

# FOCUSED ON COPPER



Kazakhmys PLC

2013 Results  
Presentation

27 February 2014



## DISCLAIMER

Certain statements included in this presentation contain forward-looking information concerning Kazakhmys' strategy, business, operations, financial performance or condition, outlook, growth opportunities or circumstances in the countries, sectors or markets in which Kazakhmys operates. By their nature, forward-looking statements involve uncertainty because they depend on future circumstances, and relate to events, not all of which are within Kazakhmys' control or can be predicted by Kazakhmys.

Although Kazakhmys believes that the expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct. Actual results could differ materially from those set out in the forward-looking statements.

No part of this presentation constitutes, or shall be taken to constitute, an invitation or inducement to invest in Kazakhmys PLC, or any other entity, and shareholders are cautioned not to place undue reliance on the forward-looking statements. Except as required by the Rules of the UK Listing Authority and applicable law, Kazakhmys undertakes no obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise..



**KAZAKHMYS**

**Oleg Novachuk**

**Chief Executive Officer**





## TARGETS ACHIEVED

- Top of guidance range for copper production at 294 kt
- Operational cost savings and capex reduction ahead of target

## REFOCUS ON COPPER

- \$2.2 billion of net cash proceeds from disposal of non-core assets
- Pro forma net funds position post Ekibastuz GRES-1 disposal of \$0.5 billion

## GROWTH PIPELINE

- Bozshakol / Aktogay (oxide) on schedule for first production 2015
- Aktogay sulphide moved to 2017
- Acquisition of a third major copper deposit in Kazakhstan approved

## Continuing focus on health and safety

- 18 fatalities (2012: 19)
- LTIFR of 1.84 (2012: 1.80)
- H&S spend of around \$40 million
- Improvements in certain core risk areas
  - Reduced fatalities resulting from rock falls
  - Embedding risk assessment behaviour at underground operations
- Additional focus on transport safety, working at heights and heavy machinery handling in 2014



Introducing underground communications



Safety focus – working at height

## Copper production

- Ore output up 4%
- Focus on profitable production
- Copper ore grade – 0.99% (2012: 0.95%)

## By-product production

- Zinc and gold output above targets
- Silver ahead of guidance, reflecting substantial release of work in progress

## 2013 RESULTS

### Copper<sup>1</sup>

**294** kt

### Zinc in concentrate

**134** kt

### Gold

**108** koz

### Silver<sup>2</sup>

**14,348** koz

## 2013 GUIDANCE

### Copper<sup>1</sup>

**285-295** kt

### Zinc in concentrate

**125** kt

### Gold

**100** koz

### Silver<sup>2</sup>

**12,000** koz

Notes: 1. Includes copper cathode equivalent (own) of copper in concentrate sold and copper cathode converted into rod.  
2. Includes the silver granule equivalent volumes in copper concentrate sales.

## Copper production

- Ore extraction and grade in line with 2013 guidance
- 40% of sales will be in the form of copper concentrate

## By-product production

- Reduction in grades – zinc and silver
- Contribution to gold output from Bozymchak

## 2013 RESULTS

### Copper<sup>1</sup>

**294** kt

### Zinc in concentrate

**134** kt

### Gold

**108** koz

### Silver<sup>2</sup>

**14,348** koz

## 2014 GUIDANCE

### Copper<sup>1</sup>

**285-295** kt

### Zinc in concentrate

**120** kt

### Gold

**125** koz

### Silver<sup>2</sup>

**11,000** koz

Notes: 1. Includes copper cathode equivalent (own) of copper in concentrate sold and copper cathode converted into rod.  
2. Includes the silver granule equivalent volumes in copper concentrate sales.



November 2013

## Concentrator in commissioning stage

- First copper and gold concentrate – H1 2014
- Output ramp-up to full capacity expected 2015



January 2014 – Grinding and flotation area

## Project scope

- Ore processing 1 MT p.a., LOM 17 years
- 7 kt of copper in concentrate p.a.
- 35 koz of gold in concentrate p.a.
- Net cash cost<sup>1</sup> – 100 to 120 US\$/lb

Notes: 1. Estimated net cash cost over the first 10 years of the mine's operations, calculated using a long-term gold price of \$1,300 per ounce, expressed in real terms.



## Key statistics

- ▣ Large scale open-pit
- ▣ Most attractive open pit copper asset in Kazakhstan
- ▣ Copper resource of 3.4 MT with upside potential
- ▣ Silver, gold and molybdenum by-products
- ▣ Initial capex – \$10 million in 2014
- ▣ Acquisition cost – \$260 million
  - ▣ \$65 million deferred



Growth projects	Cu resource (MT)	Cu grade (%)	Cu output <sup>1</sup> (kt)	LOM
Bozshakol	4.1	0.35	100	Over 40
Aktogay	5.8	0.34	100	Over 50
<b>Koksay</b>	<b>3.4</b>	<b>0.48</b>	<b>90</b>	<b>Over 20</b>

Note: 1. Average copper cathode equivalent production for the first 10 years of operation.



**KAZAKHMYS**

**Andrew Southam**

**Chief Financial Officer**





## Financial Performance

<b>\$m (unless otherwise stated)</b>	<b>2013</b>	<b>2012</b>
Segmental EBITDA	873	1,364
Gross cash cost of copper, USc/lb	328	333
Free Cash Flow	(171)	85
Net debt	(771)	(707)

- Lower commodity prices
- Gross cash cost below guidance
  - Annualised cost savings – \$120 million
  - Strong sales volumes
- Sustaining capital expenditure reduced to \$487 million (2012: \$653 million)
- Free Cash Flow includes \$153 million of interest payments
- Continued investment in growth projects and receipt of ENRC proceeds
- Ekibastuz GRES-1 proceeds expected shortly

**EBITDA<sup>1</sup>**

<b>\$m (unless otherwise stated)</b>	<b>2013</b>	<b>2012</b>
Kazakhmys Mining	705	1,160
Captive Power	48	19
Corporate services	(31)	(52)
<b>Continuing operations</b>	<b>722</b>	<b>1,127</b>
Ekibastuz GRES-1	153	189
MKM	(2)	48
<b>Segmental EBITDA<sup>2</sup></b>	<b>873</b>	<b>1,364</b>
Share of EBITDA of ENRC <sup>3</sup>	276	548
<b>Group EBITDA</b>	<b>1,149</b>	<b>1,912</b>

**Kazakhmys Mining**

- ▣ Average LME copper price down 8%
- ▣ Lower LBMA by-product pricing for gold 15% and silver 24%
- ▣ Benefit from higher sales volumes – 16 kt above production
- ▣ Optimisation programme: \$60 million of cost savings in H2 2013

