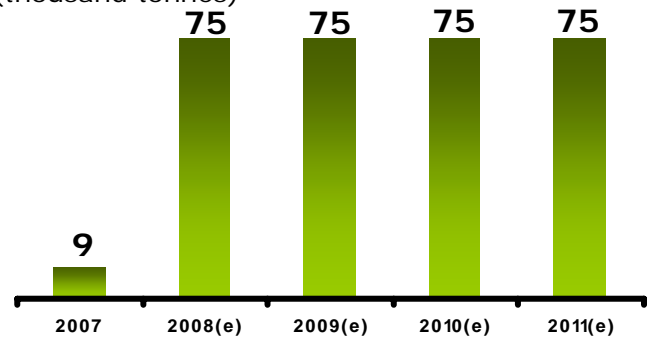


Frontier

Location: **DRC**
Ownership: **95%**
Type of mine: **open pit**
Status: **operating**
Primary metal: **copper**
End products: **concentrate**
Resource grade: **1.16 % copper**
Est.mine life: **2007—2026**
Employees: **667**

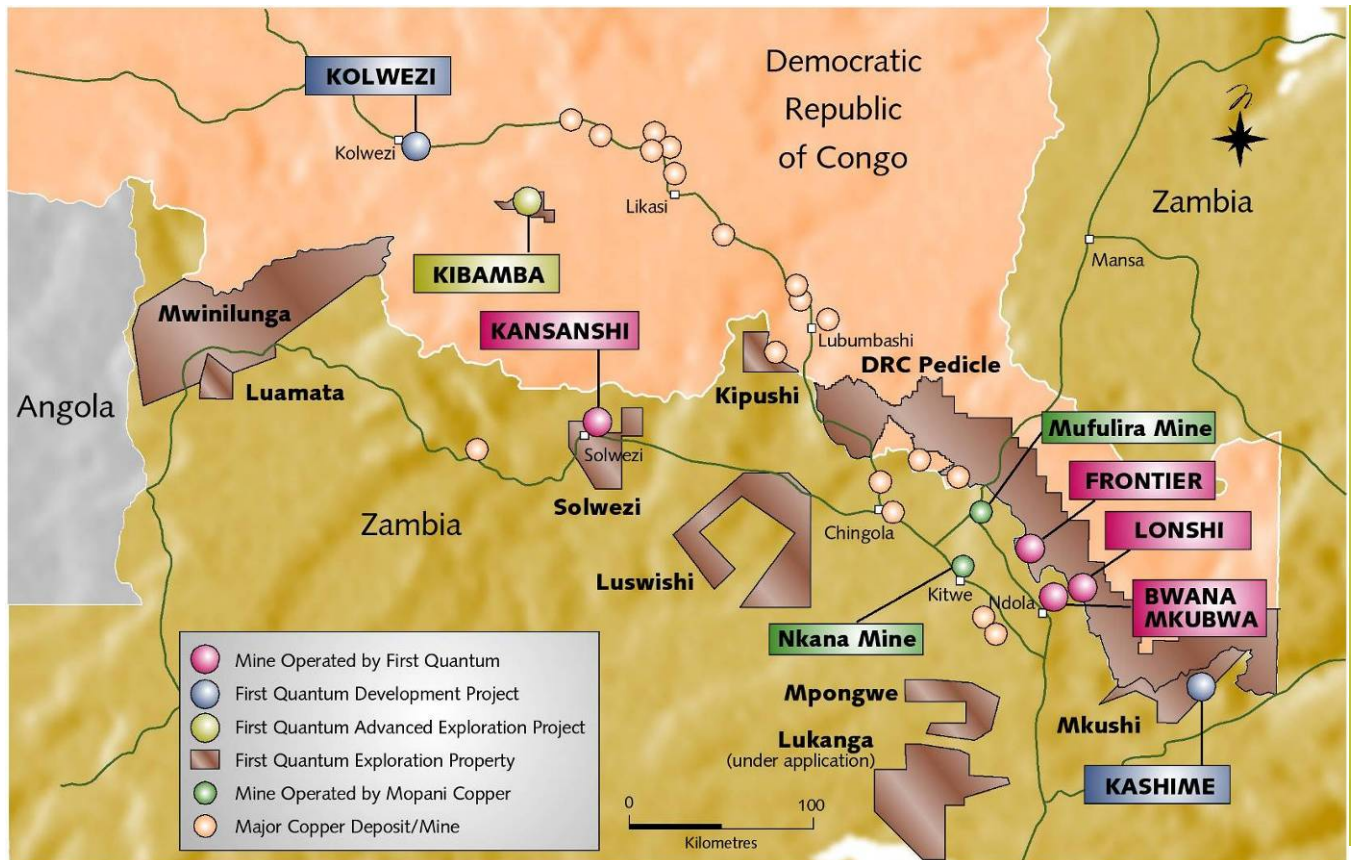


Copper Production Profile
(thousand tonnes)



Overview

The Frontier mine is located near the town of Sakania in the DRC, within 2 kilometres of the Zambian border, and the paved highway that parallels it, roughly equidistant between the city of Ndola (35 kilometres) to the southeast and the Mopani smelter at Mufulira. It is also approximately 45 kilometres from First Quantum's Bwana Mkubwa SX/EW facility. The main railway from the Copperbelt in Zambia to Lubumbashi in the DRC passes within 5 kilometres of the Frontier site.



After a capital investment of \$226 million, Frontier began commercial operations in November 2007. The mine is advantageously located relatively close to significant existing mine developments in the Zambian Copperbelt. Power is supplied from a substation approximately 28 kilometres to the west in Zambia and water is provided from mine dewatering.

The mine consists of the open pit mining and processing of primary sulphide ore. The current measured and indicated sulphide resource at a 0.35% copper cut-off totals 182.1 million tonnes grading 1.16% total copper which contains 2.1 million tonnes of copper. In addition to the sulphide resource, the project hosts a measured and indicated oxide/mixed resource at a 0.35% copper cut-off of 26 million tonnes grading 1.19% total copper which contains 0.31 million tonnes of copper. The oxide/mixed mineralization has been considered waste, although it

is being stockpiled separately for possible processing in the future or for treatment at First Quantum's Bwana Mkubwa plant.

During the life of mine, Frontier is expected to produce 1.43 million tonnes of copper in concentrate.

Geology

Mineralization at Frontier is sediment hosted and epigenetic in style. It occurs higher in the stratigraphy than traditional Copperbelt deposits such as Mufulira and Nchanga.

The Frontier deposit is hosted within veined and altered sediments of the Katanga Supergroup and is located in the south-eastern extension of the Lufilian arc, a fold thrust belt of Neoproterozoic age. The stratigraphic location of the copper mineralization is predominantly within shales and conglomerates (the "Grand Conglomerate") of the Nguba Group. The shales unconformably overlie an Upper Roan subgroup dolomite, which has been intersected in many of the drill holes, and underlie a second Nguba Group dolomite unit.

The deposit is interpreted to be contained within a shallow south eastwardly plunging and north eastward dipping overturned anticline, with the thickest mineralization developed in the nose region of this fold. Alteration associated with mineralization comprises sodic metasomatism, silicification and dolomitisation.

The region has been subjected to considerable faulting which runs parallel to strike. Mineralization is hosted by altered Nguba shales and within the uppermost portion of the Grand Conglomerate. Copper occurs as chalcopyrite with minor bornite, as its oxidation and enrichment products in cross cutting quartzalbite – carbonate stockworks, veins, veinlets and breccias, and as foliated parallel disseminations in highly deformed and altered shales and underlying diamictite.

Process Flow Sheet—sulphide ore

