

MINERA ESCONDIDA



ANALYSTS VISIT

April 24th, 2004

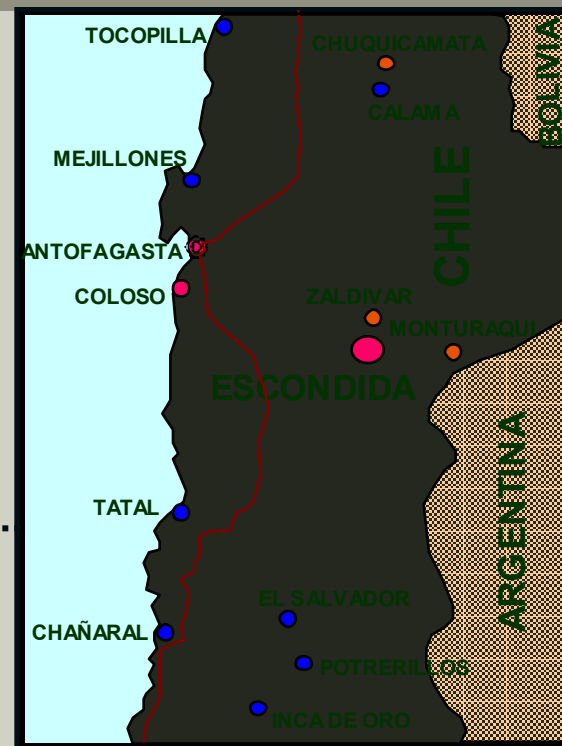
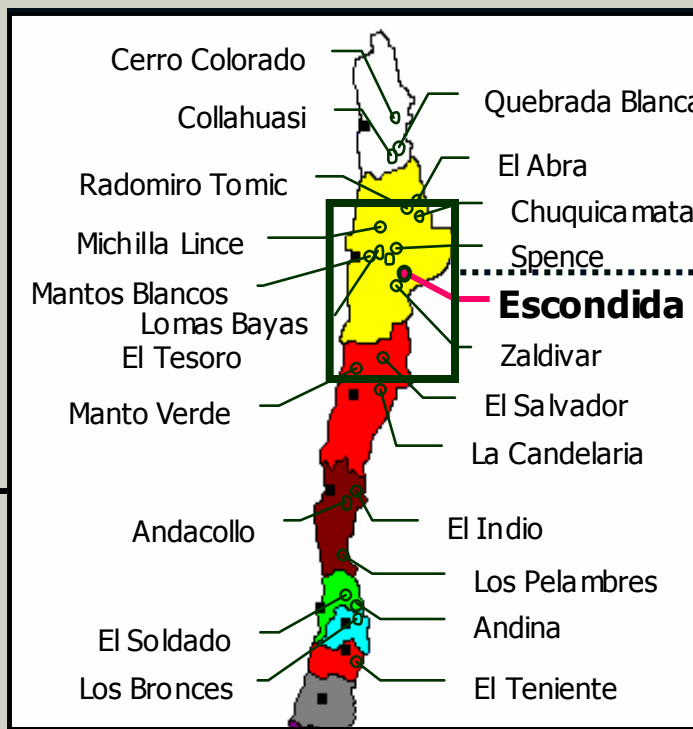
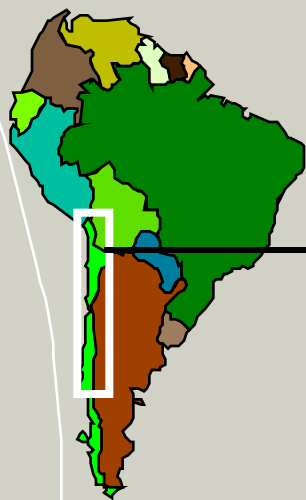


Presentation Content

- **Escondida Overview**
- Operations
- Financial Overview
- Business Strategy
- Growth Opportunities
- Marketing
- Current Activities

