

# Voro

Analyst / Investor Trip Urals, Russia June 11-12, 2008





## Content

	Overview	3
<b>A</b>	Production	11
<b>A</b>	Expansion	16
Δ	Regional exploration program	20
<b>A</b>	Financial highlights	23
_	Social and environmental responsibility	26







# Overview





#### Team



Andrey Novikov
Managing Director
Age: 38
Experience: 15 years

At Polymetal: 4 years



Roman Shestakov VP Production Age: 32 Experience: 9 years At Polymetal: 6 years



Denis Gospodarikov
VP Finance
Age: 31
Experience: 8 years

At Polymetal: 7 years



Viktor Kozlov Chief Mining Geologist Age: 56 Experience: 33 years At Polymetal: 9 years



Eugeny Pushnoy
Open Pit Manager
Age: 32
Experience: 10 years
At Polymetal: 2 years



Sergey Sverba
HL Plant Manager
Age: 49
Experience: 24
At Polymetal: 9 years



Nikita Rusinov
CIP Plant Manager
Age: 37
Experience: 13 years

At Polymetal: 8 years



Sergey Egorov
Chief Exploration Geologist
Age: 57
Experience: 35 years
At Polymetal: 8 years





## 450 km north of Yekaterinburg



#### Available labor

- 20 km from Krasnoturinsk (population 62K)
- 30 km from Karpinsk (population 30K)
- 40 km from Serov (population 105K)
- △ Developed transport infrastructure
- ▲ Grid power







#### **Designed by**

▲ Polymetal Engineering, greenfield project

**JORC-compliant reserves\*** 

△ 1.85 Moz ( 21,145 kt @ 2.7g/t)

Life of mine

14 years (until 2022)

Mining

Open pit, oxidized and primary ore

**Processing** 

▲ Heap leach (900Ktpa), Carbon-in-pulp (950Ktpa)

2007 key statistics

△ Production: 117Koz of gold, 71Koz of silver

▲ Estimated cash costs (co-product) - US\$409/ ounce

\* As of 1 Jan 2008





## **Timeline**

1985	1998	2000	2004	2006	2008	2009
► Discovered	► Acquired by Polymetal (100%)	<ul><li>▶ Mining started</li><li>▶ Heap leach plant commissioned</li></ul>		► CIP expansion project approved	► CIP expansion to be commissioned	► Starting mining at south Voro flanks

#### Gold production in 2000-2010, koz











## **Production Statistics**

Mining	2006	2007	2008F	2009F	2010F
Ore mined (kt)	809	855	544	1,682	1,580
Oxidized	152	220	184	845	868
Primary	658	635	360	836	712
Heap leach processing	2006	2007	2008F	2009F	2010F
Ore milled (Kt)	832	882	850	850	850
Au head grades (g/t)	2.20	2.00	1.80	1.90	2.43
Au recovery to precipitate	70%	69%	70%	70%	70%
Carban in pula processing	2006	2007	2008F	2009F	2010F
Carbon-in-pulp processing					
Ore milled (Kt)	413	478	600	878	900
Au head grades (g/t)	5.90	6.33	5.42	5.14	5.20
Au recovery	78%	80%	82%	82%	82%
Production	2006	2007	2008F	2009F	2010F
Gold produced (koz)	101	117	120	155	170
Heap leach	41	39	36	36	46
CIP	60	78	84	119	124





# JORC Compliant Reserves and Resources as of 1 Jan, 2008

	Tonnes (Kt)	Go	Gold		Silver	
	Torriles (Kt)	g/t	Koz	g/t	Koz	
Proven	19,570	2.7	1,729	3.7	2,303	
Probable	1,574	2.4	119	3.5	177	
Total Ore Reserves 21,145		2.7	1,848	3.6	2,480	
including						
Primary	14,960	3.2	1,525	3.7	1,779	
Oxidized	6,185	1.6	323	3.5	701	
Measured	19,541	2.9	1,805	3.9	2,427	
Indicated	1,509	2.6	124	3.8	186	
Total measured + Indicated	21,049	2.9	1,929	3.9	2,613	
Inferred	114	2.8	10	4.6	17	
Total Mineral Resources	21,164	2.9	1,939	3.9	2,629	

