

Media Release

## ***MineWare, Accutrak in weighty collaboration***

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In providing a broad range of customised software solutions to the mining industry, MineWare Consulting has been involved in almost every aspect of the industry since the company's inception in 1996.

In a recent partnership with tracking solutions company Accutrak, the two companies implemented a system that allows mines to analyse the amount of rock being transported underground and the grade and movement of each load.

MineWare Consulting Managing Director **Paul Saker** says that Accutrak has developed a number of innovative systems for underground work. "On the Gold Fields East Driefontein Hlanganani Shaft, Accutrak called us in to enhance its weighbridge and hopper tracking systems."

Called 'Smartrail', the system uses an active tagging system where radio frequency hopper data devices give each hopper an identity. Accutrak Managing Director **Ian McHardy** says: "With the radio transmitters attached to the boxes, a hopper becomes the courier of information. As the hopper crosses the weighbridge, we measure its mass, identity and where it comes from. The data gets accumulated on the weigh bridge and is transferred to the Microsoft SQL database, where the MineWare system interfaces with Smartrail."

One of the advantages highlighted by MineWare and Accutrak is that the information comes up the shaft in real time. Incidents like cross tramping can be flagged and management can take action.

"The MineWare system is able to add more meat to the information gathered by Accutrak. We know the tonnage and the grade, and that can now be monitored through the system. Historically, the mining industry had used CPM to measure tonnage moved horizontally and hoisted from the mine. Additional information like grades and timing had always been fuzzy," Saker says.

"Our system shows a schematic of the underground operation and flags any anomalies. As data for each mine is entered, analyses will show how much gold is sitting underground, where it is, and when certain areas haven't been worked for a period of time. Current information from the transponders is sent up the shaft to be captured and analysed in a logical sequence."

From an engineering point of view, advantages of the system include knowing where the hoppers are – and if they are active - at any given time; how much work has been completed by each hopper; and the location and content of what has been tipped. What's more, the system is capable of reporting which loco battery the loco is operating. This allows engineers to monitor the cycling of batteries, offering better control. This leads to increased battery life and less controller and loco motor failures.

Saker says that tracking these movements from the workplace enables management to see where gold may be disappearing when loads are tipped mistakenly. "This system closes the 'fuzzy link' in the chain."

McHardy says that, until now, accuracy has depended on the impartiality and diligence of the personnel involved. Now, human "interference" does not distort facts and figures generated by reliable electronic equipment. Reports can be created that show why waste from mines - including coal, gold and base-metal - was tipped down a reef and which loco was involved. Both MineWare and Accutrak have seen the advantages of this for some time: The real value of the system lies in knowing where the product is and preventing losses.

"Cost savings for mines vary widely when manual system failure is taken into account." McHardy believes that the increase in mine call factor (MCF) - the amount of gold received compared to amount of gold called for - is one of the many benefits this system offers the industry.

"We are currently testing at East Driefontein to show proof of content and that the system can interface with the existing software. We think that the engineers are going to be impressed when it's up and running and giving them measurable results," adds Saker.

The system has already been implemented at one level of East Driefontein's mine, where operations have gone smoothly. "The technical challenges were negligible," says Saker. "The MineWare software interfaced easily with Smartrail, and the results have been pleasing so far."

According to McHardy, the synergy between the two companies is clear. "The fit is absolutely perfect. MineWare is a software developer and we're a service company. We install the equipment free of charge and work on a monthly retainer to maintain it. We've already installed the system at various shafts for Lonmin, Anglo Gold, Gold Fields and Anglo Platinum. We see important collaborations with MineWare in the future."

For a mine to design and install a communications system is a massive financial undertaking. Both Saker and McHardy believe that by using the mine's existing infrastructure and building on it - as they have at Hlanganani Shaft - it enables the gathering of consistent information that every mine needs for optimum results at a reasonable cost.

In an arena like gold mining, where losses due to errors or difficulty in tracking can be extremely costly, the collaboration of specialists like Accutrak and MineWare Consulting could see savings reaching glittering proportions.

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Notes to the Editor

**MineWare Consulting (Pty) Ltd**

Since 1996, MineWare Consulting has produced a range of software solutions to improve business systems and production by offering real time reporting to flag problems as they arise, thereby saving time and costs.

MineWare not only develops customised software, but adapts and redesigns a client's current products to ensure seamless integration of the system and easy understanding for operators. It is this flexibility that has brought the company success in South Africa's mining industry.

**Accutrak (Pty) Ltd**

Accutrak (Pty) Ltd is a small company focused on the mining industry, using 25 years of collective mining experience, the company is well positioned to interpret the needs of the mining industry before they have become obvious.

With this experience and direct access to the rapidly changing electronics industry, Accutrak is capable of delivering well thought-out, practical solutions to the mining industry.



Issued on Behalf of MineWare Consulting by Ngage Public Relations

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