

PROJECT HIGHLIGHT – TRANSFORMER REPAIR

PROJECT

Early in 2021 while in shutdown mode, a Northern BC Mine had one of their two main transformers suffer a major failure.

SCOPE OF WORK

Investigate the extent of the damage, determine repairability, procure materials, and implement the solution.

OVERVIEW

The first stage of testing determined that the insulation resistance of the secondary winding was low although power factor and dissipation tests of the primary windings and primary bushings were within acceptable ranges. At this time inspections of the insulating oil and other components of the transformer were conducted. With the initial stage of the process yielding potentially positive results, the second stage of the inspection was justified. Sweep frequency response analysis testing was completed before removing the transformer insulating oil to temporary storage. A thorough internal inspection on the windings and detailed measurements of the defective parts allowed for fabrication and procurement of custom LV bushings and mounting plates. A final site visit resulted in the installation of all new parts including custom welding of bushing mounting plates, installation of custom bushings, modification and re-design of transformer throat, re-design and re-wiring of protection circuits, leak repair, oil processing, and final testing and energization.





Electrical Testing, Commissioning and Energy Management Specialists

QED specializes in the testing and commissioning of medium voltage, high voltage and protection systems. We are uniquely positioned to provide a comprehensive suite of energy management services.