<sup>(1)</sup> The estimates for ore reserves (Proved and Probable) presented above are based on the following economic cut-off grades (in situ): 1.17g/t Ag equivalent for oxidized ore and 1.50 g/t Ag equivalent for primary ore

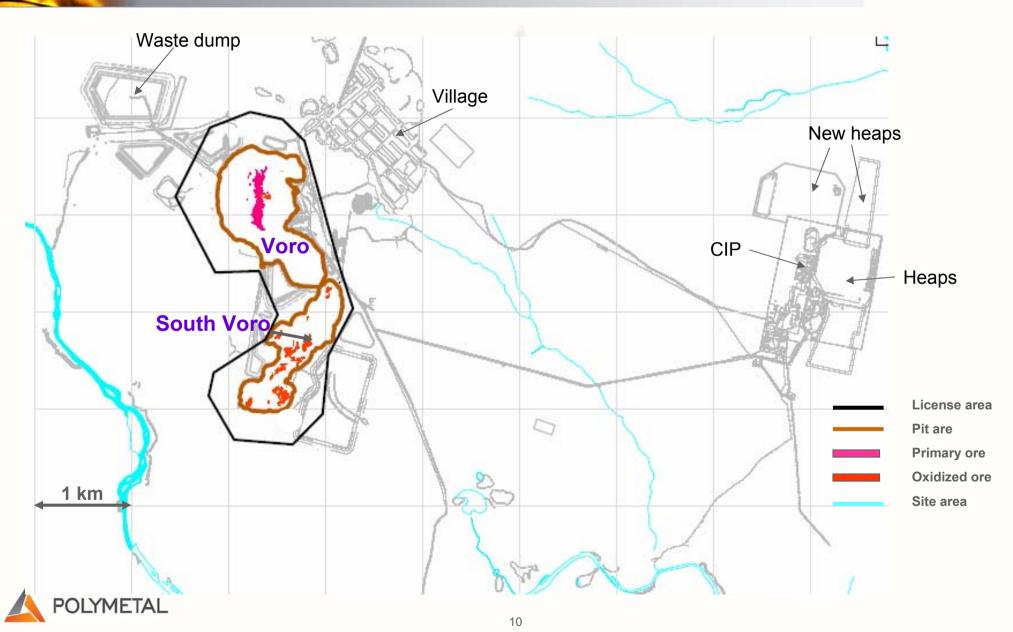
<sup>(4)</sup> Inferred mineral resources are stated exclusive of reserves and measured and indicated mineral resources



<sup>(2)</sup> The Company's ore reserves are based on a gold price of U.S.\$ 600/oz and a silver price of U.S.\$ 11.00/oz; mineral resources are based on a gold price of U.S.\$ 700/oz and a silver price of US\$ 13.50/oz

<sup>(3)</sup> Measured and indicated mineral resources are stated inclusive of ore reserves but with no allowance for ore loss or dilution

