Base-Metal Reserves and Exploration

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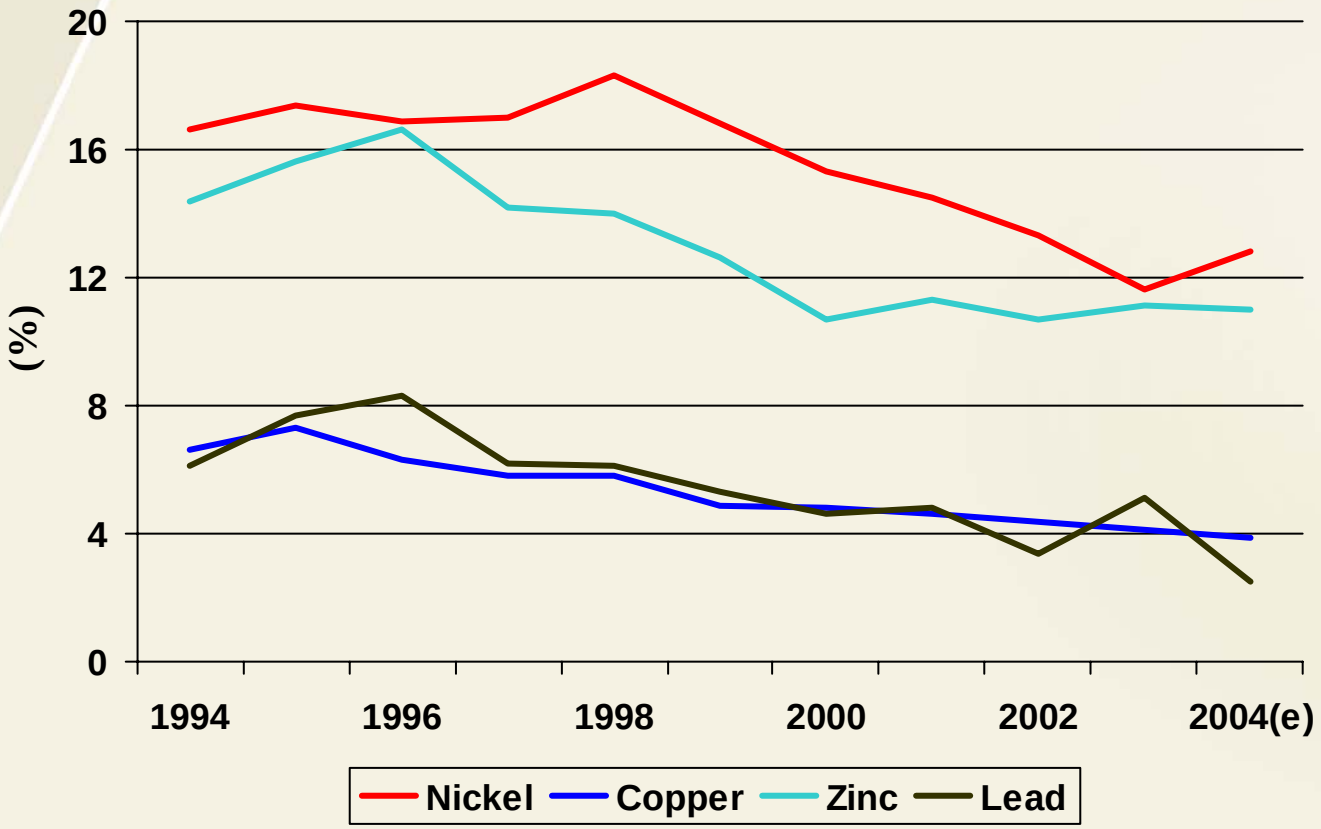
Presentation Outline

- Current context and challenges
- Ore reserve levels
- Exploration effort
- Conclusion

Current Context and Challenges

- Economic contribution in jeopardy
- Globally competitive environment
- Size of projects and long lead times
- Other commodities competing for investment
- Price outlook and demand fundamentals

