

Spence

Project to Operations

Analyst Visit

19 March 2007



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Agenda

- Vision & Mission
- Health, Safety, Environment & Community (HSEC)
- Location & History
- Geology & Ore Reserves
- Project & Construction
- Mine Operations
- Plant Operations
- Workforce
- Financial
- Exploration

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Vision & Mission



Vision:

To be an outstanding and simple BHP Billiton operation.

Mission:

- To have a working team engaged, motivated, innovative, passionate for ZERO HARM and aligned with the Charter of BHP Billiton.
- To produce high quality copper cathodes for the world market, generating high profitability for our shareholders.
- To have production processes that are efficient, reliable and predictable.
- To contribute to the sustainable development of our Community.

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Safety Performance



MINERA SPENCE STATISTICS HSEC

MH 1 TO 28 FEBRUARY 2007

345.304

ACCUMULATIVE MH

24.905.776

1 TO 28 FEBRUARY 2007

APRIL 2003 TO 31 FEBRUARY 2007

Quantity of Accidents Lost Time Injury (LTI)

0

Quantity of Accidents LTI

36

Total Lost Days

0

Total Lost Days

1.108

Quantity of Accidents Medical Tratament (MT)

2

Quantity of Accidents MT

52

Classified Injury Frequency Rate (CIFR)

0,00

CIFR

1,45

Classified Injury Severity Rate (CISR)

0,00

CISR

44,49

Total Recordable Injury Frequency Rate (TRIFR)

5,79

TRIFR

3,53

Quantity of Accidents First Aids (FA)

9

Quantity of Accidents FA

1031

TOTAL ACCIDENTS TO PEOPLE

11

TOTAL ACCIDENTS TO PEOPLE

1119

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Recognitions for HSEC

National Service of Geology and Mining (Sernageomin)

- Most Outstanding Company in Safety and Occupational Health
- Annual Prize of Mining Safety (national category)

- John T. Ryan Award

- Founded by Mine Safety Appliances and the Canadian Institute of Mining
- Spence is the first company in the project stage to receive this award

- Caterpillar International

- 5 Star Certification of Truck Shop
- 2nd Mining Company in the world to receive this



Municipality of Sierra Gorda

- Good Neighbor Prize

BHP Billiton - CEO Safety Excellence Award

- Best Project worldwide

Chilean Safety Association

- Special distinction for achieving more than 15 million Man Hours worked

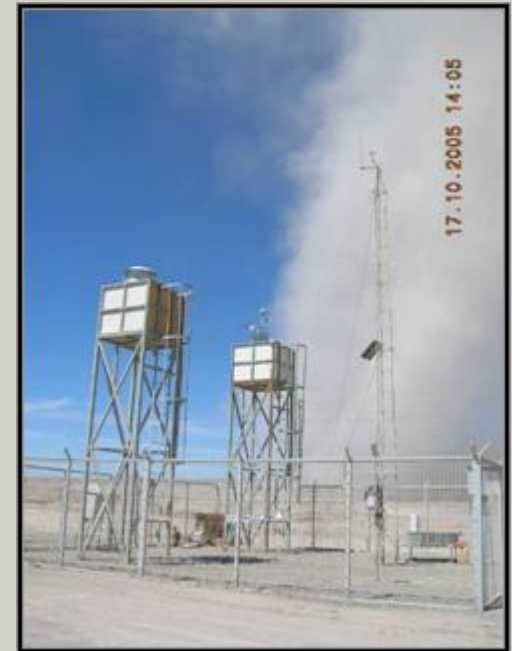


Our focus for the environment is on:

- Legal compliance
- Environmental Impact Study (EIS) compliance
- Monitoring and Follow-up Program for:
 - Water Quality
 - Dust Generation
 - SO₂ Emissions

Environmental Management Plans Include:

- Mine & Plant Dust Control Program
- Energy Efficiency Plan
- Mine Closure Plan



Within the framework of our EIS,
our community programs comprise:

- Social Monitoring Program
- Community Relationship Plan
- Local Sustainable Development Program
- Employment Opportunity Facilitation Program
- Environmental Improvement Project with other local mining operations



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Spence Location



Located near the community of Sierra Gorda in Region II of Northern Chile

Approximately 50 km southwest of Calama and 150 km northeast of Antofagasta

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History – Discovery to Production

- **1996:** Deposit discovered by Rio Algom exploration
- **1996 – 2002:** Exploration & Development Work:
 - 174,970 meters of exploration & development drilling completed in total.
 - 1,133 meters of underground tunnel development for bulk sampling
- **2000:** Billiton purchases Rio Algom Ltd
- **2001:** BHP and Billiton merge to form BHP Billiton
- **1999 - 2002:** Various Project studies completed (Concept, Pre-feasibility & Feasibility)
- **2004:** Definitive Project Feasibility Study completed
Project Approved for Execution (October 2004)
- **2005 – 2006:** Project Construction & Mine Development
- **2006:** First Copper Production

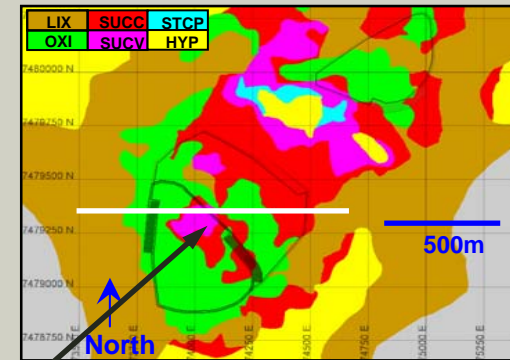
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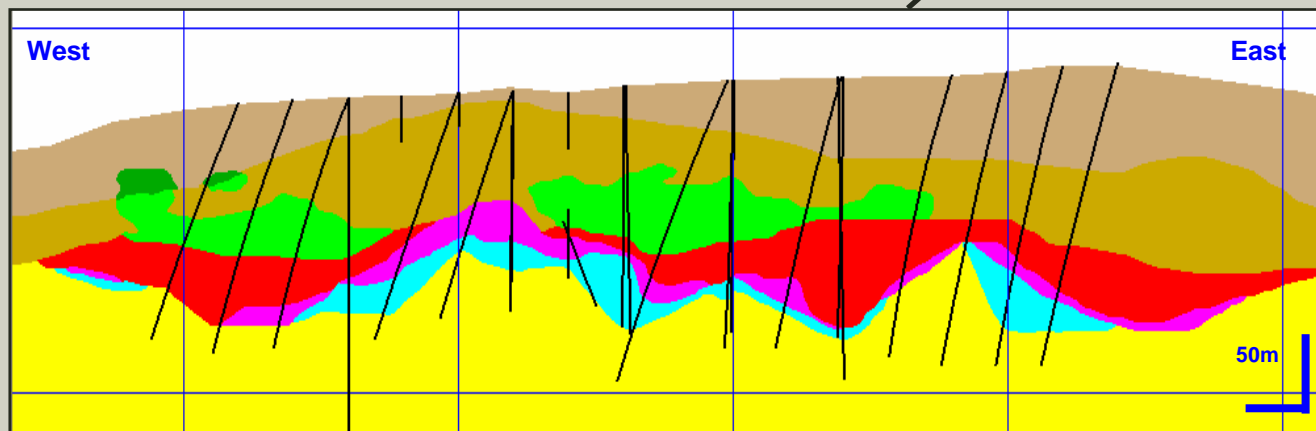
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Spence Geology