## **Voro Site Plan**



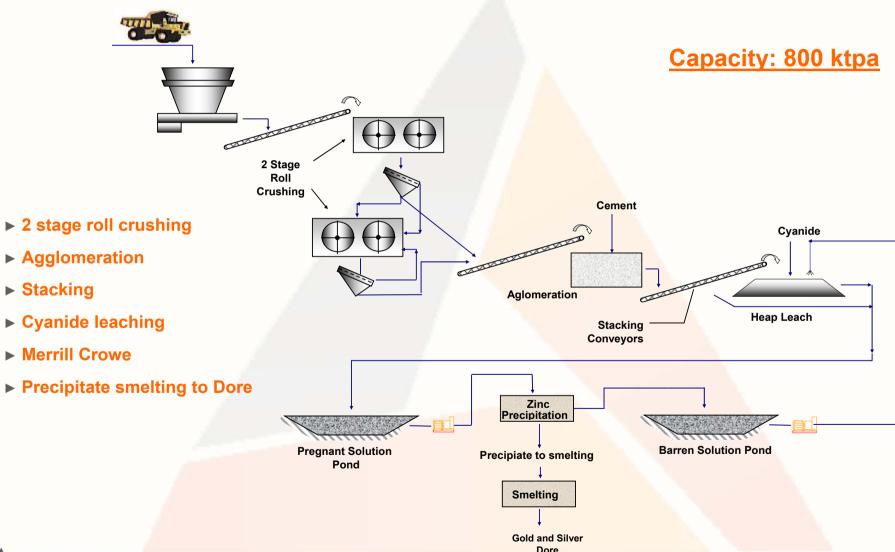


# Production





## Flowsheet: heap leach



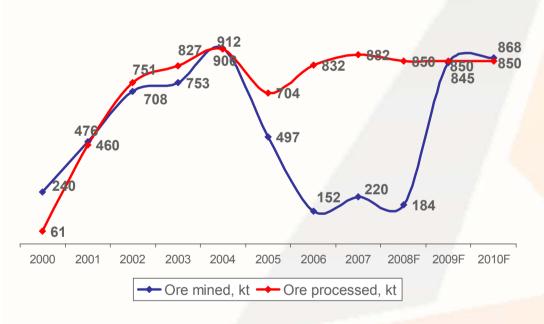


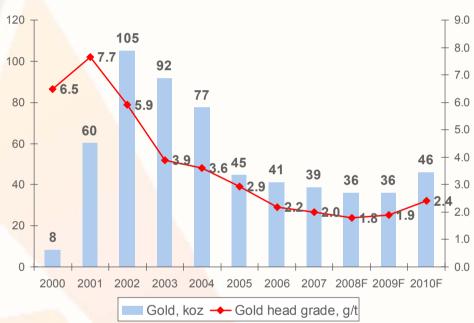


## **Production Statistics: heap leach**

#### Oxidized ore mining and processing, 2000-2010

#### Gold production and grade at HP, 2000-2010



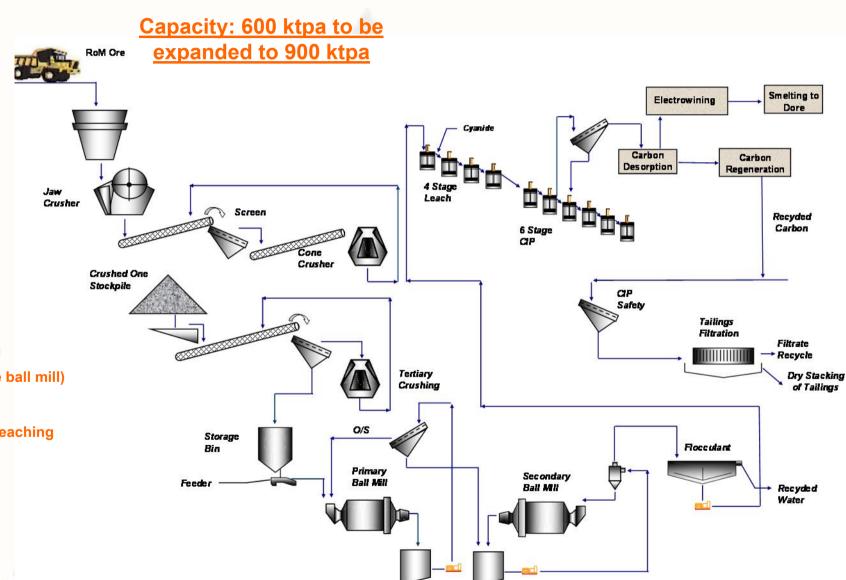


▲ Voro oxidized ore reserves are almost depleted, starting 2009 oxidized ore will come from the south Voro





## Flowsheet: carbon-in-pulp



- **▶** Jaw crushing
- **▶** Cone crushing
- **▶** Tertiary crushing
- ► Grinding (2 stage ball mill)
- **▶** Thickening
- ► 4 stage cyanide leaching
- ▶ 6 stage CIP
- **▶** Stripping
- **▶** Electrowinning
- **▶** Smelting to Dore



