

Dam: Miel I

Country Colombia

River La Miel

5°33'38.6"N 74°53'12.33"W

5.560722 -74.886757

Owner/Client Isagen S.A. E.S.P. - Hidromiel S.A. E.S.P.

Designer/Engineer Hidroestudios S.A.

Contractor CNO (Odebrecht), GMD (Grupo Mexicano de Desarrollo), ABB and Kvaener, J.V. (Consortio Miel)

Purpose (code) H

Site start 24.12.1997

RCC start 08.04.2000

RCC completion 09.07.2002

Site completion 09.10.2002

Height (m) 188

Length (m) 345

Volume of RCC ( $m^3 \times 10^3$ ) 1669

Total volume ( $m^3 \times 10^3$ ) 1730

Reservoir capacity ( $m^3 \times 10^6$ ) 565

Upstream slope V

Forming of upstream face (code) (4')

Downstream slope 0.75  
1.00

Forming of downstream face (code) (3')

Spillway slope 0.75  
1.00

Forming of spillway face (code) (12)

Depth of layers (mm) 300

Depth of lifts (mm) 300

Cement content ( $kg/m^3$ ) 85 to 160

Pozzolan content ( $kg/m^3$ ) 0

Code for pozzolan (-) -

RCCDAM Unique Serial No. RCCDAM0278

### Under Construction



RCCDAM0278UC

### Completed Dam



RCCDAM0278CD

### Google Earth



RCCDAM0278GE

# 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