

Anglo Gold Ashanti achieves improved product flow and control using Rosemount 3D Solids Scanner

RESULTS

- Production supply ensured with accurate volume measurements
- 3D surface mapping allows remote visibility of surface
- Real-time detection of material build-up
- Reduced maintenance time and expense, and increased safety

APPLICATION

Volume measurement and control of gold ore

CUSTOMER

Anglo Gold Ashanti, South Africa (AGA South)

CHALLENGE

Anglo Gold Ashanti (www.anglogold.com) is headquartered in Johannesburg, South Africa. It has twenty operations in ten countries on four continents, all focusing on gold mining. The Moab Khotsong mine in South Africa contributes 16.4% of gold ore to AGA South African operations. Anglo Gold Ashanti storage silos are 10 m (32.8 ft.) wide and 22 m (72.2 ft.) high, and can contain up to 10,000 tons of material.

Good inventory control is essential because the gold ore has a high raw material cost. AGA South had difficulties with the volume control of a silo used for gold ore. The silo has Grizzly Bars at the bottom that must have a minimum level of material coverage to protect it from falling rocks and gravel entering the silo. They also needed to be able to ensure there was an adequate supply of gold ore for production.

Because of the wide silo diameter, it was difficult to know if the bars were adequately covered. Damage or a blockage could occur if the bars were not adequately covered. Production would then be stopped while repairs were made or until the blockage was cleared.

Control of silo content is crucial for production flow and process control. Insufficient supply of gold ore means that production is stopped. Materials would build up and stick occasionally, which made it appear that the silo was empty. Maintenance would then have to manually determine the contents.



"The 3D Solids Scanner provides us with accurate measurements in our large silo, which allows us to protect our equipment."

Ernst Smith, C&I Manager

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SOLUTION

A Rosemount 3D Solids Scanner is now used in the gold ore silo, and successfully provides highly reliable content volume measurements. The 3D graphical output of the mapped surface allows the site operation team to monitor if there is sufficient gold ore for production and that it is spread out enough to cover and protect the Grizzly Bars. It also allows the maintenance team to see if bridging or build-up is happening inside the silo, from a safe location.



Rosemount 3D Solids Scanner used in gold ore silo

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