measures. There were more than 40,000 patient encounters where Deki readers provided diagnostic testing during the past year, with only approximately 48% of Kipushi Project employees who were symptomatic testing positive for malaria.

**Project development and infrastructure**

The Kipushi Mine, which had been placed on care and maintenance in 1993, flooded in early 2011 due to a lack of pump maintenance over an extended period. At its peak, water reached 851 metres below the surface. Ivanhoe restored access to the mine’s principal haulage level at 1,150 metres below surface in December 2013; since then, crews have been upgrading underground infrastructure to permanently stabilize the water levels.

Since completion of the drilling program, water levels have been lowered to the bottom of Shaft 5, which is planned to be the mine’s main production shaft. The shaft is eight metres in diameter, 1,240 metres deep and approximately 1.5 kilometres from the planned main mining area. It provides the primary access to the lower levels of the mine, including the Big Zinc Deposit, through the 1,150-metre haulage level and underground ramp decline.

Engineering work has focused on the upgrading of Shaft 5 conveyances and infrastructure, installation of the rock conveyor system, the stripping and evaluation of the underground jaw crusher, refurbishment of bearer sets on the main rising-water pipes, and the replacement of shaft buntons (struts that reinforce the shaft walls). A new twinned high-volume ventilation fan also has been installed and is being commissioned on surface at Shaft 4 to provide fresh air to the underground workings.

**Figure 4: Shaft 5 main pumping station at the 1,200-metre level.**