- Supergene enriched & partially oxidized porphyry copper deposit of Upper Paleocene age (~ 57 M Years)
- Deposit is 100% covered by gravels
- Depth to mineralisation ranges from 80 to 100 meters below surface
- Oxide & Supergene Sulphide mineralisation amenable to heap leaching (atacamite and chalcocite)



Bench 1610 m Elevation



Mineralisation Section 7,479,365 N

LIX	SUCC	STCP
OXI	SUCV	HYP

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Ore Reserves – June 2006

<i>Material Type</i>	<i>Reserve Category</i>	<i>Million Tonnes</i>	<i>Copper Grade</i>	
			<i>% Total Copper</i>	<i>% Soluble Copper</i>
Oxide Ore	Proven	33.4	1.47%	0.94%
	Probable	41.4	1.05%	0.66%
	Proven + Probable	74.8	1.24%	0.79%
Sulphide Ore	Proven	110.4	1.31%	na
	Probable	127.9	0.78%	na
	Proven + Probable	238.3	1.03%	na
Total Ore	Proven + Probable	313.1	1.08%	na



The Spence Ore Reserves is based on information compiled by Mr. Ernesto Rios, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr. Rios is employed by Minera Spence S.A. He has sufficient experience with the estimation, assessment, evaluation and economic extraction of large-scale copper mining operations and projects. This experience is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, and as such he qualifies as a Competent Person as defined in the 1999 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

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View Looking Southwest (2004)



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Project Description

- 100% BHP Billiton owned
- Green-fields open-pit copper mine with leaching & SX-EW production facilities.
- Export via existing port infrastructure
- Nominal annual production capacity of 200,000 tonnes copper cathode
- Mining rate ex-pit up to 260,000 tonnes/day
- Ore treatment rate of 50,000 tonnes/day
- 663 full-time employees



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Project Drivers

- High-grade, shallow, leachable orebody
- Location & existing infrastructure:
 - Location: ~ 50 km SW of Calama alongside main highway, rail line, and water pipeline connecting Calama & Antofagasta.
 - Electrical power: ~ 67 km from project
 - Low altitude: ~ 1,700 meters above sea level
- Aligned with Base Metals Business Strategy:
 - Large scale, low cost
 - Focused on increasing proportion of BHP Billiton production as metal
- Build off previous South American experience. Tintaya Oxide, Cerro Colorado, Escondida Oxide
- Create Shareholder value

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Project Investment

- Approved Capital investment of US\$ 990 million
- Ongoing Sustaining Capex circa \$20m per annum
- Internally Funded





- 22 month construction period
- EPCM contractor: Aker Kvaerner
- Construction workforce reached a maximum level near 8,500.
- Key project construction quantities:
 - Civil Earthworks: 8.8 million m³
 - Concrete: 53,760 m³
 - Structural Steel: 6,772 tonnes
 - Piping (Steel & HDPE): 617,780 meters
 - Wire & Cable: 796,790 meters



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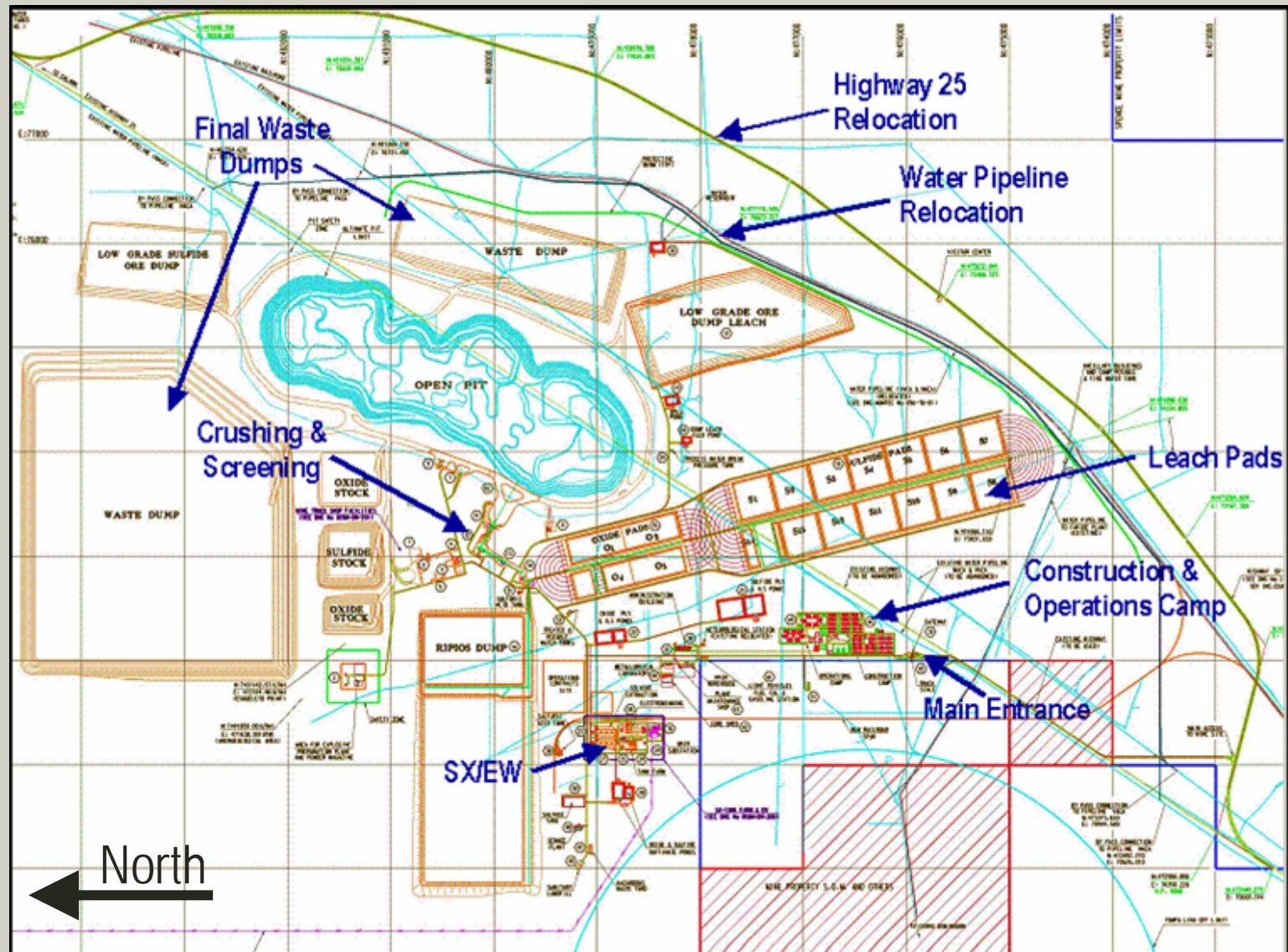
Project Milestones

Milestone	Planned	Actual
Start Mine Pre-Stripping	1 June 2005	12 May 2005
Electrical Power Available	19 July 2005	15 July 2005
Complete Engineering	30 July 2005	31 December 2005
Mine Pre-Stripping Complete	31 August 2006	30 August 2006
First Ore to Crusher	22 September 2006	9 September 2006
Mechanical Completion	1 November 2006	20 November 2006
First Cathode	24 December 2006	6 December 2006



