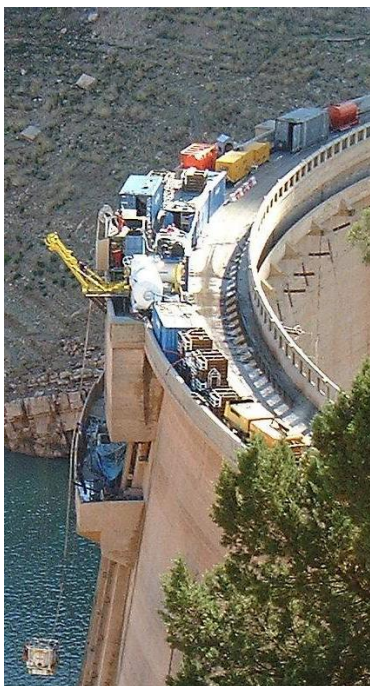


## BIN EL OUIDANE DAM : REHABILITATION OF BOTTOM OUTLETS

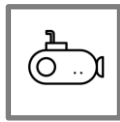
### ■ ■ ■ A Special Case

- ▷ Depth of – 80 m without possibility to lower water level of reservoir.
- ▷ 2 Bottom gates blocked and jammed under more than 20 m of sediments.
- ▷ A water intake structure not accessible by standard dredging equipment positioned on surface.



**Hydrokarst**  
GROUPE

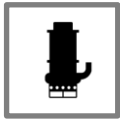
## ■■■ METHODOLOGY IMPLEMENTED



**1** Preliminary inspection with a Remotely Operated Vehicule (ROV) with sonic cameras.



**2** Bathymetrie of surrounding area



**3** Preliminary dredging with submerged pumps on top of the intake structure



**4** Mobilization of deep diving equipement and mixed gas breathing supply for divers



**5** Internal cleaning of water intake structure by divers using hand hold pumps and airlifts.



**6** Release of the 2 jammed gates under compact sediments



**7** Rehabilitation of the gates and operating command



**8** Testing of refurbished gates and implementation of a flushing maintenance program