Canada's Share of World Base-Metal Production, 1994-2004

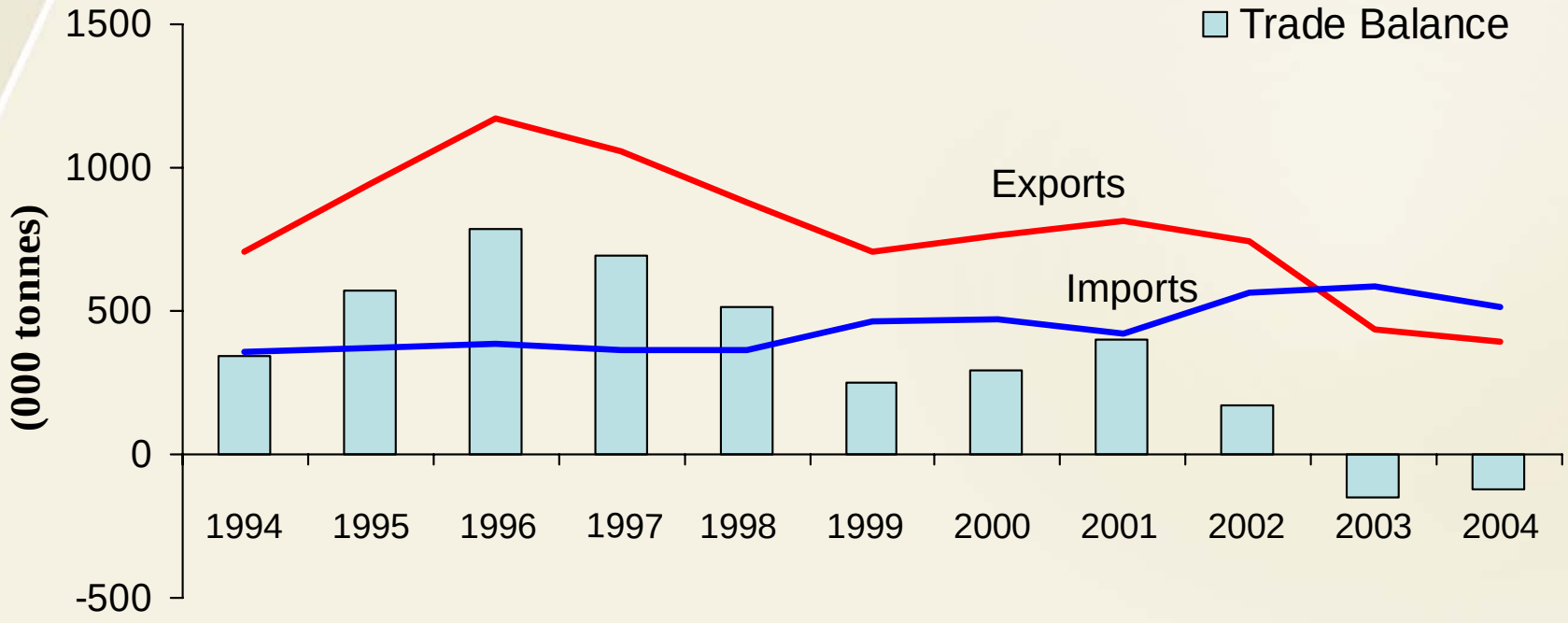


World Ranking

	1994	2004
Ni	2	3
Cu	3	8
Zn	2	4
Pb	5	6

Source: U.S. Geological Survey.

Canada's Trade Balance in Key Base-Metal Concentrates, 1994-2004



Sources: Natural Resources Canada; Statistics Canada.

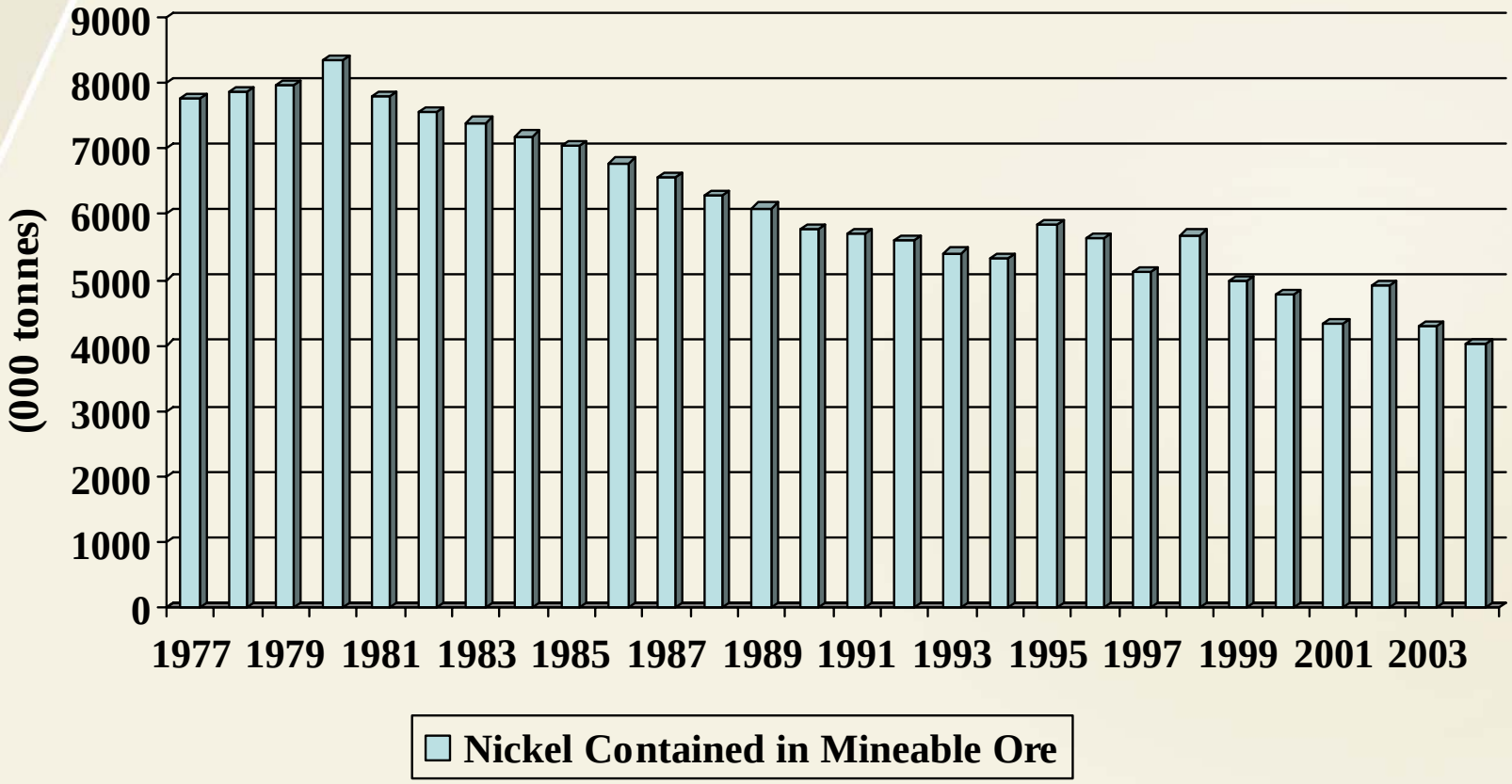
Base-Metal Ore Reserve Levels

- Canadian ore reserves of base metals (nickel, copper, zinc, lead, molybdenum) are all trending downward

