

LA GANGUISE DAM

CASTELNAUDARY - FRANCE

Implementation of the dam monitoring and instrumentation during the extension works.

The Ganguise dam is located in the Aude region, a few kilometres west from Castelnaudary. It is an embankment type dam with an alluvium waterproof core, set up in 1979. Its main function is to store the water needed for irrigation, for navigating on the Canal du Midi and to support low waters on the downstream waterways. In order to meet the ever increasing water needs, a 6m extension of the dam has been planned in order for the water storage capacity to increase from 24,7Mm³ to 45 Mm³.

The dam monitoring during the extension works was entrusted to SolData and consisted in:

1) Setting up the instruments required for monitoring the deformations of the dam structure and galleries, from the retention and leak flow point of view. The instruments installed were: multi-point extensometers, interstitial depression cells, V notch flow measurement profiles as well as the equipment of profiles to measure the convergence. The dam monitoring also included the production of open piezometers.

2) Following the deformations by reading the measurements twice a week during 15 months.



The Ganguise dam from the right bank before the extension works.

CLIENT :	BRL EXPLOITATION
CONTRACTOR :	BERTHOULY /SOLETANCHE-BACHY
DATE OF WORKS :	1999 – 2000
SCOPE OF WORKS :	
<ul style="list-style-type: none">• 9 vibrating wire interstitial pressure cells (reconnection)• 3 4 and 5 anchor strain boreholes equipped with vibrating wires (included drilling and implementation)• Set up of a centralised connection case to read the vibrating wire sensors.• 20 piezometers and relief wells• Measurement readings and twice a week reports during 15 months	