**Discontinued operations**

- ▣ Ekibastuz GRES-1
- ▣ MKM
- ▣ ENRC

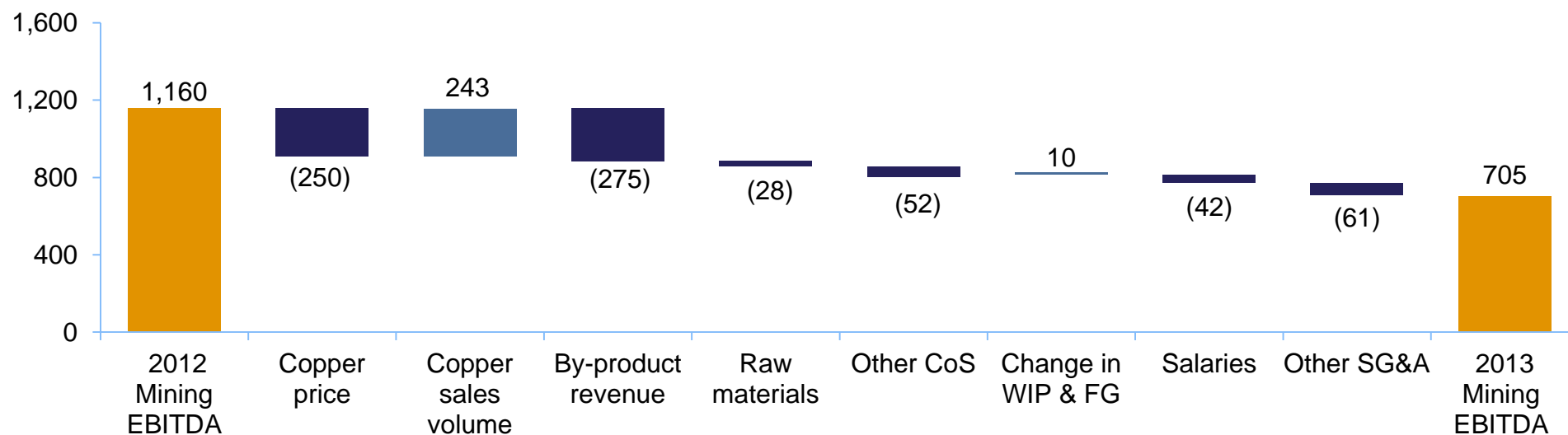
Notes: 1. From all businesses excluding MET, the non-cash component of the charge relating to the disability benefits obligation and special items.

2. Includes Kazakhmys' share of EBITDA (excluding special items) of Ekibastuz GRES-1 for the period to 5 December 2013 and MKM's EBITDA (excluding special items) for the period up to the disposal on 28 May 2013.

3. Represents Kazakhmys' share of EBITDA of ENRC for the period to 24 June 2013 based on ENRC's unaudited interim results for six months to 30 June 2013.



## 2012 to 2013 EBITDA reconciliation (\$m)



### Revenue

- Mining revenue 9% below 2012
- 30 kt increase in copper sales volumes to 312 kt
- Reduction in by-product revenues with lower prices and gold sales volumes

### Costs

- Ore extraction higher by 4%
- Full impact of Q2 2012 salary awards
- General inflation in Kazakhstan
- Muted input cost inflation
- Delivery of initial phase of optimisation programme in H2 2013

## ...SAVINGS EXCEEDED TARGETS...OPTIMISATION PROGRAMME TO CONTINUE INTO 2014

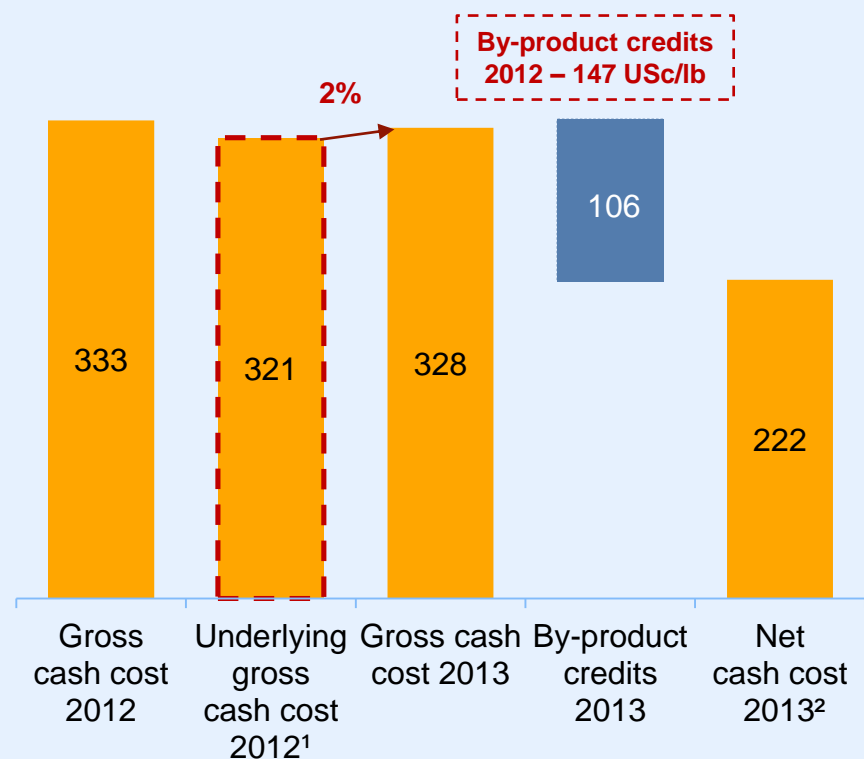
### \$120 MILLION OF ANNUALISED COST SAVINGS

- ▣ Improved material consumption
- ▣ Increased utilisation of equipment
- ▣ Renegotiated tariffs with suppliers
- ▣ Improved transportation
- ▣ Labour efficiencies

