

Station Description Sheet **E03**

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: Outside view of the hosting structure



Photo 2: Inside of the E03 installation box

Station Code: E03

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 water pump house in the eastern part of the Mygdonian basin

2. GEOGRAPHICAL INFORMATION / GEOMORPHOLOGY



Figure 1: Location map of E03 station

Location: in the Mygdonian basin

Elevation (from sea level): 44 m

Station coordinates: 23.324046°E / 40.676239°N

Projection system: WGS84

Site morphology: Valley center (east part of the valley)

3. GEOLOGICAL INFORMATION

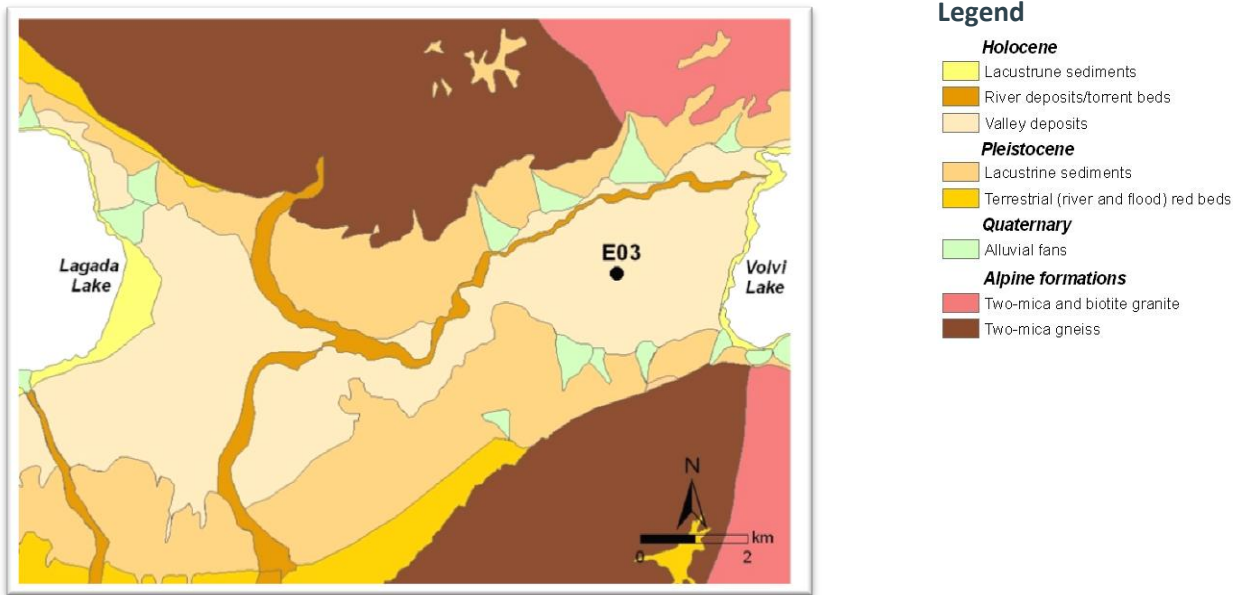


Figure 2: Geological map of the central Mygdonian basin

Surface geology (from geological map): on Holocene valley deposits

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 E03 include:

1. Sampling borehole (EUROSEISTEST Project Reports, 1993-1995).
2. Normal Penetration test (EUROSEISTEST Project Reports, 1993-1995).
3. Cone penetration test (EUROSEISRISK project reports, 2002 – 2005).

Data are available in ascii format in:

http://euroseisdb.civil.auth.gr/uploads/station/geotechnical/5/Site_characterization_geotechnical_E03.txt