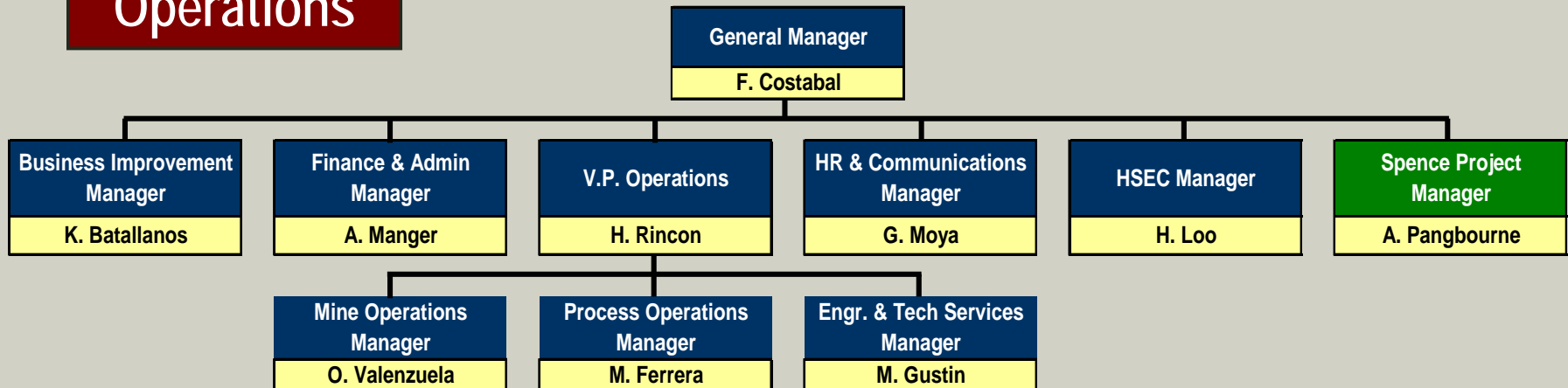
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Final Site Layout

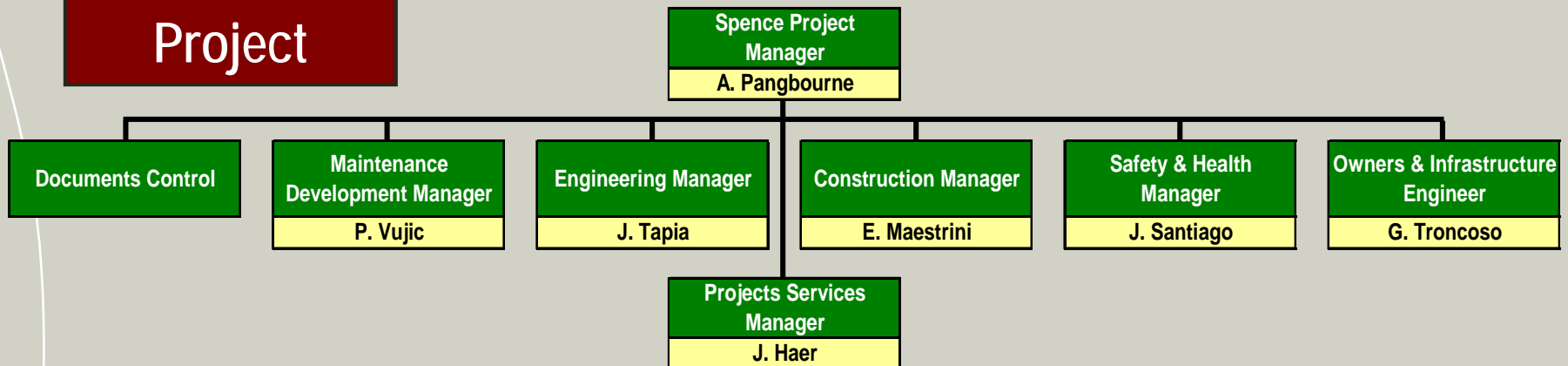


Spence Management Structure

Operations



Project



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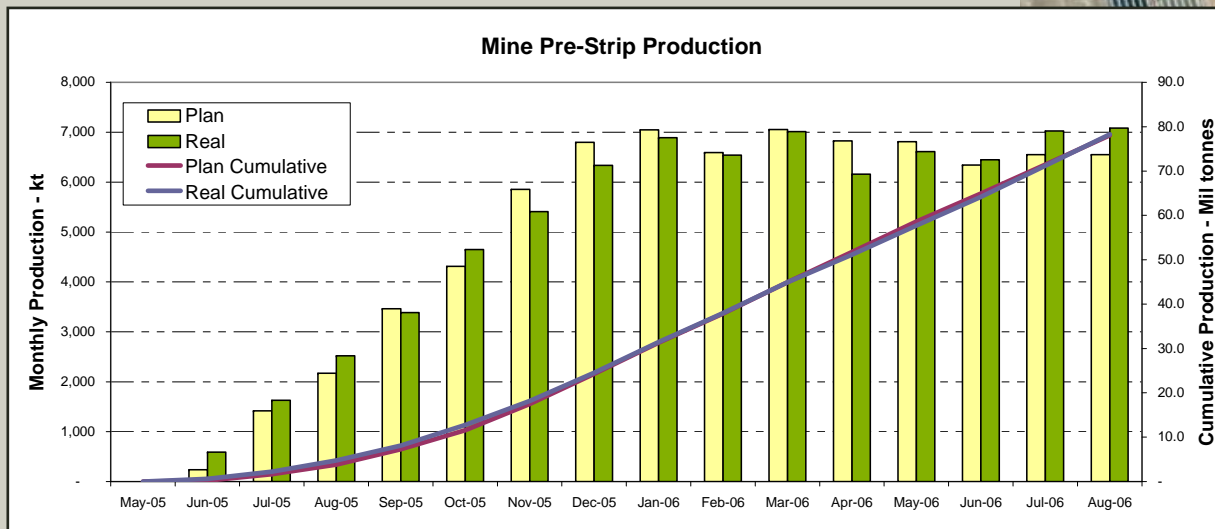
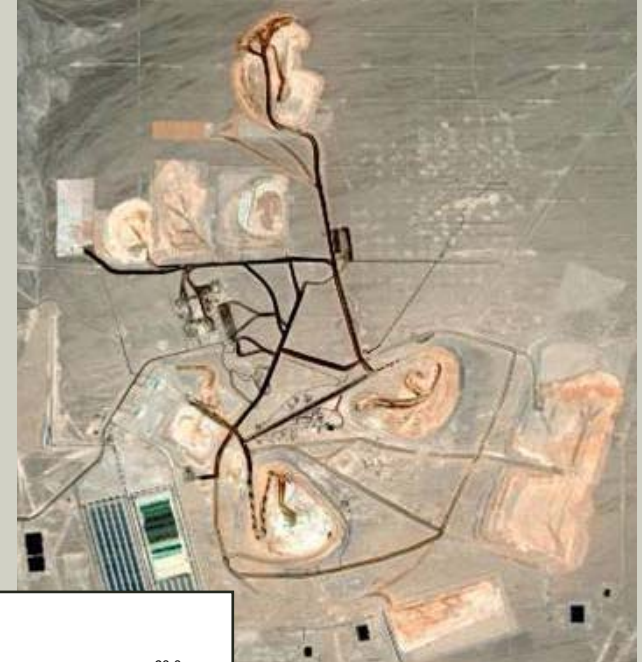
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Mine Development

- 19 year mine operations life
- Production of oxide and sulphide ore
- 3 to 1 waste/ore ratio for life of mine
- Mine pre-strip of 78 million tonnes completed on schedule



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Mine Operations Equipment

Loading Equipment:

- 3 Shovels 65Yd³ (P&H 4100 XPB)
- 2 FELs 23Yd³ (CAT 994D)