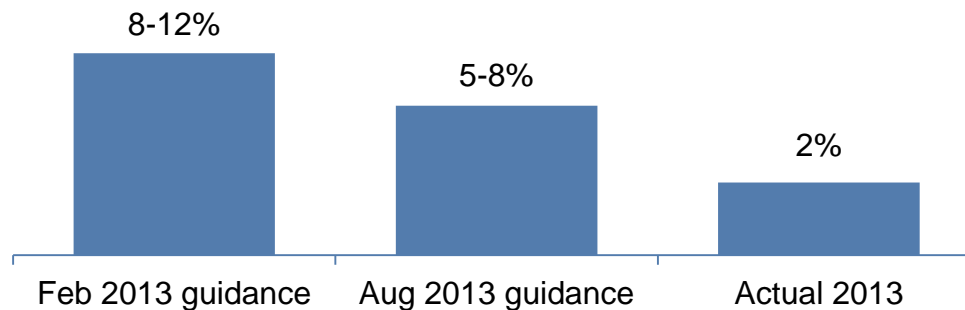
### 30% REDUCTION IN SUSTAINING CAPEX

- ▣ Mining Division capex reduced by 30% to \$422 million
- ▣ Capex guidance for 2014 Mining Division \$350–450 million

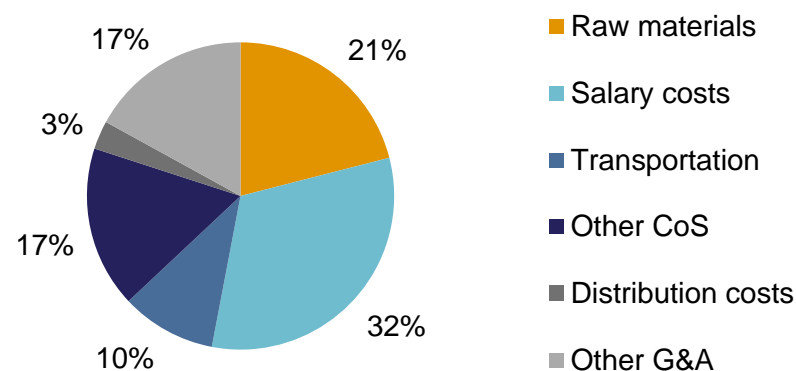
## Copper cash costs (USc/lb)



## Increase on underlying gross cash costs in 2012 (%)



## Gross cash costs 2013



Notes: 1. Kazakhmys Mining cash operating costs excluding purchased concentrate and brought-forward gold inventory (\$74 million or 12 USc/lb), divided by the volume of copper cathode from own production, including processing charges.

2. Kazakhmys Mining cash operating costs excluding purchased concentrate, less by-product revenues, divided by the volume of copper sales from own production, including processing charges.

## Reducing the cost base

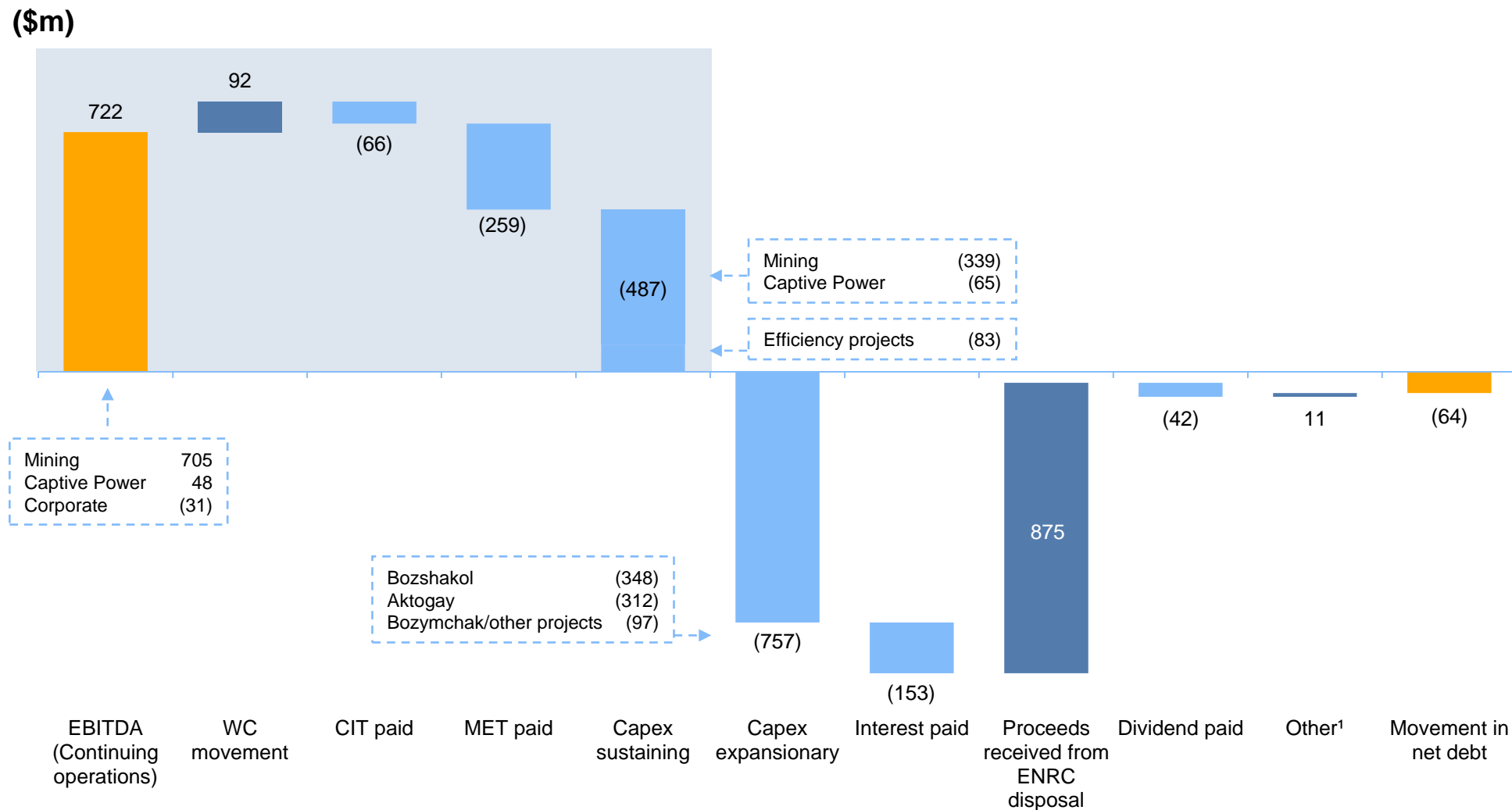
	2013	2014
Gross cash cost <sup>1</sup>	\$2,249 million	\$1,980-\$2,150 million
Copper sales volumes (own concentrate)	311 kt	285-295 kt
Unit cost of production	328 USc/lb	315-330 USc/lb

- Optimisation programme
- Benefit from devaluation
- Partially offset by:
  - Inflation
  - New pension tax
  - Increase in processing charges (TC/RC)
    - Cash cost includes 15 USc/lb TC/RC charge on concentrate sales<sup>2</sup>
- Unit cost impacted by lower sales volumes

