worldwide leader in the foundation engineering field

TREVI ALGERIE

TECHNICAL REFERENCE

Courtesy by Strade & Autostrade

Railway line Trans Maghreb

Oued Tlelat-Tlemcen, Algeria

- Bored Piles
- Micropiles
- Jet grouting
- Anchors
- Sheet piles

Owner :	ANESRIF Agence Nationale d'Etudes et de Suivi de la Réalisation des Investissements Ferroviaires
Main Contractor :	**Consorzio CONDOTTE D'ACQUA - RIZZANI DE ECCHER**
Duration of works:	**2012 - 2017**

Introduction

The new line of high speed railway, links Oued Tlelat *(South-east of Oran)* to Tlemcen *(near the Moroccan border)* **extands over a path of 130 km and crosses the North-West of Algeria.**

This important structure, situated approximatly near the great Sebkha of Oran taking part of the national plan for infrastructure and the railway network development and modernization that Algeria has already launched the last decade.

ANESRIF "Agence Nationale d'Etudes et Suivi de la Réalisation des Investisements Ferroviaires" has awarded this project to the the Italian consortium Condotte d'Acqua - Rizzani de Eccher.

The project, whose total value stands at 1.5 billion euros, consists of theconstruction of a double track rail with electrification, telecommunication and signaling systems.

Due to its length and to the the varried orography that is relatively difficult, **the work covers the construction of 56 bridge/viaduct, 1 gallery and 3 stations.**

The most remarquable works were certainly the "**Exeptional" Viaduct** whose foundations are on a piles well and the **"Special" Viaduct** whose foundations are on a well of micropiles.

The project

The "Exeptional" Viaduct, located about 35 km from Tlemcen city, has a **length of almost 1800 lm** and **16 spans variable between 85 and 114 lm.**
The heights of the planned piles is also extremely variable, from 16 to 134 lm.

Under this project Trevi was in charge specifically of the **piles 1200 mm diameter** *(a well between 15 and 38 meters long)*, **micropiles 240 mm diameter** *(25 m long wells)* **and jet grouting.**

These foundations are for wells, where the average diameter is 30 meters, consists of tangent piles 1200 mm with 40 meters as maximum depth.

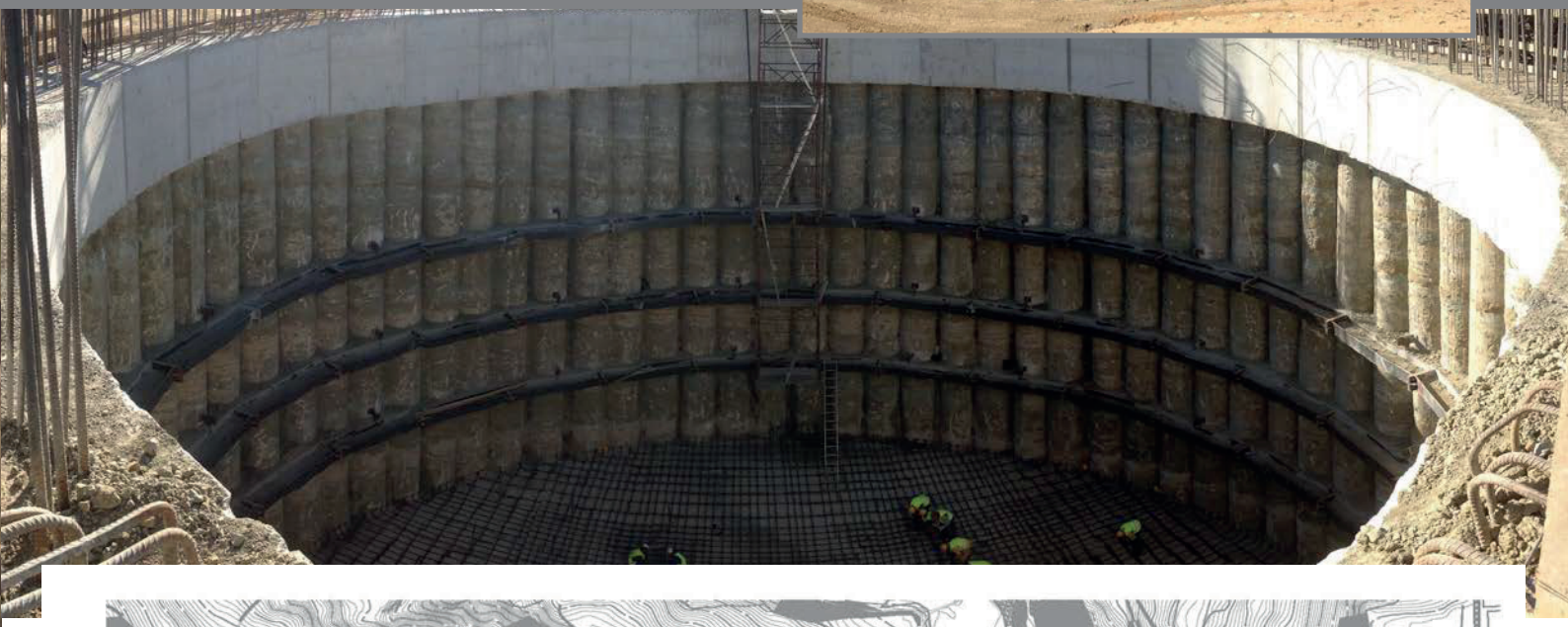
In areas where the presence of the water table is supposed important, during excavation the waterproofing inside the well was ensured by creating a screen of jet grouting columns placed behind the piles.

