



MUD RECOVERY AND SLURRY



PT RESOURCE EQUIPMENT INDONESIA

PT. MADHANI TALATAH NUSANTARA

PROJECT LOCATION: Coal Mining owned by PT. Kayan Putra Utama Coal at Separi District, East Kalimantan Province, Indonesia

PROBLEM: MTN need to remove a minimum of 400,000m³ of slurry, mud and mining fines in a sump located in the basement of their Main Pit operations to expose a minable coal deposit. Our client historically applied a trucks and shovel method for the recovery of mud but had found this inefficient and problematic as it tied both required production equipment, due to the design of the trucks bodies was not effective and as a direct result deposited a percentage of the load on the haul roads, which lead to further remediation works to maintain them. In addition the mine planning, they required to have the minable high grade deposit available inside 3 months.

SOLUTION: PT REL were called to inspect the material and provide a solution to meet with the our clients mining schedule. We offered MTN a specialised custom designed mud recovery and slurry pumping system. As an alternative solution, which would be considerably faster, markedly more cost effective, would allow full site access, as we would avoid all run of mine operations and would avoid any further digger, truck or haul road damage.

SERVICE PROVIDED BY REI: Complete and detailed site survey and mud analysis, negotiated the most suitable laydown areas and pipe routes with mine management, designed recovery and discharge system, selected all components, designed, engineered and constructed all required components, mobilisation, installation, commissioning, project management, the provision of operational personnel, maintenance and custom reporting.

PROJECT SCOPE:

Flowrate requirement: 800 m³/hour,

Static Head: 217 m,

Pipe Length: 1,800 m,

Pipe Specification: HDPE DN315 (12") PE100 SDR11 PN16,

Specific Gravity of Slurry: 1.3,

pH: 6-7.

DURATION OF PROJECT: 2.5 Months

EQUIPMENT PROVIDED: 2 only Custom Designed Dragflow HY85, Hydraulically Operated Submersible Pumps complete with High Chrome Material Agitators. All required custom hydraulic components, custom pump to boom attachments to suit our clients Hitachi PC400 Excavators, custom rock cages and pump flushing equipment.

3 only Custom Designed and Constructed Slurry Break Tank

3 only REL Custom 200MM Hard Iron Slurry Booster Pumps

Electronic measurement, metering and product management equipment including discharge volume/flow and SG management

All other required components, hoses and accessories to allow for complete hook up and operation of the dewatering system. Spare parts, service consumables, tools and all critical replacement components to ensure that, in the unexpected event of downtime, required parts were on site and on hand.

PT REI also supplied all Site Compliant Light Vehicles, Skilled Operational, Maintenance and Project Management Personal, for this project.

RESULT: Our client was happy with the outcome, the project was delivered inside the required time and at the price quoted. The equipment was 100% available, no injuries were recorded and we saved about 50% mud removal costs, compared to their historical recovery methods.

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