- Captive Power revenues and costs impacted by devaluation

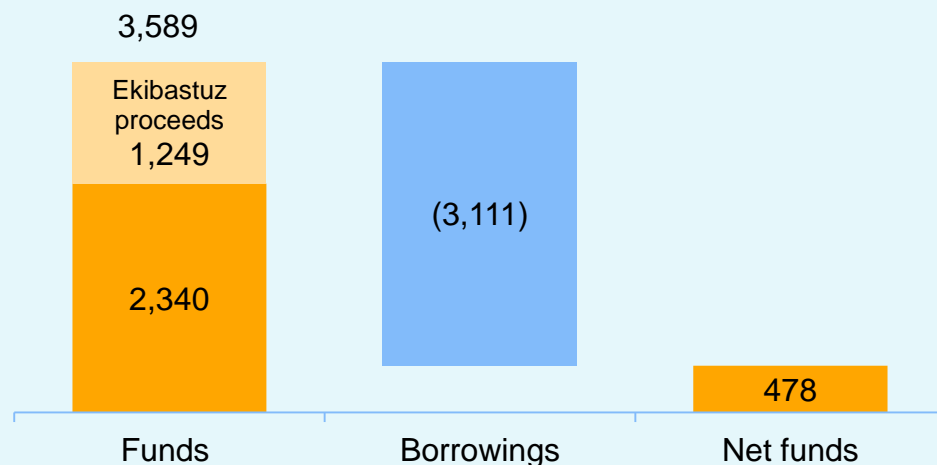
Notes: 1. Includes processing charges for copper in concentrate sold to third parties.  
 2. 40% of copper equivalent production is expected to be sold as concentrate.





Notes: 1. Includes MKM, non-current VAT on major projects and proceeds on disposal of property, plant and equipment.

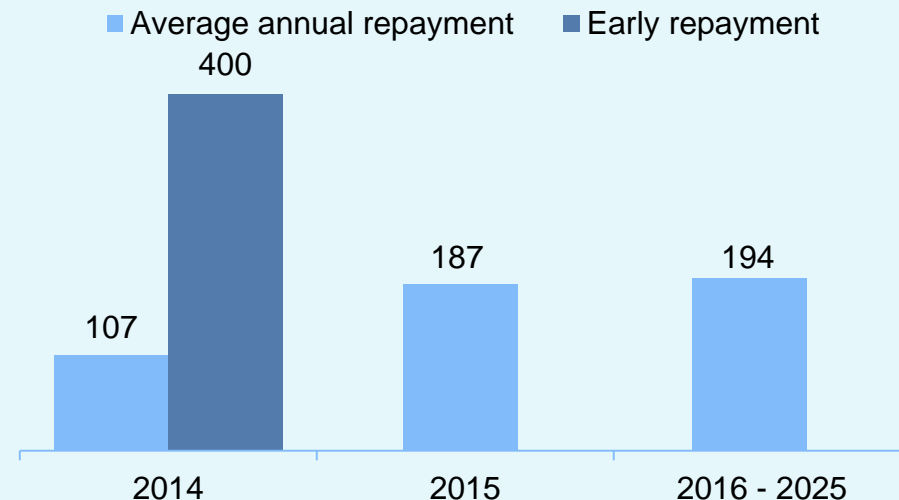
## Pro forma net funds position (\$m)



## Net cash proceeds of \$2.2 billion from disposal of non-core assets

- ▣ \$875 million in cash received from ENRC disposal
- ▣ \$1,249 million expected in H1 2014 from Ekibastuz GRES-1 disposal

## CDB facilities debt repayment profile (\$m)



## CDB debt

- ▣ \$1.4 billion available to draw on Aktogay facility
- ▣ Long-term debt profile

## Corporate transactions

- ▣ Koksay acquisition: \$260 million, \$195 million in 2014
  - ▣ Limited near term funding requirement
- ▣ Partnering options for growth projects

## Gross cash cost

Actual 2013

**328** USc/lb

Guidance 2014

**315-330** USc/lb

## Sustaining capex<sup>1</sup>

Actual 2013

**\$487** million

Guidance 2014

**\$410-530** million

## Expansionary capex

Actual 2013

**\$757** million

Guidance 2014

**\$1,300-1,700** million

### Mining

\$350-450 million

### Captive Power

\$60-80 million

### Bozshakol

\$750-950 million

### Aktogay

\$450-650 million

### Bozymchak and other expansionary projects

\$100 million

Notes: 1. Sustaining capex for Kazakhmys Mining and the captive power stations, excluding non-cash additions such as capitalised depreciation and capitalised interest.



**KAZAKHMYs**

**Mian Khalil**

**Head of Projects**



Grinding and flotation building – January 2013



February 2014



## 2013 DEVELOPMENT

- Significant progress during the year:
  - Majority of concrete works completed
  - Main processing building structure completed
  - Grinding mills and drives delivered on site
- Second contractor appointed
- Total capital expenditure around \$2.2 billion
- Net cash cost updated to 2014<sup>1</sup> – 60 to 80 USc/lb



February 2013 – Primary crusher



November 2013

Notes: 1. Estimated net cash cost over the first 10 years of the mine's operations, calculated using a long-term gold price of \$1,300 per ounce, expressed in real terms.

## 2014 PLAN

- ▣ Complete concrete and steel works
- ▣ Complete non-process buildings and permanent camp
- ▣ Complete construction of 220 kV power line
- ▣ Complete assembly of haul trucks and shovels for pre-production mining
- ▣ Start installation of mechanical and electrical equipment, including the mills and drives
- ▣ Begin installation of bulk material for piping and electrical works

## NEXT MILESTONES

**2014**

**Complete infrastructure and  
mining equipment assembly**

**H2 2015**

**First copper output**

## 2013 DEVELOPMENT

- ▣ Ordered majority of mechanical, electrical and process equipment
- ▣ Commenced construction of 1,700 man camp and associated infrastructure
- ▣ Earthworks on the site commenced
- ▣ Replacing principal contractor with work stream specific contracts
- ▣ Capital expenditure under review



Installation of Sandvik crusher



Installation of warehouse building



## 2014 PLAN

- ▣ Complete 110 kV power line to site
- ▣ Complete general earthworks
- ▣ Start pouring critical foundations
- ▣ Commence main concentrator building
- ▣ Leach pad construction

