

US EPA ARCHIVE DOCUMENT

Byproduct Mercury from International Mining

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Yanacocha Mine - Peru



very simplified...



Mine, load and haul



Leaching



Processing in Carbon Columns



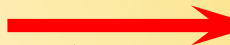
Merrill-Crowe precipitation



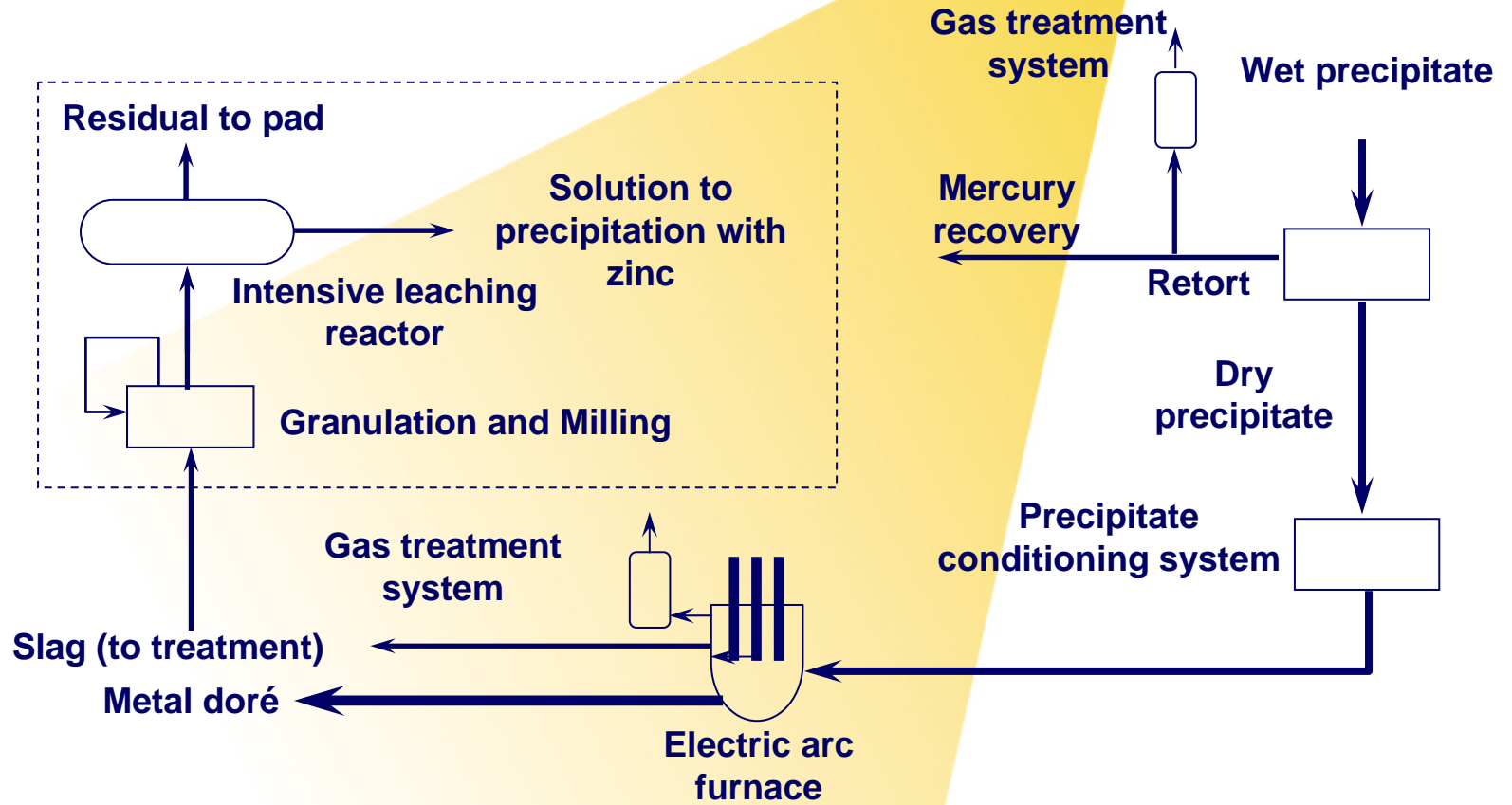
Smelting



Doré



SMELTING PROCESS



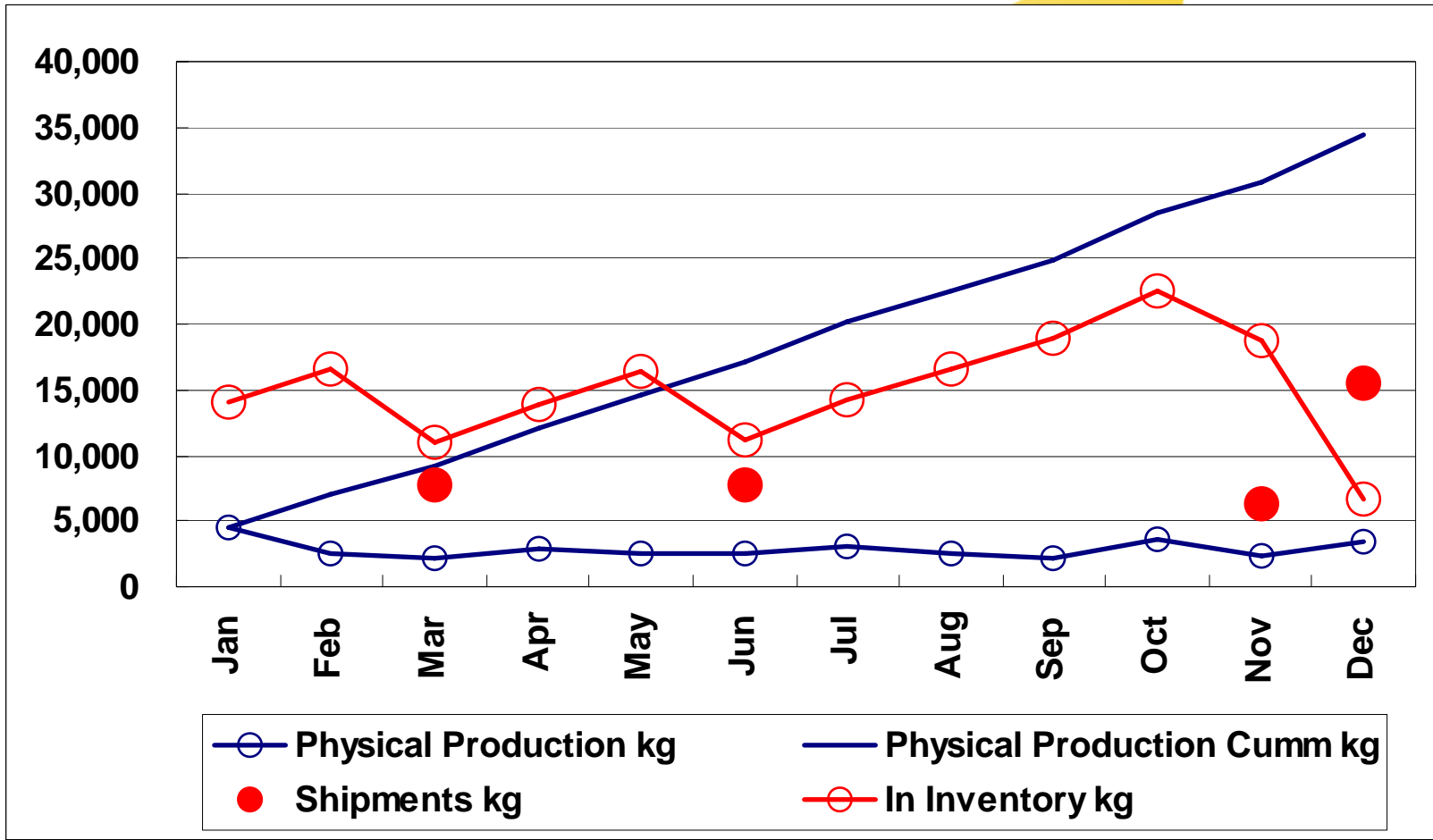
RETORT



GAS TREATMENT



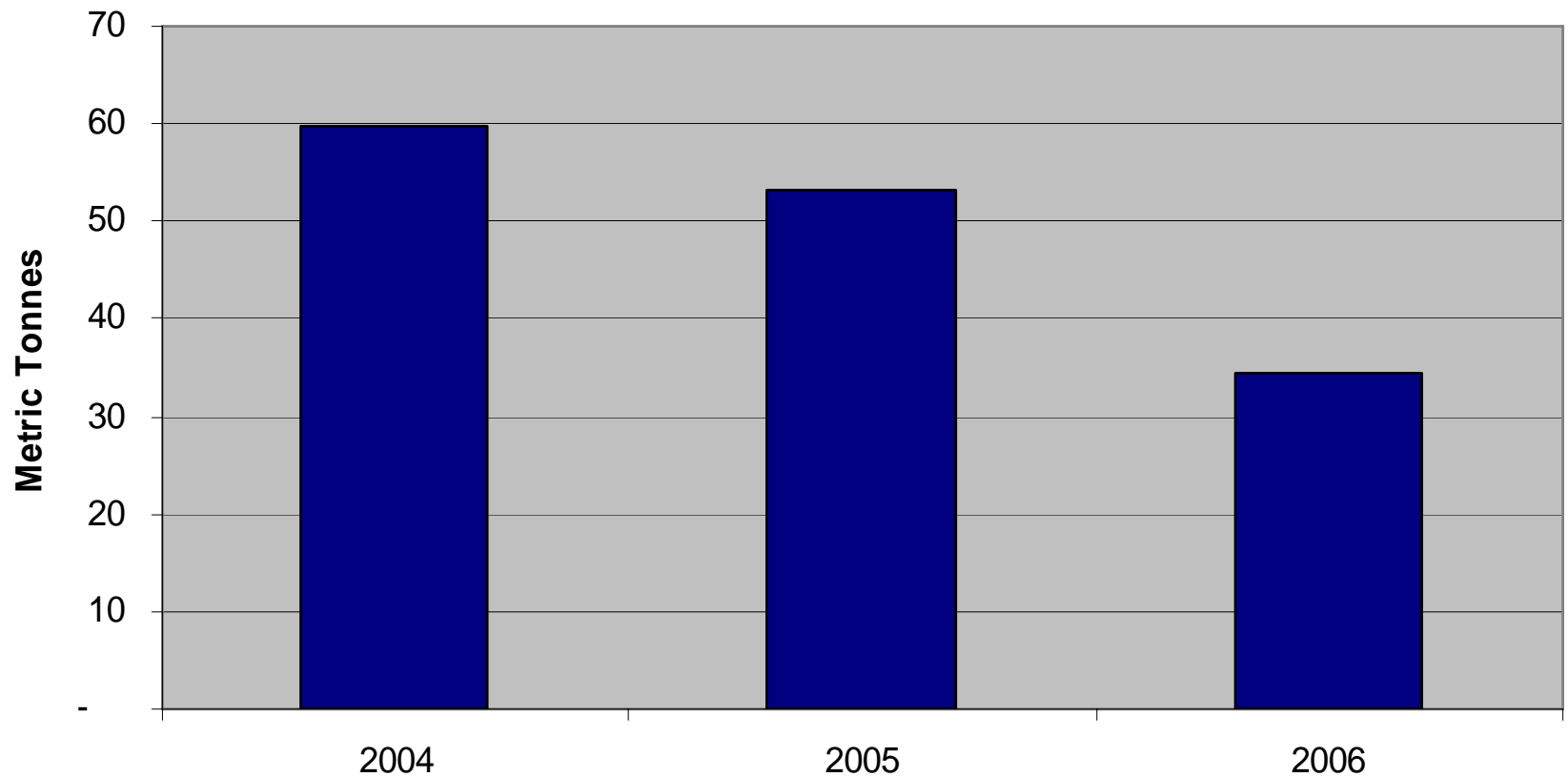
MERCURY PRODUCTION AND SALES - 2006



YANACOCHA ELEMENTAL MERCURY PRODUCTION



Yanacocha - Elemental Hg Production (Metric Tonnes)



MERCURY TRANSPORTATION



