

## Station Description Sheet

# **PRO\_033**

1. General Information
2. Geographical Information / Geomorphology
3. Geological Information
4. Geotechnical Site Characterization
5. Geophysical Site Characterization
6. Site Response
7. References

## 1. GENERAL INFORMATION



**Photo 1:** Location of the PRO\_033 borehole



**Photo 2:** The down-hole PRO\_033 station

**Station Code:** PRO\_033

**Network:** Euroseis

**Instrumentation:** Check the up-to-date EUROSEISTEST stations history file at <http://euroseisdb.civil.auth.gr/stations>

**Power supply:** AC

**Housing:** in a 33m deep borehole in Profitis church

## 2. GEOGRAPHICAL INFORMATION / GEOMORPHOLOGY



**Figure 1:** Location map of PRO\_033 station

**Location:** in the Mygdonian basin, in Profitis village

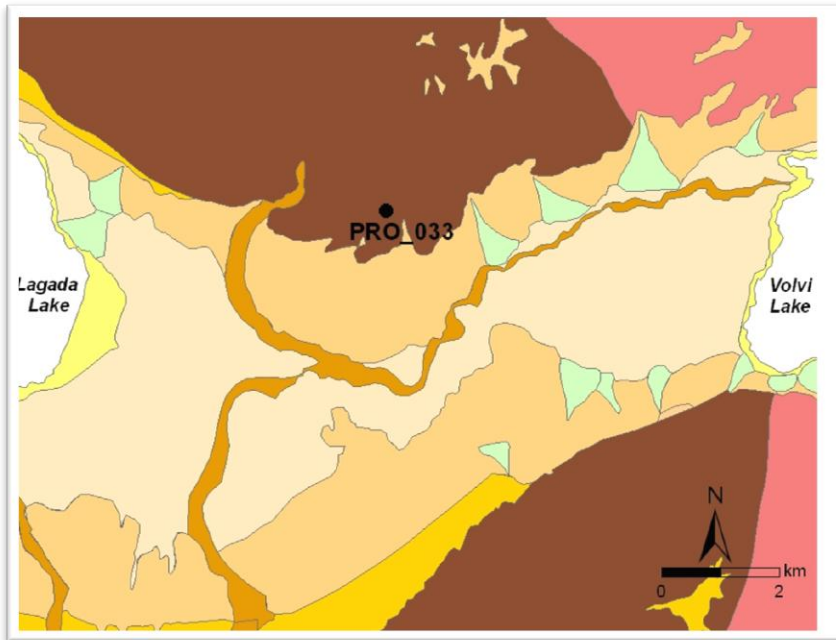
**Elevation (from sea level):** -33 m

**Station coordinates:** 23.275671°E / 40.688342°N

**Projection system:** WGS84

**Site morphology:** Valley edge (north edge of the valley)

3. GEOLOGICAL INFORMATION



Legend

- Holocene**
  - Lacustrine sediments
  - River deposits/torrent beds
  - Valley deposits
- Pleistocene**
  - Lacustrine sediments
  - Terrestrial (river and flood) red beds
- Quaternary**
  - Alluvial fans
- Alpine formations**
  - Two-mica and biotite granite
  - Two-mica gneiss

Figure 2: Geological map of the central Mygdonian basin

**Surface geology (from geological map):** on two-mica gneiss

**Reference for geological map:** Geological map of Greece - Scale 1:50000, Map Sheets of "Thermi" and "Zagliverion", (IGME, 1978)

**Boreholes (with core description) in the proximity of the station:** not known

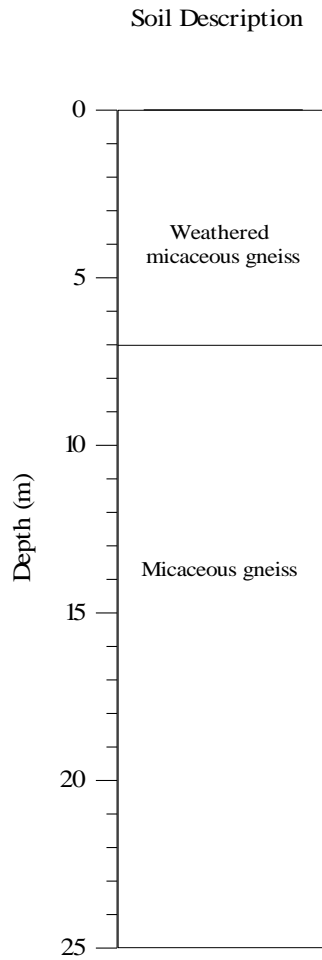
**4. GEOTECHNICAL SITE CHARACTERIZATION**

