wide scope of the series means that it will ultimately grow to encompass scores of examples.

Paper Organization

Consistency will be achieved by having each paper follow a tentative standard format, which is shown below. Each paper can have up to three orders of headings as follows:

- **SUMMARY**
- **INTRODUCTION**
  - Location
  - Camp Definition
  - Camp Overview
  - Information Sources
  - Purpose
- **GEOLOGICAL SETTING** (in layman's language)
  - Regional Geology (including map and key references)
  - Camp Geology
    - ➢*Glacial History*
    - ➢*Rock Units*
    - ➢*Mineralization*
    - ➢*Ore Controls*
- **HISTORY OF EXPLORATION AND DEVELOPMENT**
  - By time period
    - ➢*Notable characters*
    - ➢*Specific Deposits*
- **IMPORTANCE OF THIS CAMP**
  - Infrastructure (including Transportation)
  - Geological Ideas
  - Mining Innovations
  - Social Significance
  - Economic Impact
  - Environmental Measures
  - Significance to Canada
- **ACKNOWLEDGEMENTS**
- **REFERENCES**
- **LIST OF FIGURES (AND TABLES)**

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