- Canada's world rankings for ore reserves of the main base metals have also been declining

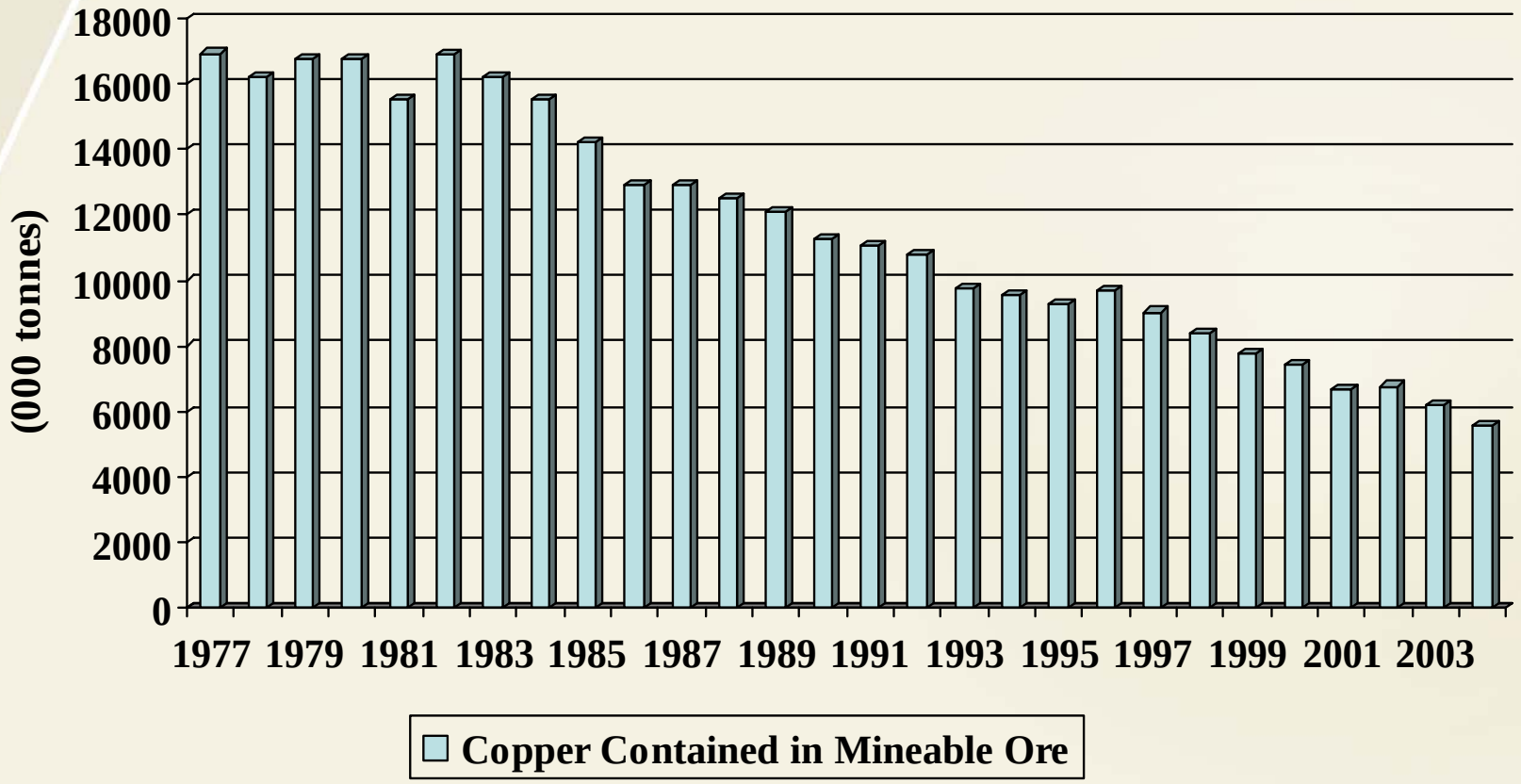
	1996	2004
Nickel	3rd	4th
Copper	8th	12th
Zinc	1st	6th
Lead	3rd	6th

