



VA ERZBERG GMBH - Austria

Mineral sorting/Processing of ore

CUSTOMER

The Styrian Erzberg mine is the largest open-pit mine in Central Europe.

The company VA Erzberg GmbH extracts annually 7 million tons of material to produce 2 million tons of iron ore.

The ratio between ore with an iron content of more than 30% and the preparation concentrate is 1:1, i.e. approx. 1 million tons reach the ore deposit directly from the mining level via a big crusher and a secondary crushing and screening plant. The remaining ore must be concentrated by means of a heavy liquid plant or a magnetic separation plant.

REQUIREMENTS

An important aspect for the customers of VA Erzberg is a constant iron content of the ore.

Furthermore, cinnabar inclusions in the ore must be limited. The product quality can be improved by separation of waste rock which enables a more efficient use of resources.

In case of a grain size ranging from 30 to 100mm, minerals which fall below a certain quantitative threshold of iron content as well as rocks containing cinnabar should be separated.

SOLUTION

Using the innovative REDWAVE XRF X-Ray fluorescence technology in combination with the REDWAVE COLOUR recognition it is possible to determine which iron content is existent or if the mineral is containing a certain portion of cinnabar.

In case of a too low iron content and/or existent cinnabar content in the feeding material the undesirable minerals will be ejected by precise air blasts.

The good partnership between VA Erzberg GmbH and REDWAVE made it possible to realize a unique project worldwide.

TECHNICAL DATA

| | |
|------------------|---|
| Type of machine | REDWAVE 1370 XRF-C G36 2-Way |
| Feeding material | Carbonate iron ore deposit Value mineral: Iron spar or Sideroplesite Main additional mineral: Ankerite Impurity: Quicksilver |
| Capacity | 100 to/h |
| Sensor system | REDWAVE XRF in combination with color recognition |
| Size | 30 – 100 mm |
| Working width | 1.370 mm |
| Sorting system | Compressed air |