Hauling Equipment:

- 25 Haul Trucks 240 Ton (CAT 793 C)



Drilling Equipment:

- 3 Pit Viper Drills

Auxiliary Equipment:

- 5 Track-dozers CAT D10T
- 2 Wheel-dozers CAT 834 G
- 3 Graders CAT 16H
- 3 Water Trucks CAT 777E

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Mine Development - Current

Mine Phase 1

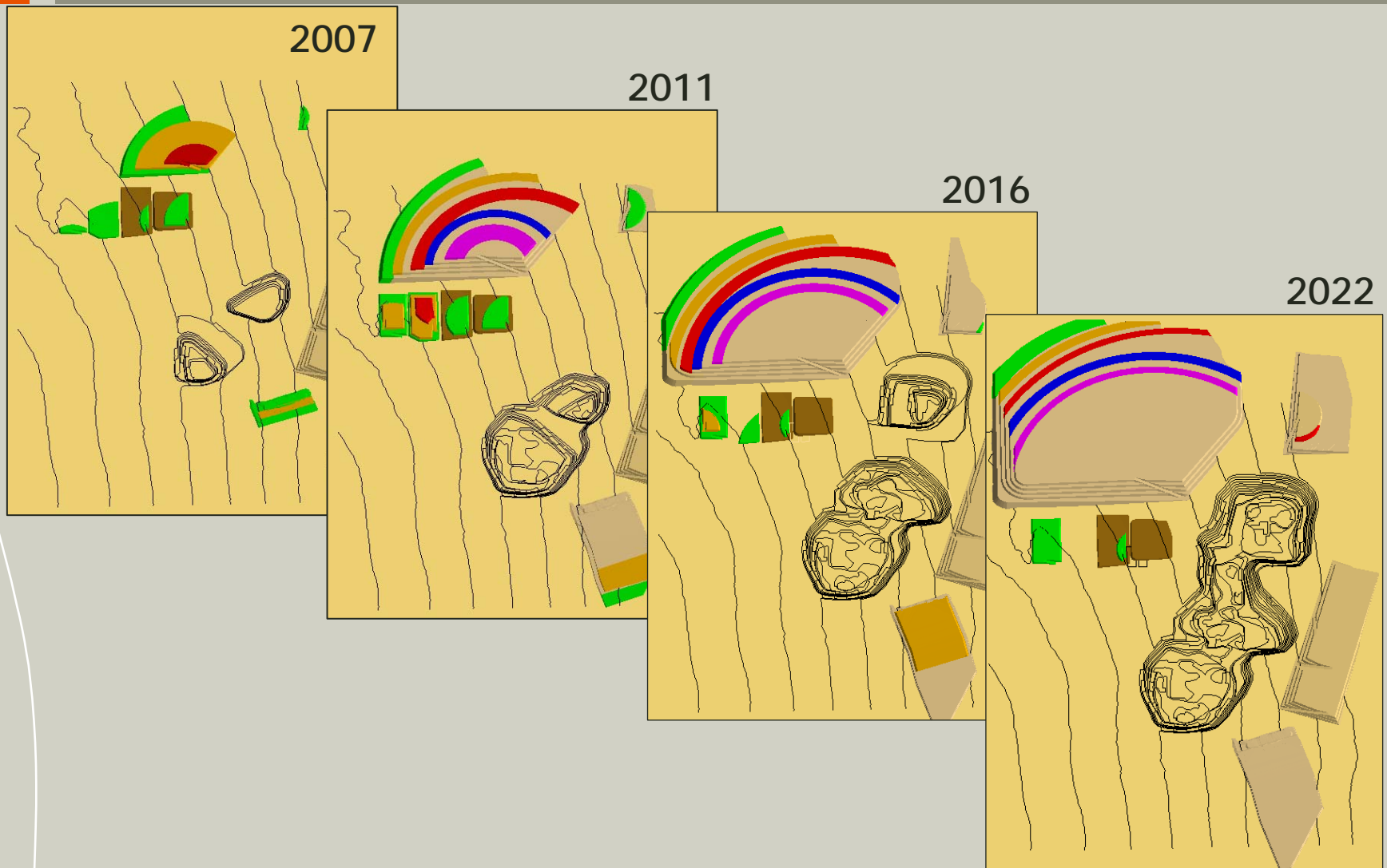


Mine Phase 2



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Mine Development – Long-term



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Process Operations

- Ore crushed, agglomerated, and transferred to leach pads at a rate of 50,000 tonnes/day.
- Sulphide & oxide ores leached on separate dynamic (on – off) pads.



- Similar leach processing technologies and methods as employed by BHP Billiton at Cerro Colorado & Escondida.

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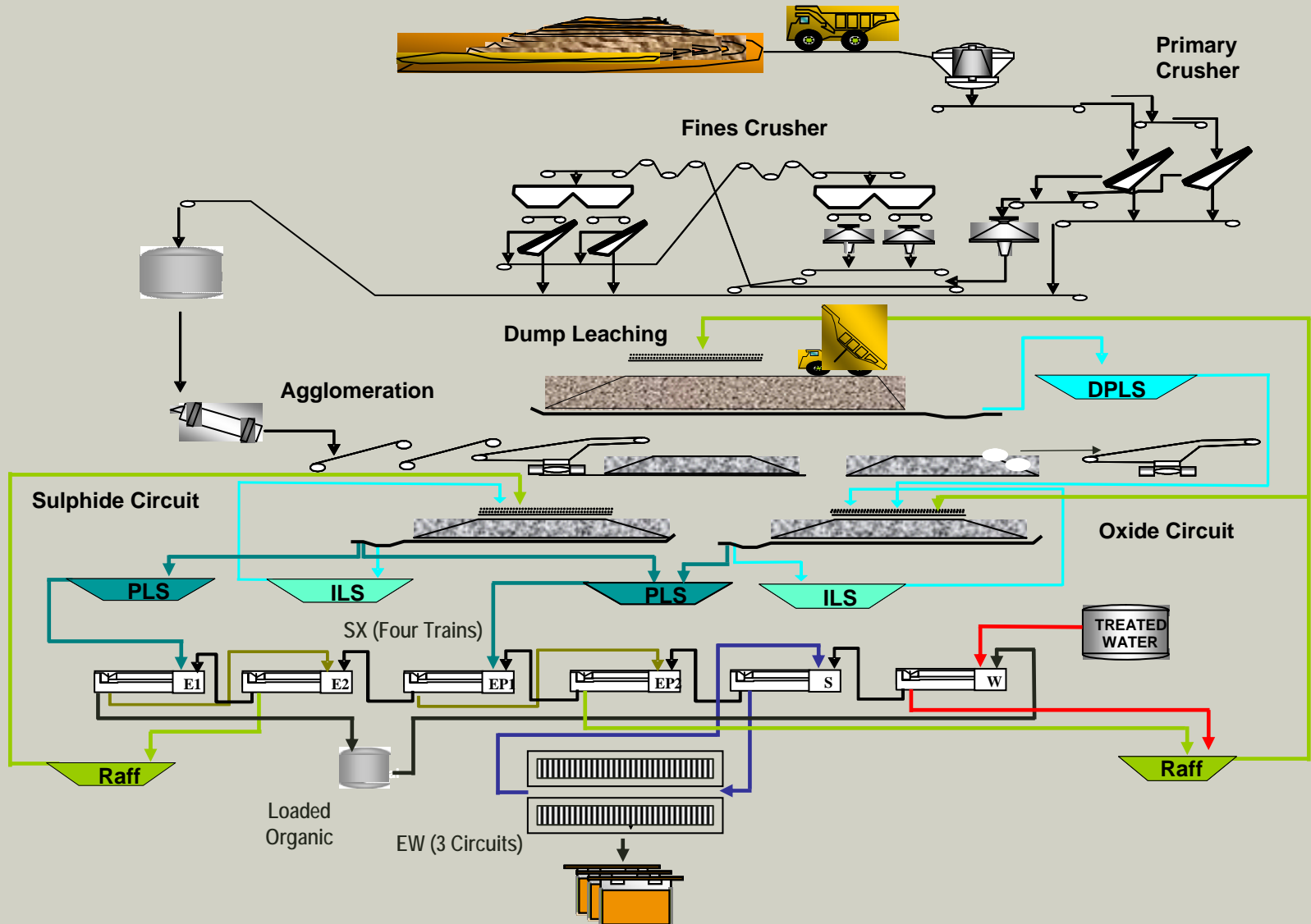
Process Operations

