The Guichon Batholith hosts a broad belt of copper mineralization running from Lake Chelan in Washington State through the Nicola Valley and beyond to Cache Creek. It was formed as magma from deep within the earth pushed to the surface 198 million years ago, close to the end of the Triassic Period. The magma’s heat dissolved iron and copper in the surrounding rock, which reacted with limestone from ancient ocean beds to form iron and copper minerals. The ore bodies in the Promontory Hills region, formed from the mineral reaction to the limestone, are known as skarn deposits, as opposed to the porphyry copper deposits in the Highland Valley region.

Harry D. Merrell and prospector Martin Retan, were doing exploration work for Craigmont Mines around the eastern slopes of Promontory Hills and staking some claims in the winter of 1954. Encountering difficulties while attempting to plot a straight line, their compasses were having trouble finding north and stake lines kept veering away from straight. Something was in that mountain, but it was some time before the funding to explore further became available.

The high level of magnetism indicated the presence of magnetite (Fe₃O₄), a highly magnetic oxide of iron. Further investigation revealed the presence of chalcopyrite (CuFeS₂, Copper Iron Sulfide), and hematite (Fe₂O₃, Iron (III) Oxide) as well.
Craigmont Mines was a newly reorganized company under the leadership of Neil H. McDiarmid, a lawyer who had begun his career in Likely, B.C., and now began acquiring claims in the area. The optimistic McDiarmid had hopes of billions of tons of copper. He envisioned a copper smelter, and using the coal near Merritt, an iron smelter and steel industry. He wanted to produce finished products in Canada, rather than ship raw materials off to Japan. Unfortunately, this was economically unfeasible at the time and the magnetite and hematite were relegated to the tailings pile. The mine itself was a financial success, quickly paying off its initial loans.

Craigmont Mine was B.C.’s first modern, large-scale open-pit mine, changing to an innovative sublevel caving method of underground mining when the maximum safe depth for the open-pit method was reached. The problem of transporting thousands of pounds of ore more than a mile down the mountainside was solved with a cable belt conveyer that, when loaded with ore, produced some of the electricity needed by the mine.

The mine employed as many as 660 people at one time during its peak years and over 5,000 by 1983. From 1962 to 1982 Craigmont Mine produced 36,750,000 tons of ore averaging 1.28% copper.

Today, Craigmont is recovering magnetite from the mill tailings for use in the coal mining industry, the fertilizer industry, specialty paints and as an abrasive in the sand blasting industry. Material from the old tailings pile is first mixed with water and converted to slurry. The magnetite in the slurry is then extracted by use of magnetic separators, and the extracted magnetite is ground to various sizes depending on the specifications of the customer. Since 1993, Craigmont Mines has produced more than 600,000 tonnes of media grade magnetite product.

An examination of the copper still left in the Promontory Hills region is ongoing and looks positive. In the future, copper may flow from the Craigmont Mine yet again.

View of the open pit mine c 1967.

Bibliography & Sources