



A Brief History

Teck Trail Operations

JANUARY 2020

Lead Refinery Generators 1909

Teck

Discovery

Gold-copper ore was discovered at nearby Red Mountain in 1890. With the prospecting and mining rush that followed, the City of Rossland was rapidly established at the base of the mountain.

Ore was moved down to Trail Creek Landing at first by wagon. From there, it was moved downstream on the Columbia to smelters in the U.S. In 1896, an enterprising American mining man started up a small copper-gold smelter at Trail, as the landing became known. He also constructed a railroad from Rossland to Trail, then west to the Boundary country to serve the mineral industry in the Grand Forks/Greenwood area.

In 1898, Canadian Pacific bought the railroad and the smelter.

The First Electrolytic Refinery

In 1899, the small smelter began smelting lead-silver ores from the Slocan area near Nelson. The crude bullion was shipped south of the border. In 1901, an American inventor offered a method of refining lead by electrolysis and, early the next year, the first electrolytic lead refinery was in production at Trail. Similar refining of silver followed in the next year. The move into these metals was logical, as the Rossland copper-gold mines were reaching their peak.

In 1906, several of the Rossland mines, the Trail smelter and a small lead-silver mine in the East Kootenay joined together to form The Consolidated Mining and Smelting Company of Canada, Limited. On the company's 60th anniversary in 1966, the name was officially changed to Cominco Ltd. It is interesting that in 1906, Walter Aldridge, the first managing director, wrote,

"This company will not be dependant on any single mine or mining district; its interests and business, besides being industrial, will be diversified to minimize the speculative element."

Whether prophecy or resolve, it was a remarkable statement because that is precisely what was achieved.

The Sullivan

The Sullivan Mine, discovered in 1892 at what is now Kimberley, B.C., was at first a failure. Its ore was too complex for the metallurgy of the day and, certainly, no one had any idea that it was one of the major deposits in the world. In 1909, Cominco acquired the idle mine and operated it by hand sorting pieces with high lead-silver values. This ore was shipped to Trail. By 1914, the Trail lead plant was the largest in the British Empire.

In 1916, Cominco developed a method of producing zinc by electrolysis, particularly for World War I needs. The company thus began to make use of the huge zinc content of the Sullivan. To ensure the large electric power requirement for the metal production of the future, Cominco obtained ownership of the West Kootenay Power and Light Company.

Differential Flotation

In 1920, Cominco engineers discovered how to separate the lead and zinc mineral in ore by a process called differential

flotation - a process now in widespread use throughout the world.

At this time, the Trail-based company began to broaden its exploration activity across Canada, into the unmapped North, first by canoe, then, later, by bush planes flown by company engineers. Cominco was in Africa in the 1920s.

Environmental Control

The other important event of the 1920s was the start of environmental control. There was little or no control of sulphur emissions by smelters anywhere in the world until the Age of Ecology began in the 1960s. But at Trail, the heavy emissions in the narrow river valley drifted south across the border, and complaints and damage suits resulted in the need for pollution control long before it became a topic of world importance.

In 1930, Cominco constructed plants at Trail to make sulphuric acid from the smelter smoke, and to use the acid to make chemical fertilizers in other new plants. It was truly a pioneering venture. It had not been attempted before on such a scale. Also, chemical fertilizer was a relatively unknown commodity. Cominco had to work out how to make good products and to convince farmers that these would benefit crops. All this at the start of the Great Depression!

The Kimberley-Trail production partnership weathered the storm. Employees agreed to share work to avoid layoffs - single men worked part time.

Expanding Horizons

In the period after World War II, Cominco was poised to broaden its activity in Canada and other countries. It had the expertise and resources to do so, although Kimberley and Trail would remain as the company's most important production units.

The Sullivan Mine in Kimberley, a cornerstone of Cominco for decades, exhausted its ore reserves and closed late in 2001 after 92 years of production. The Red Dog Mine, located in Northwest Alaska, the world's largest zinc mine, is now the company's major supplier of high quality concentrate.

Merger

In July 2001, Cominco Ltd. merged with Teck Corporation, thus forming Teck Cominco Limited, a diversified mining company based in Vancouver, B.C. The name changed to Teck Resources Ltd. in 2009.

The company is a significant producer of copper, zinc, metallurgical coal and specialty metals, and has interests in several oil sands development assets.

Trail's metallurgical operations constitute one of the world's largest fully integrated zinc and lead smelting and refining complexes, producing refined zinc and lead and a variety of precious and specialty metals, chemicals and fertilizer products.

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