World's Premium Copper Region

Northern Chile's Atacama Desert,
160 km South East of Antofagasta





**Zaldivar
Leach Pads**

**Escondida
Norte**

**Zaldivar
Pit**

Concentrator

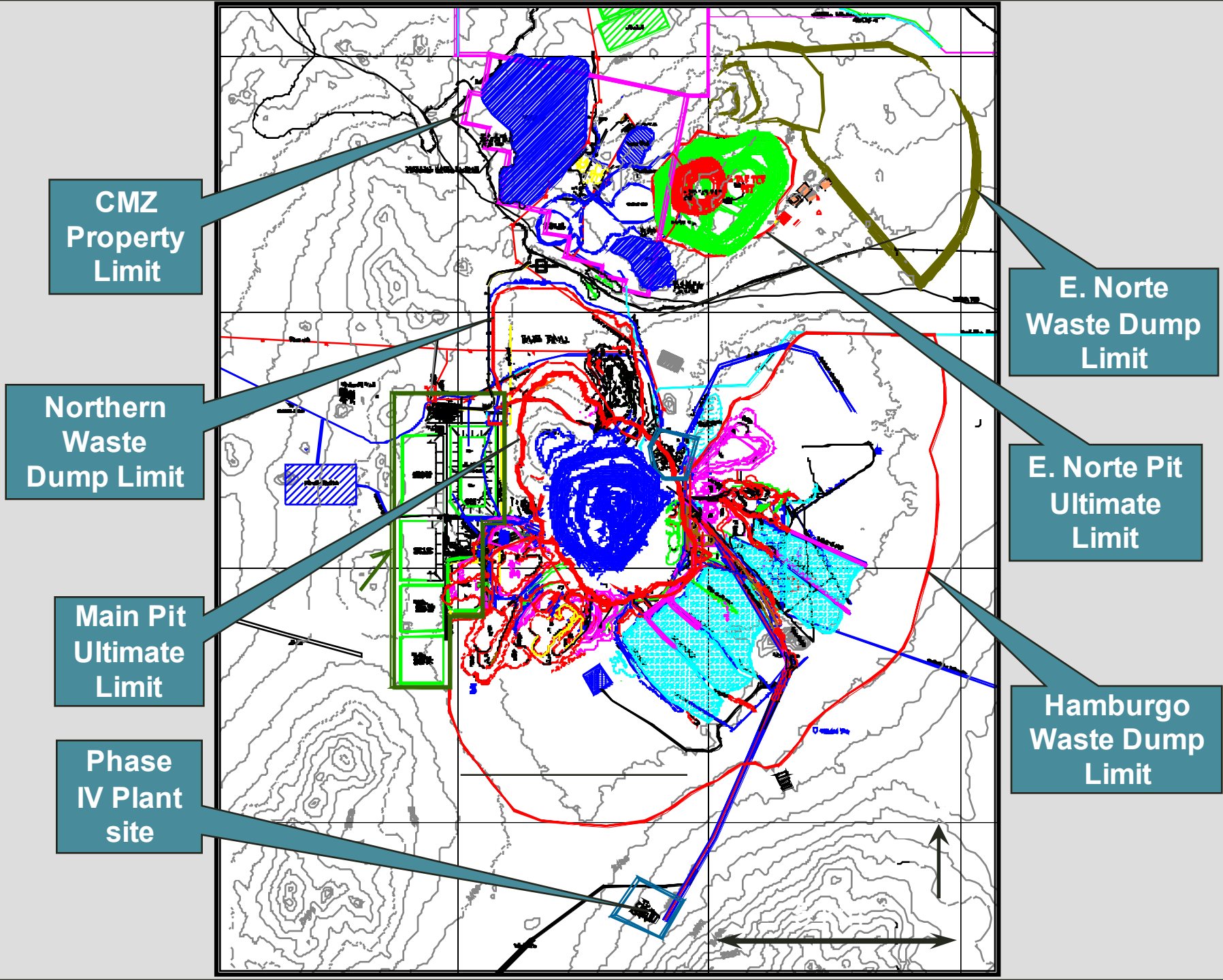
**Main
Pit**

**Oxide
Leach Pads**

**Hamburgo
Tails**

**Phase IV
Plant site**

5 km
N



**CMZ
Property
Limit**

**Northern
Waste
Dump Limit**

**Main Pit
Ultimate
Limit**

**Phase
IV Plant
site**

**E. Norte
Waste Dump
Limit**

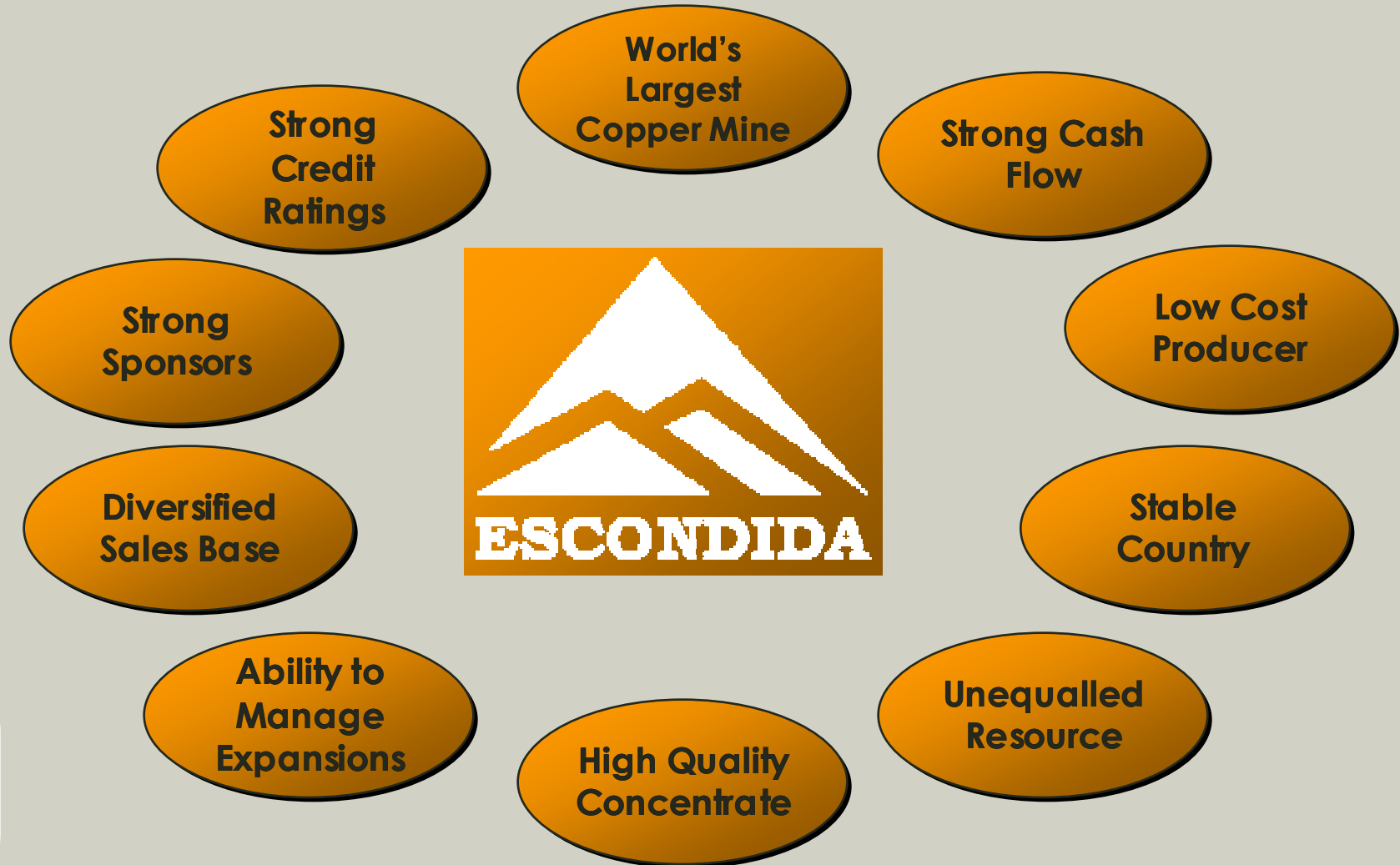
**E. Norte Pit
Ultimate
Limit**

**Hamburgo
Waste Dump
Limit**



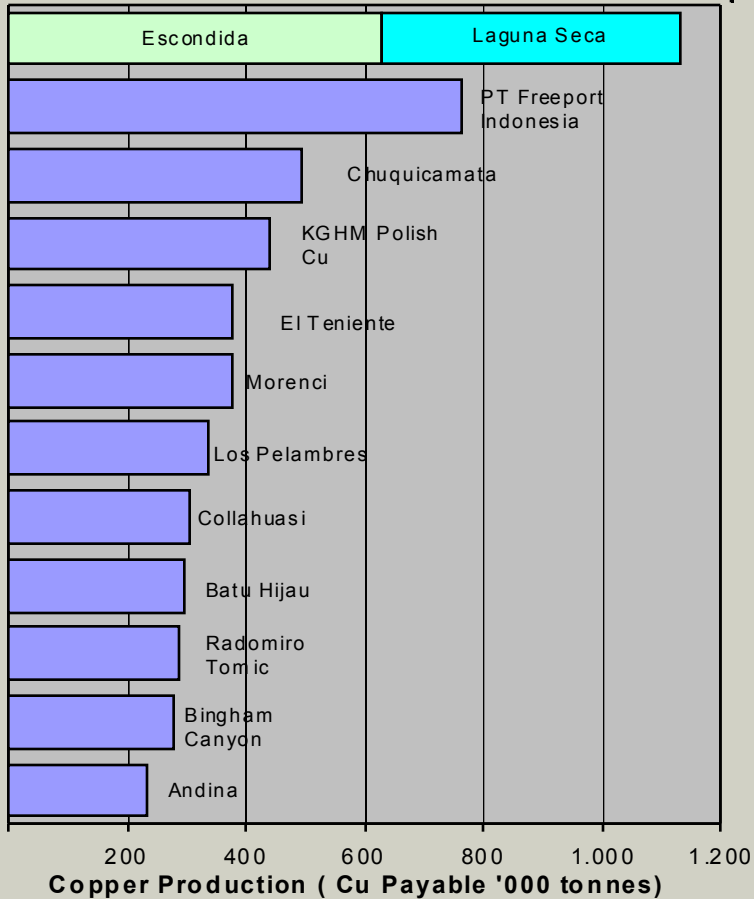
Coloso Filter & Port Facilities

Escondida's Strategy Builds on its Strengths to Maximize Long Term Value

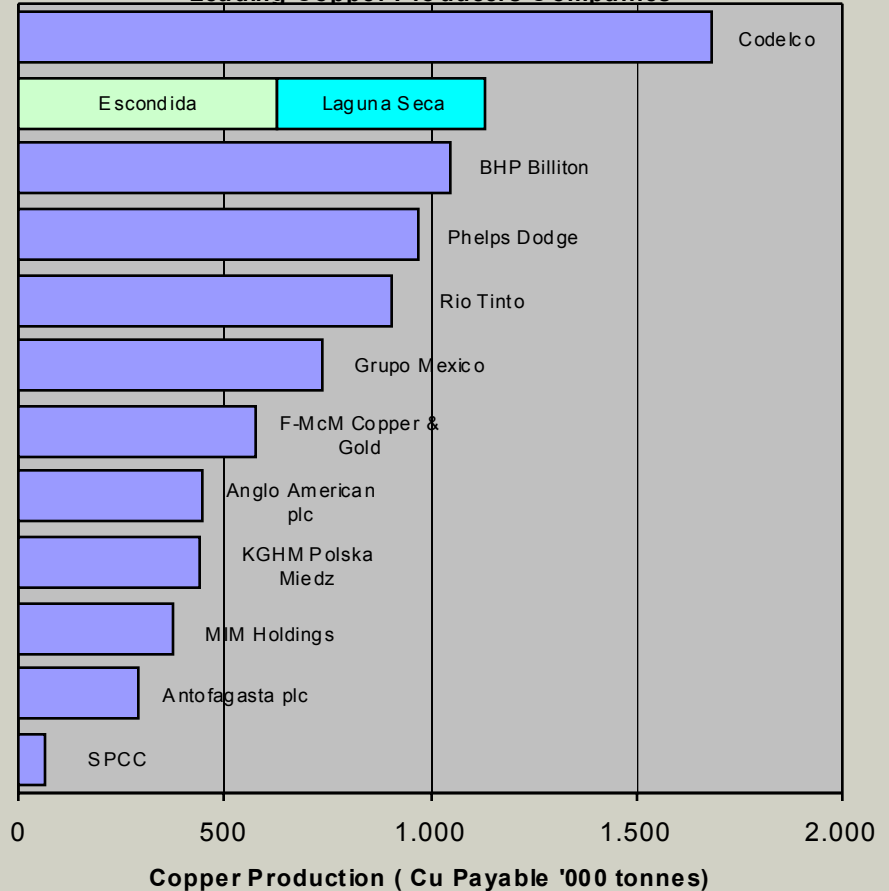


World's Largest Copper Mine

Leading Copper Mine Sites

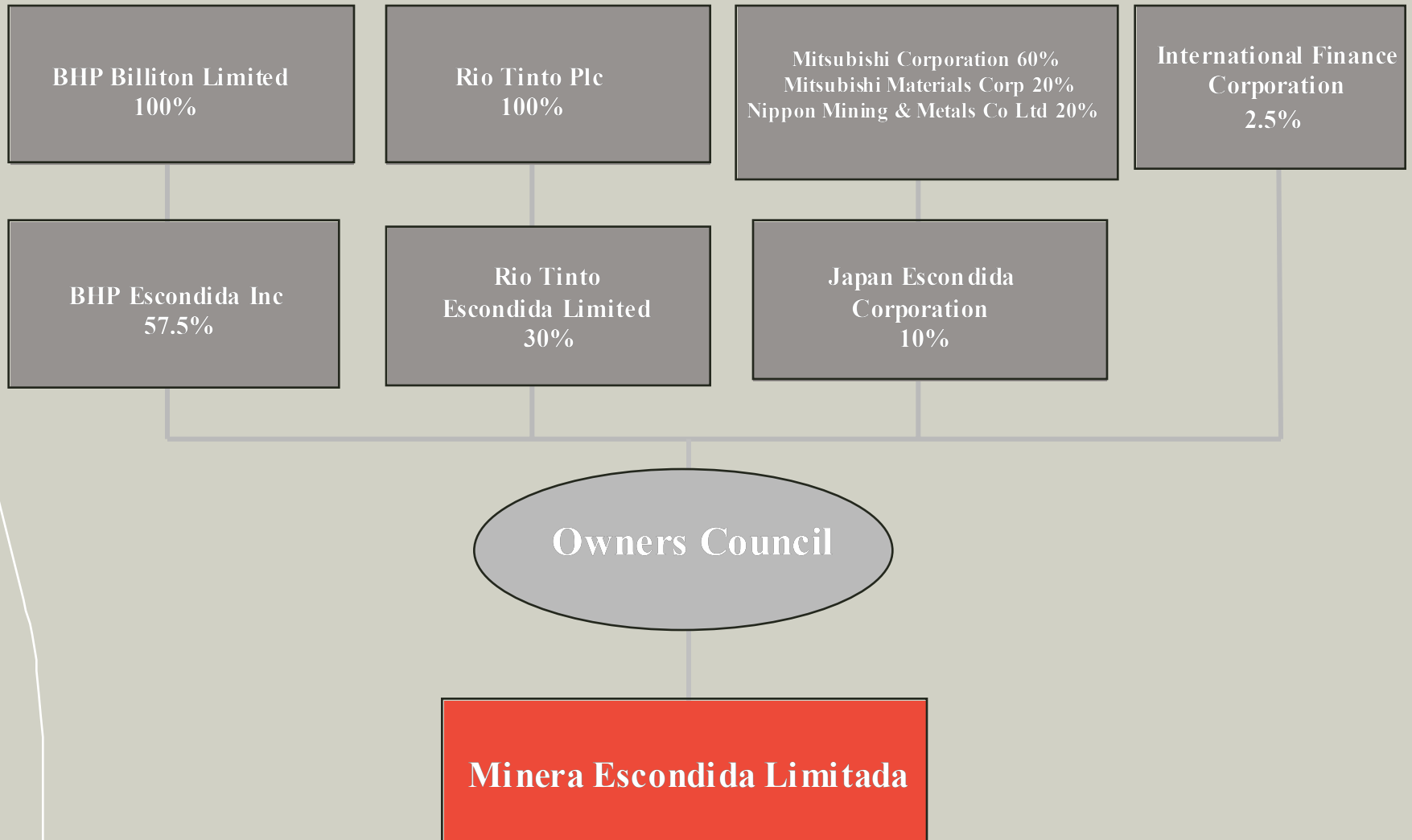


Leading Copper Producers Companies

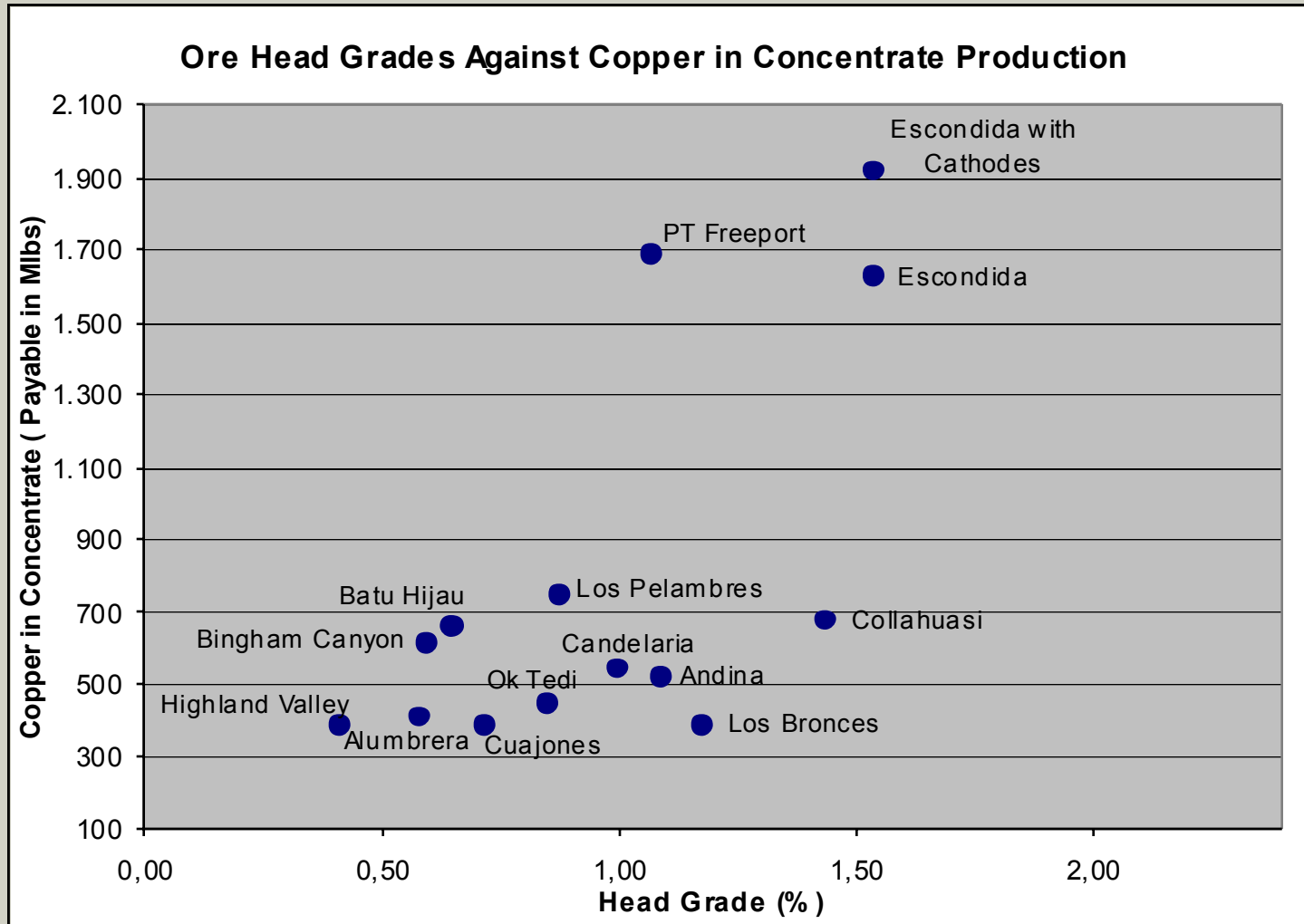


Source: Brook Hunt & Associates, Estimated year 2003, Escondida FY03 and Escondida Laguna Seca Budget 2004

Sponsored By World's Premier Metals & Mining Houses



Unequalled Copper Resource



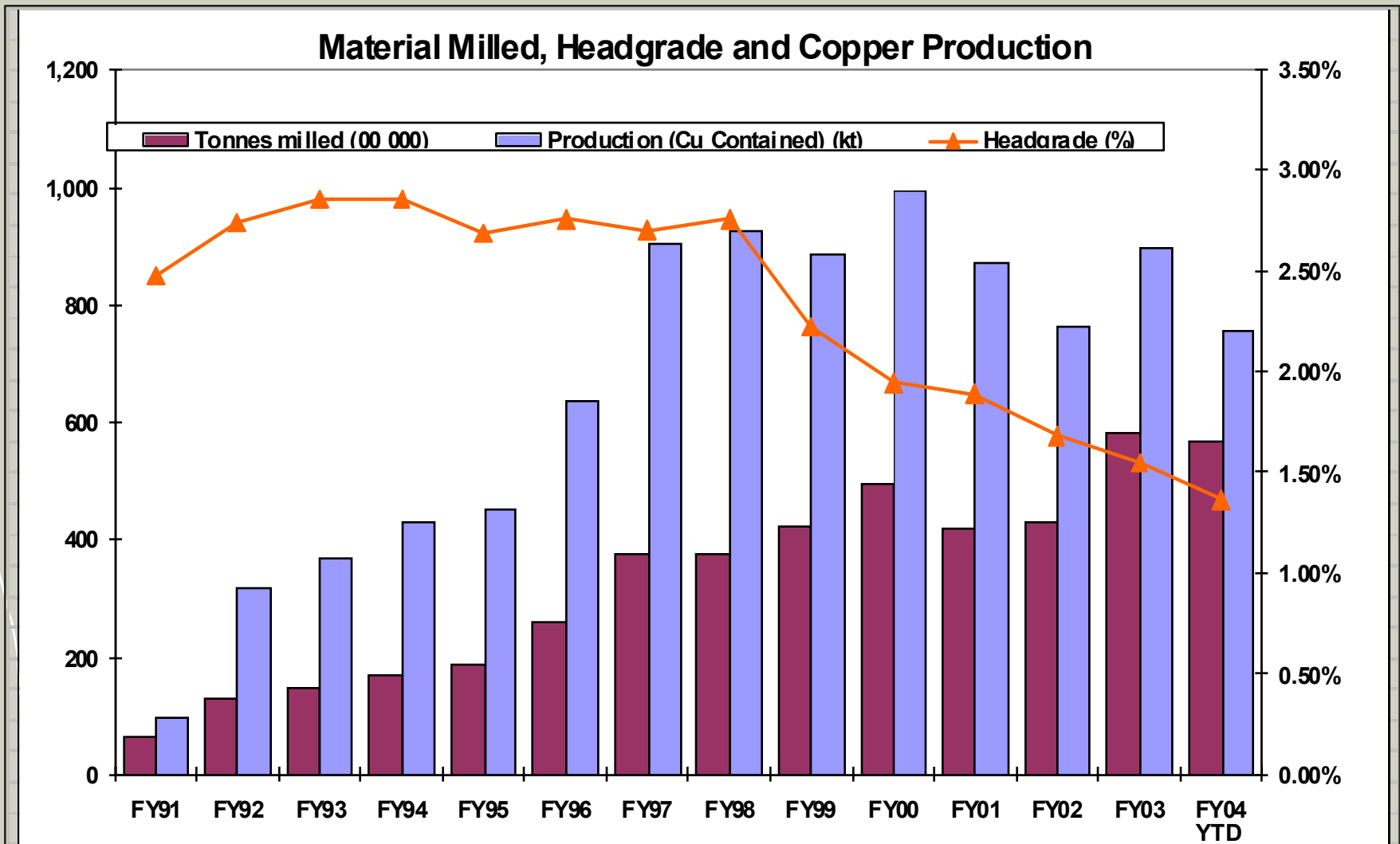
Source: Brook Hunt Data for estimated year 2003.
Escondida FY03.