- In 2005, began shipping to Bethlehem Apparatus (B.A.), Hellertown, Pennsylvania
- Rigorous mercury handling system
 - Mercury is deposited in metallic bottles of 34 kg capacity
 - Bottles display two certifications of quality
 - one from the U.S. after manufacture
 - another one from Peru previous to filling
 - Bottles are closed and security sealed
 - Bottles are loaded into a gasketed bottle carrier
 - The bottle carrier is sealed, certified and loaded
 - Transport occurs in 20' container trucks
 - Each truck is equipped to transport 4 bottle carriers
- Use of a chemical marker to “fingerprint” Newmont’s mercury

SECURITY



- The convoy follows an established security route from the mine to the port of the Callao
- Personnel trained in hazardous material spill response escort the convoy in trucks fully equipped response
- A representative from Ministry of Energy and Mines accompanies
- Two security checkpoints enroute
- Receipt of shipment at the port and final security
- Stored in a secure, guarded warehouse until shipment

SUPPLY CHAIN



- Newmont has entered into contract with Bethlehem Apparatus to limit sales of mercury to “Qualified End Users”, which are:
 - Users for manufacture of end products
 - U.S. and Australian markets only
 - No mercury resellers

MERCURY BOTTLES



PREPARATION OF BOTTLE CARRIERS



SEALING THE BOTTLE CARRIER



OVERWRAPPING AND LABELING



LOADING THE BOTTLE CARRIERS

