

# ZCMC Chose Oizom for Air Quality Monitoring at the Mining Site to Protect Miners' Health

## *Our Client*

Zangezur Copper Molybdenum Combine (ZCMC) is a leading company in copper and molybdenum mining and processing with headquarters in Kajaran, Armenia. It is the country's largest mining company and ranks among the top 10 global producers of molybdenum. It operates on large-scale open-pit mines to remove millions of tons of copper and molybdenum-rich ore each year. They mine and process essential earth's mineral resources to make thousands of everyday products. Our client believes in maintaining a safe and secure environment for their employees.



## *The Challenge*

ZCMC faced significant challenges related to air quality monitoring. The mining sites are often located in remote areas with extreme weather conditions, making it difficult to install and maintain monitoring equipment with AC and DC power consumption. Due to strict regulations for mining activities, they require a reliable device for continuous and accurate monitoring of PM1, PM2.5, PM10, PM100 (TSP), along with harmful gases like CO<sub>2</sub>, CO, SO<sub>2</sub>, NO, NO<sub>2</sub>, O<sub>3</sub>, H<sub>2</sub>S to ensure the safety of workers and the surrounding communities. They also wanted accurate real-time data to make informed decisions and maintain operational efficiency.

### *The Solution*

After thorough research and evaluations, the Zangezur Copper Molybdenum Combine (ZCMC) chose to install Oizom's Polludrone. Polludrone was chosen because its robust features and numerous advantages make it ideal for mining sites. It can work entirely on solar power, making it an ideal and sustainable solution for mining sites, where energy efficiency and environmental responsibility are crucial.

Polludrone is specifically configured to measure particulate matter and toxic gases with auxiliary parameters like noise, wind speed, direction, and rain. Its sensors go through a rigorous calibration process to provide accurate real-time data. This advanced solution empowered ZCMC to continuously monitor real-time air quality data, ensuring compliance with stringent environmental regulations. By providing actionable insights, the Polludrone air quality monitoring system enhanced safety and health conditions in and around the mining site and created a more sustainable work environment.



### Installation Details

8 Units of  
Polludrone

### *The Result*

The installation of Oizom's Polludrone has significantly benefited the ZCMC mining company in Kajaran, Armenia. Polludrone played a crucial role in enabling the mining company to meet stringent regulatory requirements while ensuring a safe and healthy environment. By providing real-time air quality data and comprehensive environmental monitoring, the device helped them proactively identify potential hazards. Additionally, with the Envizom environmental monitoring software, they are able to analyze data seamlessly, which has also helped them take preventive measures on time to safeguard the workers and the surrounding communities.

They regularly receive automated reports on the mining site's air quality with noise and meteorological parameters. The automation module allows them to set relay-based triggers that activate mitigation equipment like dust suppressants whenever a predefined air quality threshold limit is exceeded, ensuring timely responses.

Oizom is a company specializing in environmental monitoring solutions. They offer products to monitor air quality, weather conditions, and other environmental factors. Utilizing advanced sensor technology and data analytics, Oizom aims to provide actionable insights for construction, industrial compliance, and community awareness. Their solutions can be applied in various sectors including government, industries, and community initiatives.