## NEXT MILESTONES

**2014**

**Mining infrastructure  
completion  
Heap leach pad ready**

**2015**

**First oxide copper  
production**

**2017**

**First sulphide copper  
production**



**Oleg Novachuk**

**Chief Executive Officer**



## **Optimise existing assets**

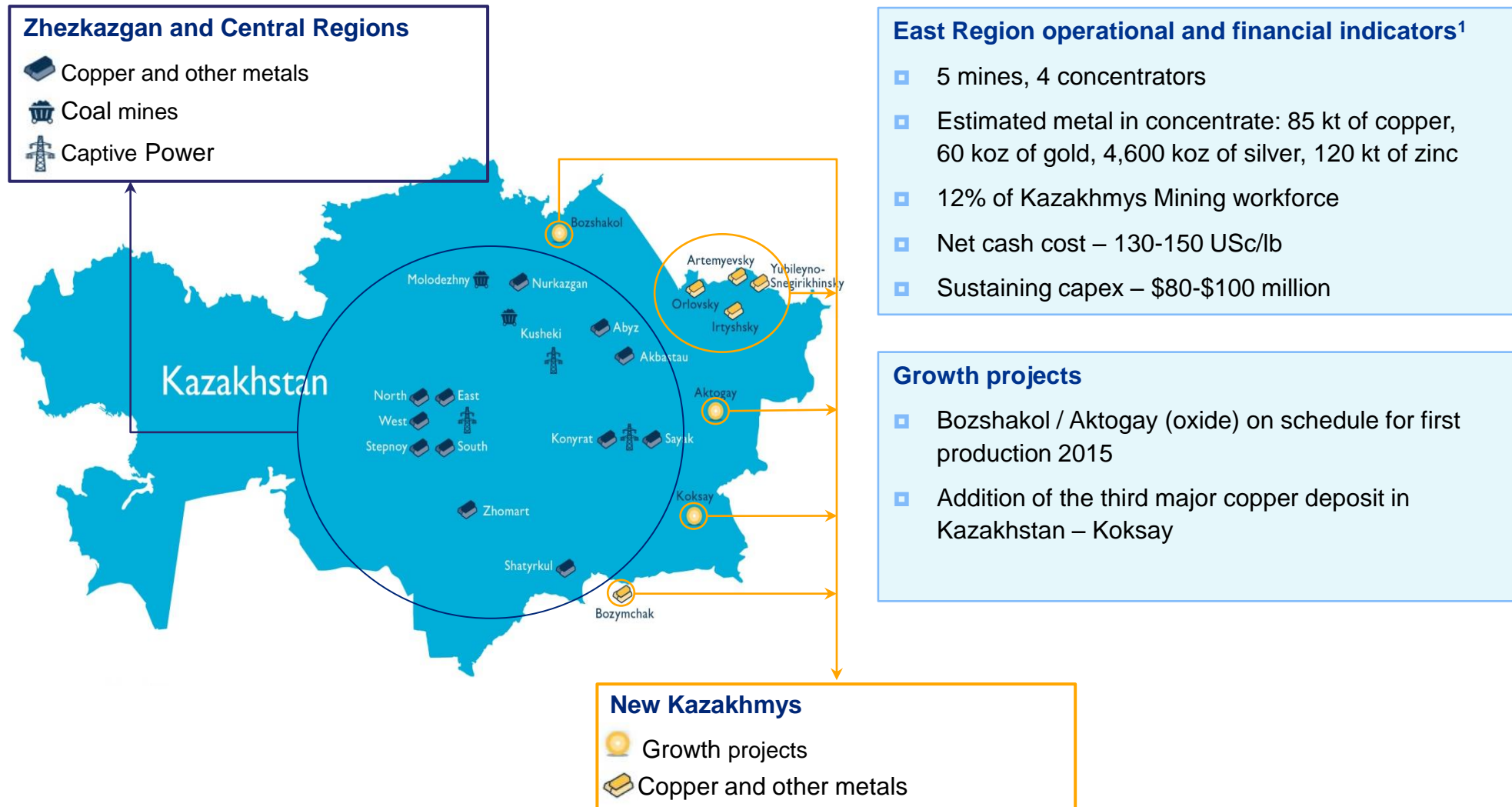
Review of assets completed  
Group restructure under consideration

## **Deliver major growth projects**

Highest production growth in sector

## **Expand and create value in Central Asia**

Acquisition of a third major copper asset in Kazakhstan approved



Notes: 1. Company estimate for 2014 for the East Region and Bozymchak.

## Structure

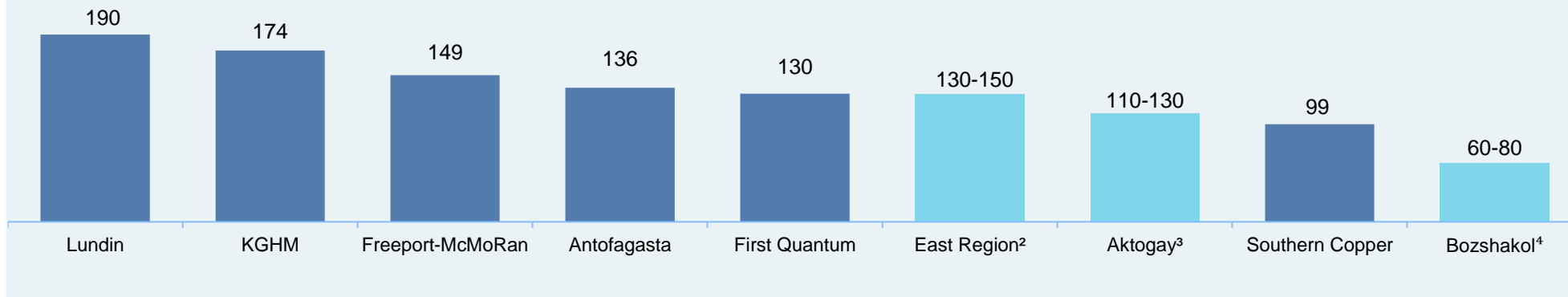
- ▣ Two separate companies
  - ▣ Minimal shared services/joint ventures
  - ▣ Co-operate on smelting and sales
- ▣ No shared management
- ▣ Vladimir Kim leads private company holding Zhezkazgan and Central Region assets
  - ▣ Remains committed to existing holding in listed Kazakhmys