**Geotechnical site characterization data for station PRO\_033 include:**

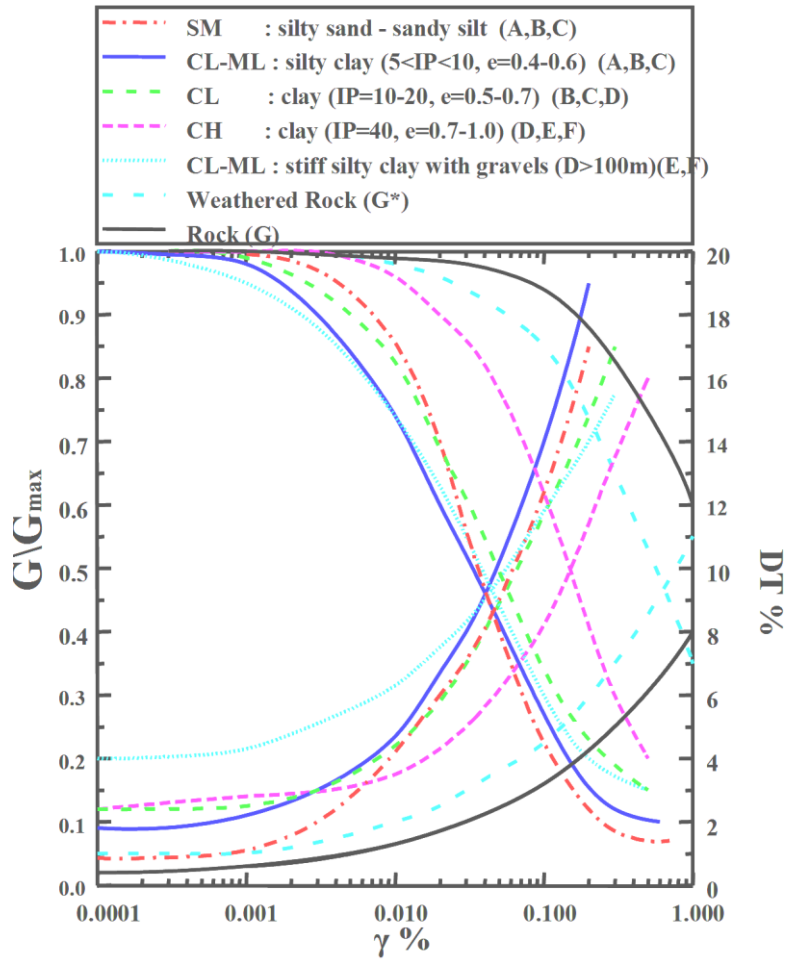
1. Sampling borehole (EUROSEISTEST Project Reports, 1993-1995)
2. Laboratory tests (G- $\gamma$ -D curves, etc.) (EUROSEISTEST Project Reports, 1993-1995)

Data are available in ascii format in:

[http://euroseisdb.civil.auth.gr/uploads/station/geotechnical/11/Site\\_characterization\\_geotechnical\\_PRO\\_033.txt](http://euroseisdb.civil.auth.gr/uploads/station/geotechnical/11/Site_characterization_geotechnical_PRO_033.txt)



**Figure 3:** Geotechnical data at station PRO\_033.



**Figure 4:** Mean  $G/G_0$ - $\gamma$ -D curves from resonant column and cyclic triaxial tests for all geotechnical formations occur at station PRO\_033. The curves describe the shear modulus degradation with the shear strain and the respective internal damping increase.