Canadian Reserves of Nickel, 1977-2004



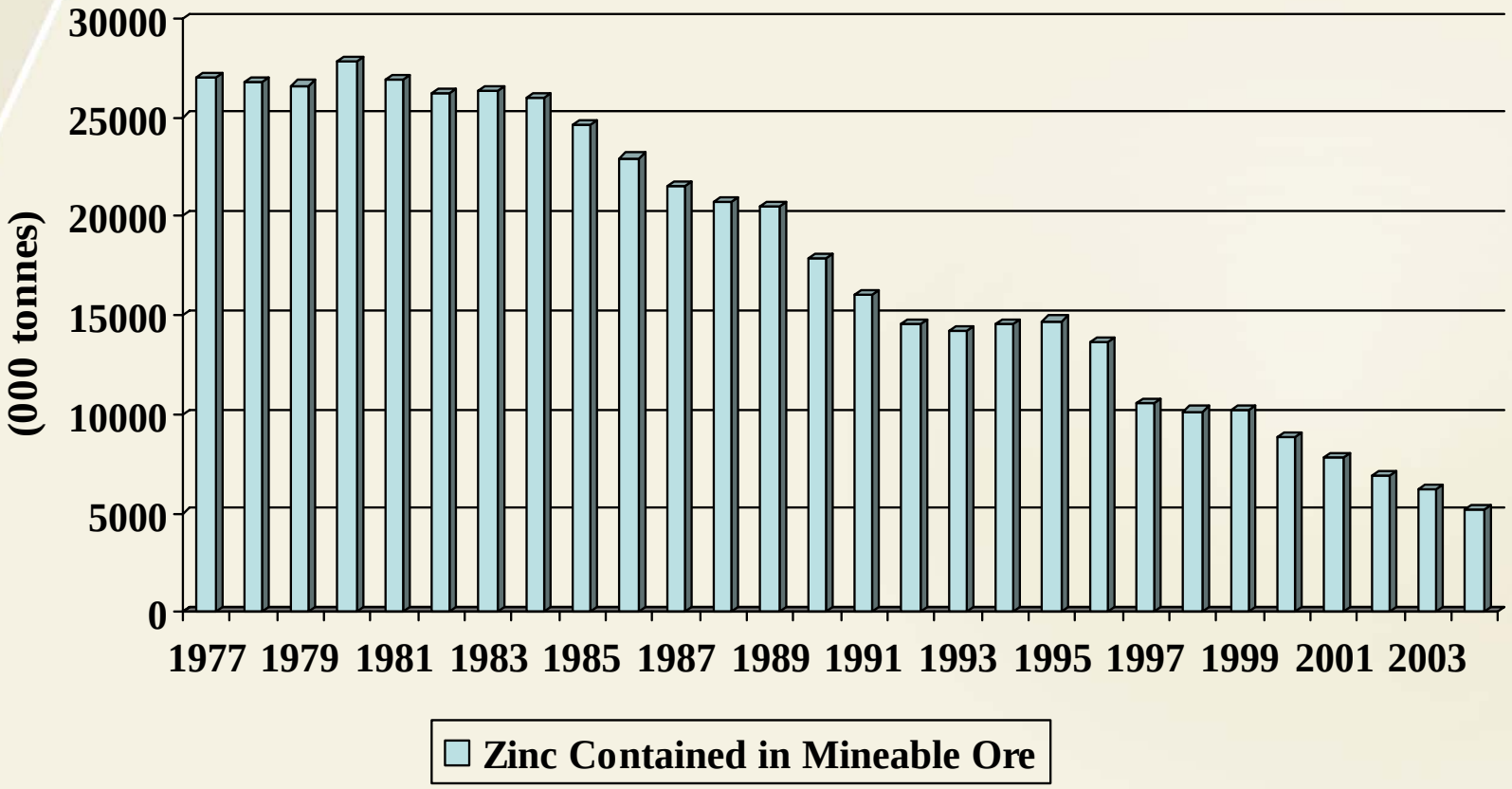
Metal contained in proven and probable mineable ore in operating mines and deposits committed to production, as at December 31 of each year.

Canadian Reserves of Copper, 1977-2004



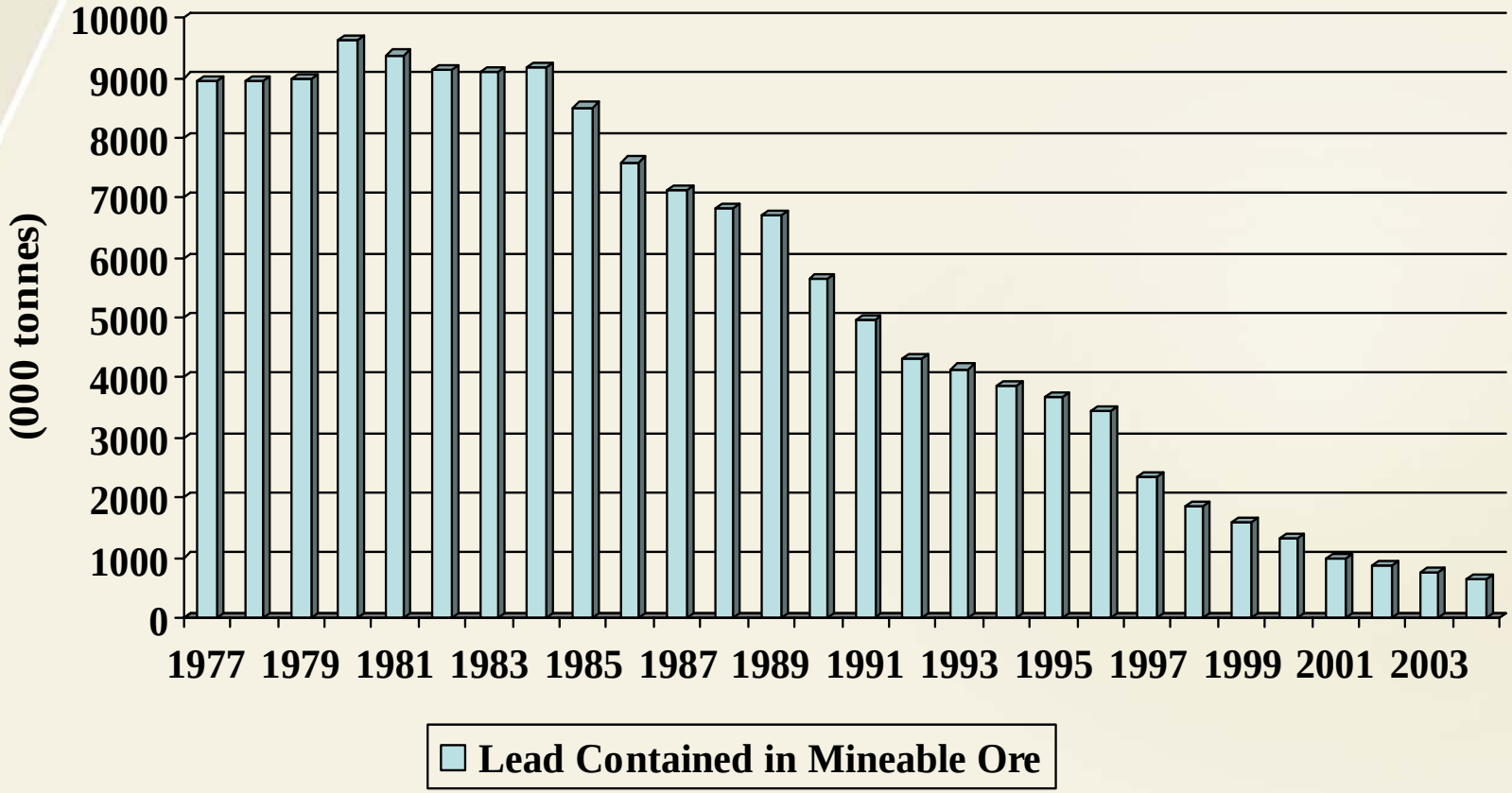
Metal contained in proven and probable mineable ore in operating mines and deposits committed to production, as at December 31 of each year.