## Timing

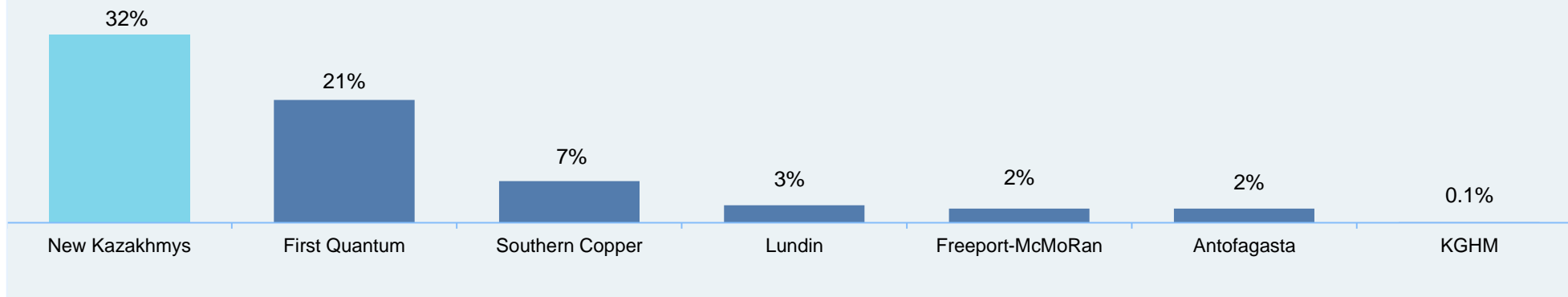
- ▣ Transaction – preliminary stage
- ▣ Report on the transaction H1 2014 results
- ▣ Aim to complete separation by the year end
- ▣ Completion subject to approval of independent shareholders



## Copper cash cost<sup>1</sup> (USc/lb)



## Copper production CAGR<sup>5</sup> (2013-2018E)



- Notes:
1. Company reported net cash cost (C1) for 2013. KGHM net cash cost as reported in Q3 2013 production report.
  2. Company estimate for 2014.
  3. Estimated net cash cost over the first 10 years of the mine's operations, calculated using a long-term molybdenum price of \$30,500 per tonne, expressed in real terms as at December 2012.
  4. Estimated net cash cost over the first 10 years of the mine's operations, calculated using a long-term gold price of \$1,300 per ounce, expressed in real terms as at February 2014.
  5. Broker equity research estimates. New Kazakhmys' production growth estimate excludes the Koksay project.

**Focused on  
7 mines**

**85% of copper  
output from  
open pit mines**

**Over 350 kt of  
copper  
equivalent output**

**Improved safety environment**

**Higher labour productivity**

**Low cost copper**

**Deliver value to shareholders**

## Appendices



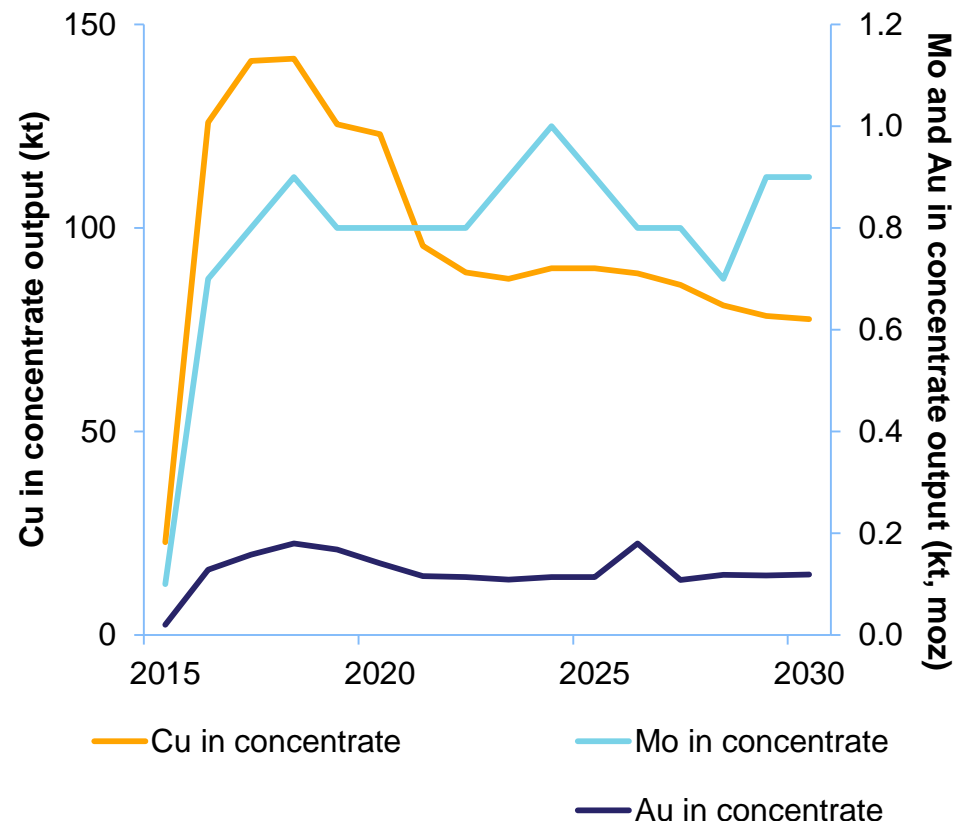
## Key statistics

- Large scale open-pit processing 30 MT ore annually
- Total copper cathode equivalent production of 3,099 kt
- By-products include 5,255 koz of contained gold and 57 kt of contained molybdenum
- Production life of over 40 years, with average production of 100 kt of copper cathode equivalent in first 10 years
- Employee numbers estimated 1,500 at full operation
- Close proximity to existing infrastructure
- Gross cash cost – 140-160 US\$/lb<sup>1</sup>
- Net cash cost – 60-80 US\$/lb<sup>2</sup>
- Total anticipated project capital cost \$2.2 billion

## Mineral Resource<sup>3</sup>

Tonnage (MT)	Cu grade (%)	Au grade (g/t)	Ag grade (g/t)	Mo grade (%)
1,173	0.35	0.14	0.88	0.004

## Production schedule: Key metals



Notes: 1. Estimated gross cash cost over the first 10 years of the mine's operations expressed in real terms.

2. Estimated net cash cost over the first 10 years of the mine's operations, calculated using a long-term gold price of \$1,300 per ounce, expressed in real terms.