## 5. GEOPHYSICAL SITE CHARACTERIZATION

Geophysical site characterization data for station PRO\_033 include:

1. Shear wave velocity values ( $V_s$ ) / determined by Surface Wave Inversion method (Raptakis et al., 2000)
2. Compression wave velocity ( $V_p$ ) / determined by P-wave logging (Raptakis et al., 2000)

Data are available in ascii format in:

[http://euroseisdb.civil.auth.gr/uploads/station/geophysical/11/Site\\_characterization\\_geophysical\\_PRO\\_033.txt](http://euroseisdb.civil.auth.gr/uploads/station/geophysical/11/Site_characterization_geophysical_PRO_033.txt)

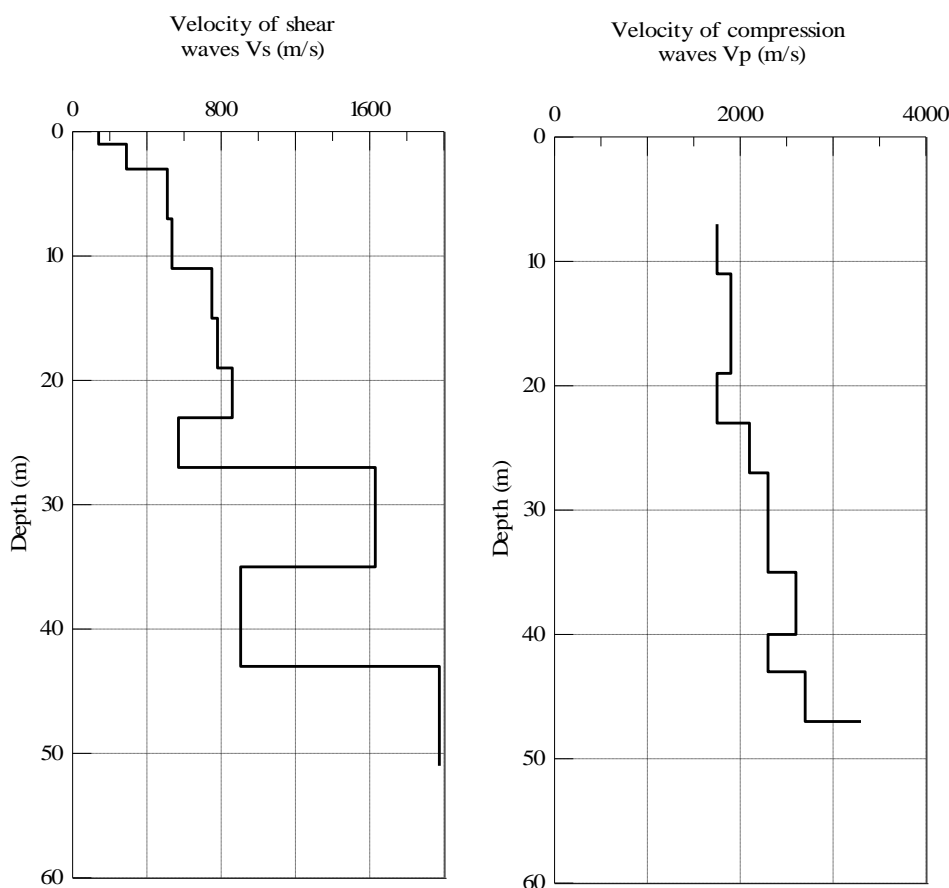


Figure 5: Shear and compression wave velocity values at station PRO\_033.

## 6. SITE RESPONSE

No data available.

## 7. REFERENCES

EUROSEISTEST Project Reports, 1993–1995. (Available in PDF upon request)

IGME, 1978. Geological map of Greece - Scale 1:50.000. Map Sheets of "Thermi" and "Zagliverion".

Raptakis D., F.J. Chávez-García, K. Makra and K. Pitilakis, 2000. Site effects at Euroseistest Part I. Determination of the valley structure and confrontation of observations with 1D analysis, Soil Dynamics and Earthquake Engineering, Vol. 19, pp. 1-22.