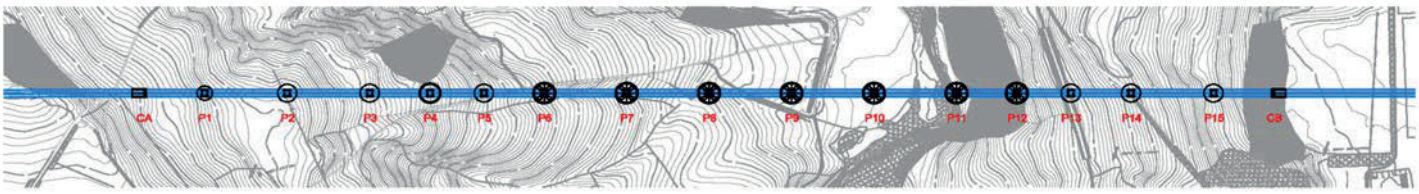
Trevi work

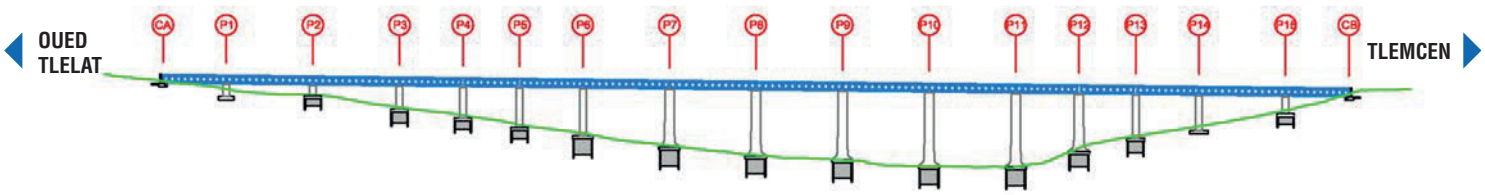
The work consists of special deep foundations of Bored Piles, Micropiles, Jet Grouting columns, Ground Anchors and subhorizantal Drains type.

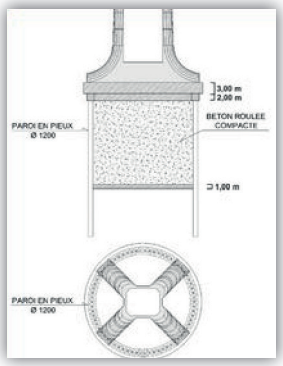
Bellow are the quantities:

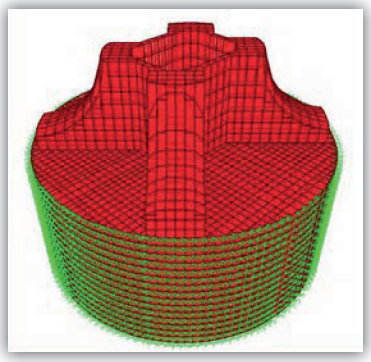
- **65.936 lm Micropiles** ø 240 mm max depth 30 lm
- **108.125 lm Bored Piles** 1200 mm max depth 40 lm
- **280 Jet Grouting columns** 1000 mm max depth 42 lm
- **12.431 lm Ground Anchors** ø 127 mm, max length 33 lm
- **245 lm subhorizontal Drains** ø 76 mm max depth 05 lm.
- **1.536 m^2 Sheet piles**

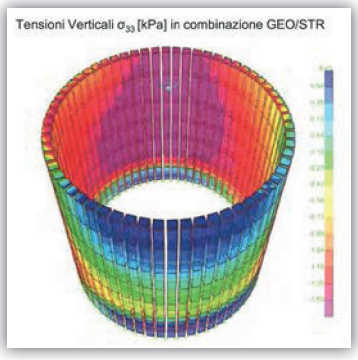


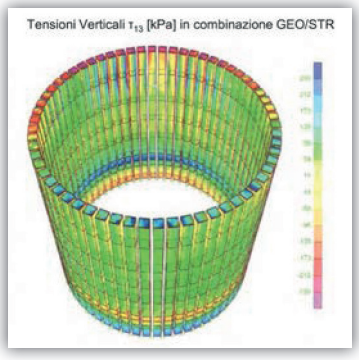












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