3. Includes indicated and inferred material. Stated at 0.2% Cu cut-off grade. In accordance with JORC code.



## Key statistics

- Large scale open-pit processing on average 25 MT ore annually (sulphide ore)
- Total copper cathode equivalent production:
  - 224 kt from oxide ore
  - 4,032 kt from sulphide ore
- Total molybdenum in concentrate production of 74 kt
- First copper production in 2015 (oxide)
- Production life of over 50 years, with average production of 100 kt copper cathode equivalent in first 10 years
- Employee numbers estimated 1,500 at full operation
- Gross cash cost – 120-140 US\$/lb<sup>1</sup>
- Net cash cost – 110-130 US\$/lb<sup>2</sup>

## Mineral Resource<sup>3</sup>

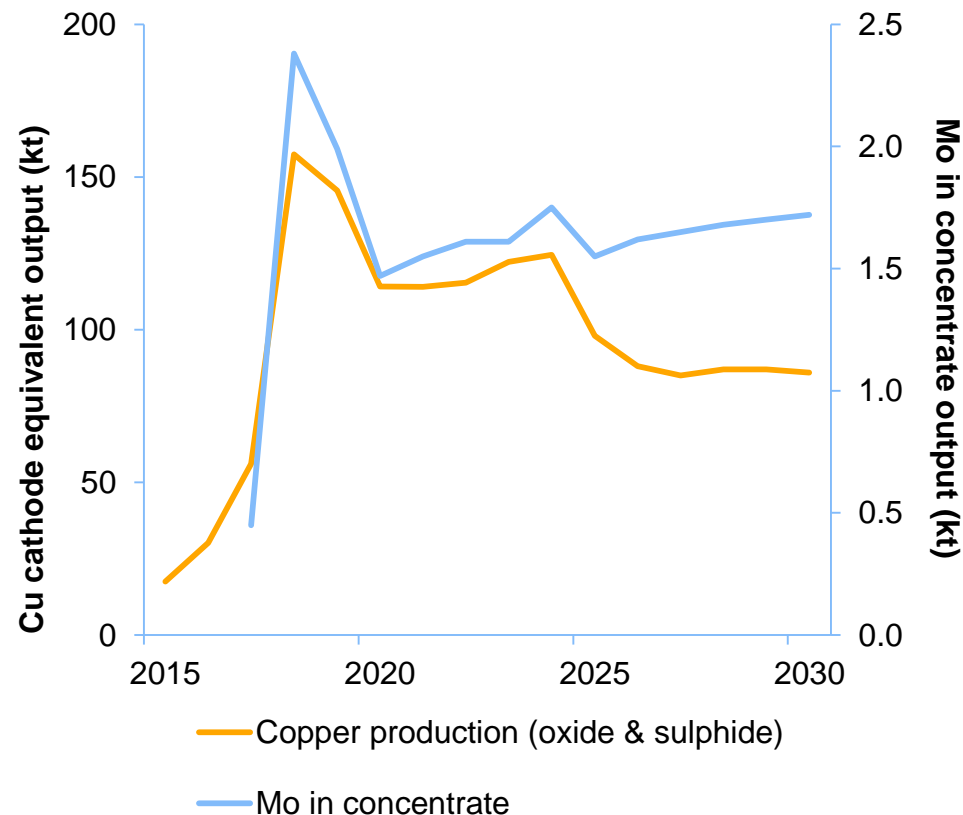
	Tonnage (MT)	Cu grade (%)	Mo grade (%)
Oxide	121	0.37	-
Sulphide	1,597	0.33	0.008

Notes: 1. Estimated gross cash cost over the first 10 years of the mine's operations expressed in real terms as at December 2012.

2. Estimated net cash cost over the first 10 years of the mine's operations, calculated using a long-term molybdenum price of \$30,500 per tonne, expressed in real terms as at December 2012.

3. Includes measured and indicated resources. Stated at 0.2% Cu cut-off grade. In accordance with JORC code.

## Production schedule: Key metals



# SUMMARY INCOME STATEMENT

\$m (unless otherwise stated)	2013	2012
<b>CONTINUING OPERATIONS</b>		
<b>Revenues</b>	<b>3,099</b>	<b>3,353</b>
(Loss)/profit before finance items and taxation	(602)	242
Net finance costs	(79)	(91)
<b>(Loss)/profit before taxation</b>	<b>(681)</b>	<b>151</b>
Income tax expense	(127)	(86)
<b>(Loss)/profit for the year from continuing operations</b>	<b>(808)</b>	<b>65</b>
<b>DISCONTINUED OPERATIONS</b>		
Loss for the year from discontinued operations	(1,224)	(2,335)
<b>Loss for the year</b>	<b>(2,032)</b>	<b>(2,270)</b>
Non-controlling interests	2	(1)
<b>Loss attributable to owners of the Company</b>	<b>(2,030)</b>	<b>(2,271)</b>
<b>EPS – basic and diluted (\$)</b>	<b>(3.96)</b>	<b>(4.33)</b>
<b>EPS based on Underlying Profit - basic and diluted (\$)</b>		
From continuing operations (\$)	0.04	0.36
From discontinued operations (\$)	0.33	0.58
<b>EPS – based on Underlying Profit (\$)</b>	<b>0.37</b>	<b>0.94</b>

Reconciliation of Underlying Profit (\$m)	2013	2012
<b>CONTINUING OPERATIONS</b>		
<b>Net (loss)/profit attributable to owners of the Company from continuing operations</b>	<b>(806)</b>	<b>64</b>
Impairment charges	670	192
Additional disability benefits obligation related to previously insured employees	84	-
Loss on disposal of assets	14	8
Taxation related special items	58	(73)
<b>Underlying Profit from continuing operations</b>	<b>20</b>	<b>191</b>
<b>DISCONTINUED OPERATIONS</b>		
<b>Net loss attributable to owners of the Company from discontinued operations</b>	<b>(1,224)</b>	<b>(2,335)</b>
Loss on disposal of subsidiaries and investment in associate	529	13
Impairment to fair value less costs to sell (MKM, ENRC)	845	2,240
Other special items	20	383
<b>Underlying Profit from discontinued operations</b>	<b>170</b>	<b>301</b>
<b>Total Underlying Profit</b>	<b>190</b>	<b>492</b>

## Revenues from continuing operations and joint venture

\$m	2013	2012
<b>Kazakhmys Mining</b>	<b>3,003</b>	<b>3,285</b>
Copper products	2,268	2,275
Silver <sup>1</sup>	311	414
Gold <sup>2</sup>	152	322
Zinc in concentrate	143	154
Other <sup>3</sup>	129	120
<b>Captive Power</b>	<b>96</b>	<b>68</b>
<b>Total revenues</b>	<b>3,099</b>	<b>3,353</b>
<b>Ekibastuz GRES-1<sup>4</sup></b>	<b>248</b>	<b>290</b>

## Kazakhmys Mining sales volumes

kt (unless otherwise stated)	2013	2012
<b>Copper cathode equivalent sales</b>	<b>312</b>	<b>282</b>
Copper cathodes	270	259
Copper in concentrate <sup>5</sup>	31	-
Copper rod	11	23
<b>Zinc in concentrate</b>	<b>137</b>	<b>151</b>
<b>Silver<sup>1</sup> (koz)</b>	<b>13,506</b>	<b>13,206</b>
<b>Gold<sup>2</sup> (koz)</b>	<b>109</b>	<b>193</b>

Notes: 1. Includes silver granule equivalent in copper concentrate sold.