Total Ore Reserves and Mineral Resources:

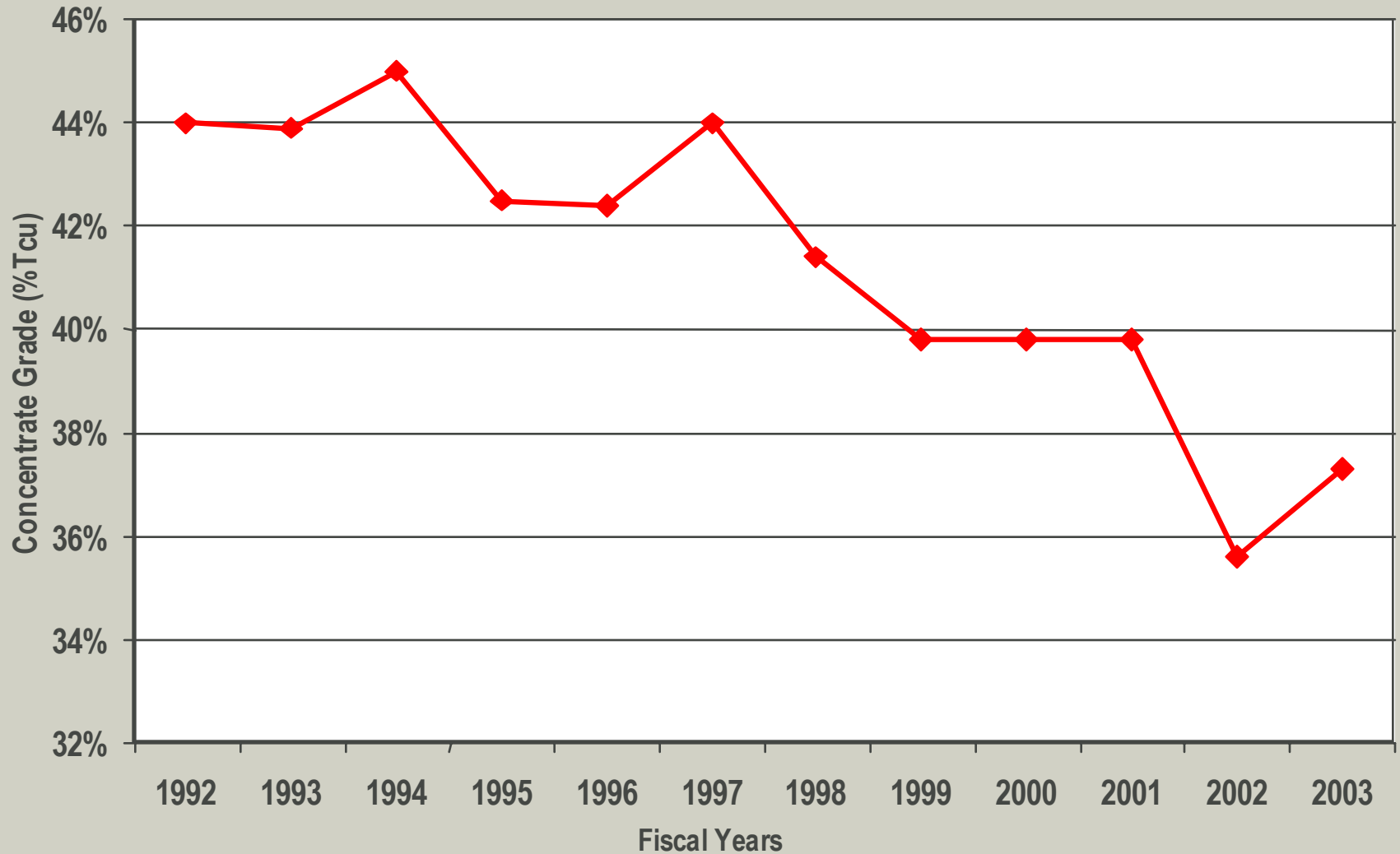
Official declaration at June 30, 2003, JORC Competent Person: Dr J M Gilligan

	Ore Type	Ore Reserves			Mineral Resources		
		Tonnes (millions)	Grade (%Cu)	Metal (mlbs)	Tonnes (millions)	Grade (%Cu)	Metal (mlbs)
Escondida	Sulphide	1,514	1.21	34,293	2,121	1.12	52,550
	LG Float	570	0.60	6,026	1,396	0.59	18,254
	LG Leach				673	0.43	6,442
	Mixed	51	1.04	478	111	0.82	2,013
	Oxide	191	0.71	2,617	248	0.65	3,567
Escondida Norte	Sulphide	502	1.44	13,541	649	1.33	19,014
	LG Float	95	0.61	998	642	0.58	8,190
	Mixed				43	0.81	761
	Oxide	105	0.77	1,478	142	0.79	2,476
Sub-Totals	All Sulphide	2,680	1.10	54,859	5,481	0.86	104,449
	Mixed	51	1.04	478	154	0.82	2,775
	Oxide	296	0.73	4,094	390	0.70	6,043
TOTAL	All Types	3,027		59,431	6,025		113,266

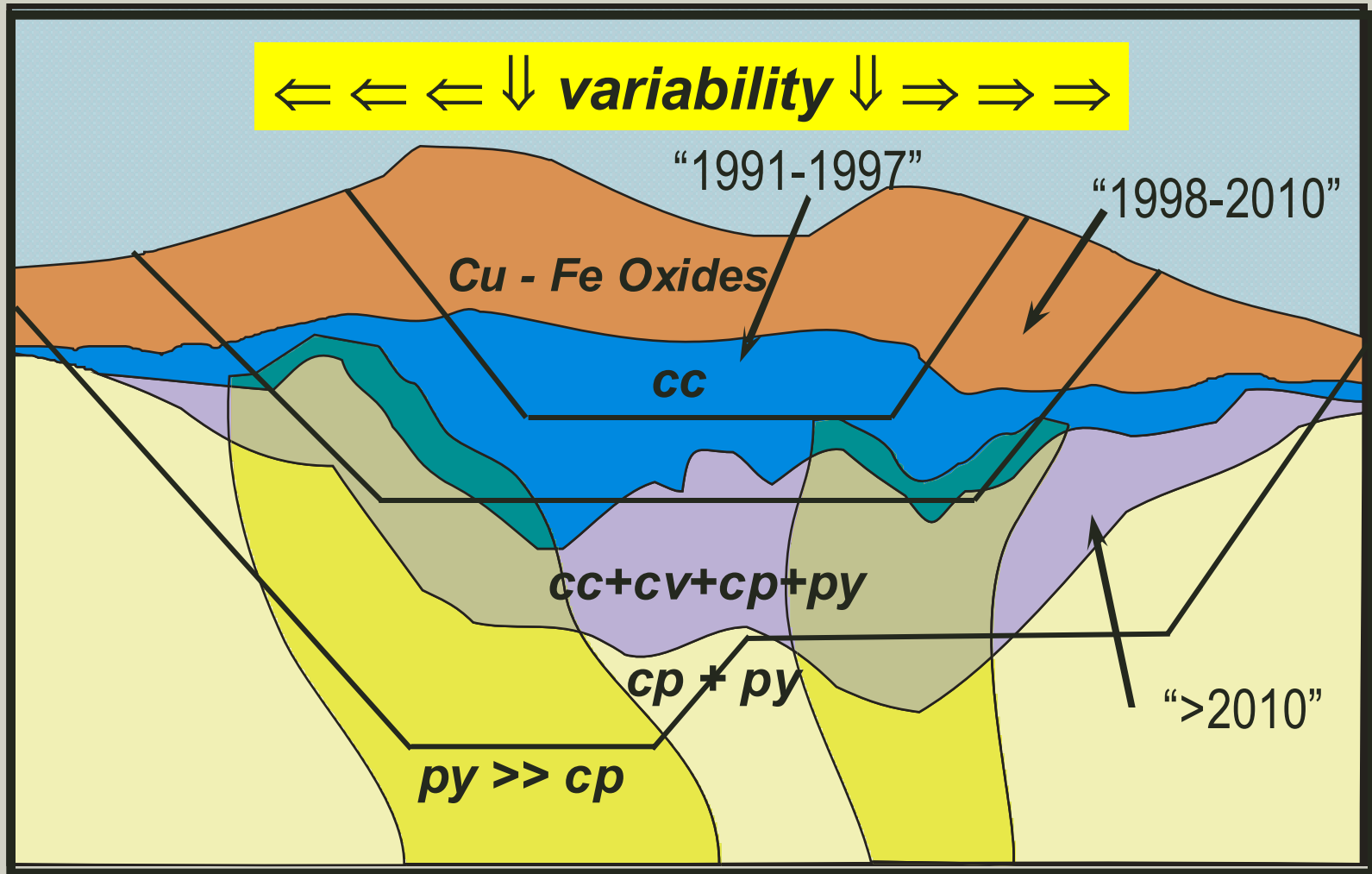
Copper Production & Head Grade



Concentrate Grade Long Term: Historic Annual Copper in Concentrate (All Production)



Escondida Schematic Deposit Evolution Profile: Increasingly complex & variable geological conditions



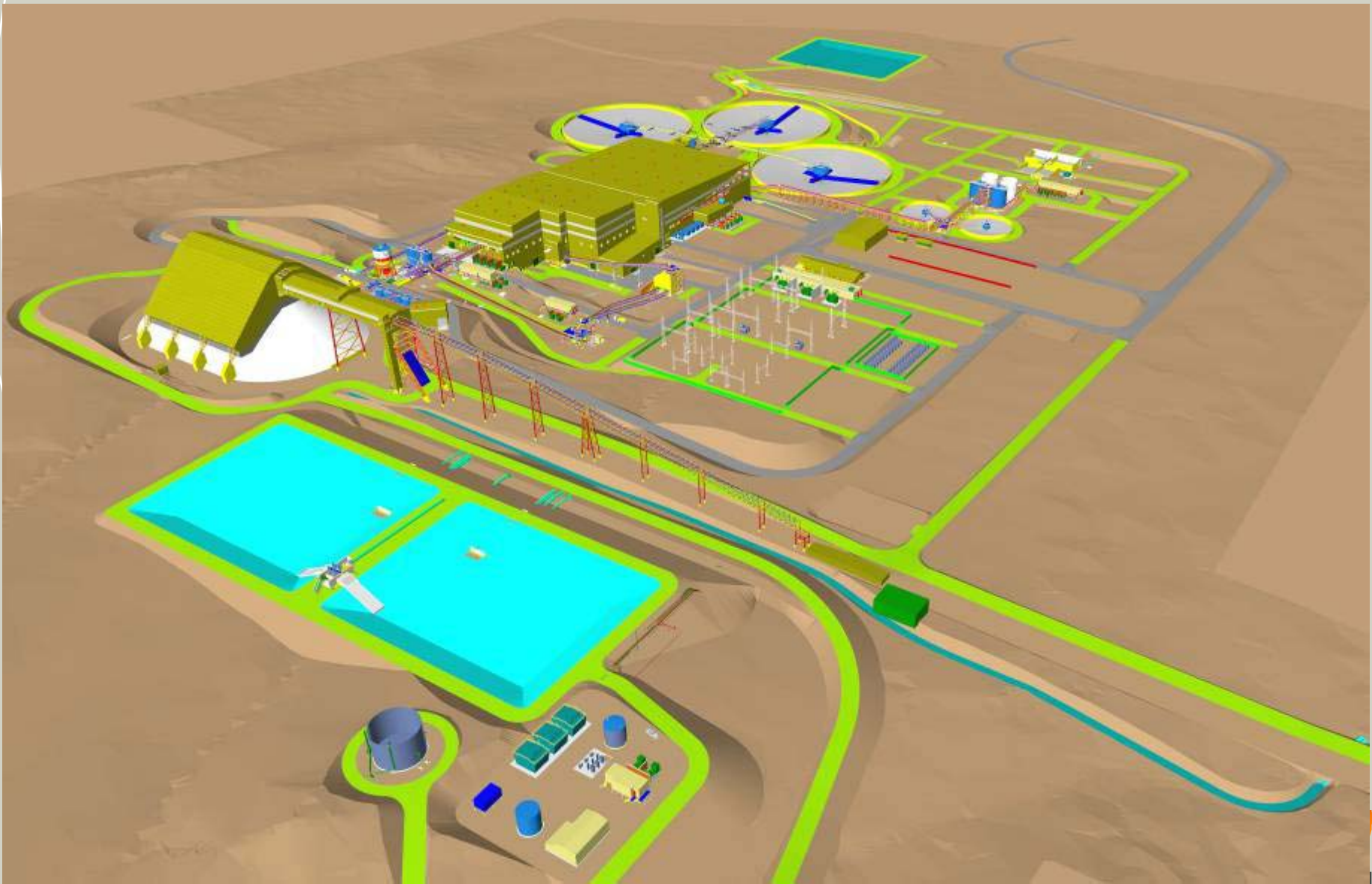
Ore-Related Concentrate Grade & Quality Drivers

