

CASE STUDY

VA ERZBERG GMBH- AUSTRIA
MINERAL SORTING/PROCESSING
OF ORE



INBTW[®]

incorporating
REDWAVE
technology



**MINERAL
SORTING**

CASE STUDY

VA ERZBERG GMBH– 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.

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PLANT SOLUTIONS

” *The sensor-based sorting machine REDWAVE XRF allows a more selective procedure regarding the iron and heavy metal content. Detection occurs in a grain size range between 30 and 120 mm – which was another reason for us to choose the sensor- based sorting.*

Dipl.-Ing. Armin Kogelbauer, Production Manager at VA Erzberg GmbH in Eisenerz, Austria

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

