Monitoring Dams

Ipo Dam, Norzagaray - Philippines

Background

Ipo Dam is a gravity dam with a concrete water reservoir situated at approximately 7.5 kilometres downstream of the Angat dam within the Angat Watershed Forest Reserve in the Philippines. It was completed in 1984 and has a maximum storage capacity of 7.5 million cubic metres. The spillway level of the dam, which has seven radial gates, is at an altitude of 101 metres. The dam water is diverted to the Novaliches Portal and La Mesa dam.

The solution

During the construction of dam protection and containment structures, various structural checks were required to ensure safe working conditions. GD Test put its trust in the *WineCap ™* data loggers, installing a monitoring system that could obtain a comprehensive and detailed real-time picture of the situation in terms of displacements and loads.

WSD12-4D

The result

Dams are situated between engineering works which are potentially very dangerous, therefore the need to continually monitor their behaviour is recognised universally and accepted in all countries. In the construction and testing phases, checks are designed to meet immediate safety requirements. During operation, monitoring provides information that is useful for identifying the behaviour of the system in its entirety and at particular critical points, and focusing on their evolution over time.

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gdtest GEODESIGN AND TESTING

The winning choice WineCap

- ✓ WSD12T-DD (size of cracks)
- ✓ WSD12-4D (measurement of displacement)
- ✓ WSD12T-EX6 (strain gauge data logger/for load cells)

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