



# Buzwagi Gold Mine, Shinyanga, Tanzania

Follow Us:



**+ Key Data**



Buzwagi Gold Mine is situated six kilometres south-east of the district of Kahama in the Shinyanga region, United Republic of Tanzania. The mine is 100% owned and operated by African Barrick Gold (ABG), a subsidiary of Barrick Gold Corporation.

It is the single largest open-pit mining operation in [Tanzania](#). Approximately 2,099 personnel were employed at the mine by December 2011.

ABG purchased the Buzwagi mine in 2000. The feasibility studies of the mine were completed in 2006. The development of the mine began in 2007 and was completed in 2009. The mine commenced operations in May 2009 and is expected to be shut-down in 2022.

The Buzwagi mine produced 196,541oz of gold in 2011, which was six percent higher compared to the production in 2010. The failure of the semi autogenous grinder (SAG) motor at the mine's processing facility in May 2011 caused the production levels to fall by 15,000oz of gold.

## Porphyritic granite geology and gold and copper reserves at Buzwagi mine

The Buzwagi gold mine lies in a fleece-hosted quartz-veined deposit which comprises of porphyritic granite. Proven and probable reserves at the mine as of December 2011 stand at 61.4



Buzwagi is an open-pit gold mine situated six kilometres south-east of Kahama.



The processing plant at the Buzwagi mine can treat 12,000 tons of ore a day.



Haul trucks carrying the run of mine ore to the processing facility.



Operations at the Buzwagi gold mine began in 2009.

**Related Suppliers**

**MECAL - Vacuum Cleaners, Magnetic Separators, Dust Suppression, Security Disintegrators**

MECAL is an Australian company serving clients in the mining and...

**Orway Mineral Consultants - Crushing, Grinding and Hydrometallurgy Specialists**  
Orway Mineral Consultants (OMC) specialises in sizing all aspects...

**Vacon - High-Quality AC Drives to Improve Process Control and Save Energy**

Vacon offers a complete product portfolio of AC drives in the power...

[See all suppliers](#)

**Related Projects**

**Finsch Diamond Mine, Northern Cape**

The Finsch diamond mine, located near Lime Acres, 160km north-west...

**Palabora**

Located 360km north east of Pretoria, close to the Kruger National...

**Ngezi**

Located about 150km southwest of Harare, Ngezi is Zimbabwe's...

**Twistdraai**

The Twistdraai mine and washing plant is part of Sasol Mining's...

**Obuasi**

The gold operation at Obuasi, 200km north west of Accra in Ghana, was...

[See all projects](#)

million tons (Mt) graded at 1.47g/t Au (2.9Moz gold equivalent) alongside 0.114% Cu (154Mlbs copper equivalent).

#### Related Suppliers

##### **MECAL - Vacuum Cleaners, Magnetic Separators, Dust Suppression, Security Disintegrators**

MECAL is an Australian company serving clients in the mining and...

##### **Orway Mineral Consultants - Crushing, Grinding and Hydrometallurgy Specialists**

Orway Mineral Consultants (OMC) specialises in sizing all aspects...

##### **Vacon - High-Quality AC Drives to Improve Process Control and Save Energy**

Vacon offers a complete product portfolio of AC drives in the power...

[See all suppliers](#)

### **Open-pit mining and ore processing at Tanzania's single largest deposit**

Buzwagi has been developed as an open-pit mine and is being mined using a truck and shovel method. Extraction of the ore includes drilling, blasting, loading and hauling. The infrastructure being used for mining encompasses three excavators, Komatsu shovels, dozers, front-end loaders, 15 haul trucks and three blast hole drill rigs.

"The electricity used in the Buzwagi mine is being supplied by the national grid of the Tanzania Electric Supply Company (Tanesco)."

The ore extracted is transported to the processing facility by 150t capacity haul trucks. The processing plant can treat 12,000 tons of ore each day. It features two Knelson KC-XD48 concentrators, CS2000 ACACIA reactors, a primary jaw crusher, a SAG mill and a flotation and carbon-in-leach circuit.

The run of mine ore is broken down to a high degree of fineness in a primary jaw crusher. The crushed ore is transferred to the SAG mill for grinding. The ground ore is conveyed to the Knelson KC-XD-48 concentrators and CS2000 ACACIA reactors to produce oxide ore.

The oxide ore is treated by the gravity, flotation and carbon-in-leach (CIL) circuit. It is transferred to the cyanide leach tanks containing leach solution to generate pregnant solution. The solution is moved to the adsorption tanks where the gold attaches to the surface of the carbon. The gold is separated from carbon in a gravity and flotation circuit. The solution is transferred to the tailing storage facility for reuse.

The gold precipitates are transferred to the smelter to produce pure gold dore bars by washing the precipitates with high pressure sprays followed by drying and melting.

### **Transport links to Tanzania's Buzwagi gold deposit in Shinyanga**

The Buzwagi mine is accessible by an adjacent paved highway, a 1,580m airstrip and the Isaka railway hub, which connects to the Port of Dar es Salaam on the Indian Ocean.

### **Contractors involved in African Barrick Gold's mining project**

Knelson Gravity Solutions was contracted by AGB to supply Knelson concentrators (KC) and ACACIA Reactors for the Buzwagi processing plant.

"The mine is 100% owned and operated by African Barrick Gold (ABG), a subsidiary of Barrick Gold Corporation."

Vacon supplies variable speed AC drives totalling eight megawatts, ranging from the small three-amp Vacon NXS units up to the largest 1,500-amp Vacon NXC units to render speed control. The company also provided two 1,500-KVA 12-pulse transformers and ten soft starters.

The electricity used in the Buzwagi mine is being supplied by the national grid of the Tanzania Electric Supply Company (Tanesco).



Pan African and Komatsu Corporation were ordered to supply 46 machines and six generator sets to ABG for deployment at the mine.

Follow Us:



[mining-technology.com](http://www.mining-technology.com)

[Contact us](#)  
[Advertise with us](#)

[Terms and conditions](#)  
[Privacy](#)

[Links](#)

[Newsletter sign up](#)  
[Online magazine sign up](#)

[Top of page](#)



www.mining-technology.com is a product of Kable. Copyright 2015 Kable, a trading division of Kable Intelligence Limited.