



EHS Management in Two Developing Economies

AAC Conference
April 2013

Overview of the presentation

Findings & Challenges ... “with a difference”

1. In Siberian Operations

- “ Safety
- “ Behaviour
- “ Culture

2. In African operations

- “ Community relations
- “ Training
- “ Sustainability (basic needs)

Nordgold at a Glance

Established pure-play gold producer focused on emerging markets

Nordgold is listed on London Stock Exchange (LSE:NORD) with a 14.6% free float.

Nordgold was established in 2007 and since then has evolved into a leading, internationally diversified gold producer

- ✓ 4 countries
- ✓ 9 operating mines
- ✓ 1 development and 5 advanced exploration projects
- ✓ resource base of 30.2 moz
- ✓ Over 10,000 employees

Nordgold is present in Burkina Faso through its wholly owned subsidiary High River Gold Mines (HRG)

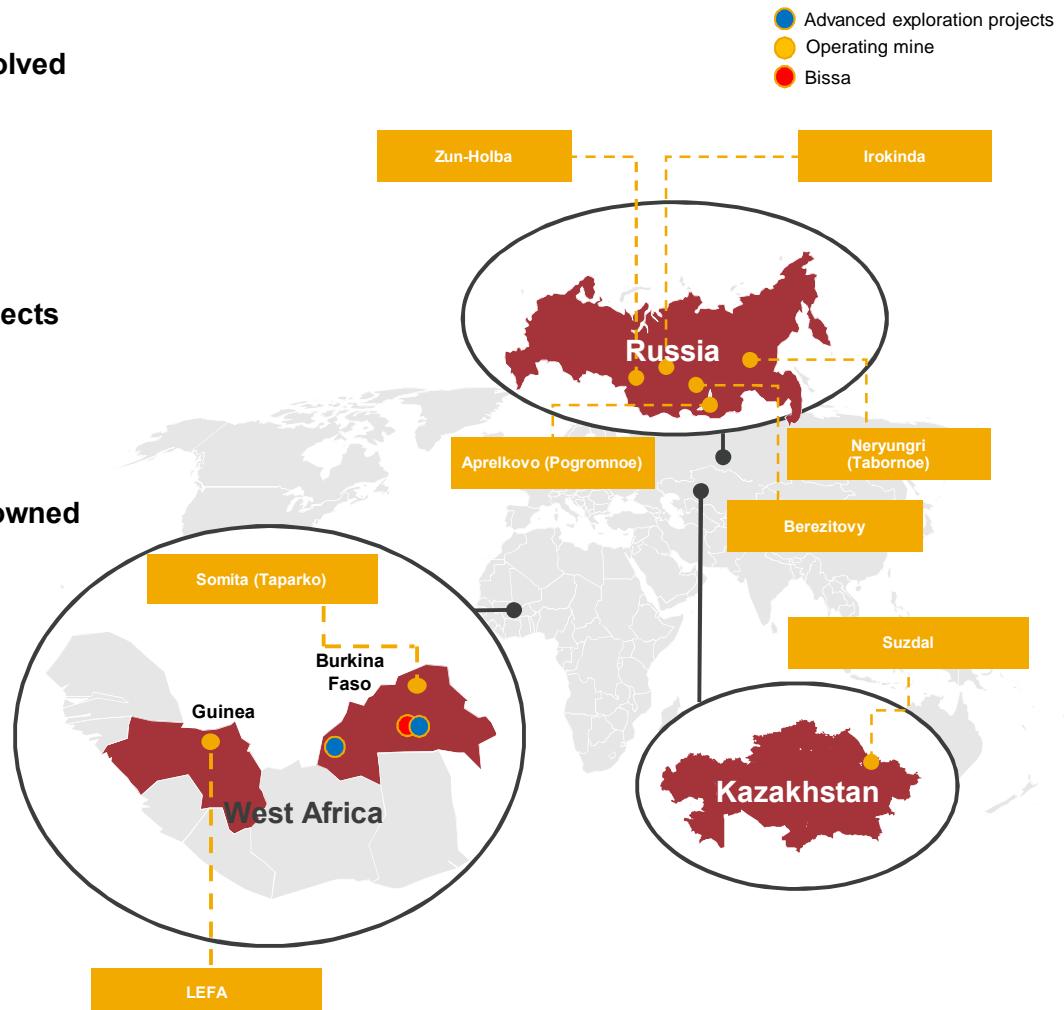
- ✓ 2 operating mines Taparko (Somita SA) and
- ✓ Bissa (Bissa Gold SA)
- ✓ 2 advanced exploration projects

