Agnico Eagle plans major trolley assist project for Cat 795F AC fleet at Detour Lake

Posted by Paul Moore on 10th May 2022



At Agnico Eagle's Detour Lake gold operation in northeastern Ontario, ~300 km northeast of Timmins, an upgrade of the 230 kV main substation is planned to improve the power quality at the mine. In addition, the upgrade the miner says will improve the site readiness for future power expansion for projects such as a planned trolley assist mine haulage system, part of Agnico Eagle's moves to meet its Scope 1 targets. It has committed to net zero by 2050 but a more detailed update on the company's climate strategy is expected to be provided later in 2022 which will likely include more details on interim targets as well as the trolley project.

The substation upgrade is expected to be completed in late 2023. Agnico Eagle acquired 100% ownership of each of the Detour Lake mine, the Fosterville mine and the Macassa mine through its acquisition of Kirkland Lake Gold on February 8, 2022. Conventional open pit mining methods are used to mine the Detour Lake deposit utilising a current fleet size of 37 electric drive haul trucks (Cat 795F AC – 313 t class), two Caterpillar 7495 electric cable shovels (48 m³), five Caterpillar 6060 hydraulic shovels (28 m³), 12 drills (mainly Epiroc PV271) and various ancillary equipment to support the mining operation. Cat equipment at Detour Lake is supplied by dealer Toromont.

The mining fleet will be increased to 54 trucks in the next few years to meet the mine production schedule of the new life of mine plan. Production levels are expected to average 680,000-720,000 oz in the period 2021-2024, before increasing to 800,000 oz in 2025. Production would then decline for three years during a period of increased waste stripping before reaching over 900,000 oz beginning in 2032.

There is precedence in the 795F AC being used in a trolley operation – namely the Boliden Aitik copper mine project in Sweden which has a 700 m two lane trolley ramp (with 3 km being added) and 14 Cat 795F AC trucks fitted with pantographs. Also, consideration of trolley assist at Detour Lake is not new, and dates back to a 2018 scoping study by Kirkland Lake Gold. Prior to the merger with Agnico Eagle, Kirkland Lake Gold working with Rogers Business and other partners also announced the installation of a 5G wireless network at Detour Lake, with one of the drivers being potentially running the mine's trucks autonomously.

The trolley project at Detour Lake is just one of several major trolley assist rollouts planned for the coming years, including at Newmont's Penasquito gold mine in Mexico and Antofagasta Minerals' Los Pelambres copper mine in Chile. In April, Copper Mountain Mining Corp in BC successfully commissioned its trolley assist project, which consists of an approximately 1 km trolley assist haul ramp & seven pantograph-equipped Komatsu 830E-5 electric haul trucks.