

Dam: Los Morales

Country Spain

River Morales

40°18'53.38"N 4°31'10.71"W

40.314827 -4.519642

Owner/Client Confederación Hidrográfica del Tajo

Designer/Engineer O.C.I.S.A.

Contractor OCISA (Obras y Construcciones Industriales S.A.) - now ACS Dragados

Purpose (code) W

Site start 01.06.1986

RCC start 09.02.1987

RCC completion 29.10.1987

Site completion 31.12.1987

Height (m) 28

Length (m) 200

Volume of RCC ( $m^3 \times 10^3$ ) 22

Total volume ( $m^3 \times 10^3$ ) 26

Reservoir capacity ( $m^3 \times 10^6$ ) 2

Upstream slope V

Forming of upstream face (code) (1)  
(3)

Downstream slope 0.75

Forming of downstream face (code) (3) \*

Spillway slope 0.75

Forming of spillway face (code) (1)

Depth of layers (mm) 300 -  
400

Depth of lifts (mm) 300 -  
400

Cement content ( $kg/m^3$ ) 80  
74

Pozzolan content ( $kg/m^3$ ) 140  
128

Code for pozzolan (F)

RCCDAM Unique Serial No. RCCDAM0035

## Under Construction



RCCDAM0035UC

## Completed Dam



RCCDAM0035CD

## Google Earth



RCCDAM0035GE

# Guide to Abbreviations

## Purpose

- E Environmental
- F Flood control
- G Groundwater recharge
- H Flood control
- I Irrigation
- N Navigation
- P Pollution control
- R Recreation
- W Water supply

## Facing method

- (1) Traditional concrete against formwork
- (2) Traditional concrete against formwork with external geomembrane
- (3) RCC against formwork
- (4) RCC against formwork with external geomembrane
- (5) Traditional concrete against precast concrete panels
- (6) Traditional concrete against precast concrete panels with geomembrane
- (7) RCC against precast concrete panels
- (8) RCC against precast concrete panels with geomembrane
- (9) RCC against precast concrete panels with hot poured membrane
- (10) RCC against precast concrete blocks
- (11) Reinforced conventional concrete cast before RCC placement
- (12) Reinforced conventional concrete cast after RCC placement
- (13) Reinforced concrete cast against precast units or slip-formed facing elements
- (14) Slip-formed/extruded facing elements
- (15) RCC supported by fill shoulders
- (16) Mechanically compacted unformed face of RCC
- (17) Unformed face of RCC
  - ' GEVR/GE-RCC
  - \* Stepped face

## Pozzolans

- (-) No Pozzolan Used
- (C) High-lime flyash (ASTM Class C)
- (F) Low-lime flyash (ASTM Class F)
- (M) Milled sand
- (N) Natural pozzolan (ASTM Class N)
- (R) ROLAC (mixture of flyash and slag with or without limestone fines)
- (S) Ground-granulated blast-furnace slag
- (L) Mixture of GGBFS and limestone fines