Canadian Reserves of Zinc, 1977-2004



Metal contained in proven and probable mineable ore in operating mines and deposits committed to production, as at December 31 of each year.

Canadian Reserves of Lead, 1977-2004

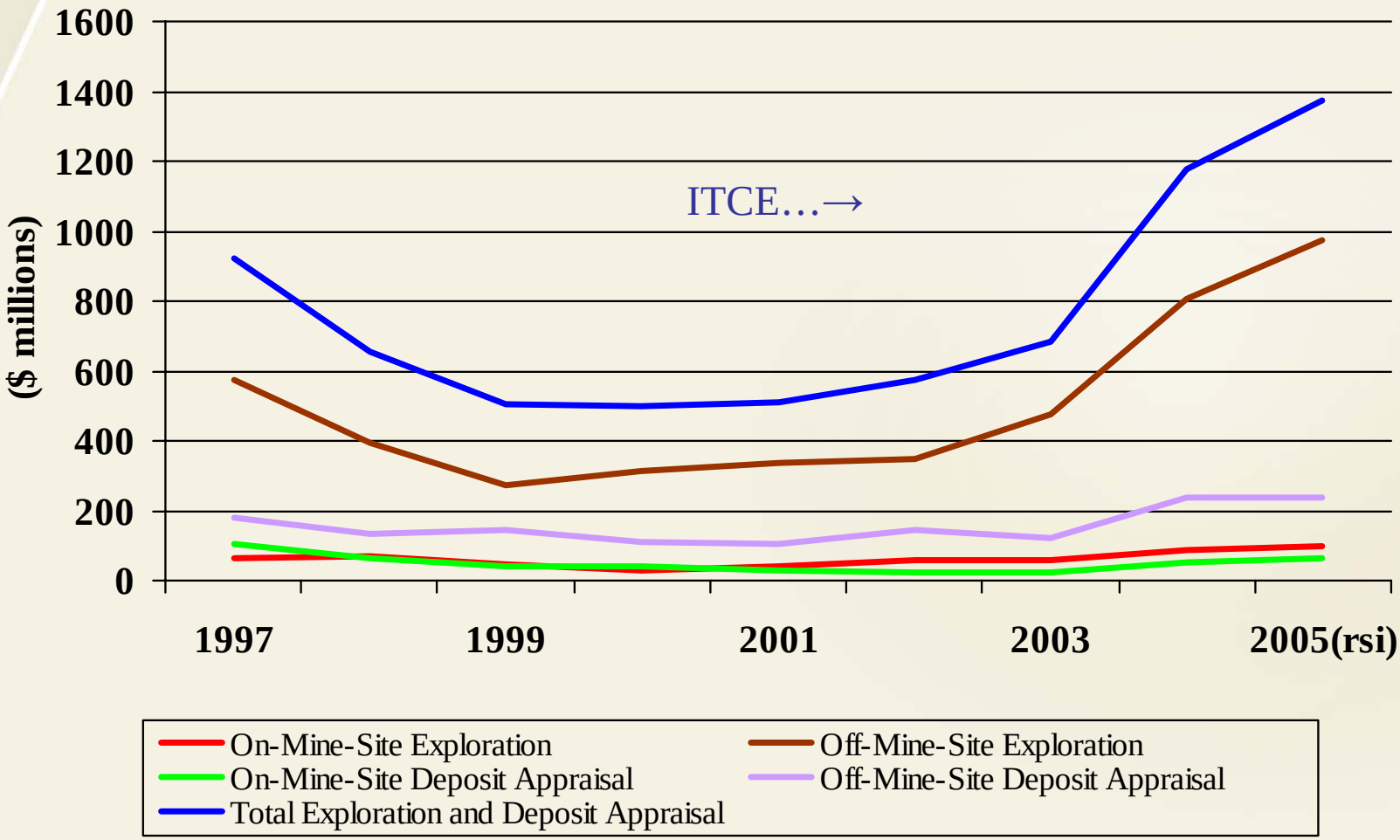


Metal contained in proven and probable mineable ore in operating mines and deposits committed to production, as at December 31 of each year.