Production highlights

- ✓ gold production 2012 of 717koz
- ✓ expected gold production 2013 of 770-850 koz

nordgold

A diverse portfolio of quality producing assets



Berezitovy

New operation (2009)

About 800 employees

Far East Siberia near China border

One month in, one month out, 24 hour/day

“Dry” camp

Open pit mining, Carbon In Pulp (CIP) processing



Buryatzoloto Mines

- Two Underground mines, North and South of Lake Baikal in central Siberia
- Close to 2000 employees total
- Both locations are very isolated



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Challenges in Siberian Operations

- “ Russian Federation H&S Regulations require that employers supply each employee exposed to certain hazards in the workplace with 500ml of milk per day.
- “ Milk “prophylaxis” is strictly enforced.
- “ Many strict regulations exist – Enforcement is ????
- “ Smoking is almost “universal” and cigarettes are not expensive.
- “ Eating at the workplace is forbidden but many workers refuse to use clean lunchrooms. Answer: “This food will get consumed anyway, why can I not eat here?”
- “ Vodka is responsible for many serious accidents even though alcohol testing is in place. On average at one operation, 6 employees are fired each month because even in “dry “camps!! When vodka is not available, will drink “technical alcohol” (ethanol) used in cleaning tailing pond covers prior to fusing.
- “ Limited personal initiative towards safety. Follow orders, don’t take responsibility. Culture of blaming the victim.
- “ Supervisor role towards safety needs to be developed
- “ Education at all levels in safety awareness is needed
- “ In older mines, significant efforts required to upgrade equipment, safety standards and PPE.