- Solvent extraction consists of 4 trains in a series-parallel configuration with extraction stages for both oxide and sulphide Pregnant Leach Solution.
- Copper is electrowon to produce cathodes at a nominal rate of 200,000 tonnes per year.
- Cathode is transported to either ports of Antofagasta or Mejillones for shipping to customers.



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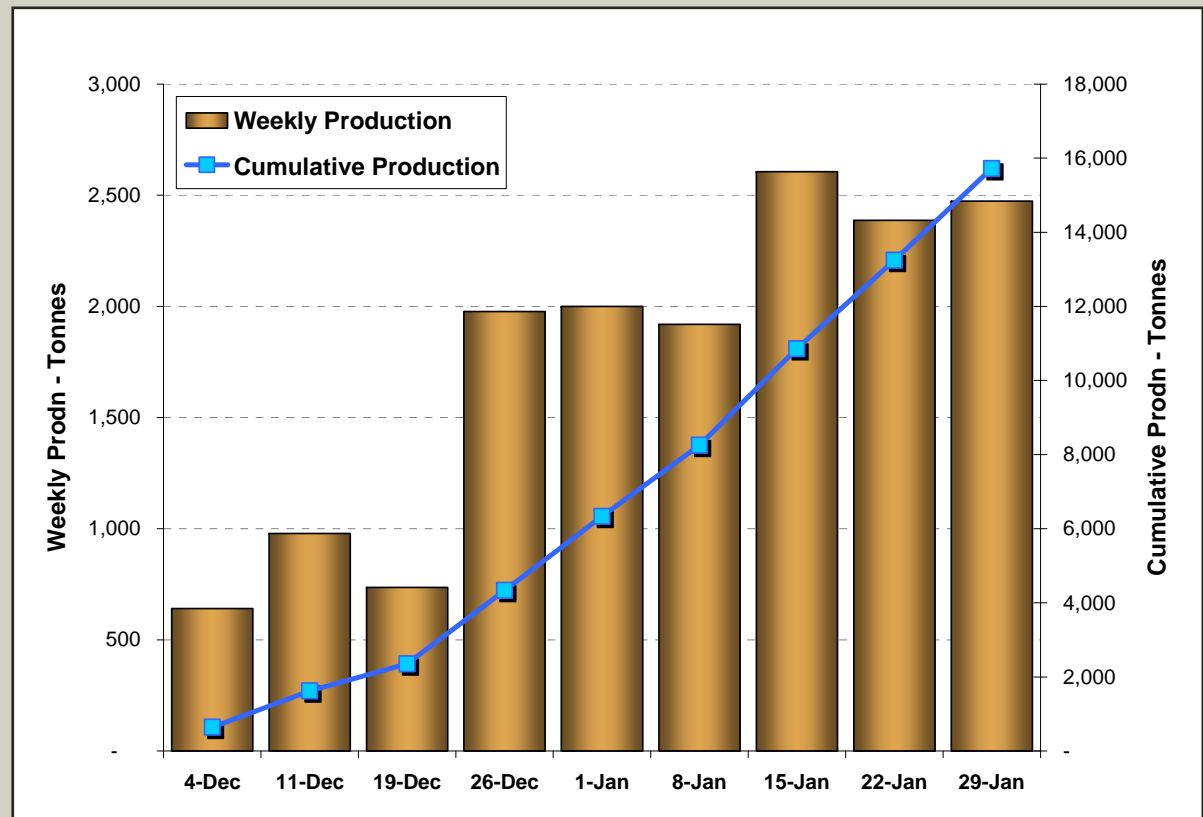
Process Flow Diagram



Spence Copper Production



Target of 90% of production passing LME
Grade A



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Production Ramp-Up (Annualized)