2. Includes gold doré.

3. Other revenue includes coal, lead, sulphuric acid etc.

4. Ekibastuz GRES-1 on a 50% basis for the period to 5 December 2013.

5. Represents cathode equivalent.

## Summary cash flow

\$m	2013	2012
Segmental EBITDA before ENRC & GRES-1 <sup>1</sup>	(599)	945
Impairment losses	712	220
Non-cash component of the disability benefits obligation	(26)	(149)
Loss on disposal of ENRC, MKM and other assets	543	23
Dividends received from associate and joint venture	-	87
Working capital movements <sup>2</sup>	179	64
Interest paid	(156)	(85)
Income tax paid	(67)	(142)
MET paid	(259)	(199)
Foreign exchange and other movements	(2)	(17)
<b>Net cash flows from operating activities before other expenditure associated with major projects</b>	<b>325</b>	<b>747</b>
Sustaining capital expenditure	(496)	(662)
<b>Free Cash Flow</b>	<b>(171)</b>	<b>85</b>
Expansionary and new project capital expenditure	(757)	(567)
Non-current VAT receivable associated with major projects	(44)	(55)
Major social projects	(32)	(12)
Dividends paid	(42)	(121)
Purchase of own shares under the share buy-back programme	-	(88)
Proceeds from disposal of subsidiaries, net of cash disposed	27	3
Proceeds from disposal of investment in associate	875	-
Proceeds from disposal of property, plant and equipment	38	51
Other	3	(7)
<b>Cash flow movement in net debt</b>	<b>(103)</b>	<b>(711)</b>

## Working capital movements<sup>2</sup>

\$m	2013	2012
Kazakhmys Mining	186	147
Captive Power	5	(61)
MKM	(23)	(18)
Corporate	11	(4)
<b>Total</b>	<b>179</b>	<b>64</b>

## Capital expenditure

\$m	2013	2012
Kazakhmys Mining	1,179	1,168
Sustaining	422	603
Expansionary	757	565
Captive Power	65	47
MKM	9	11
Corporate	-	3
<b>Total</b>	<b>1,253</b>	<b>1,229</b>

Notes: 1. Excluding MET and the non-cash component of the disability benefits obligation, but including special items and loss on disposal of ENRC and MKM.

2. Working capital movements exclude any accruals in respect of MET, non-current VAT on major projects and intercompany movements.



# SUMMARY BALANCE SHEET

<b>Assets (\$m)</b>	<b>2013</b>	<b>2012</b>
Non-current assets	4,032	6,699
Assets classified as held for sale	1,018	251
Cash and liquid funds <sup>1</sup>	2,340	1,761
Other current assets	1,229	1,282
<b>Total</b>	<b>8,619</b>	<b>9,993</b>

<b>Non-current assets (\$m)</b>	<b>2013</b>	<b>2012</b>
Intangible assets	52	64
Tangible assets	3,312	3,062
Investment in associate	-	2,027
Investment in joint venture	-	927
Other non-current assets	647	532
Deferred tax asset	21	87
<b>Total</b>	<b>4,032</b>	<b>6,699</b>

<b>Equity &amp; liabilities (\$m)</b>	<b>2013</b>	<b>2012</b>
Equity	4,221	6,265
Borrowings	3,111	2,468
Liabilities directly associated with assets classified as held for sale	-	158
Other liabilities	1,287	1,102
<b>Total</b>	<b>8,619</b>	<b>9,993</b>

<b>Net debt (\$m)</b>	<b>2013</b>	<b>2012</b>
Cash and liquid funds <sup>1</sup>	2,340	1,761
Borrowings	(3,111)	(2,468)
<i>Short-term</i>	(503)	(29)
<i>Long-term</i>	(2,608)	(2,439)
<b>Total</b>	<b>(771)</b>	<b>(707)</b>

Notes: 1. Includes current investments with a maturity of 3 to 6 months.

## Kazakhmys Mining cash costs

\$m (unless otherwise stated)	2013	2012
Revenue	3,003	3,285
EBITDA excluding special items	705	1,160
<b>Gross cash costs</b>	<b>2,298</b>	<b>2,125</b>
Other adjustments	(49)	(71)
<b>Gross cash costs of own production</b>	<b>2,249</b>	<b>2,054</b>
Sales volumes (own production) (kt)	311	280
<b>Gross cash costs of own production (USc/lb)</b>	<b>328</b>	<b>333</b>
By-product credits	(728)	(983)
Net cash costs of own production	1,521	1,071
<b>Net cash costs of own production (USc/lb)</b>	<b>222</b>	<b>174</b>

■ In 2013, includes processing charges relating to the sale of copper cathode concentrate in H2 2013. There is also an adjustment each period to exclude costs related to the former Kazakhmys Gold mines, purchased concentrate, non-copper related social spend and other non-production expenses.

■ 69 koz of gold bar sold from brought-forward inventory in 2012

	Orlovsky	Irtyshtsky	Yubileyno-Snegirikhinsky	Artemyevsky	Bozymchak
<b>Ore output (kt)</b>	1,500	650	650	1,400	400
<b>Copper grade (%)</b>	3.2	1.5	2.1	1.8	1.1
<b>Life of mine<sup>2</sup></b>	6	18	1-2	4	17
<b>Major by-products</b>	Gold, silver and zinc	Gold, silver and zinc	Gold, silver and zinc	Gold, silver and zinc	Gold and silver
<b>Type of mine</b>	Underground	Underground	Underground	Underground	Open pit / underground
<b>Concentrator</b>	On-site concentrator	Belousovsky concentrator	Belousovsky concentrator	Nikolayevsky concentrator	On-site concentrator
<b>Description</b>	Orlovsky is the Group's largest mine by copper metal in ore extracted	Irtyshtsky has been operating since 2001	Yubileyno-Snegirikhinsky is expected to reach the end of its operational life in 2014/2015	The project to extend the existing Artemyevsky mine's operational life is currently at the pre-feasibility stage	The Bozymchak is located in Kyrgyzstan and is expected to commence operations in the first half of 2014

Notes: 1. Company estimate for 2014.

2. Excludes potential development projects to extend the operational life of mines.