



Agnico-Eagle Monitors Mining Operations in Harsh Environments with Black Box KVM Technology

- **Industry:** Mining
- **Client:** Agnico-Eagle
- **Region:** Finland
- **Solution:** KVM Switches and Extenders



AGNICO EAGLE

BACKGROUND

Agnico-Eagle is a Canadian-based gold producer that has been mining gold mainly in underground mines for more than 30 years. The company operates in Canada, Mexico, the U.S, and also in Kittila (northern Finland). The open-pit and underground operations there are extracting one of the largest known gold deposits in Europe.

THE CHALLENGE

Although gold has been mined in Finland for more than a century, today's mining operations are quite different than the gold washing of yesteryear. In modern production, gold is extracted from the ore in a complicated process. Only about two percent of the gold in Kittila is free metallic gold, the rest is locked inside sulfide minerals. As a result, the refining process is much more complicated. The ore is crushed, grinded, floated, oxidated under pressure in an autoclave, and carbon concentrated. It's then refined electrolytically in a solution. Finally, the gold is melted and poured into bars.

To monitor and control the operation and safety of the ore production, Mr. Jorma Rantanen, IT manager at the plant, set up

cameras in the production areas. Operators in a process control room, which looks directly out on the operation, monitor all aspects of production on multiple screens.

THE SOLUTION

"We use two to four monitors with each computer to monitor the production," Mr. Rantanen explained. Although the control room is a closed-in area, it's located next to the production area and is not a clean environment. So Mr. Rantanen put the computers in a safe server room away from the refining area. To solve the problem of driving the signals between, Mr. Rantanen turned to Black Box. "The images, along with the keyboard and mouse signals are transmitted approximately 75 feet with the help of Black Box dual-access, quad-head KVM extenders over CATx cable. The extenders solved the problem of how to keep the computers safe while using the monitors and keyboards in an industrial environment. In the plant's computer center, Mr. Rantanen also uses a Black Box KVM Matrix Switch so two operators can control up to 16 servers simultaneously. The matrix switching system makes control of the servers effective and flexible while eliminating the need for extra equipment and cables, saving a lot of money.

RESULTS

"I've known Black Box for a long time," explained Mr. Rantanen. "So I knew who to contact when it was time to put the control system in. The Black Box equipment has been working without a problem since the first floating refinings were done. The Black Box equipment may be a small part of the mine's total equipment, but even the small parts have to work flawlessly," emphasized Mr. Rantanen. "Black Box experts understood our needs and were quickly able to propose the best system for our needs. The right equipment and accessories came at the right time, and Black Box proved to be the right supplier in this project."