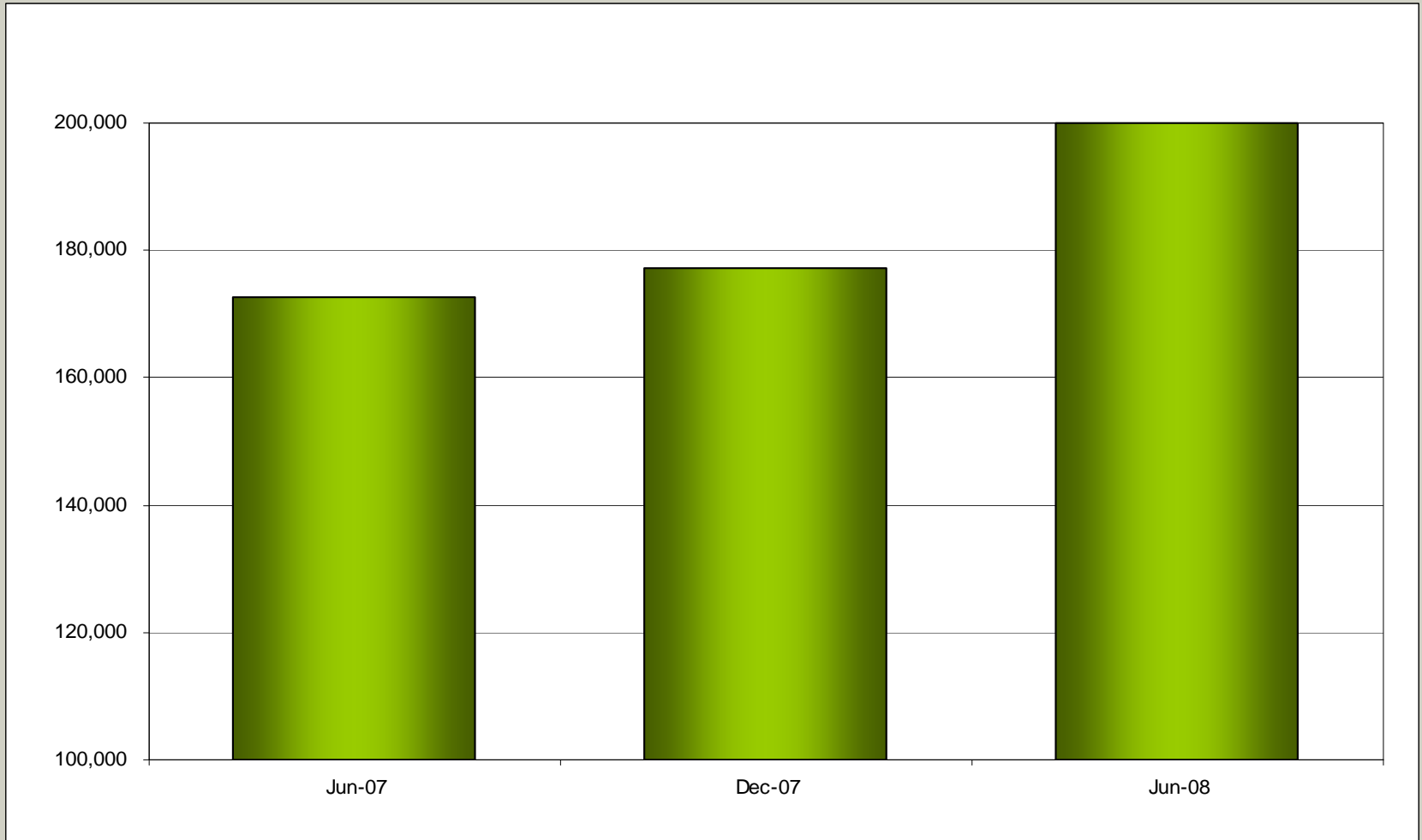
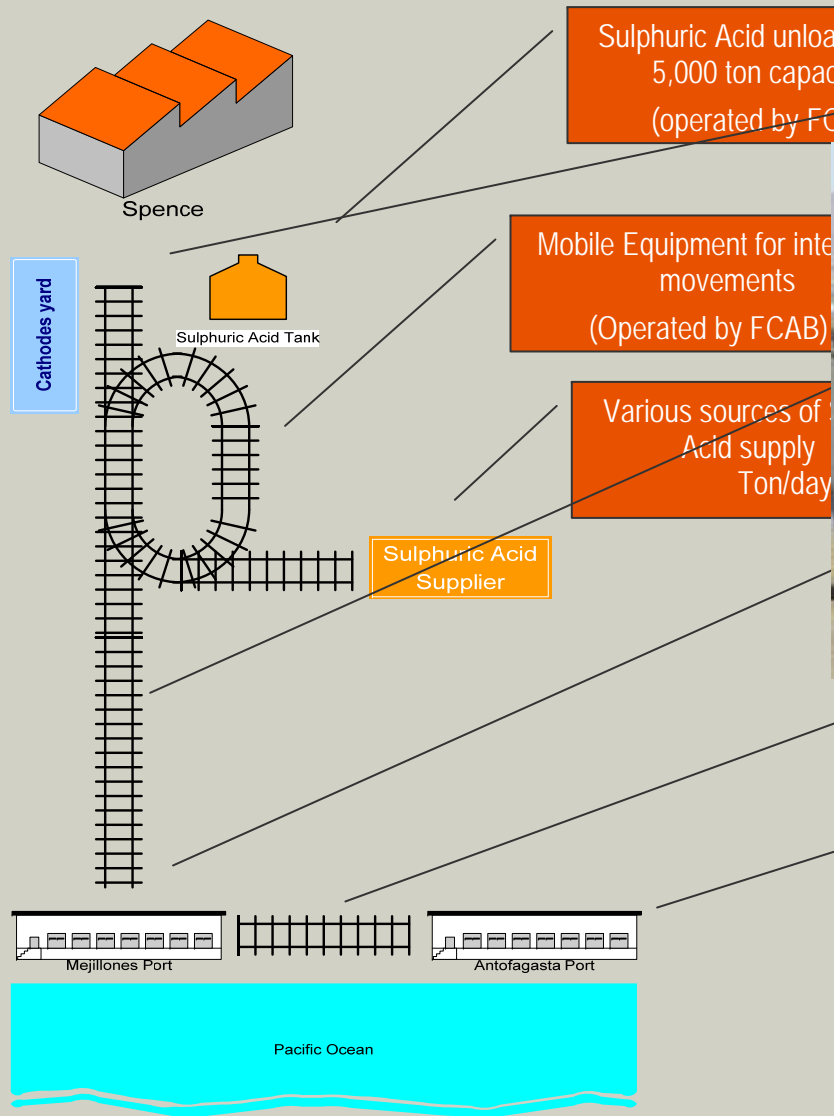


Chart depicts annualized production tonnage over six monthly intervals

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Rail Transportation & Facilities

