World's Largest Gold Undermine Chooses Oizom's Dustroid for Dust Monitoring

Our Client

A Guinness World Record holder, our client owns the world's deepest and richest gold underground mine with an average depth of 2800m-3400m (from the ground level), in South Africa. There are about 4000 miners working everyday in the underground mine to excavate over 5400 metric tonnes of the rock everyday. This mine has at least two gold reefs and the deepest one sizes to one metre thick. They are known for their extraordinary shaft from which the ice is slopped in the underground mine to maintain the temperature and make it bearable from above 60 degrees to somewhere 30-40 degrees. They believe in the safety of the environment and their miners and are affirmed to keep these two motives above everything.

The Challenge

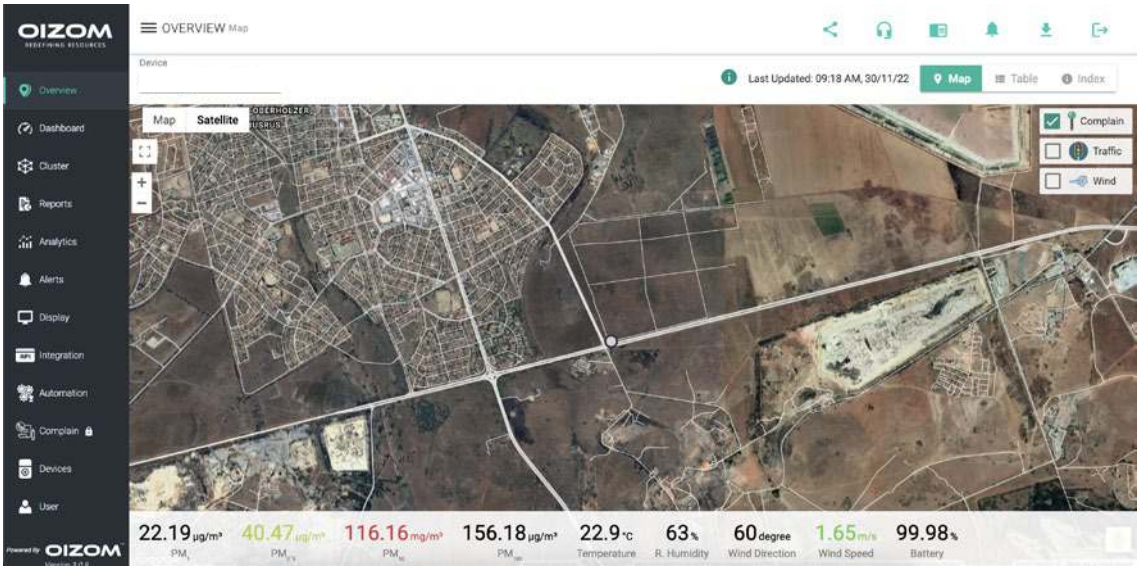
Maintaining good air quality and preventing health hazards for miners became difficult due to heavy dust laden activities like blasting, crushing, digging, drilling, etc. Additionally, such large and deep undermines have high temperatures comparatively to the ground level. This increases the chances of various health problems. The company came upon a solution for this - using dust monitors. They started using dust monitoring devices to take corrective actions, but the monitors were unable to work accurately in harsh weather conditions like heat and humidity.

They needed a dust monitor that could withstand climatic conditions and provide accurate data for them to analyse and take further actions. The monitor needed to be qualified to identify even the smallest parameter of dust particulate as well as needs to be safe to use in underground mines.

The Solution

World's leading underground gold mining company chose Dustroid as an ideal solution to maintain occupational health & safety along with taking care of the environment. As Dustroid can withstand high concentration of PM up to 30ug/m3, withstand high temperatures underground that exceeds up to 40 degree C on daily basis, and can provide accurate & actionable data insights by monitoring the smallest dust particle, our clients chose to install 35 units of Dustroid in their gold undermine.

They can access the data collected by all the units through one software which they can install in any convenient device. These data shows data insights segregated by levels of different types of gases found in the dust particles. This way, our clients can take better corrective actions. Additionally, Dustroid also provides automation for dust suppression when the dust level exceeds the limits, which can be extremely useful in underground mining.



The Result

As a result, they were able to take preventive actions to tackle the potential hazard caused by extreme dust by relying on the impeccable accurate data provided by Oizom's dustroid. Through these actions, the health of their miners are saved from possible health risks like various respiratory and skin diseases. Our client can take corrective actions against toxic air, dust, and humidity through our multi-parameter dust monitoring system - Dustroid.

Oizom is an environmental IoT company offering data-driven environmental solutions for better decision making. With our sensor-based hardware, we monitor various environmental parameters like air quality, noise, odour, radiation, weather conditions, etc. Our data analytics platform derives many actionable insights for authorities, communities, and industries. Oizom strives to play an essential role in a sustainable future through smart environmental solutions and data science.