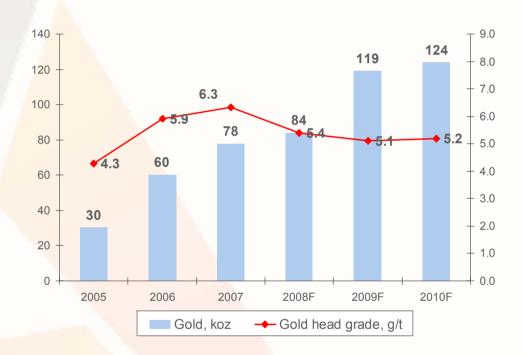


## **Production Statistics: carbon-in-pulp**

#### Primary ore mining and processing, 2004-2010

# 878 900 836 712 2004 2005 2006 2007 2008F 2009F 2010F Ore mined, kt Ore processed, kt

#### Gold production and grade at CIP, 2005-2010



- △ Growing mining volumes: 1.3 kt by 2012
- △ Decrease in mining volumes in 2010 is explained by starting up of a new ore zone





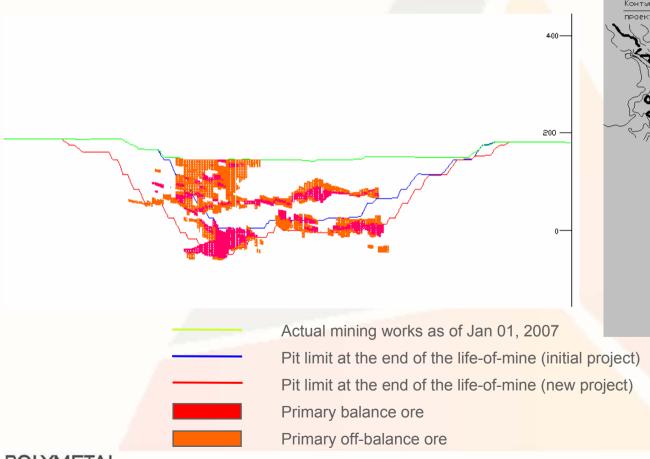
# Expansion

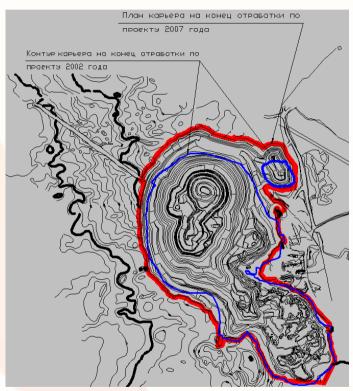




## Re-optimizing of the Voro Pit

- ▲ Depth of the pit to be increased by 60 meters
- △ Pit limits to change by 30m west, 140m north, and 50m east
- ▲ Exploration continues 8,000m planed for 2008