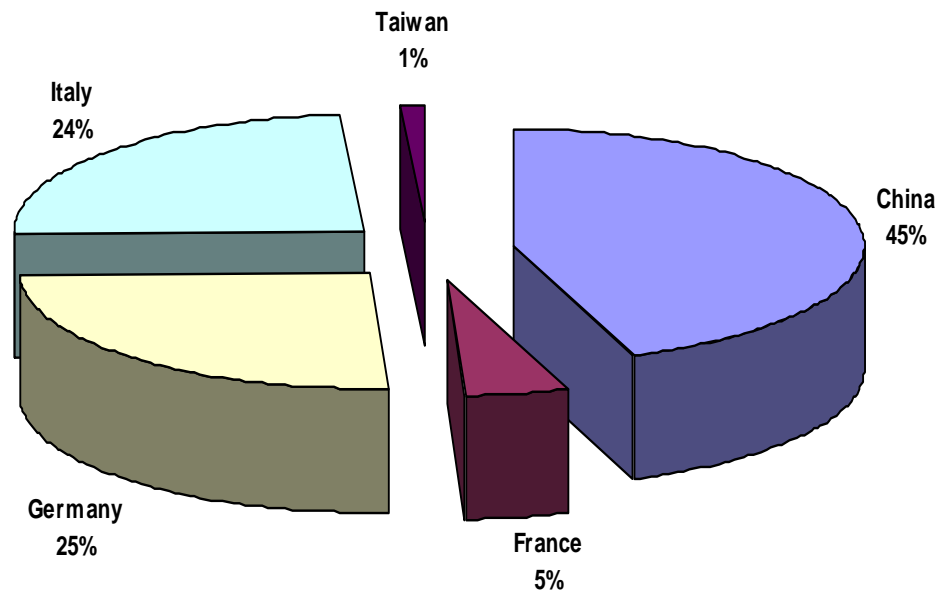


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Copper Sales Destination



Based on Sales to date



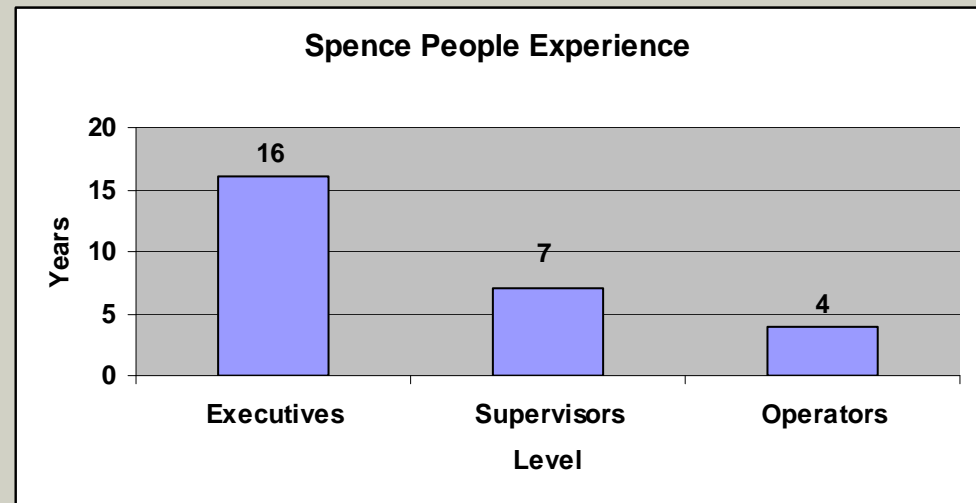
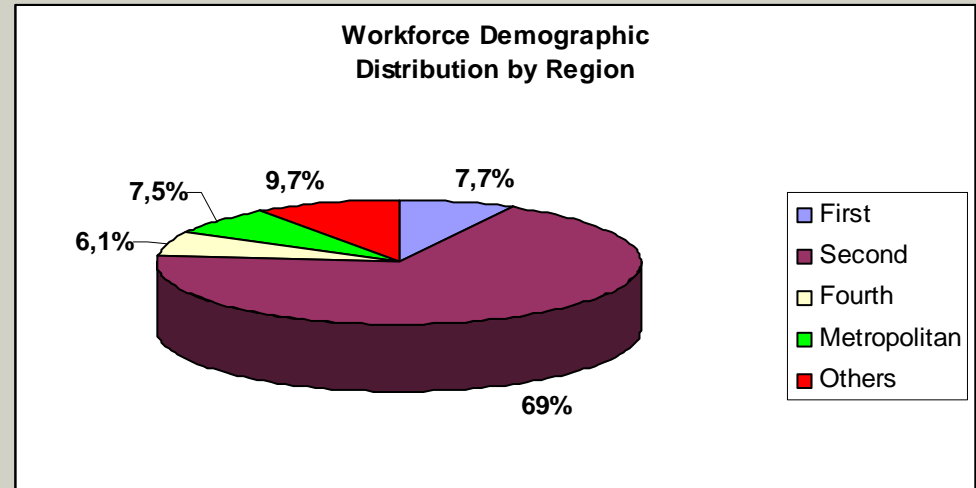
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• Workforce Statistics

- Employees: 663
- Contractors: 489
- Average Age: 32 years
- Community: 3.8%
- Female: 8.4%



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Labour Agreement

- Agreement reached without a strike
- Key Elements:
 - One-time bonus of US\$5 million (total cost)
 - Base Salary Increase of 14.3% over 15 months
 - Production start-up bonus estimated at US\$5 million (FY2007 only)
 - 3 year term



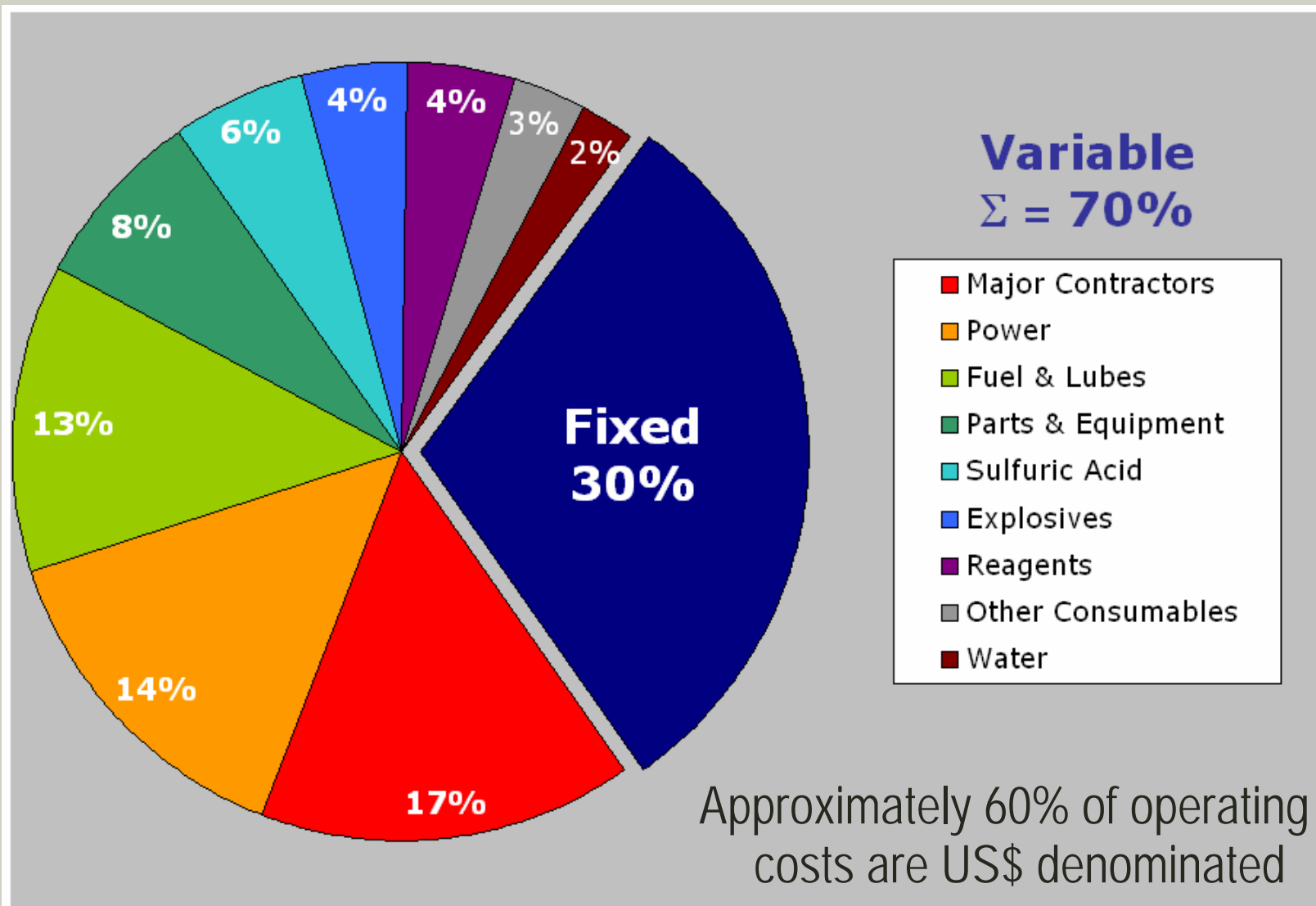
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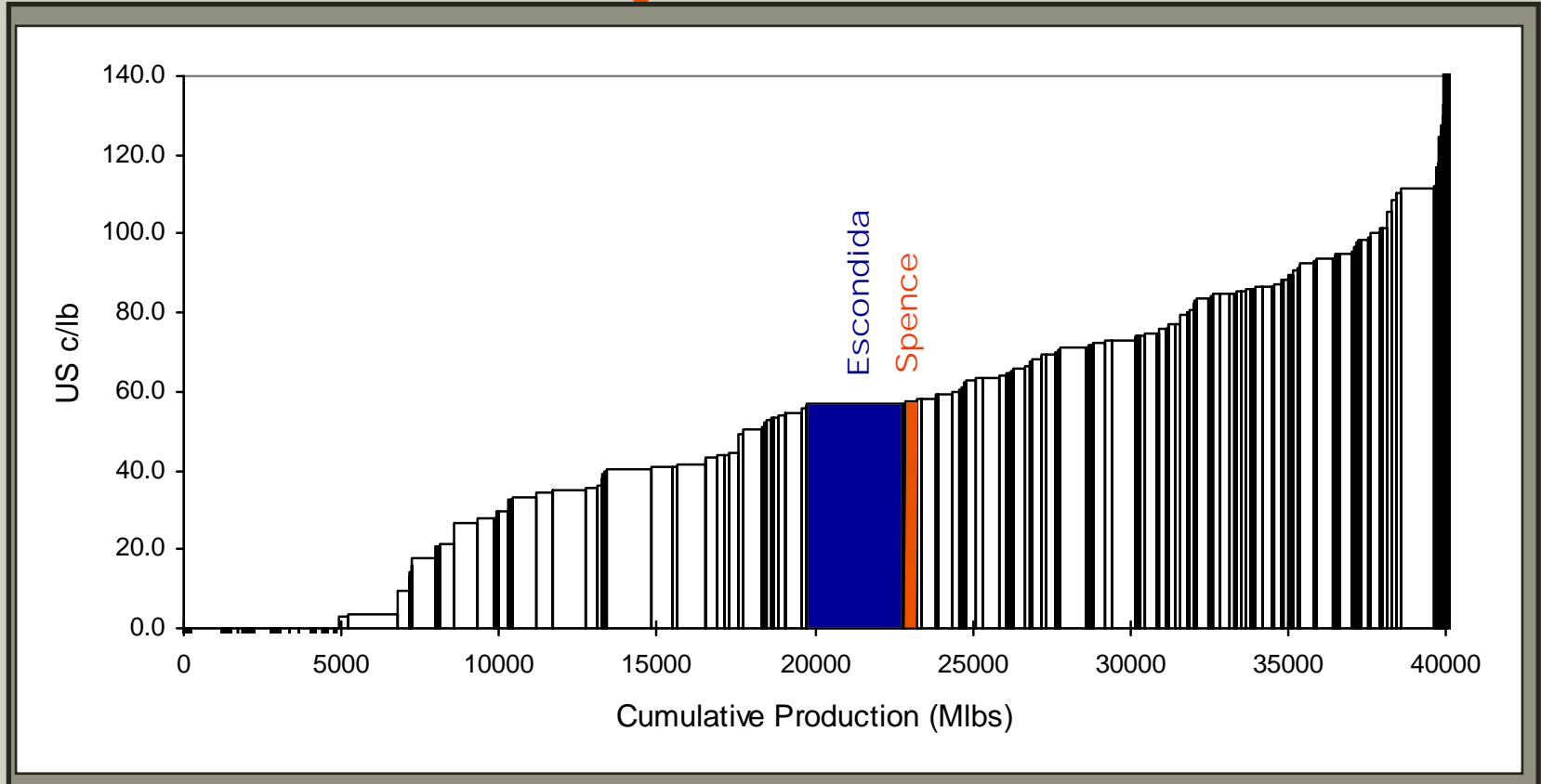
Operating Costs – Indicative Breakdown