- Copper Mineralogy
 - Chalcocite to chalcopyrite ratios decrease with depth
- Pyrite Content
 - Increasing pyrite content over last several years
- Sulfide-Sulfide and Sulfide-Gangue Intergrowths
 - Dependent on alteration, lithology, and degree of enrichment
- Trace Element Geochemistry
 - Zonation of trace and minor elements within ore deposit
 - Elements such as Ag, As, and Cd contained within copper sulfides, with high recovery

Phase IV Expansion Components

- An additional mine fleet
 - (1) 65 yd³ shovel, (6) 380 st haul trucks, (1) drill
 - Support equipment and maintenance shop expansion
- In-pit ore crusher and conveyor to Phase IV concentrator
 - Relocation of existing crushers
- 110,000 tpd Concentrator
 - 38-ft. SAG mill and (3) 25-ft. Ball mills
 - Conventional flotation using large cells, regrind, column cells
- Concentrate handling
 - Slurry pipeline to existing concentrator, then on to the port
 - Added concentrate filtering and storage capacity
 - Modifications to port facility
- Laguna Seca Tailings Facility
 - Tailings disposal for life of mine – both mills
 - Improved water reclaim to both mills

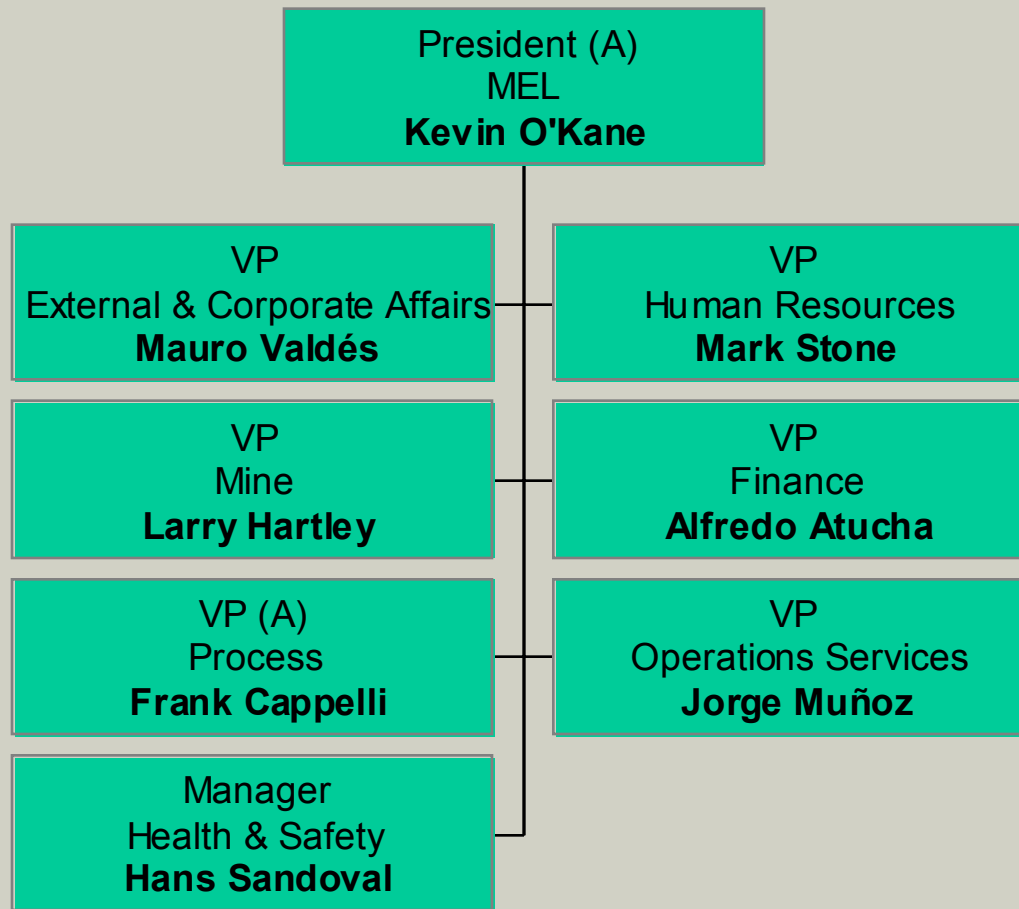
Phase IV: Laguna Seca Concentrator: Detailed Site Layout



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Escondida Organisational Structure



Employment

	Antofagasta	Coloso	Escondida	Santiago	Total Mel
Expatriates	2	0	11	0	13
Operators	0	70	1.698	0	1.768
Technical & Admin.	21	0	100	0	121
Professional/Mgrs	49	17	475	10	551
Total	72	87	2.284	10	2.453

- Avg workforce age – 40 years
- Avg length of service – 8 years
- Employee turnover – 0.38%
- Attendance rates – 96,6%+
- Female employees – 3.9%
- Expatriate employees – 0.53%

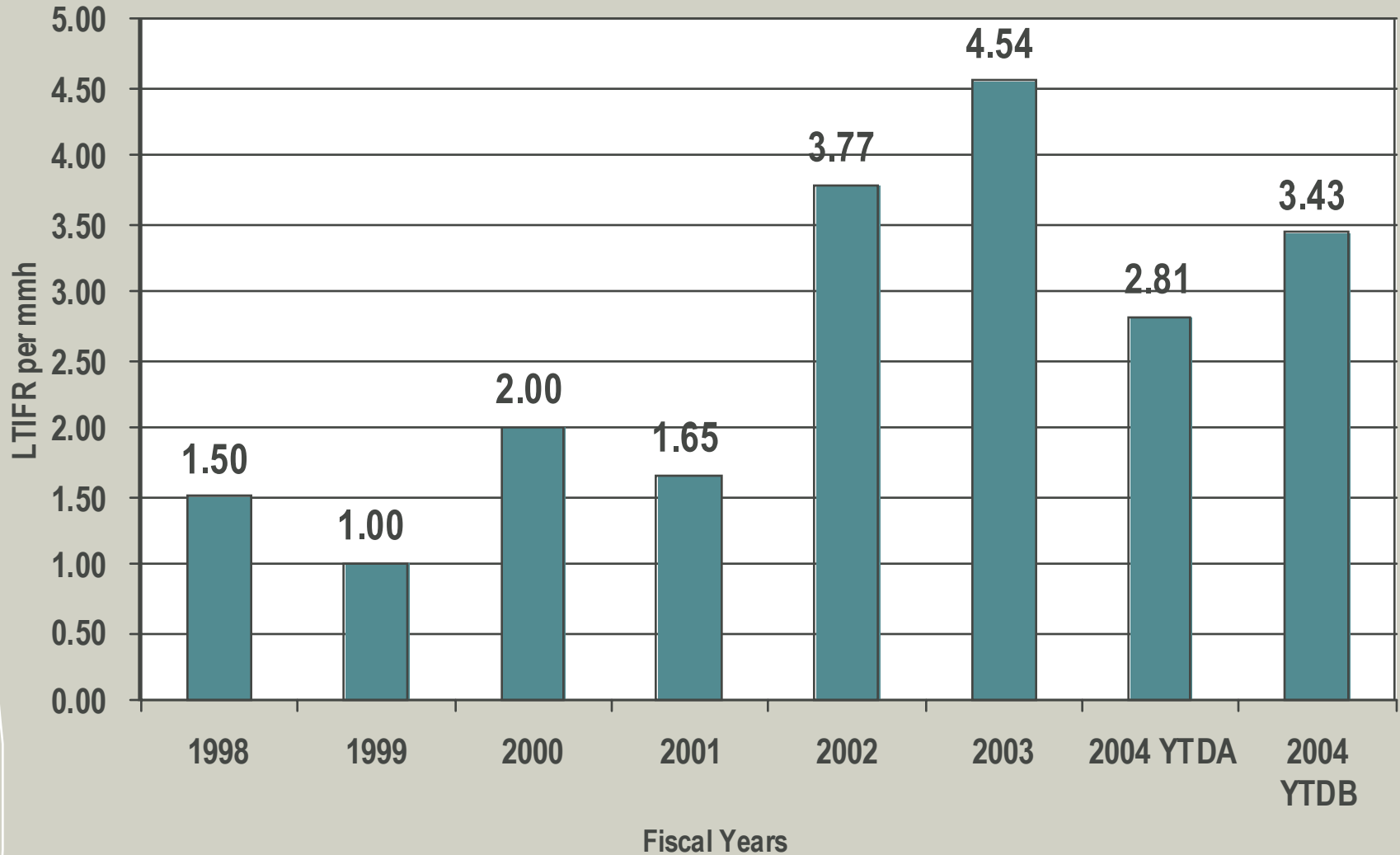
Permanent Contractors 2.135

Capital Projects 1.167

Total Contractors 3.302

Note: As at 30 September 2003

Safety – Lost Time Frequency Rate (LTIFR)



Dimensions	Now	Final
E-W	2.2km	3.5km
N-S	3.2km	4.8km
Depth	465m	750m

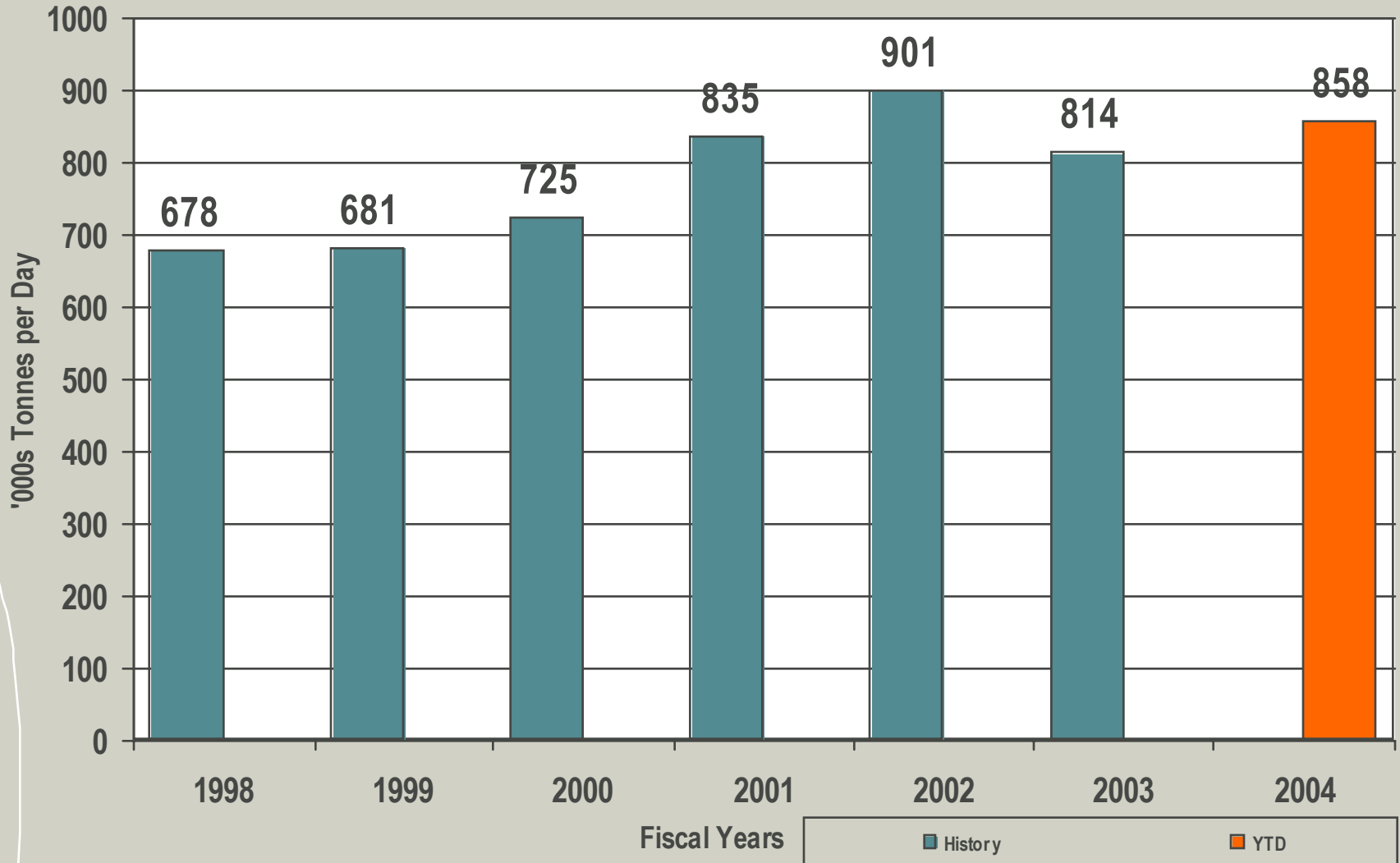
Escondida Mine Pit



Escondida Mining Fleet FY-04

• Electric Rope Shovels – Total	14
- P&H 4100 XPB (73 yd Dipper)	3
- BE 495HR (67 yd Dipper)	1
- BE 495 (55 yd Dipper)	9
- BE 395 (30 yd Dipper)	1
• Haul Trucks - Total	92
- Komatsu 830E (240 mt)	28
- CAT 793 B&C (240 mt)	48
- CAT 797 (380 mt)	16
• Front End Loaders – Total	3
- CAT 994 (23 yd Bucket)	3
• Drills – Total	15
- BE 49R R2s (8), IR DMM2s (2), DM45 (2), CM780 (1) & P&H 250XPs (2)	
• Auxiliary Equipment – Total	52