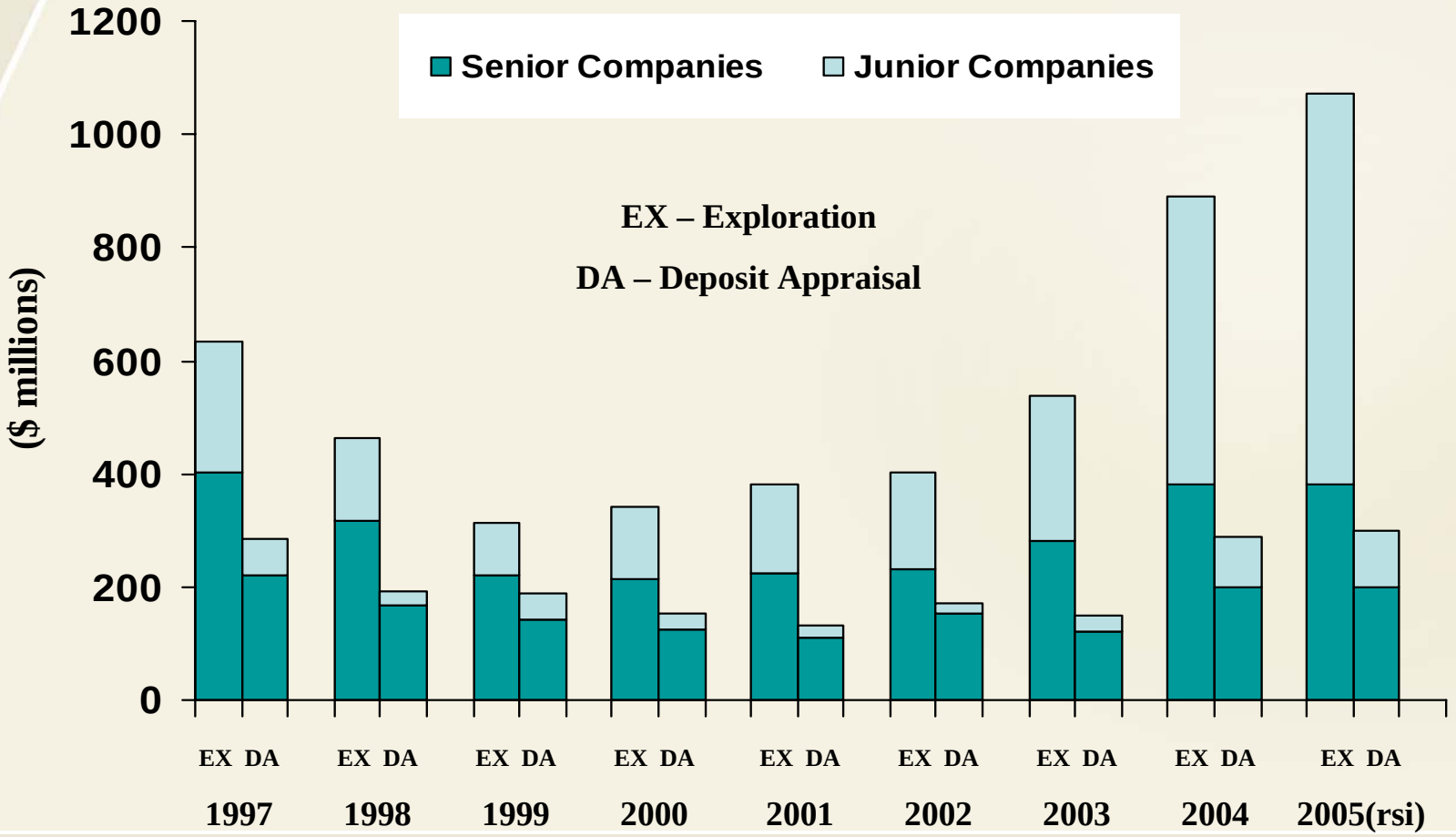
Exploration Effort

- Recovery in exploration and deposit appraisal spending is due to:
  - Metal prices
  - Government incentives
  - Investor interest
  - Discoveries
- Characteristics of current upward trend:
  - Focus on exploration (grassroots) as opposed to deposit appraisal (advanced)
  - Domination of off-mine-site spending
  - Junior companies have overtaken senior companies
  - Change in spending-by-commodity patterns