Spence Project

Competitive Position

2010 (CY) Production League Ranked on C1 Cash Costs



Data from Copper Costs : Mines & Projects 2006 edition Brook Hunt

Spence cost in FY2007 (during ramp-up) estimated at US60c/lb

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Cost Management / Business Excellence

Early days of production means focus is on:

- Managing consumption rates of key inputs (power, diesel, acid, etc)
- Controlling Fixed Costs during ramp-up



Business Excellence programs focussed on:

- Workforce Training in BE principles
- Adopting Replication through BHP Billiton networks
- Projects mainly concentrated on Mine Operations
- Targeted savings of \$1 million in FY07

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Exploration is focused on identifying potential oxide and supergene sulphide mineralisation to supplement future ore feed.



Mining Lease:

- Geophysics & drilling program within current mining leases to explore to depth for satellite deposits.

•Mining District (Outside Spence Mine Lease):

- Program to identify other potential mineral resources amenable to leaching within an economic distance of Spence.

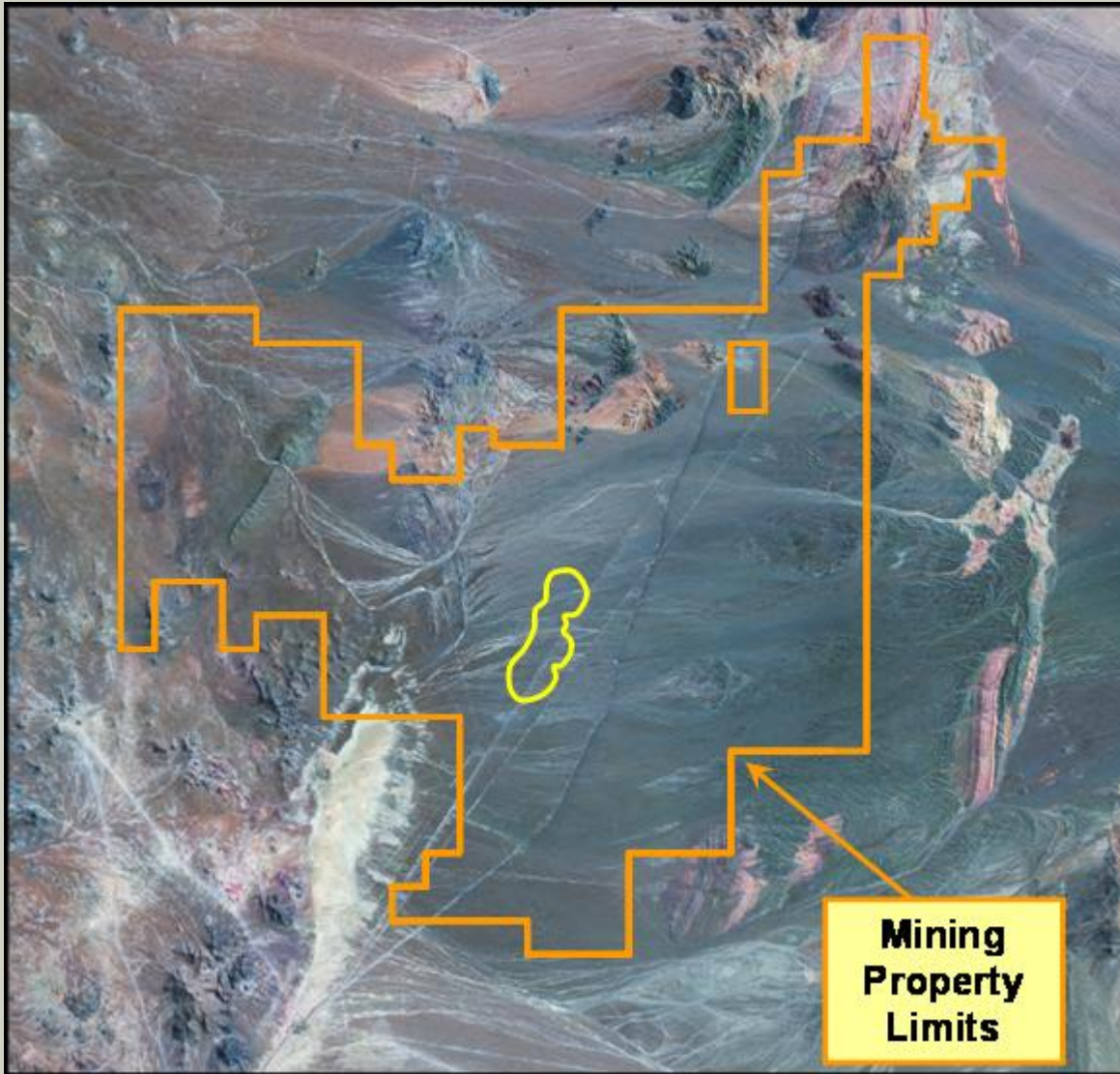
•Hypogene Mineralisation:

- Drilling & metallurgical test program to delineate and characterize the hypogene mineralisation underlying the current Spence mine.



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Mining Property



- Property is 100% Covered by 46k Ha of Manifestaciones
- Right to mine guaranteed by annual payments and Chilean mining legislation

Minera Spence

Thanks