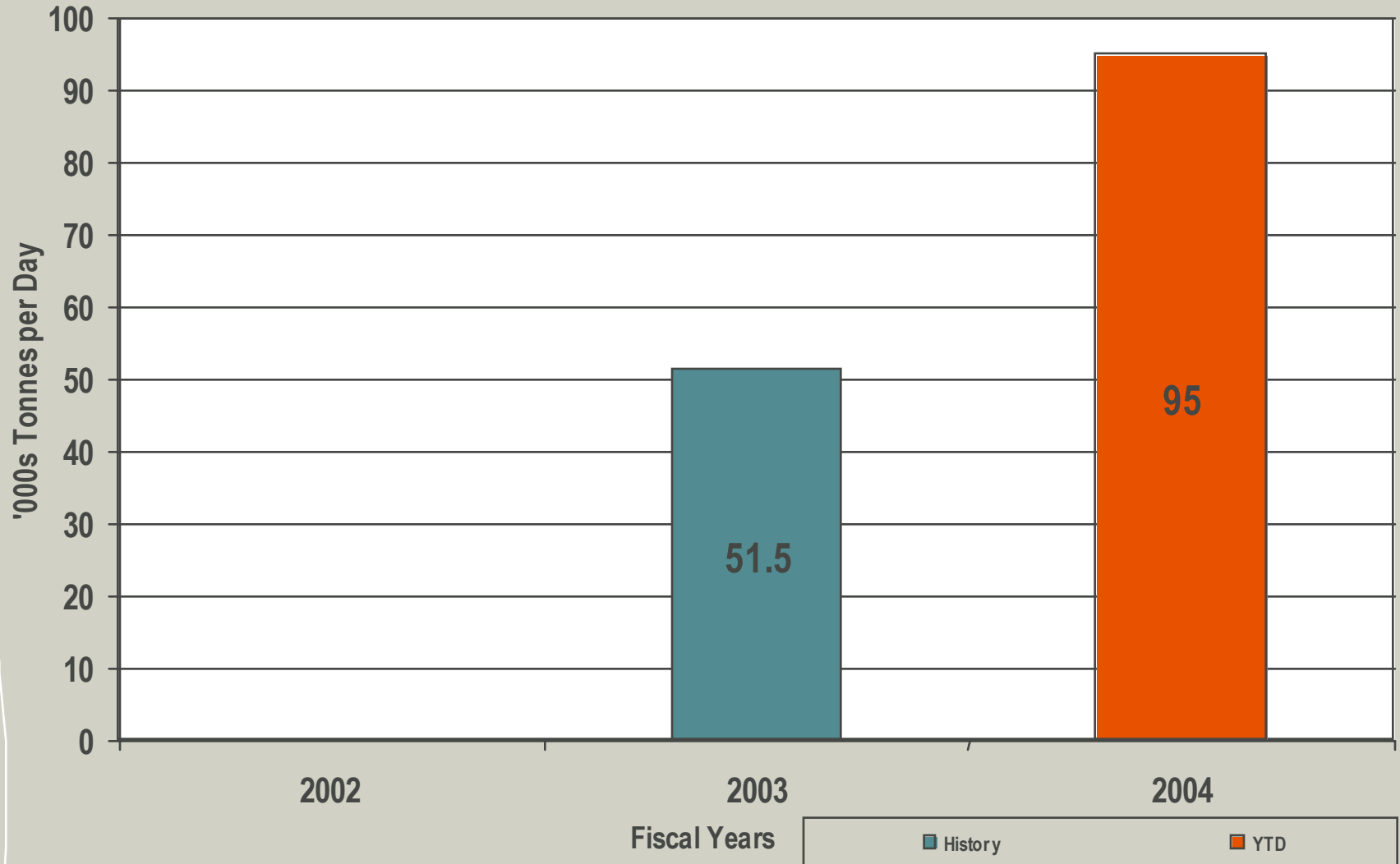
Mine Production – '000s TPD Ex-Pit



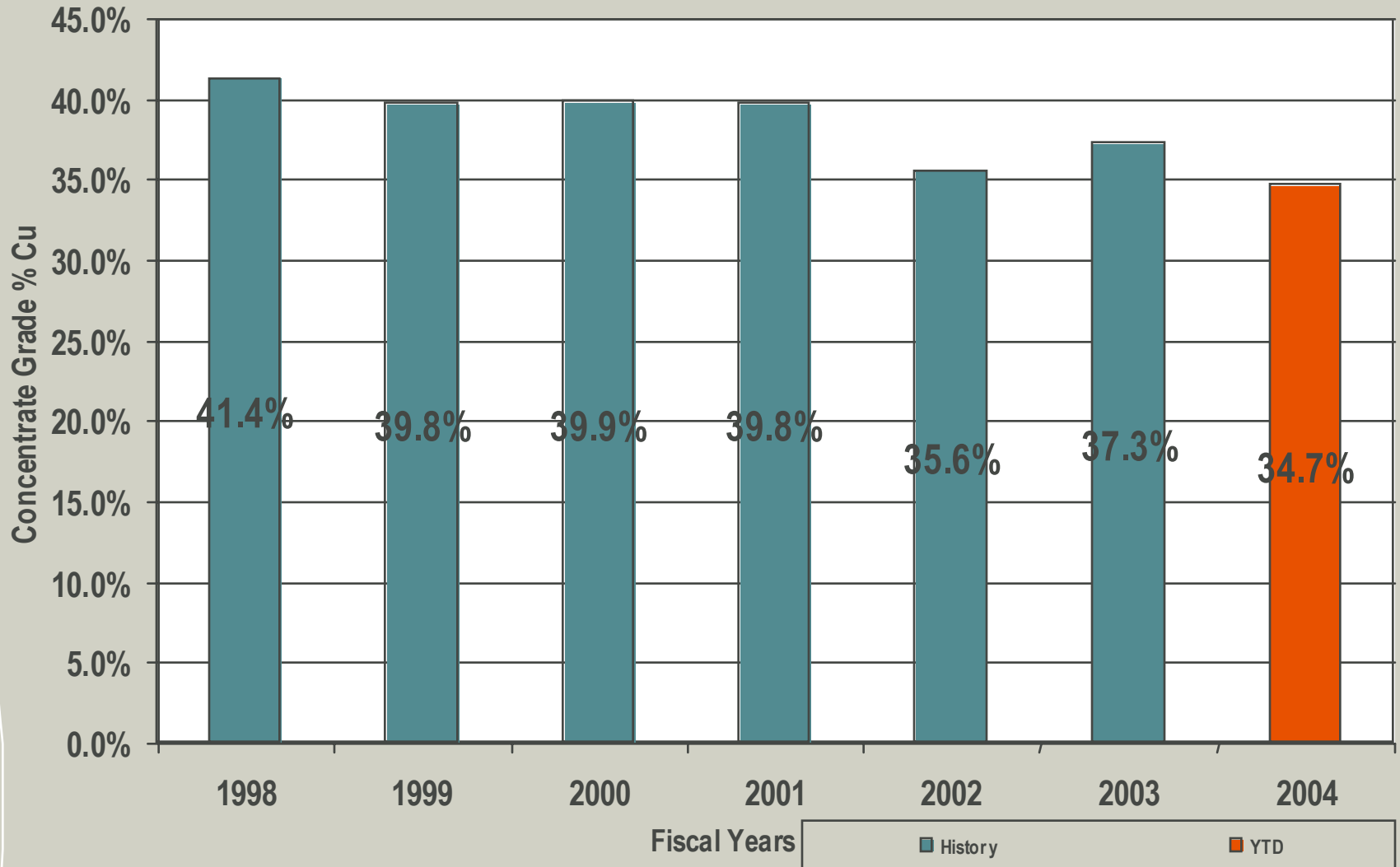
Los Colorados Concentrator



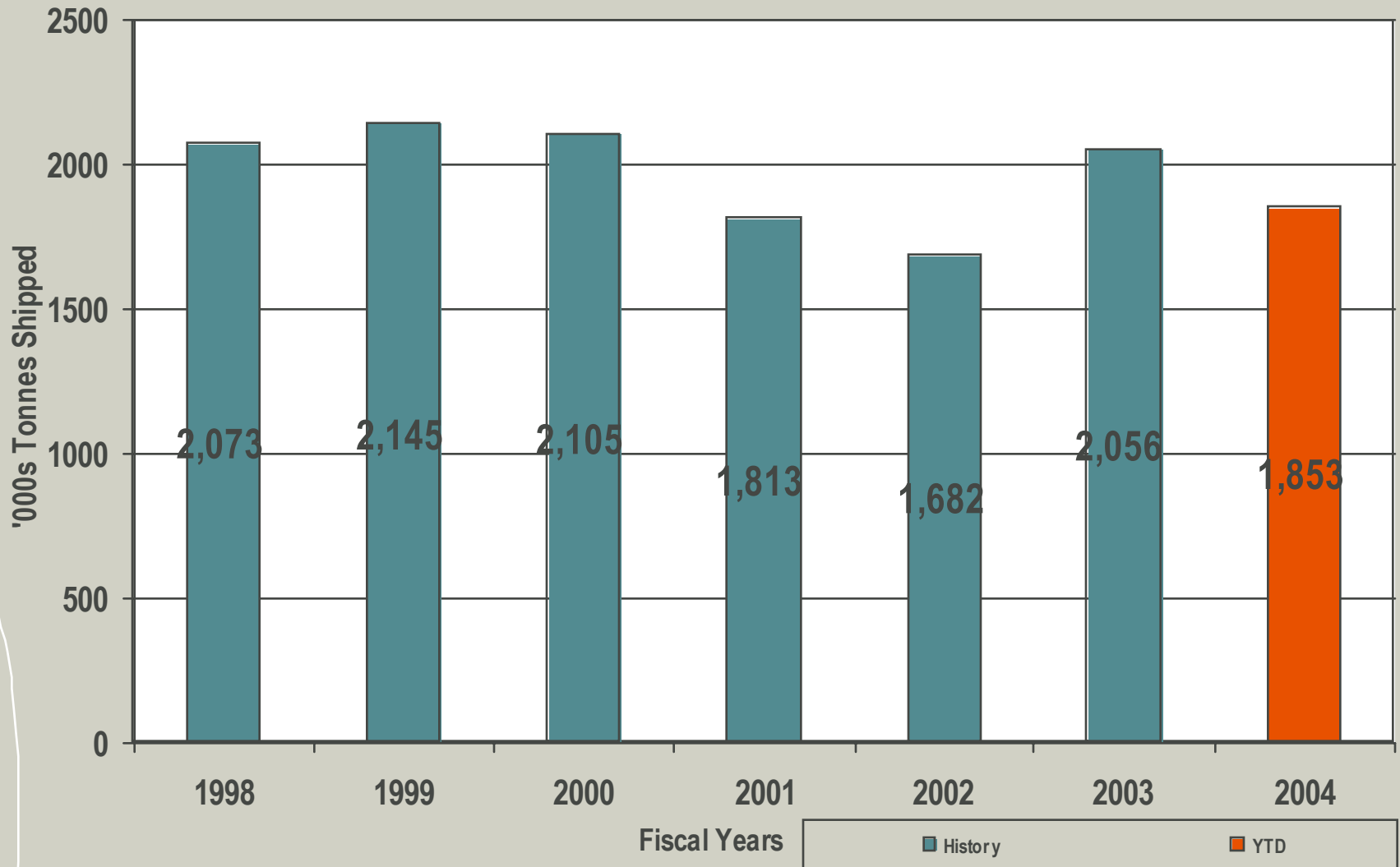
Laguna Seca Production – '000s TPD Milled



