



PROBLEM SOLVED™ PAPER

SOLUTION: Martin® QC1™ Cleaners XHD and DT2H™ Cleaners

INDUSTRY: Gold Mining

LOCATION: Pueblo Viejo Dominicana Corporation, Dominican Republic



The conveyor system's existing belt cleaners were unable to adequately address the area's overburden.



The carryback had the consistency of toothpaste, with chunks of aggregate causing equipment damage.

PROBLEM

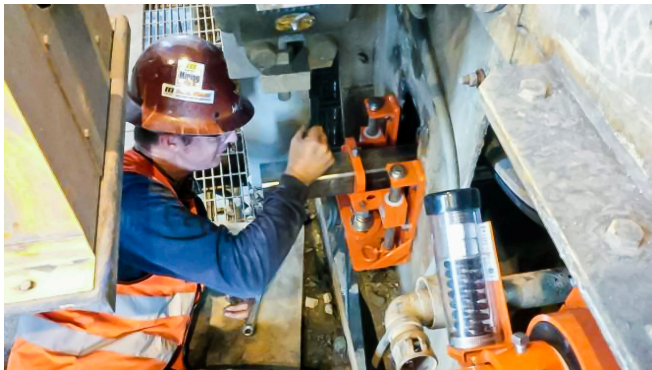
PVDC is one of the largest gold mines in the Dominican Republic, and operators were experiencing excessive carryback on its conveyor system. They realized that the equipment was no longer able to handle the overburden, and fugitive material was causing expensive equipment failures, unscheduled downtime and increased maintenance time. Production is 365 days a year, but between April and October moisture can cause cohesion in fine clay particulates, which reacts to load pressure, causing it to become sticky. The substance had the consistency of thick toothpaste, which was also able to adhere small chunks of aggregate to the belt, causing destructive carryback that damaged pulleys and headers.

SOLUTION

In just two weeks, Martin Engineering technicians replaced the existing belt scrapers with Martin® QC1™ Cleaner XHD primary cleaners and DT2H™ secondary cleaners at 16 locations. Installers fitted them with low-adhesion urethane blades specifically designed for tacky material loads. Both primary and secondary blades can endure high summer temperatures, high moisture and constant production schedules. To avoid product loss, the Martin Engineering team also installed 300 feet of ApronSeal™ Skirting along the belt edges. In addition, Martin Engineering trained a team to recognize potential problems throughout the entire conveyor system and either fix the issues or offer recommendations.

RESULT

Operations are now more predictable and consistent, making executives and stakeholders more confident in the sustained operation of the mine, which is projected to yield a profit for the next 25 years. Employee training by Martin Engineering took a holistic view of the entire conveyor system, ensuring that personnel have the expertise necessary to achieve high operating standards and maximum productivity, as well as recognizing potential hazards. "The focus on workplace safety was important to us," said a company official. "Even the equipment design has extra elements built in that help protect operators and maintenance staff."



Sixteen belt cleaners were replaced at the discharge points and fitted with low-adhesion urethane blades.