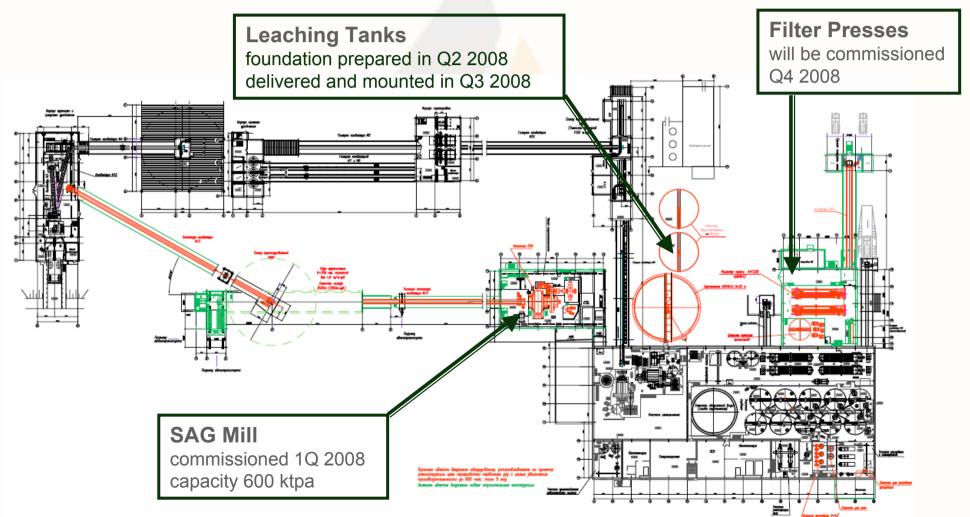






## **CIP Plant lay-out: Expansion Plan**

### **▲** 80% of the project completed







## **Capital Expenditures**

#### **Current projects**

- Expansion of CIP plant
- ▲ Truck fleet upgrade
- ▲ South Voro

\$mn	2008F	2009F
Capital maintenance	5.9	4.0
Mine dewatering	0.6	0.4
CIP plant	17.3	1.1
South Voro	0.0	4.0
Total	19.7	8.1

#### Capital expenditures in 2000-2009, \$mn







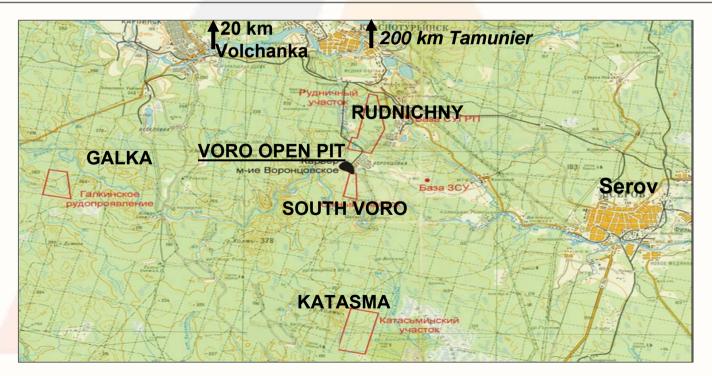
# Regional Exploration Program





## **Regional Exploration Program**

Pro	ject	Area	License Expire Date	Target	2008 Plan
<u> </u>	Galka	3.5 km <sup>2</sup>	2010	identification of a complex gold-silver-zinc-copper ore deposit with zinc reserves of 1 million tons, gold – 1.5 Moz, silver – 40Moz.	Resource update by end 2008 12,000m drilling
<b>A</b>	Katasma	28.2 km²	2031	identification of a medium size gold deposit (0.7-1.0Moz of gold) to replenish Voro mineral resources	19,000m drilling
<b>A</b>	Rudnichny	7.9 km²	2011	identification of commercia <mark>l gold</mark> bodies (0.8Moz) to replenish Voro mineral resources	6,000m drilling
<u> </u>	Tamunier	21 km²	2032	identification of gold reserves of 1Moz at average grade of 6g/t to form the long-term mineral resource base	4,000m drilling
A	Volchanka	31.5 km²	2012	Identification of gold reserves of 0.8 Moz	n/a







## **Galka Overview**

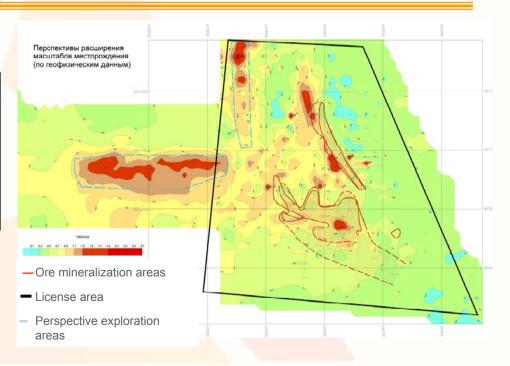
2006	2007	2008
▲ License obtained ▲ 5,000 m of diamond drilling	<ul> <li>▲ 13,000 m of drilling</li> <li>▲ JORC-compliant resource audit</li> <li>▲ Magnetic and electrical surveys on the flanks</li> </ul>	<ul> <li>▲ Pre-feasibility study</li> <li>▲ 12,000 m of drilling</li> <li>▲ Exploration and production license</li> <li>▲ Resource update</li> </ul>