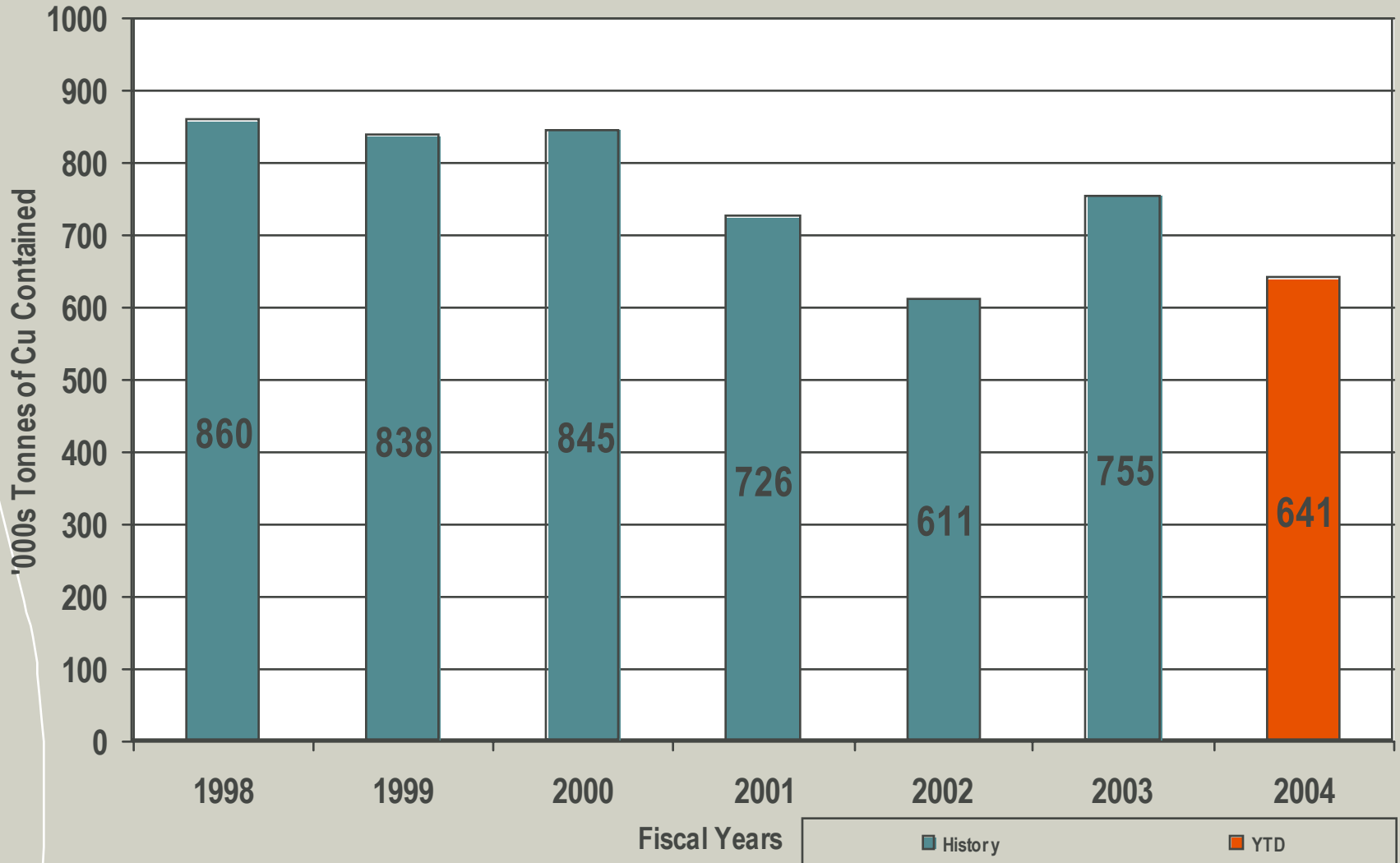
Concentrate Grade Ex-Coloso - % Cu Contained



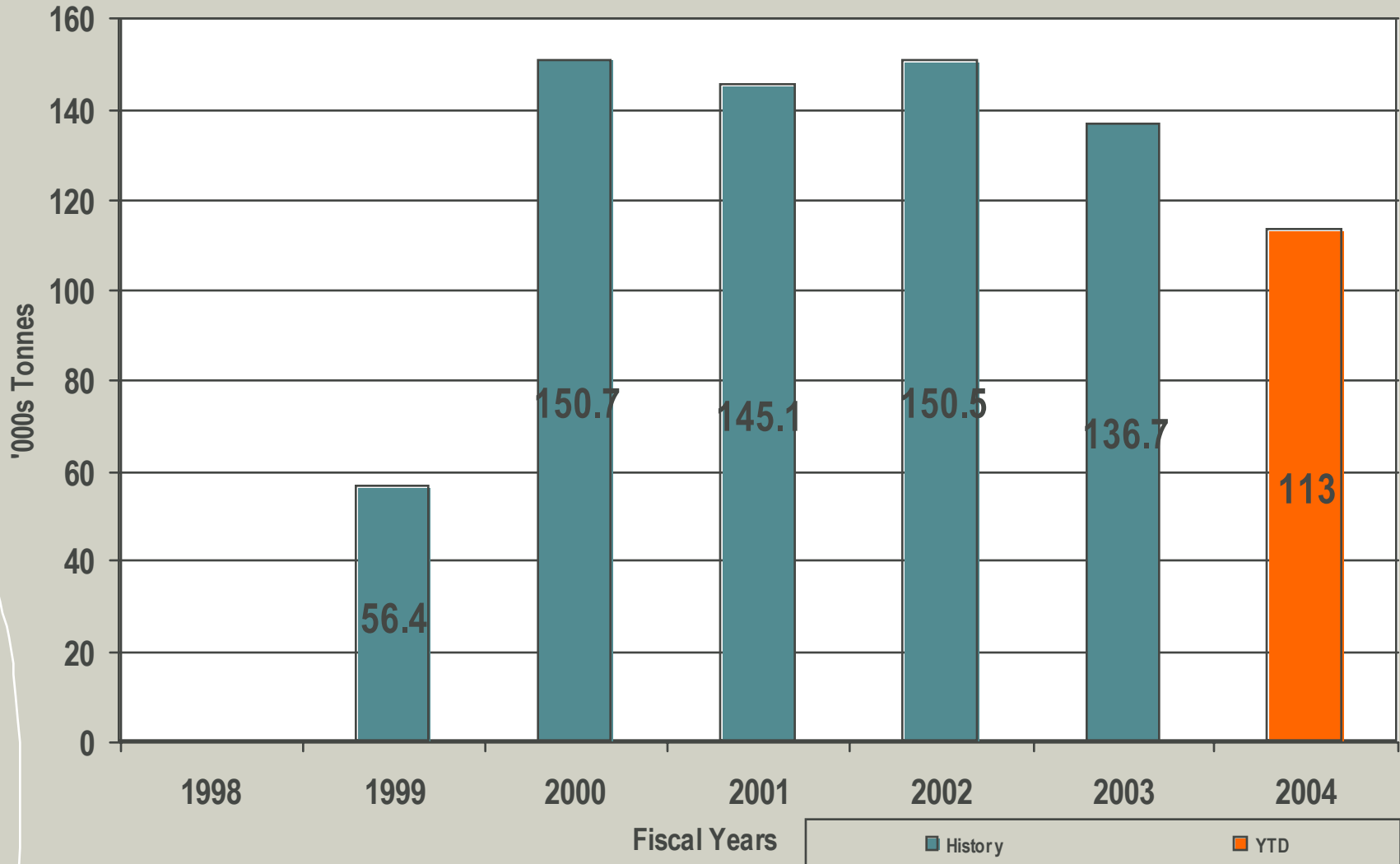
Coloso Port – '000ts Concentrate Shipped



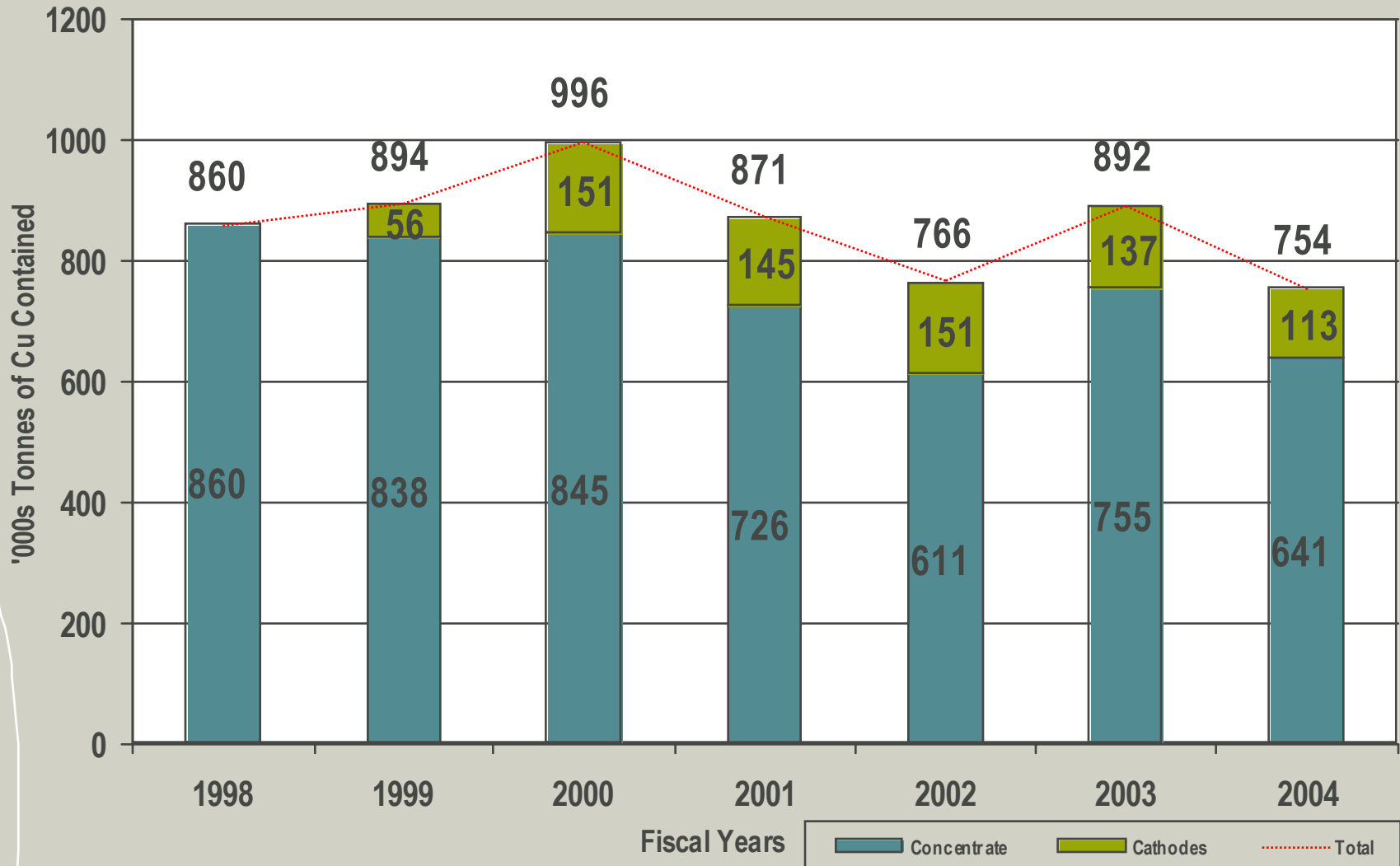
Copper Production – '000ts Cu Contained in Concentrate



Oxide Production – '000s Tonnes of Cathodes



Copper Production – '000ts Cu Contained

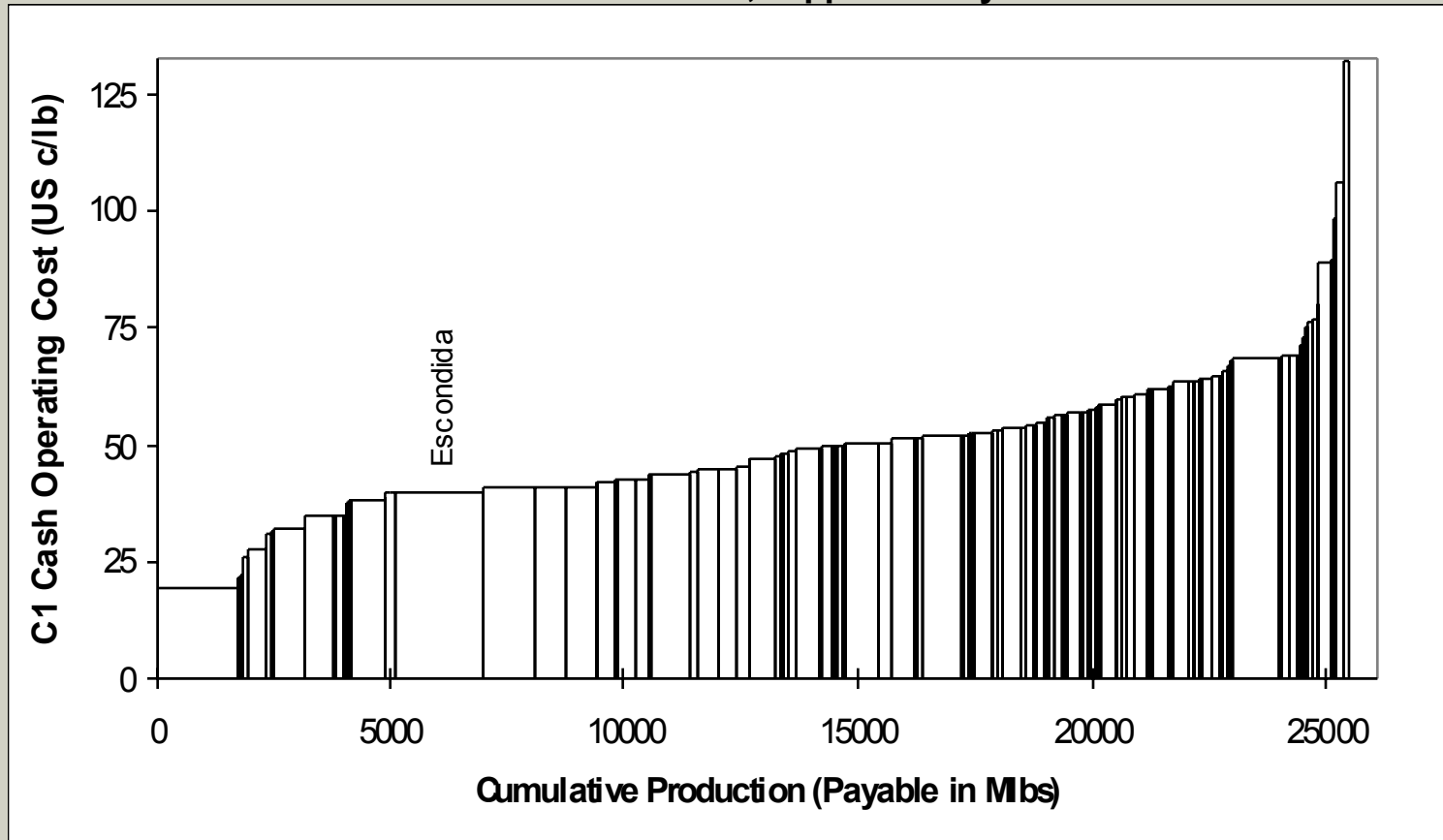


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C1 Unit Costs in the 1st Quartile

