

711
E55

E&M

ENGINEERING AND
MINING JOURNAL[®]

INCORPORATING:

World Mining Equipment



**Nordic Mining &
Technology**

Conveyor Design

Smart Control Systems

Gold Production Grows in Russia

OCTOBER 2014 | www.mining-media.com

FEATURES

Feeling the Commodity Squeeze
As exploration budgets shrink and commodity prices drift, mining and exploration in the Nordic countries are adapting to new conditions—but their commitment to the region remains strong30

Nordic Suppliers Share Their Expertise with the World
When it comes to mining and mineral processing, they have long experience working with the hardest ores and deep mines38

Builders Add Big-rig Features to Their Smaller Haulers
Lower-capacity rigid-body trucks are benefitting from the engineering design principles and upgraded feature sets of their bigger stablemates, while articulated dumpers continue to get tougher and more agile50

Smart Control Optimizes Operations
In concentrators and mines alike, control systems are increasingly proving their worth as operators strive to streamline functions and improve productivity54

Common Carriers
Mines depend on conveyors for a multitude of materials handling tasks—and the newest systems are being asked to perform at higher workloads than ever before. Is the technology up to the task?60

Chemical Beneficiation of Phosphate Rock
Phosphate producers could eliminate flotation plants and waste by adopting well-established hydrometallurgical processes and using dilute nitric or hydrochloric acid to leach phosphate from rock64

Russia Consolidates Growth in Gold Mining Industry
The ongoing discoveries of new gold deposits in Siberia and the Far East could propel it to first place among the world's gold-producing countries in the coming decade—but the needed level of investment is not assured68

Rare Earths Conference Highlights a Need for Transparency
Global stakeholders in the rare earth metals business—producers, buyers and the environment—will benefit from cooperation in solving supply and demand issues74

Recovering Useful Energy From Ferrochrome Furnace Flue Gas
A Turkish producer prepares to implement a pioneering process76

Special Report: Mining in Papua New Guinea
Risk and reward in the land of the unexpected79

LEADING DEVELOPMENTS

Botswana Opens its First Underground Diamond Mine4

Newmont Resumes Exporting Batu Hijau Concentrates4

AngloGold Ashanti Drops Proposed Restructuring5

Agnico Eagle Expands in Mexico5

Oyu Tolgoi Finalizes Underground Feasibility Study6

BC Iron Builds Pilbara Presence6

AROUND THE WORLD

U.S. & Canada: *Uranerz Delivers First Nichols Ranch Uranium to Utilities*8

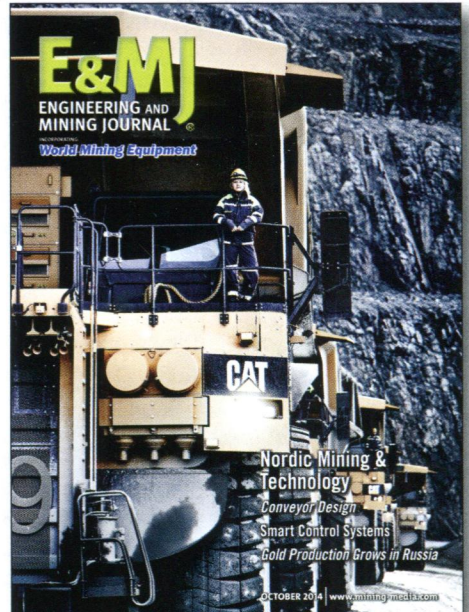
Latin America: *Fresnillo Buys Penmont Interest from Newmont for \$450 Million*14

Australia/Oceania: *Frieda River Partners Update Project Development Concept*18

Africa: *Ivanhoe Finalizes BEE Participation in Platreef*20

Asia: *Amulsar Output Projected at 205K oz/y Gold for Lydian*22

Exploration Roundup: *Seabridge Adds to its Gold-Copper Resource at KSM*24



This month, E&MJ presents its annual Nordic Mining & Technology Report. On the cover, drivers stand on the decks of their respective haul trucks at Boliden's Aitik mine, Sweden's largest copper mine. (Photo courtesy of Boliden)

DEPARTMENTS

Calendar28

Classified Advertisements102

Equipment Gallery98

From the Editor2

Markets104

Operating Strategies88

People12

Processing Solutions94

Suppliers Report90

This Month in Coal26