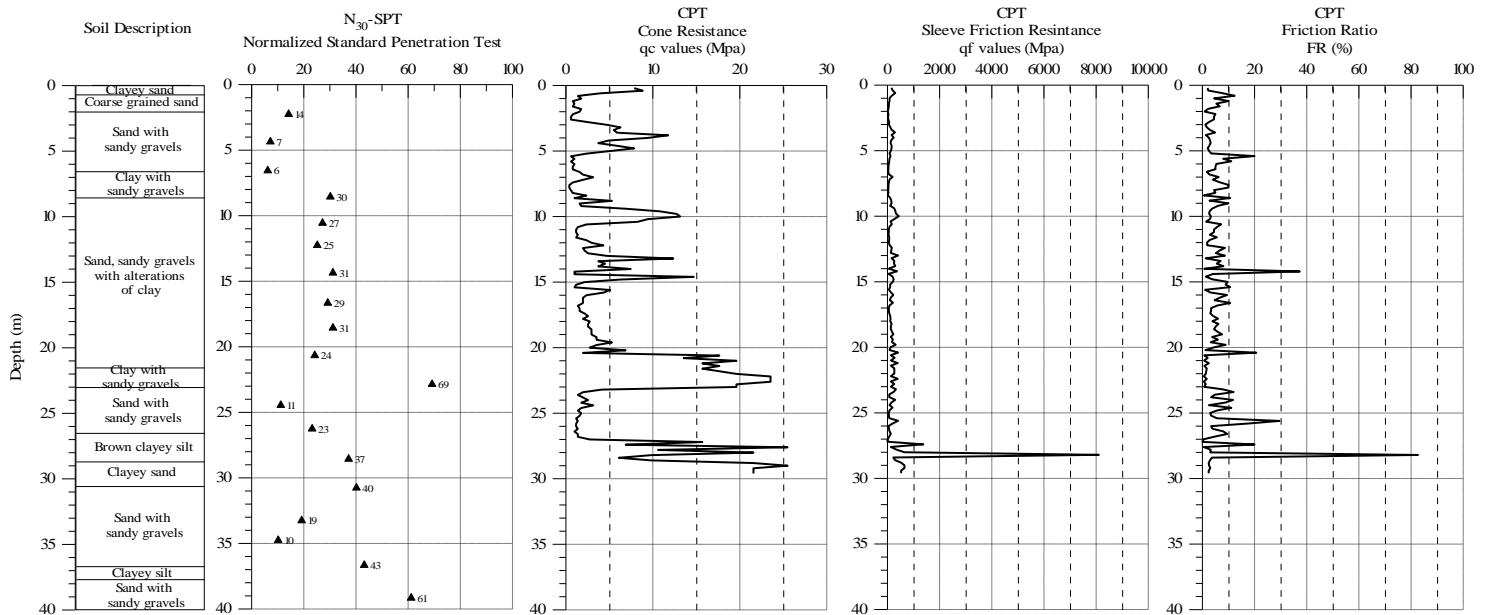


Figure 3: Geotechnical data at station E03

5. GEOPHYSICAL SITE CHARACTERIZATION

Geophysical site characterization data for station E03 include:

1. Shear wave velocity values (V_s) / determined by array SPAC microtremor measurements (Manakou et al., 2010)

Data are available in ascii format in:

http://euroseisdb.civil.auth.gr/uploads/station/geophysical/5/Site_characterization_geophysical_E03.txt

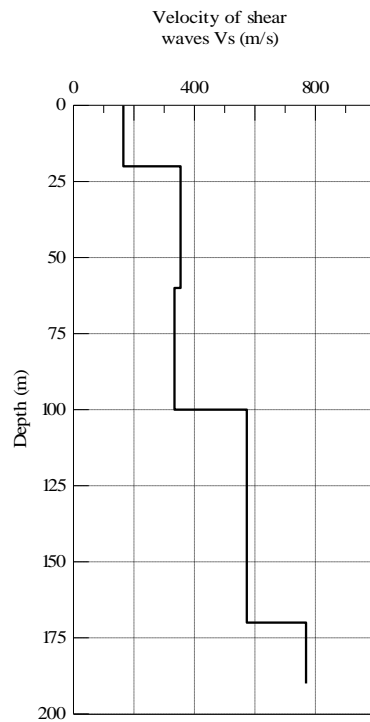


Figure 4: Shear wave velocity values at station E03

6. SITE RESPONSE

Site response data for station E03 include:

1. Standard Spectral Ratio technique (SSR) applied on the S-wave part of earthquakes recorded on a temporary, collocated to E03 station (Raptakis et al., 2005)

Data are available in ascii format in:

http://euroseisdb.civil.auth.gr/uploads/station/response/5/Site_response_E03.txt

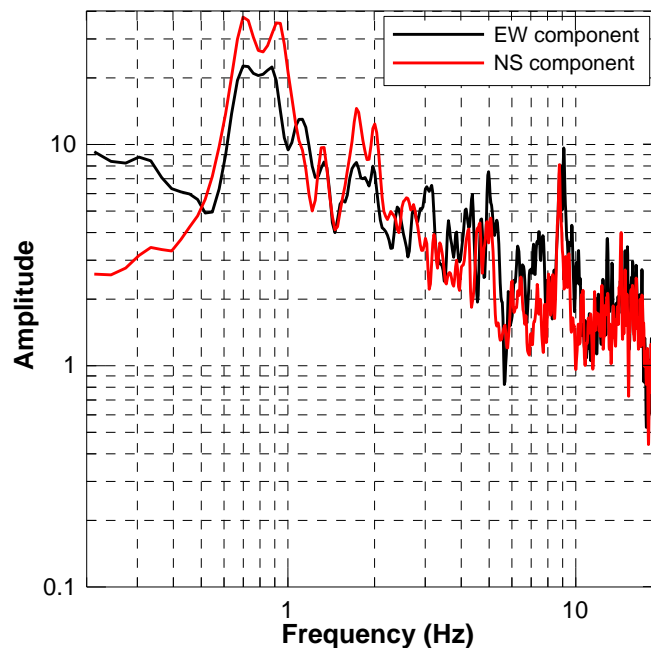


Figure 5: Standard Spectral Ratios (SSR) for the two horizontal components at a temporary station, collocated to station E03. Ratios have been computed using the S- wave part of earthquake recordings.

7. REFERENCES

- EUROSEISTEST Project Reports, 1993–1995. (*Available in PDF upon request*)
 EUROSEISRISK Project Reports, 2002–2005. (*Available in PDF upon request*)
 IGME, 1978. Geological map of Greece - Scale 1:50.000. Map Sheets of "Thermi" and "Zagliverion".
 Manakou M., D. Raptakis, F. J. Chavez-Garcia, P. Apostolidis and K. Pitilakis, 2010. 3D soil structure of the Mygdonian basin for site response analysis. *Soil Dynamics and Earthquake Engineering*, Vol. 30, pp. 1198-1211.
 Raptakis D., M. Manakou, F.-J. Chavez-Garcia, K. Makra and K. Pitilakis, 2005. 3D configuration of Mygdonian basin and preliminary estimate of its site response. *Soil Dynamics and Earthquake Engineering*, Vol. 25, pp. 871-887.