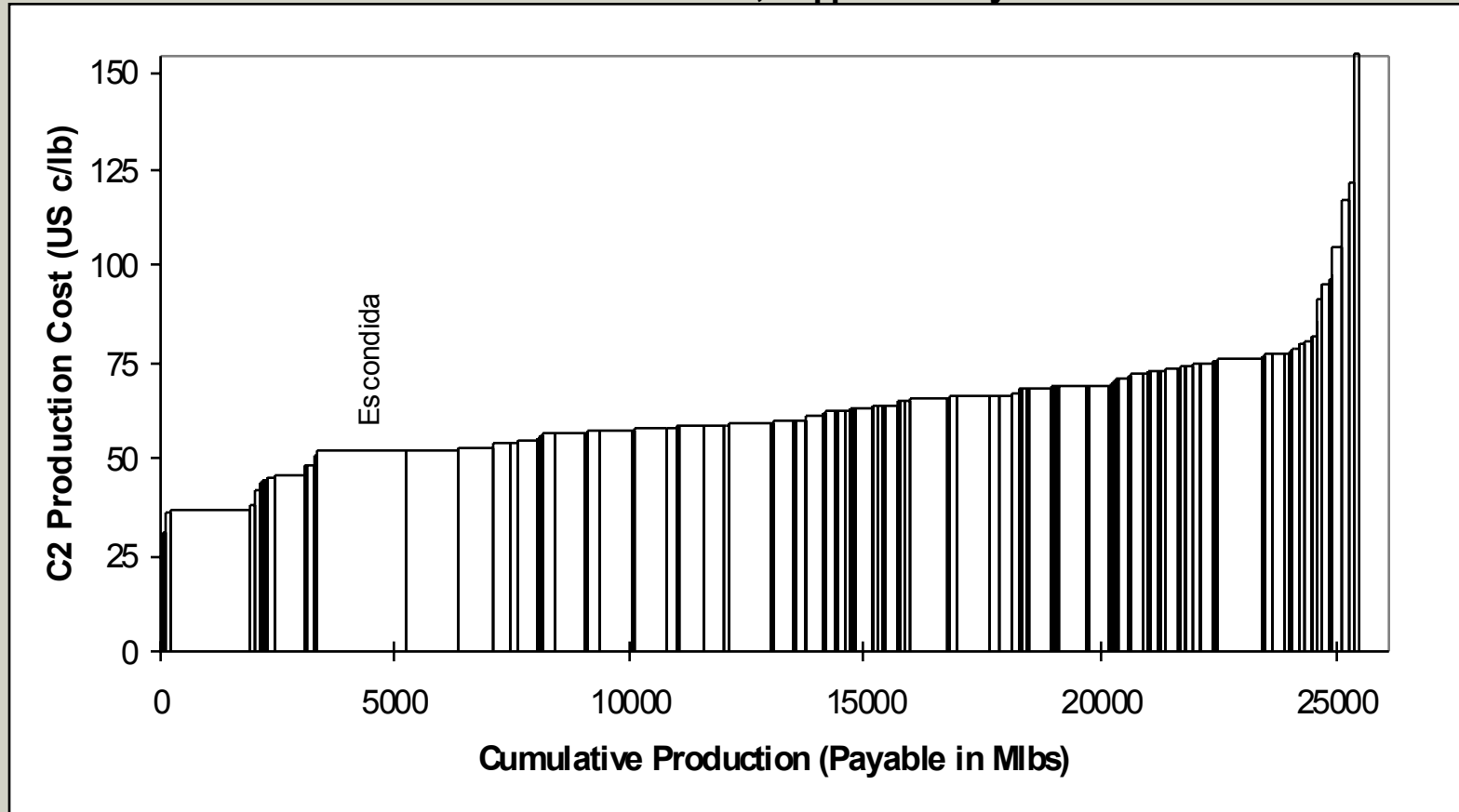
Estimated 2003 Brook Hunt, Copper Industry C1 Cost Curve



Brook Hunt Estimated 2003,
Escondida FY03

C2 Unit Costs

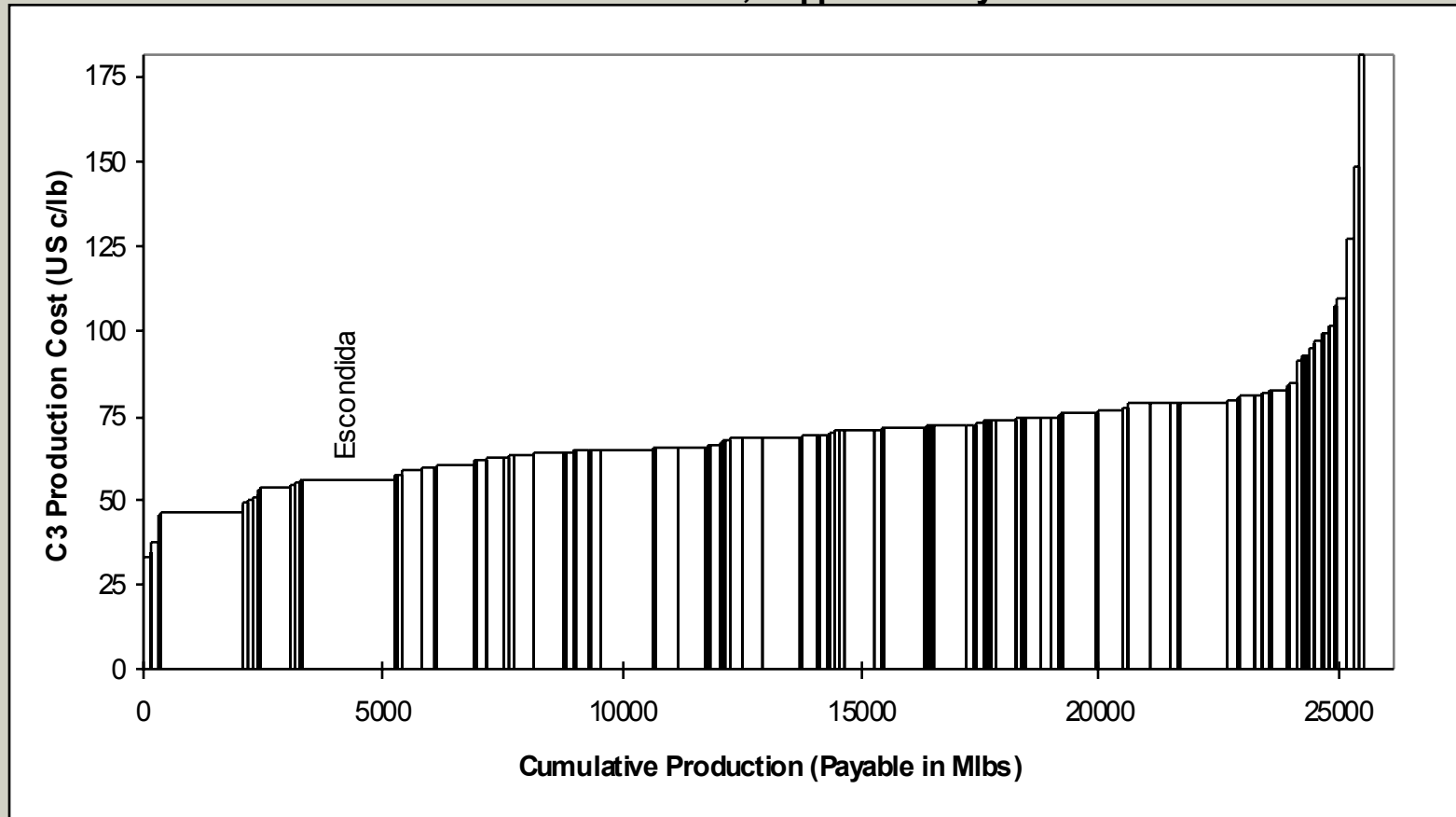
Estimated 2003 Brook Hunt, Copper Industry C2 Cost Curve



Brook Hunt Estimated 2003, Escondida FY03

Only 3 Producers with a Lower C3 Unit Cost

Estimated 2003 Brook Hunt, Copper Industry C3 Cost Curve



Brook Hunt Estimated 2003, Escondida FY03

Optimize Escondida's Net Present Value

We will optimize NPV by:

- Taking a leadership role within the industry and adopting a flexible production profile
- Continually focusing on cost reduction
- Leveraging Six Sigma and the Maintenance Improvement Programs
- Using tollgating to improve our Capital Productivity
- Capturing the synergies of both concentrators
- Leveraging leach technologies
- Taking a leadership position in the responsible management of the use of fossil water; 10% reduction in water requirements

Achieve Maximum Potential with Employees

We will ensure Maximum Alignment Among Employees, Organizational Structure & Performance Management Systems by:

- Attracting and retaining high quality employees
- Creating a high performance environment
- Focusing on the development of technical and people leaders
- Ensuring that learning and skills development are applied to everyone in the organization
- Creating a work environment where we have positive, mature, and direct working relationships

To Be The Preferred Supplier of Copper in Concentrate & Cathodes

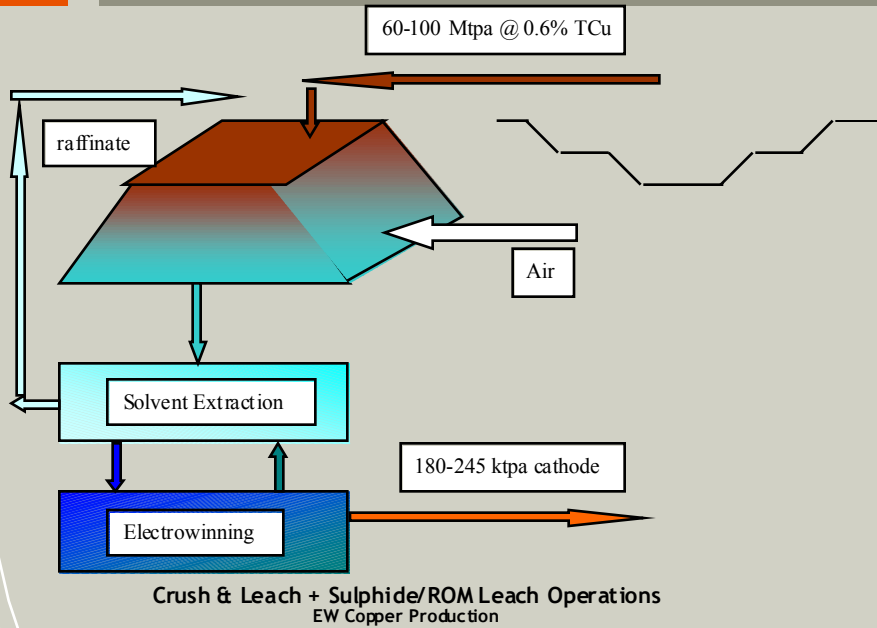
We will achieve our value proposition to customers through:

- Achieving appropriate geographical and market diversification
- Utilizing the BHP Billiton Base Metals Marketing structure
- Reducing the impact of variable concentrate grades
- Emphazising continuous and proactive interaction between the Operational and Marketing areas
- Maintain status as a quality supplier through producing improved and predictable levels of Grade A quality cathode

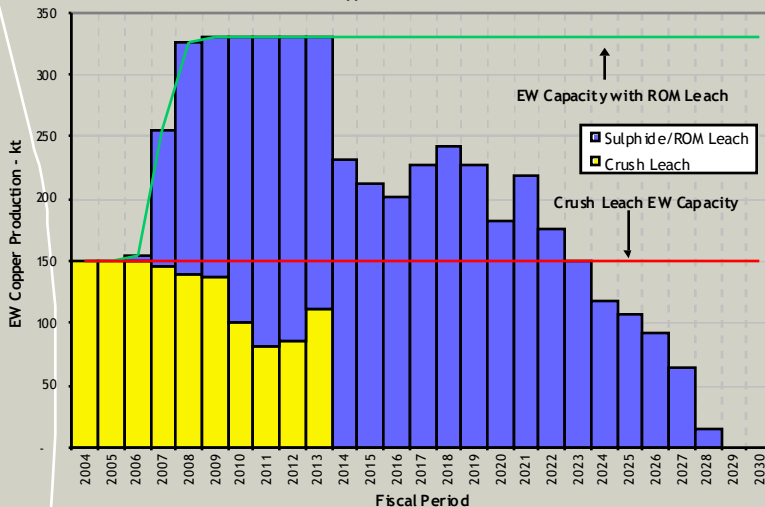
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Sulphide Leach – Project Summary



