MANAGING OUR IMPACTS RESPONSIBLY

TAILINGS MANAGEMENT BY PT FREEPORT INDONESIA

FREEPORT-MCMORAN

PT FREEPORT INDONESIA

OUR MINING PROCESS AT GRASBERG

1 EXTRACTION

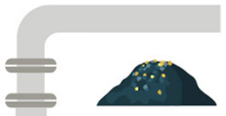
The process of removing a mineral resource from the ground is currently done through underground mining methods, primarily block caving, in the Grasberg Minerals District.

2 MILLING

The ore containing copper and gold is sent to the mill, where it is crushed and ground to the size of fine sand through the milling process and mixed with water to produce a slurry.

3 CONCENTRATING

The process in our concentrators for separating copper and gold minerals from the mine ore is flotation. With flotation, air is used to collect valuable minerals. Air bubbles with the attached minerals float, allowing them to be separated from non-valuable minerals, which sink and settle to the bottom and are called tailings.

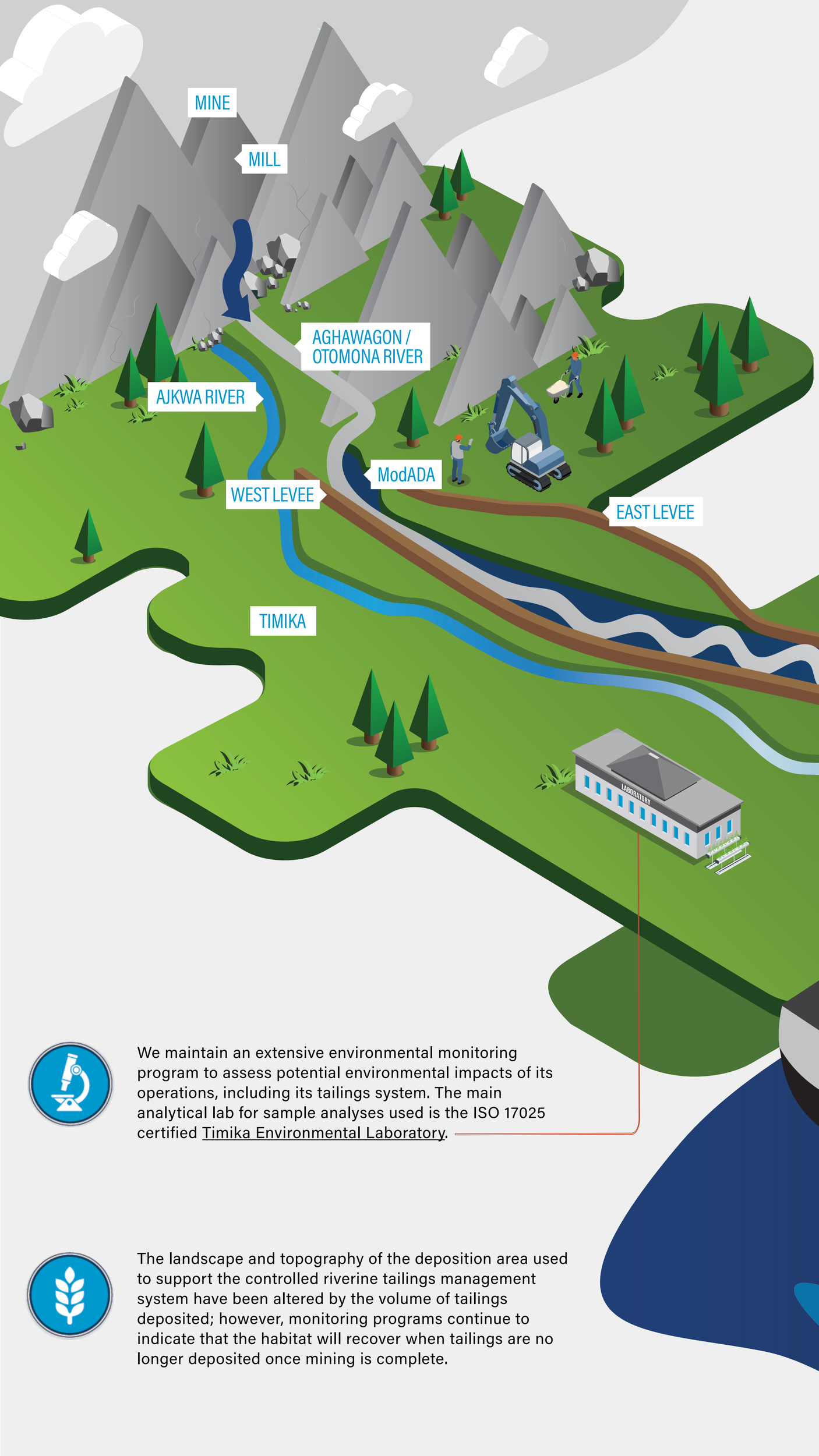


4 CONCENTRATE

The copper concentrate, which contains gold, is transported via pipeline to our Amamapare Port near the Arafura Sea, where it is dewatered and prepared for shipment to smelters.

5 TAILINGS

Tailings are the finely ground natural rock particles, or by-products, that remain after economically valuable minerals have been processed and extracted. Tailings from Grasberg are managed to be non-acid forming, making them safe for storage in ModADA. Tailings are safely transported down to the ModADA via the Aghawagon River using our controlled riverine tailings management system.



Grasberg's mining complex is located in a mountainous area more than 2,700 meters above sea level, which presents limited options for using traditional tailings management.

The Aghawagon/Otomona River transports tailings along with natural sediments from the concentrator to a large engineered and managed deposition area in the lowlands. This river was chosen because that part of the river is unnavigable and not used for potable water, agriculture, fishing or other domestic or commercial uses.

We have designed and constructed approximately 120 kilometers of levees on both sides of the deposition area to laterally contain the depositional footprint of the tailings and natural sediment within the approved boundary. Sedimentation within the deposition area is regularly evaluated using advanced modeling software, which reproduces historical sedimentation accumulation and provides forecasts of future sedimentation based on mining plans.

We maintain an extensive environmental monitoring program to assess potential environmental impacts of its operations, including its tailings system. The main analytical lab for sample analyses used is the ISO 17025 certified Timika Environmental Laboratory.

The landscape and topography of the deposition area used to support the controlled riverine tailings management system have been altered by the volume of tailings deposited; however, monitoring programs continue to indicate that the habitat will recover when tailings are no longer deposited once mining is complete.