**PRESS RELEASE**

Striking a balance between efficiency and sustainability

***10 October, 2014:*** *As water continues to become increasingly scarce in South Africa, the local mining industry is placing a stronger focus on conservation of this precious commodity.*

Leading environmental solutions company I-CAT Environmental Solutions is playing an instrumental role in water conservation in the mining industry, through its revolutionary RFID System that is designed to prevent wasteful and costly spillages using advanced camera-based technology.

I-CAT non-executive director professor **Jan du Plessis** notes that the RFID System assists water bowser operators in precisely lining up tankers up to 85 000 l in capacity at filling stations, using a guidance system comprising of alignment sensors, two cameras and an on-board monitor situated inside the cab of the vehicle.

“The RFID System automatically identifies the vehicle, its capacity and current water levels, as it approaches the filling point. With the use of the alignment sensors and camera system the water bowser can accurately align the inlet of the tank with the gooseneck before activating the water pump and filling the tank accordingly. This eliminates any risk of injury to the operator and creates a safer working environment, as the driver does not have to climb out of the vehicle and manually align the tank to the pump during the filling process,” he states.

When the tank is full, the RFID System automatically stops the pump to ensure zero spillages by using the advanced sonar level sensor fitted in the tank of the truck. Furthermore, it monitors all water usage, driver behaviour, geo-fences, tampering of devices and driver identification. Detailed reports are generated that can easily be accessed through secure integrated software. This enables management to determine vehicle and operator productivity by logging working hours, idling time and when the vehicle is not operational.

Du Plessis indicates that control room operators can monitor the vehicle with optional satellite tracking software that indicates the progress of a spraying vehicle, which is useful in deploying bowsers to areas where they are most urgently required. “This improves productivity and contributes significantly to cost savings,” he continues.

The RFID System has played an instrumental role in ensuring substantial water conservation at a number of mines nationwide. This is due to the fact that the RFID System also manages the alignment and filling of bowsers carrying I-CAT’s innovative RDC 20 dust suppression solution – a water soluble anionic polyelectrolyte polymer.

When sprayed onto a gravel road surface, it forms a cross linked matrix that binds fine soil particles into larger heavier particles, which are less prone to become airborne. RDC 20 is an exclusive formulation of blended emulsified co-polymers and ionic modifiers. The solution is produced from natural substances and features no petrochemical or hydrocarbon ingredients in its formulation, making it 100 percent environmentally-friendly.

“These two environmentally-friendly products complement each other perfectly, as RDC 20 significantly reduces usage of scarce water as a dust suppression solution, while the RFID System ensures zero spillage – resulting in even further savings of water, which is subsequently more readily available to the surrounding ecosystem,” concludes du Plessis.

***Ends***

**Notes to the editor**
There are numerous photographs specific to this press release. Please visit <http://media.ngage.co.za> and click the I-CAT link.

**About I-CAT**
I-CAT is a leading environmental solutions company with a primary focus on supplying products and services that assist industrial clients in various aspects of environmental compliance. The company is well positioned to assist all its clients’ needs in environmental management regarding; dust suppression solutions, water solutions, environmental management services, carbon solutions, agro-forestry products and fire solutions.

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