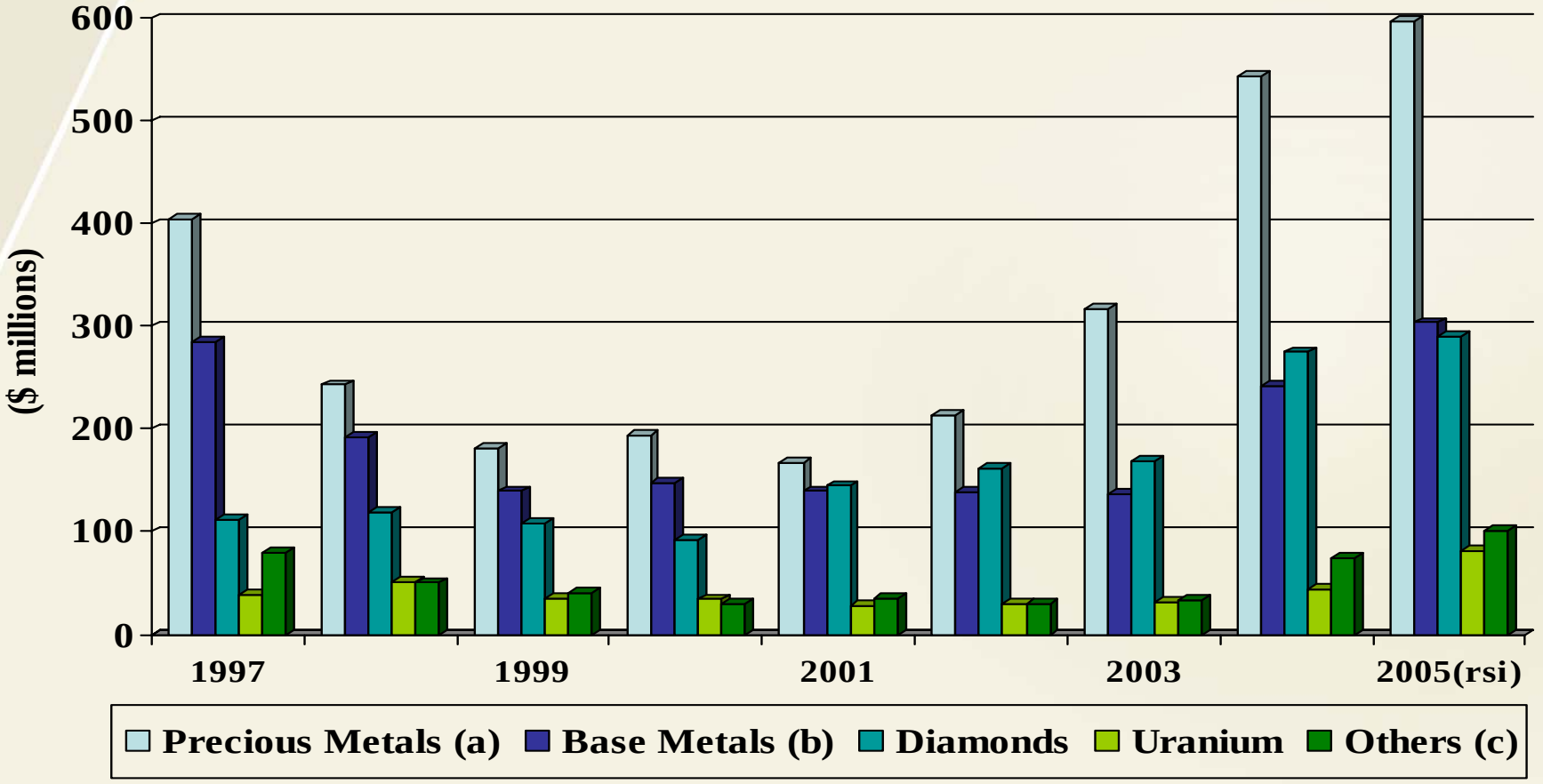
Exploration and Deposit Appraisal Spending, On- and Off-Mine-Site, 1997-2005



Exploration and Deposit Appraisal Spending, by Type of Company and by Work Phase, 1997-2005

