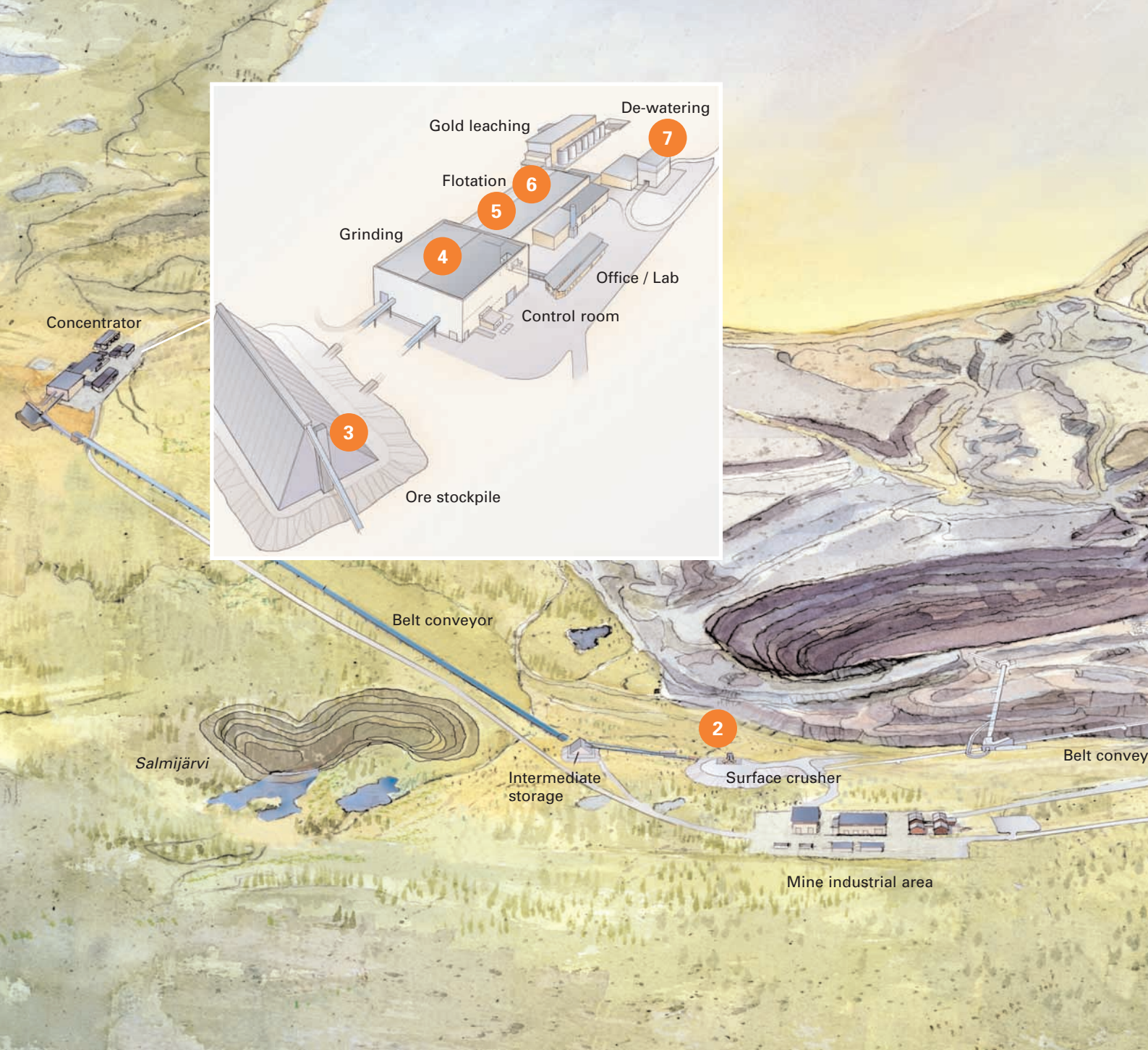


*Case study:*

## **Seven Alimak elevators for Boliden's Aitik mine expansion**



*Aitik copper mine, Gällivare, Sweden*



**1**  
**In-pit Crusher**  
 Elevator: ALIMAK SE 1000  
 Capacity: 1000 kg  
 Lifting height: 24 m



**2**  
**Surface Crusher**  
 Elevator: ALIMAK SE 1000  
 Capacity: 1000 kg  
 Lifting height: 24 m



**3**  
**Ore stockpile**  
 Elevator: ALIMAK SE 1000  
 Capacity: 1000 kg  
 Lifting height: 48 m



**4**  
**Grinding**  
 Elevator: ALIMAK SE 1000  
 Capacity: 1800 kg  
 Lifting height: 18 m



E 1800 FC



**Flotation**  
Elevator: ALIMAK SE 1000 FC  
Capacity: 1000 kg  
Lifting height: 20 m



**Flotation**  
Elevator: ALIMAK SE 400 FC  
Capacity: 400 kg  
Lifting height: 14 m



**De-watering**  
Elevator: ALIMAK SE 1000 FC  
Capacity: 1000 kg  
Lifting height: 18 m

## Case study:

### Seven Alimak rack and pinion elevators improve access at Boliden's Aitik mine expansion. The Aitik copper mine is Europe's largest open pit copper mine.

In 2009 Alimak Hek provided seven Alimak rack and pinion-driven elevators for Boliden's Aitik copper mine, located near Gällivare in northern Sweden. The elevators are a part of Boliden's total investment of SEK 6 billion (about \$940 million) in this open pit mine, which includes a new modern concentrating plant that will double the production capacity, from 18 million tons to 36 million tons of ore annually.

The Alimak elevators have been installed to facilitate the maintenance and inspection of different applications such as crushing, ore stockpile, grinding, flotation and de-watering. The working environment in the mine creates high demand on the elevators durability and reliability. The Alimak elevators accommodate lifting heights between 14 meters and 48 meters and payload capacities between 400 kg to 1,800 kg. They are equipped with the modern ALC-II microprocessor-based control system, emergency phone, and overload sensing device.

#### Remote monitoring

All elevators are equipped with Alimak Heks' online A<sup>3</sup> remote monitoring system, which means the elevators can operate 24 hours a day fully monitored with any faults being transmitted instantly for speedy correction and to minimize downtime.

#### Experience in the mining industry

The Alimak rack and pinion elevator is the perfect solution for both underground and surface mining industry applications, such as pelletising plants, smelters, concentrators, and other ore processing plants. Hundreds of Alimak elevators have been delivered to a variety of mine applications around the world, including the Aitik copper mine. The deepest Alimak elevator goes 640 meters below ground at the Grasberg mine, Irian Jaya in Indonesia. It is also the highest situated Alimak elevator at an altitude of 4,100 meters. The deepest situated Alimak elevator is for the Sudbury Neutrino Observatory in Canada, about 2,000 meters below ground level.



One out of the seven Alimak rack and pinion elevators working at the Aitik copper mine.

#### ELEVATOR DETAILS

Location:	Aitik copper mine, Gällivare, Sweden
Project:	Mine expansion project Aitik 36
Installation year:	2009
Application:	New concentrating plant
Elevator type:	ALIMAK SE
No. of elevators:	7
Capacity:	Varies between 400 kg and 1,800 kg
Lifting height:	Varies between 14 m and 48 m

[www.alimakhek.com](http://www.alimakhek.com)

Alimak Hek AB is ISO 9001 and 14001 certified.