Challenge #1 – Behavioral

Materials are not compatible,
don't store together



Don't wash clothes and
Hands in gasoline



Challenge #2 – Safe Work Practices

USE OF PPE



ELECTRICAL SAFETY



WORKING AT HEIGHTS



ROAD SAFETY

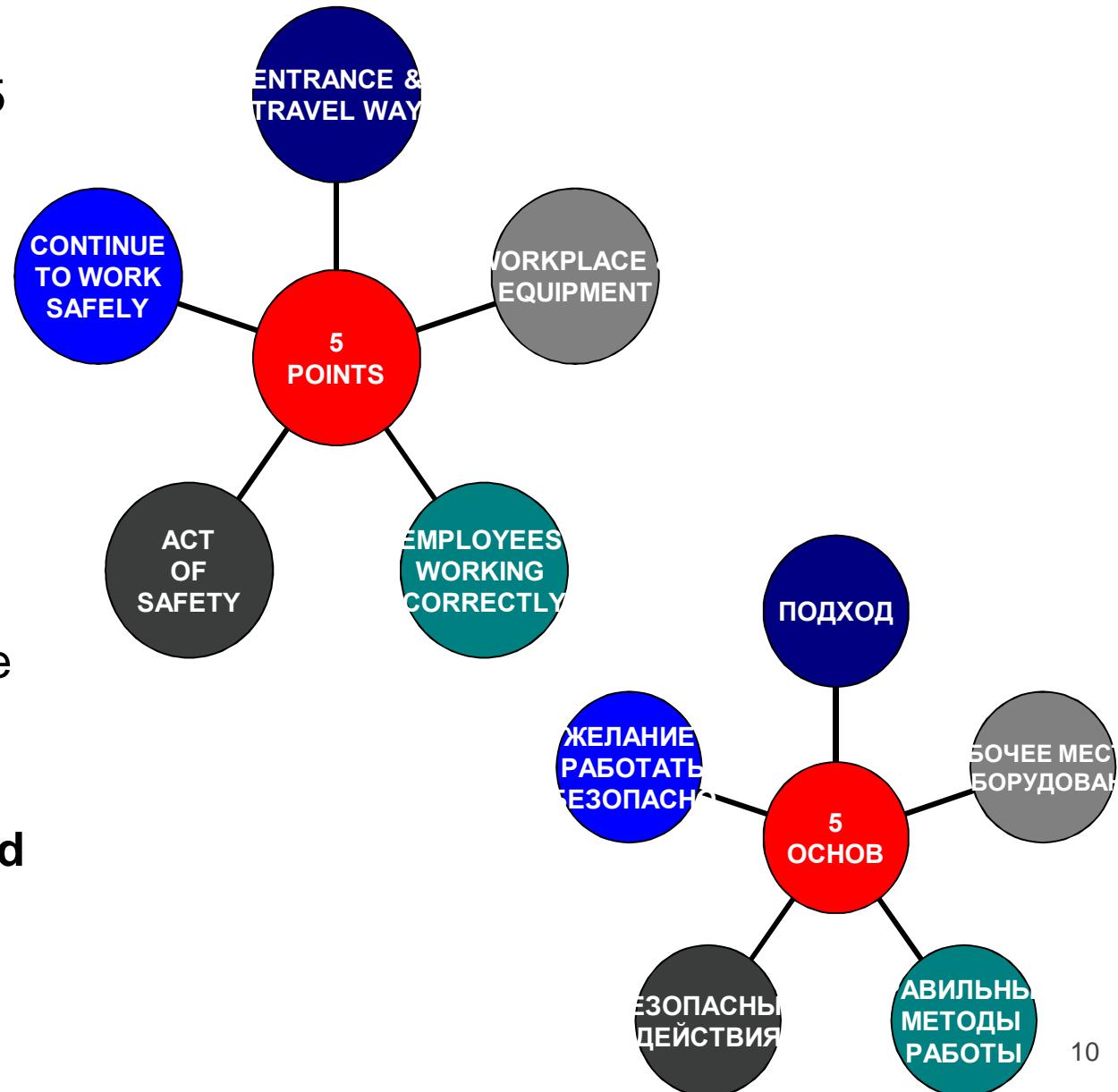


CHALLENGE #3: MODERNIZING OPERATIONS AND SAFETY

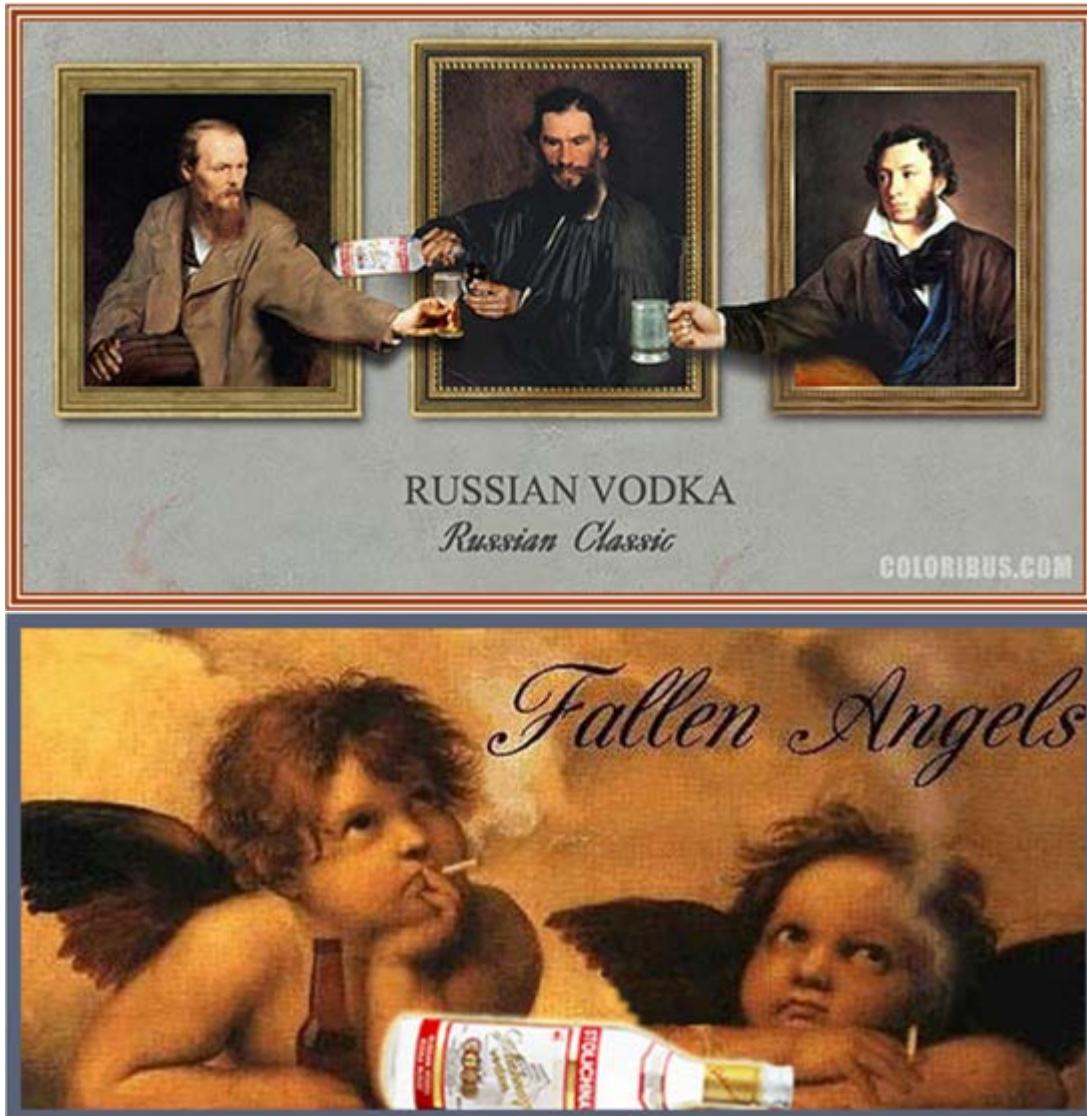


Five Point Safety System

- A safety plan in 5 simple steps
- A plan to help workers do their job safely
- A way to reduce risks in the workplace
- A method for identifying unsafe conditions and work practices
- **Supervisors lead**



Important Concern in Russian Operations



Nordgold Operations in Africa

Burkina Faso



Guinea



Challenges in African Operations

- “ Safety Culture in place but low levels of education and literacy
- “ Require significant training efforts
- “ Logistics are difficult and supply chain is slow; must plan well ahead
- “ Community presence is strong and felt
- “ High employment expectations
- “ Environmental awareness is high and expectations also
- “ Community Relations and Social programs are crucial.



#1 Challenge in West Africa – Social Development and Community Relations Obtaining that “License to Operate”

Building and commissioning a greenfield operation

Bissa Mine – Key Facts

Location

Country Burkina Faso

Location 100km north of Ouagadougou

Infrastructure Access to national highway

Operational Statistics

Mine Type Open pit

Technology Crushing, milling, CIL

Mining Rate 4Mtpa

Peak Production Up to 200 Koz per annum

Proven & Probable Reserves 1.8 Moz

Anticipated cash costs US\$ 600-700/oz



Bissa Gold Social Development Program 2012-2013

1. Fabric Dying
2. Weaving
3. Trades and skills learning
4. Soap making
5. Solar power lighting in schools
6. Literacy and learning
7. Animal husbandry
8. Infrastructures for ranchers
9. Vegetable growing and marketing
10. Chicken production
11. Compensation for fields, houses and trees
12. Construction of schools
13. Relocation and protection of sacred sites and cemeteries
14. Facilitation for movement of people affected by the fencing