#### **JORC** compliant resources

(Snowden resource audit, May 2007)

	Tonna ge	Au	Ag	Zn	Au	Ag	Zn
	<u>Kt</u>	<u>g/t</u>	<u>g/t</u>	<u>%</u>	Koz	Koz	<u>Kt</u>
Indicated	4,255	1.43	43.68	1.37	196	5,975	58
Inferred	9,982	1.23	29.44	<u>1.18</u>	394	9,447	<u>118</u>
Total	14,237	1.29	33.69	1.24	590	15,422	176

<u>Note</u>: total mineral resources of 1.59 Moz. of Au eq. using the cut-off grade (in situ) of 2.0 g/t





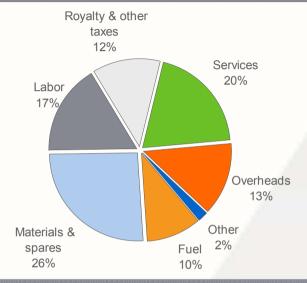


# Financial Highlights

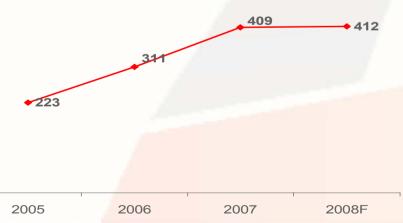


# **Operating cash costs**

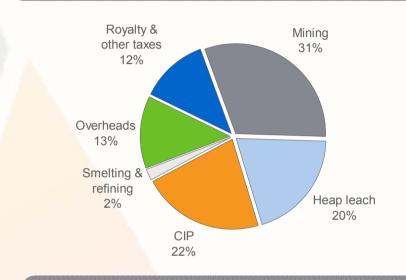
#### Cost structure by element, 2008



#### Total cash cost, \$/oz



#### Cost structure by process, 2008



#### **Headcount dynamics**







# **Continuous improvements: 2007**

Project	Result
▲ Heap restacking	Increase in HL recoveries
▲ New compressor house	Increase in CIP recoveries
△ Outsourcing of maintenance	Cost control, headcount reduction
▲ Comprehensive grade control program at Voro	Mining dilution decreased from 20.8% to 16.6%





# Social and Environmental Responsibility



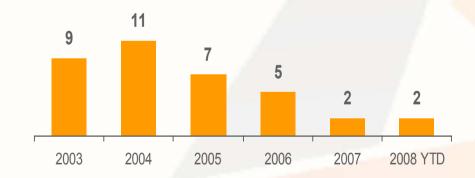


## **Safety Record**

## Focus on upgrading safety procedures

- ▲ In 2006 SRK Consulting audited and certified the company's health and safety practices
- ▲ All accidents are reported and de-briefed
- Regular safety trainings

#### Injuries statistics, 2003-2008 YTD\*



<sup>\* 1</sup> fatality in May 2007









## **Social Responsibility**

▲ Active social program in the Sverdlovsk region

▲ Cooperating with local and regional authorities to implement long-term social infrastructure investment projects

\$5.5 m was invested by Polymetal into the Social Program in 2006-2007, including

c. \$1.7 mn in the Voro region

- △ Construction of public bathhouse complex in Krasnoturinsk \$2.4 mn (2005-2007)
- Reconstruction of Vorontsovka healthcare and educational institutions
- ▲ Re-equipment of local hospital, school, kindergarten, sports centers
- Sponsored number of sport organisations and local social events









#### **Environment**

- ▲ 2006: implemented the environmental and industrial hygiene management system in accordance with the requirements of World Bank and ISO 14100 international standards
- △ 2006: completed the Environmental Compliance Strategy audit with international consultants Steffen Robertson and Kirsten (SRK Consulting Ltd., UK)
- △ 2007: implemented emissions reduction regulations
- ▲ 2007: a new monitoring system integrated within the plant expansion project. The data is regularly reported to the local authority
- ▲ 2007: Rosgedromet license was obtained as a result of high quality monitoring initiatives



