

An outline of the Caserones Copper and Molybdenum Deposit Development Project in Chile

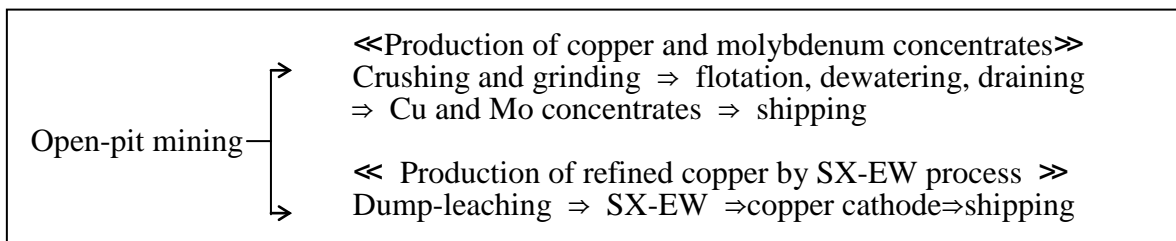
A. Construction start: 2010

B. Commencement of Production:

- Refined copper by hydrometallurgical SX-EW process: March 2013
- Copper and molybdenum concentrates: January 2014

C. Expected mine life: 28 years

D. Flow of production to shipment:



Notes 1: (1)Dump-leaching means a process to extract (leach) copper by sprinkling sulfuric acid over a pile of uncrushed copper ore.

(2)SX-EW process means a solvent extractive electrolytic copper winning process. Copper ion is selectively recovered from the leaching solution, and copper metal is produced by electrolysis from the copper sulfate solution. Approximately 20% of the copper from the mines in the world is produced by this process.

E. Estimated volume of ore to be mined

Ore	Volume (million tons)	Grade	
		Copper %	Molybdenum (ppm)
Primary and secondary copper sulfide (For production of copper and molybdenum concentrates)	1,050	0.34	126
Copper oxide and secondary copper sulfide ore (For production of refined copper by SX/EW process)	300	0.25	—

- Notes 2:
- Primary copper sulfide : sulfides which formulated during the metallogenetic epoch. Chalcopyrite etc.
 - Secondary copper sulfide : sulfides made of the primary copper sulfide which reacted with sulfuric acid. Chalcocite etc.
 - Copper oxide : primary copper sulfide which oxidized by rain or weathering. Chalcanthite, malachite ore etc.

F. Daily output of ore: approximately 103,000 tons

G. Estimated annual production volume:

(Average during the initial phase of 10 years)

Copper: Copper content in copper concentrate: approx. 150,000 tons
 Refined copper produced by SX-EW process: approx. 30,000 tons
 Total: approx. 180,000 tons

Molybdenum: approx. 3,000 tons

(Average 28 years)

Copper: Copper content in copper concentrate: approx. 110,000 tons
 Refined copper produced by SX-EW process: approx. 10,000 tons
 Total: approx. 120,000 tons

(Total production for mine life: approx. 3,547,000 tons)

Molybdenum: approx. 3,000 tons

(Total production for mine life: approx 87,000 tons)

H. Estimated initial investment: approx. US\$ 4.2 billion

I. Location of the Caserones copper and molybdenum deposit

162 kilometers southeast of Copiapó, the capital of the III Atacama Region of Chile, and 15 kilometers from the border with Argentina.

The deposit lies at altitudes between 4,200m to 4,600m above sea level.

