



AJ-01

## JÚCAR-VINALOPÓ NEW "SECTION E"

### ADMINISTRATIVE DATA

Material Budget: 40,825,151.75 €  
 Successful Bid Budget: 48,415,678.96 €  
 Contract Duration: 20 months  
 Work start date: November 9, 2007  
 Scheduled completion date: November 2009  
 Promoter: Aguas del Júcar, SA  
 Technical Support: CPS Ingenieros

### TECHNICAL DATA

- length of Ø1.829mm carbon steel pipe: 18 km
- trench excavation: 323,454 m<sup>3</sup>
- freestanding water pipes: 4
- Pile-driving beneath A-35 motorway: 2
- Pile-driving beneath Albacete-Valencia railway line: 2
- Pile-driving beneath disused railway line: 1

### PREVIOUS STATE

The proposed work is located in the towns of Mogente and Fuente la Higuera. It runs mostly through farmland. As an exception it may be necessary to cross several ravines and rivers in which case an aqueduct will be employed as in the crossing of the river Roig, Barranco de la Hoz, the gorge of la Hoz, and the stream of Tío Antonio.  
 The use of transferred water is intended solely for irrigation, not for human consumption.

### PLANNED STATE





## WORKS DESCRIPTION

The pipeline included in section E is divided into two hydraulically separate sections:

- Coastal intake: begins at the confluence with section D and reaches the new Mogente reservoir with a volume equal to 30.000m<sup>3</sup>, with a bypass planned for entry to the reservoir to the Mogente pumping station. The length of the pipeline is 2415.42 m.
- Venta del Potro intake : begins at the Mogente pumping station and reaches the existing plant in the Ramblar, with a length of 15,378.69 m

The central Rambla is where former section V begins leading to the San Diego branch, followed by section VI running to the central Florines. Section VII includes a branch to the San Diego pool. These three sections operate by gravity and have already been implemented. Their usage ensures the functionality of the new pipeline by providing the same crossover point that was contemplated in the original project that included intake from the Cortes reservoir.

The flow for which the pipeline is designed is 4.5 m<sup>3</sup> / s, while the pipeline can handle up to 5.6 m<sup>3</sup> / s.

The pumping equipment at Mogente consists of 4 +1 pumps with a required manometric head of 308.61 m.

For the flow of 4.5 m<sup>3</sup> / s protection against water hammer has been designed, in the event of pumps stopping, consisting of three 35m<sup>3</sup> boilers and their corresponding orifice plates.

## PHOTOGRAPHS



Photo 1: Excavation trench in ascent to Ramblar



Photo 2: Formation of vacuum



Photo 3: Container housing dumping equipment

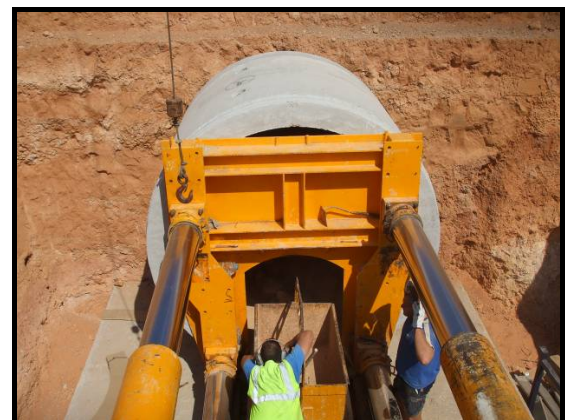


Photo 4: +700 16 pk pile-driver