Asset management generates up to 40% savings on maintenance

Vale S11D invested in a digital system that monitors condition of more than 6,000 assets of its plant

SITUATION

Vale S11D, biggest mining project (11BUSD CAPEX) requires maintenance decision support

– An open-pit mine, factory, railway and port

– Ore is moved via a half-dozen stackers and a sprawling, 9-km conveyor system dubbed the Long-Distance Belt Transporter

– Monitoring each stage of the various processes involved in the operation is a gigantic project

MINING, BRAZIL, 2017

SOLUTION

Asset Management System

– Monitoring libraries for long-distance conveyors, crushers, stackers, reclaimers to apply best practices, proactive maintenance strategies

– Condition monitoring of more than 6,000 plant assets: process equipment, electrical, IED, instrumentation, automation, IT, control and mechanical meshes, control loops

SCOPE OF DELIVERY

– ABB Ability™ System 800xA

– ABB Ability™ Asset Vista Condition Monitoring for mining (monitoring libraries, vibration screens)

– Interface and information exchange for existing maintenance systems (EAM / CMMS):

  • SAP – Corporate Maintenance Software

  • CSI / Emerson Vibration Monitoring System (vibration and temperature)

SUCCESS

Unified interface for maintenance information

– Decision-making tool enables considerable reduction of maintenance costs, increase of availability, decrease of unplanned shutdowns

– Accessible both in control center and maintenance areas through PCs, notebooks, tablets and cell phones, provides flexibility to make changes

– Management dashboards and reporting

BENEFITS

Safety

OPEX

40%

https://new.abb.com/mining/reference-stories/systems-solutions-stories/asset-management-generates-up-to-40-savings-on-maintenance-at-vale

EXTERNAL

ABB