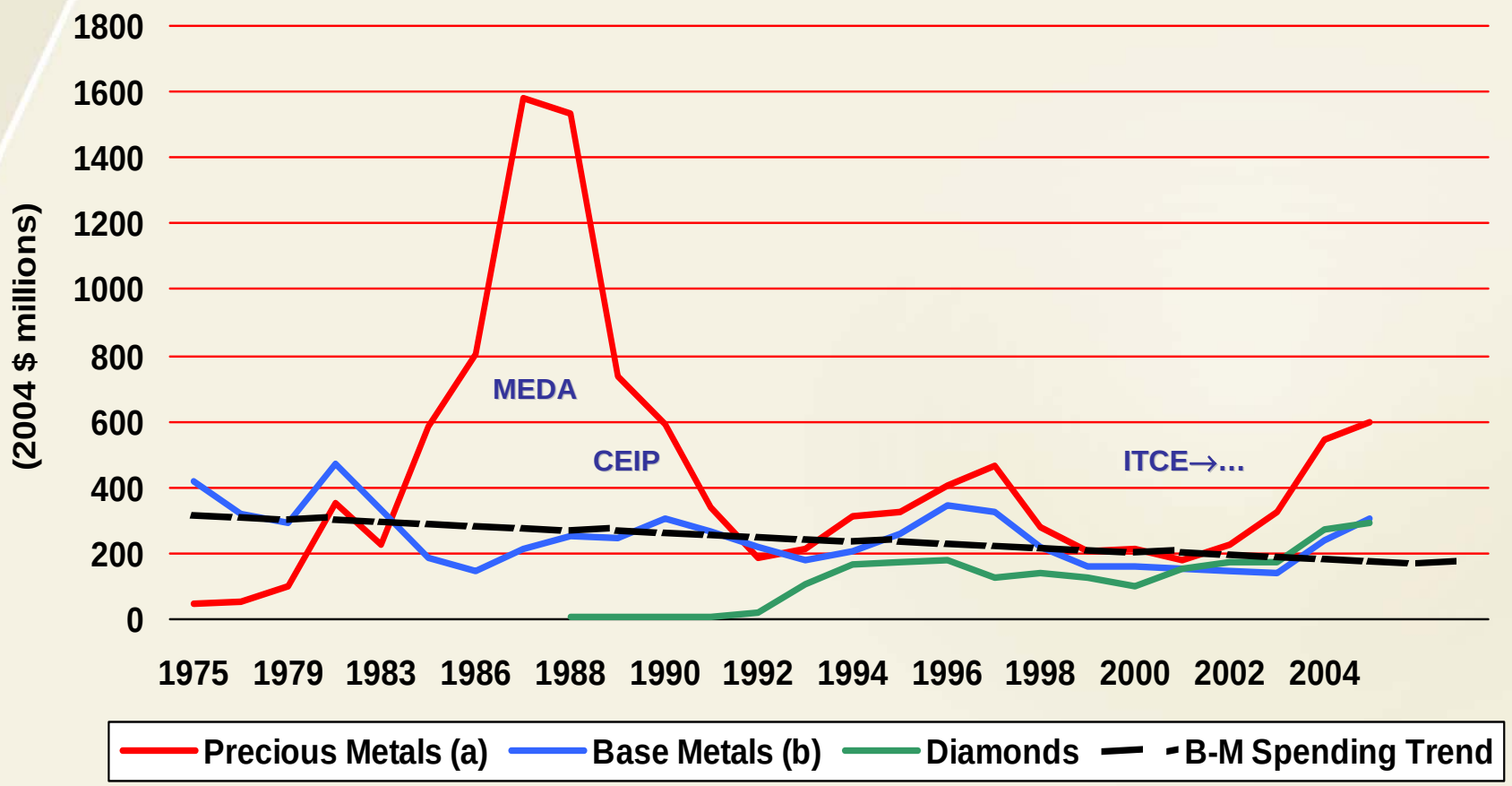


Exploration and Deposit Appraisal Spending, By Mineral Commodity, 1997-2005



(a) Includes gold, platinum group metals, and silver. (b) Includes nickel, copper, zinc and lead. (c) Includes coal, iron, other metals and nonmetals.

Exploration and Deposit Appraisal Spending, for the Three Main Commodity Groups, 1975-2005

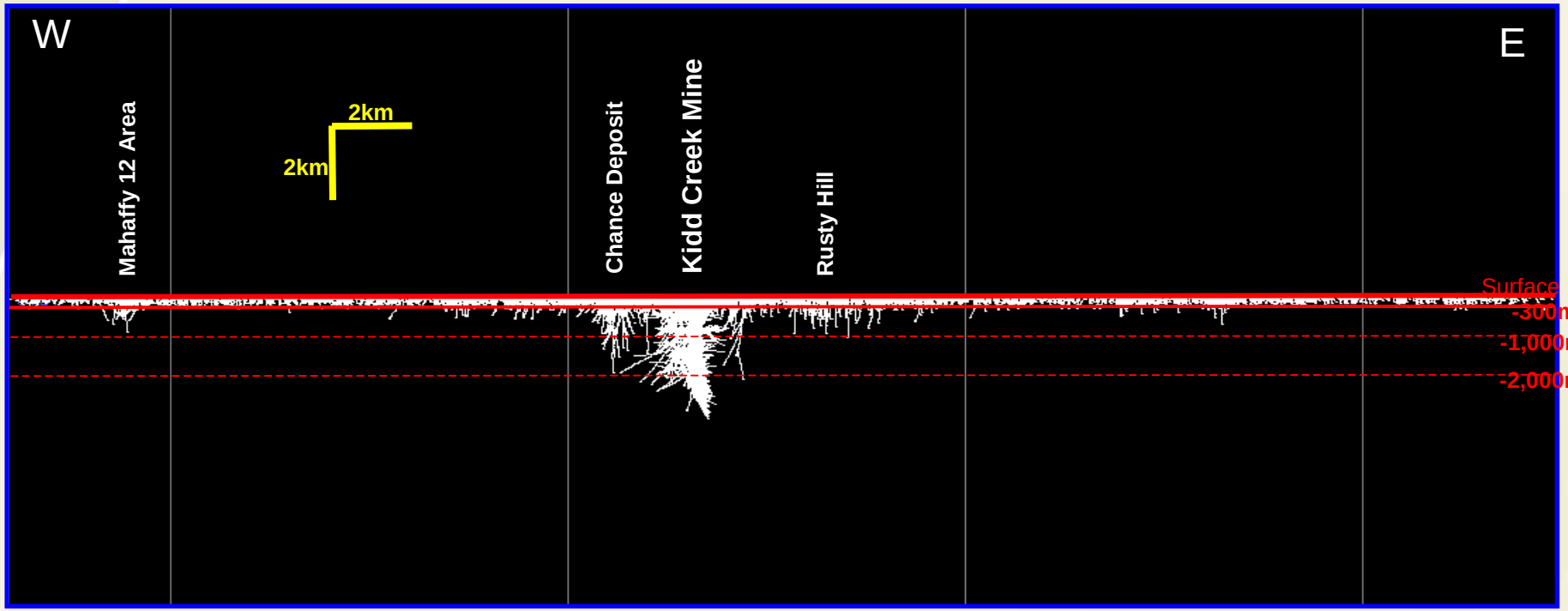


(a) Includes gold, platinum group metals, and silver. (b) Includes copper, nickel, lead and zinc. Note: After 1997, spending data include field and overhead *plus* new cost categories as per revised survey definitions.

Increasing Canadian Base-Metal Reserves – Considerations

- Renewed exploration effort has been focussed outside of existing mining properties and has yet to succeed in stopping downward trend in base-metal reserves
- New discoveries still have hurdles of long lead times, high capital costs, etc.
- Deep discovery potential on existing mine properties could provide some additional reserves and extend mine lives
- New sectors of the Canadian mining industry are being developed (e.g., diamonds)
- Strong international competition for mining investment and availability of quality deposits abroad

Vertical Longitudinal Projection Through Kidd Volcanic Complex (looking north)



Total of 8242 DDH & OBH. A total of 531 holes greater than 500 m in length, 311 of which drilled from underground. Most holes tested depths of 0-300 m. Drilling below 300 m only where base metals intersected above 300 m depth. Only drilling below depth of 1000 m was at the Chance deposit (180 000 t – sub-economic) and at Kidd mine (160+Mt). Source: Falconbridge Limited.

Conclusion and Key Messages

- Base-metal reserves have been declining rapidly
- Premature mine and smelter closures will hurt communities/regions
- Current upsurge in off-mine-site surface exploration has been concentrated on gold and diamonds
- More on-mine-site (and mining camp) work is needed

- **Base metals:**
  - **hold less investor appeal than gold or diamonds**
  - **do not respond as well or as quickly to broadly based incentives**
  - **are influenced by rising metal prices but exploration levels are slower to react**