Bissa Workforce Distribution

Secteurs	Supervision Expatriés	Supervision Nationaux	Opération Expatriés	Opération Nationaux	Total
Exploitation minière	3	1	-	315	319
Usine de traitement du minerai	9	1	4	135	149
Centrale électrique	-	-	-	11	11
Services techniques	8	3	-	39	50
Administration et finances	5	3	-	39	47
Ressources humaines	1	1	-	31	33
Formation et sécurité	5	-	-	2	7
Total	31	9	4	572	616



Artisanal Mining – An Ancestral Right

The artisanal mining project at Bissa Gold was set up to provide a source of employment for people of the region who have been practicing this activity for generations. The difference being that it would be done in partnership with the main stakeholders being the miners themselves as well as local and national legal authorities. Bissa Gold would provide access to limited areas of designated leases and allow the practice of artisanal mining in a safe and environmentally responsible way. By providing this opportunity, local populations would be able to generate revenue from their activities without risking their lives or negatively impacting soil and groundwater.



Bissa Gold Population Relocation Action Plan

In line with World Bank Guidelines, the RAP program involved the necessary measures for relocating and compensating the populations of local villages.

This included:

- Construction of 380 new homes
- Two (2) mosques
- Four (4) schools with houses for the teachers
- Two (2) churches with living quarters for priests
- Two (2) community centers
- Seven (7) potable water wells





Some lessons learned (Stating the obvious)

- “ Culture is a key variable
- “ Safety awareness is not natural and often difficult to instill in people
- “ Some regions of the world lag in sustainability and these regions are not always the poorest or less developed
- “ Sustainability and reality can and do conflict; finding the “right fit”
- “ Sustainability programs are not a substitute or a cop-out for state programs
- “ Must state clearly what sustainable programs will be, their boundaries and scope.
- “ Never promise what cannot be delivered and never “under-deliver”



THANK YOU