- 1.6 billion t sulphide ore at 0.6%tCu
- Current stockpile 100mt
- Copper recovery by:
 - ROM leaching
 - Solvent extraction
 - Electrowinning
- Expected recovery 36%
- Approx 50% of Cu is chalcopyrite
- Initial copper production 180 ktpa
- Increasing to 245 ktpa as ore supply increases and oxide T/H capacity becomes available
- Initial capital \$ 870M (incl. water supply)
- Operating costs < \$0.35/lb Cu



Bioleaching Technology

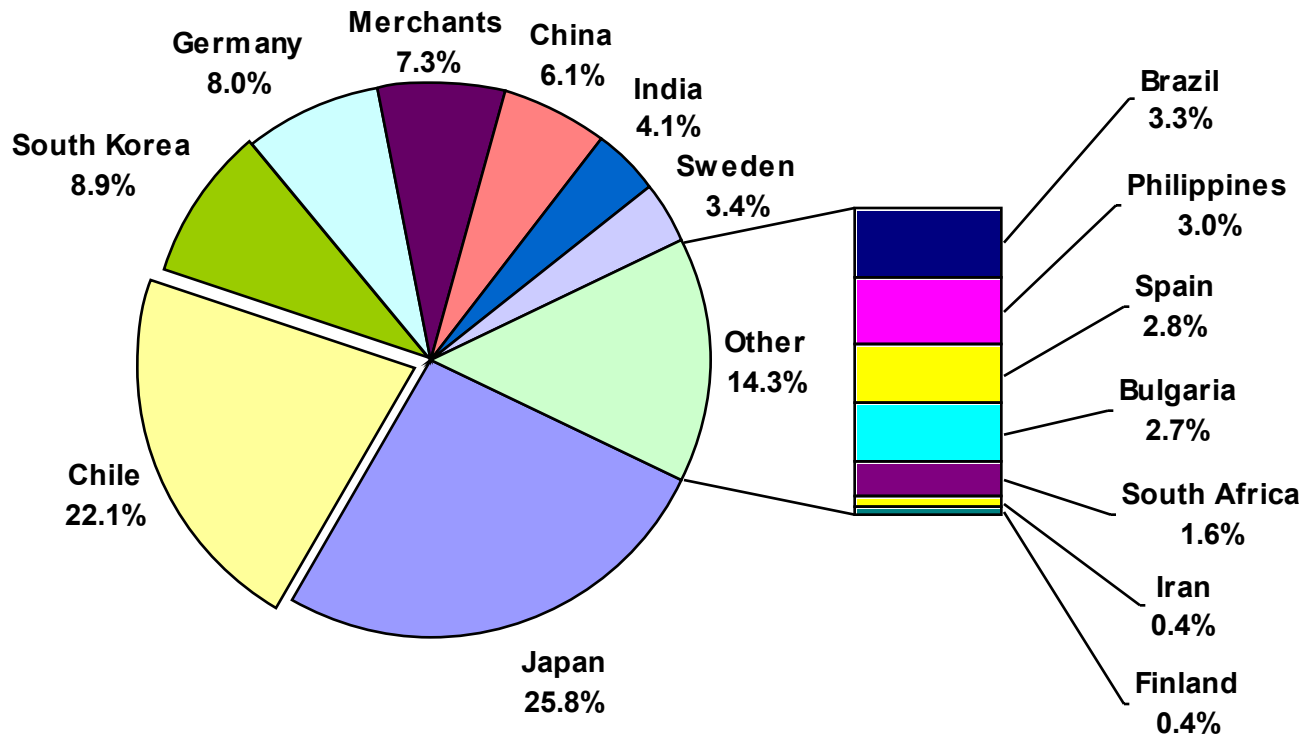
- Sulphide leaching requires ferric iron as oxidant
- Conversion of ferrous iron to ferric is catalyzed by bacteria
 - Without bacteria, leaching is slow due to lack of ferric iron
- Main bacteria are mesophiles such as *thiobacillus ferrooxidans*
- Mesophiles occur naturally in ore and thrive in acidic conditions at temperatures from 20-40C
- Bacteria require oxygen as does the oxidation reactions
 - Forced aeration is key for high bacterial activity and fast leaching
- The process is simple and robust

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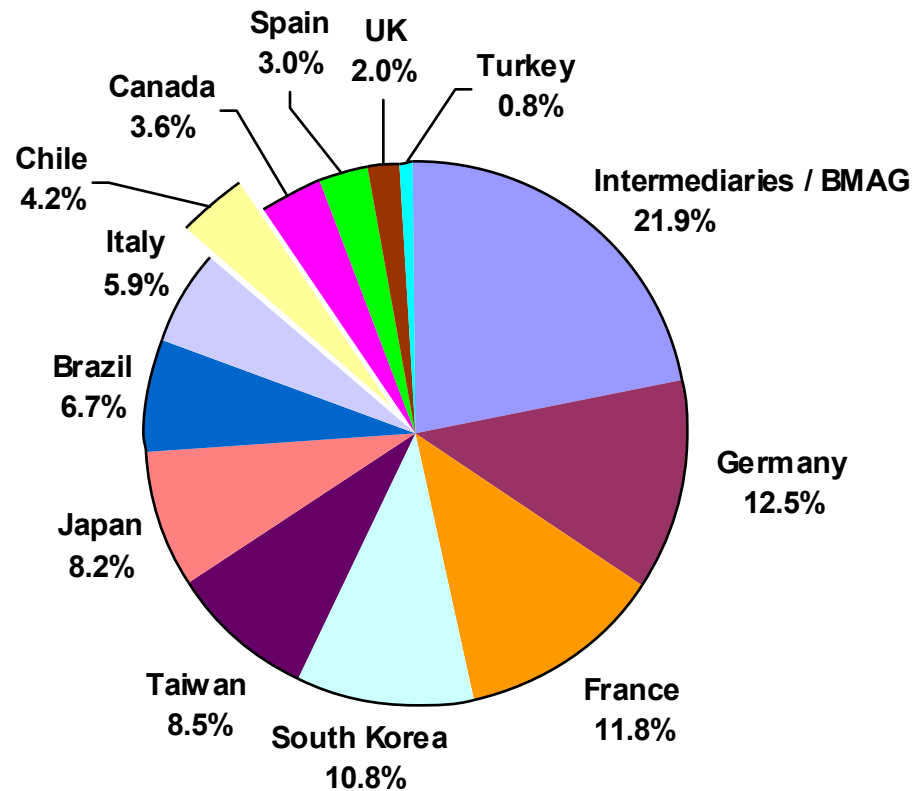
Diverse Customer Base

COPPER CONCENTRATE SALES BY DESTINATION - 2003



Diverse Customer Base

CATHODE SALES BY DESTINATION - 2003



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Water Issue

What caused the water problem between Novembre 2003 and January 2004:

- Deteriorated water-pulp separation from tailings
- Inability to increase fresh water supply to Laguna Seca Concentrator to compensate reduced reclaim water return
- Hydraulic restrictions in the tailings transport system did not allow all tailings to report to the impoundment

Water Issue - How MEL is solving the water problem

1. Secured fresh water to the Laguna Seca Concentrator through an additional water line
2. Implemented an aggressive maintenance program to restore wells in various well fields
3. Identified mineral ore types that cause water-pulp separation problems, allowing the mine to better blend plant feed
4. Identified a flocculant that allows the production of higher underflow density at lower yield stress and viscosity
5. Will construct a protective wall around the pump barges in the tailings impoundment
6. Will embark on an engineering program to eliminate hydraulic problems in the tailings transport system
7. Drilled new wells, allowing MEL to pump up to legal and environmental limits
8. Established a water strategy that will secure future water supply to the operation

Action Plans – HSEC

- Simplification and streamlining proposal of the HSEC systems under the BHP Billiton Standards
- Employ the Landmark process to engage the workforce and ensure their commitment to a zero harm workplace
- Implementation of Cardinal Rules Program
- Development of Drug/Alcohol Policy
- Alignment of HSEC & RDO
- Encourage employee participation in Company sponsored assistance projects for the community to instill a sense of social responsibility in Escondida's employees,
- Adoption of DuPont Job Observation methodology

Action Plans – NPV

- Los Colorados Mill improvement program
- Mine to mill improvement project
- Light dump bodies project
- Develop long term water sourcing plan
- Inventory reduction program
- Flexible production plans
- Develop a program for coordinating plants, crushers, shovels, pipelines, filters shutdowns
- Development of an integrated production system

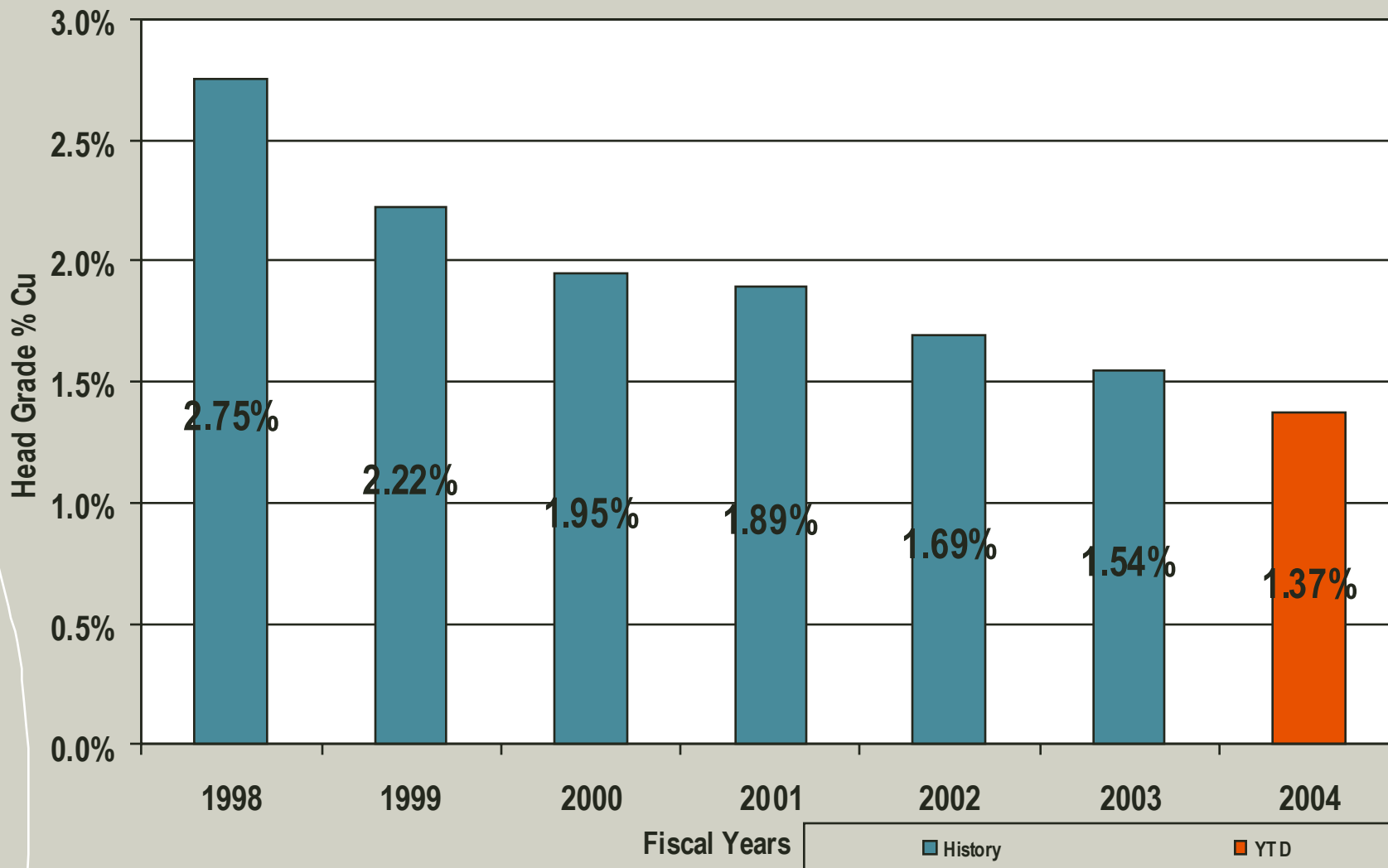
Action Plans – PEOPLE

- Implementation of an employee climate survey
- Continuous development of a team based work structure
- To build an integrated Performance Management system which links competency development, individual performance on the job and remuneration
- To perform the second teams check-up (HISI)

Action Plans – CUSTOMERS

- Eliminate backlog of concentrate deliveries arising from Apollo cuts
- Complete Sales Book restructuring
 - Reduced sales to Merchants
 - Increase sales to emerging smelter markets, eg., India and China
 - Initiate spot sales
- Continue to push transition to global market terms for concentrates
- Close cooperation with Escondida Operations to address concentrate grade reduction and variability issues

Head Grade - % Contained Copper



Oxide Flowsheet

