

Rock which does not contain economic quantities of gold or silver is called **waste rock**. It will be used to backfill stopes created in **virgin ground** and also some of the historical (pre-1952) workings.



4. Backfill

Once the **development drives** have been constructed mining can begin. In areas which have not been mined before this starts at the bottom of the ore body and works upwards. For Project Martha that means starting at around 300m deep and finishing at about 100m below the surface. You can see this happening in the picture on the right. The ore is removed by **blasting**. A **panel** of ore up to 15m deep is **drilled and blasted**. This is a **production blast**, and the under current Correnso conditions the vibration it produces must be no more than 5mm/s for 95% of the time. In areas which have not been mined before, as each layer of ore is removed the void left behind is **backfilled** with rock that does not contain economic quantities or ore. 50 tonne mining machines drive over the backfill as they work upwards, so that by the time all of the ore is removed the **stope** has been filled and the ore replaced with **tight-filled rock**.



3. Mine the ore

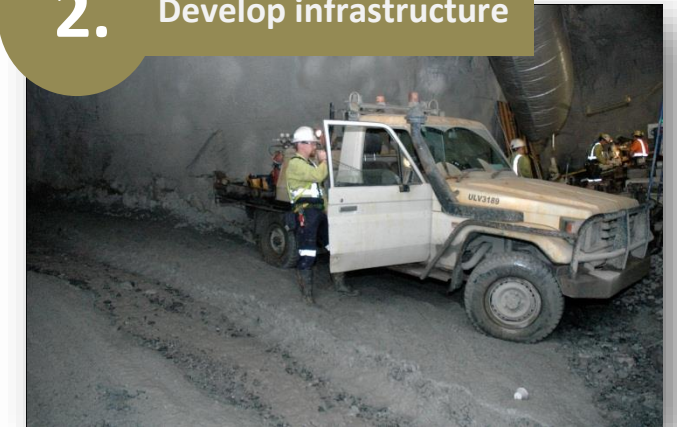


1. Understand what's there



Surface and underground **exploratory drilling** has provided information about the Project Martha ore body. We will continue to improve our understanding of this ore body to mine it more efficiently.

2. Develop infrastructure



The Underground Mining Cycle at Project Martha

To get to the **ore body** we create five metre by five metre tunnels. These are called **development drives**. To get deep underground we spiral down next to the ore body to the bottom of where we know the ore to be and then open these tunnels into the ore body. These development drives are created through **drilling and blasting**. We drill three metre-long holes into the face of the drive then load it with explosives and detonate the charge. This is known as **development blasting**. The fragmented rock that is produced by a development blast does not contain economic quantities or ore and is stockpiled either underground or on the surface. It will be used to **backfill stopes** after the ore has been removed.