

Searching for minerals

1. What methods are used to find deposits of minerals? Match each method to its definition.

Aerial photography	A form of remote sensing, Aeroplanes or drones fly over large areas and take photographs which can be analysed for signs of minerals.
Geophysical analysis	Looking closely to the surface of rocks.
Prospecting	Mineral deposits are weathered at the Earth's surface, producing mineral oxides. These can be detected by their unique radiation pattern, which is recorded by a satellite and downloaded to a computer for analysis. Other satellites operate by sending signals to the surface of the Earth and then collecting reflected signals.
Satellite	Sediment samples are taken from streams or rocks and analysed chemically in a laboratory for signs of useful materials.
Geochemical analysis	Use of seismic vibrations into the ground. The frequency of the vibrations that are reflected back help to identify suitable areas for further investigation.

2. What should be done in order to make sure the deposits of mineral ores are large enough to be extracted once they have been located?

amount classified decision deposit Drilling extract favourable feasibility financial future
grade mine mixture ores practical project
reserve resource samples size technical tonnage

A ----- evaluation is carried out to estimate the ----- and the ----- of the mineral of interest present in a -----, ----- to collect rock ----- must be done to identify the ----- of the deposit as well as the ----- of mineral ----- present.

A deposit may be ----- as mineral ore ----- taking into account the ----- of material that is ----- to -----.

Finally, a ----- study is carried out to evaluate all the ----- and ----- risks of any proposed mining -----.

The final ----- may be to ----- right away or wait until there are more ----- conditions in the -----.