CASE STUDY

MANAGING DRILL CUTTINGS IN AN URBAN SETTING

FORDIA

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Dino Lombardi,
Vice President of Development and Operations at G4 Drilling

Environmental restrictions and municipal regulations have become a part of doing business in the mineral exploration and drilling industry. Drilling and mining companies must find ecologically friendly ways to deal with drill cuttings and to reduce their water consumption. Fordia's customer, G4 Drilling, needed to find a solution to comply with the environmental standards present in many of their projects across the globe.

Forage G4 Drilling has almost 40 drilling units and employs more than 120 employees from Canada to Mexico. The company started operations in 2006 in Mexico, with one drill. Within five years, that number increased to 32 drills. G4 Drilling carries out surface and underground drilling projects from the tundra to the jungle including the semi-desert plains of Chihuahua, They are known for their expertise in in projects that present highly technical challenges.

Needs

G4 is proud of their reputation for performing their work safely while complying with environmental standards. One of the company's projects was located in northern Quebec, in the city Rouyn-Noranda and it involved environmental standards that needed to be respected. In Rouyn-Noranda, the drilling project was located in an urban setting. The site had been mined for many years in search of copper and gold. In fact, most of the city had been built around the mine and smelter. G4 was tasked with testing for vertical mine extensions and proper management of the drill cuttings was crucial part of the project. G4 Drilling was investigating water treatment systems that would ensure compliance while limiting water consumption.

Solution

Eddy Water treatment systems for the mining industry had historically been very expensive, very large machines with limited efficiency and functionality. Fordia's Eddy water treatment system (WTS) was easy to transport and easy to operate. Over the years, G4 and Fordia's Val d'Or team had developed a solid and trusted working relationship, so when Fordia suggested they try their water treatment system, G4 agreed.

The primary function of the Eddy WTS is to separate drill cuttings from water. Once the water is treated and cleaned, it can be re-used so that a minimal amount of additional water is required. Once the drill cuttings are isolated, they can be disposed of in environmentally approved ways. This would ensure that G4Drilling left no cuttings in a heavily populated urban area.

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Results

At the request of the customer, no polymers had to be used aside from biodegradable rod grease. In using Fordia's Eddy WTS, the G4 drilling team managed to easily separate the drill cuttings from the drill water so the water could be re-used. Roll-off containers were then used to transport the cuttings to landfills. The Eddy WTS was successful in ensuring that the level of moisture in the cuttings was within the guidelines set out by the landfill.

G4 Drilling appreciated the system's size, light weight and transportability. It was set up in a 40 ft. container and there was still a lot of room left to store the staff's personal effects. "The unit is automated, easy to operate and requires minimal training," said Dino Lombardi, Vice President of Development and Operations at G4 Drilling.

"Our team was backed up with superb technical support from Fordia to ensure there were no issues with maintenance," he added. Following the Eddy WTS's success in Rouyn-Noranda, the company plans to use the system for a project in Mexico with in vastly different ground conditions.

Fordia, is a provider of drilling solutions that include diamond tools, equipment and accessories. The company has been serving customers in the mineral exploration, geotechnical and environmental industries since 1977. Their goal is to improve drilling performance and make drillers' lives easier. Visit www.fordia.com for more information about their Eddy Water Treatment System and to learn about other drilling solutions.

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