

Station Description Sheet **E01**

1. General Information
2. Geographical Information / Geomorphology
3. Geological Information
4. Geotechnical Site Characterization
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6. Site Response
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1. GENERAL INFORMATION



Photo 1: Outside view of the hosting building

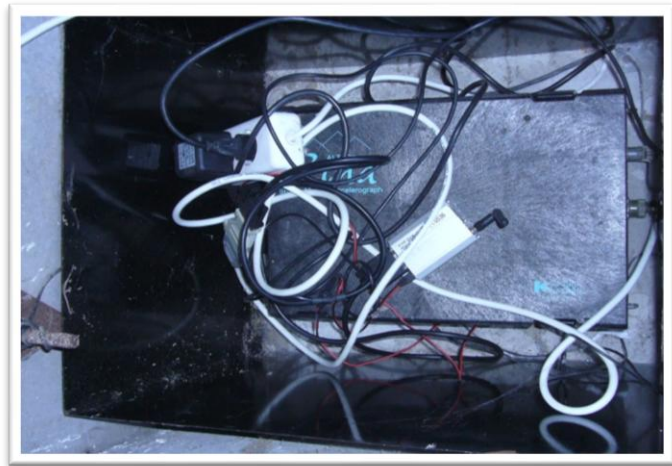


Photo 2: Inside of the E01 installation box

Station Code: E01

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 E01 station

Location: in the Mygdonian basin

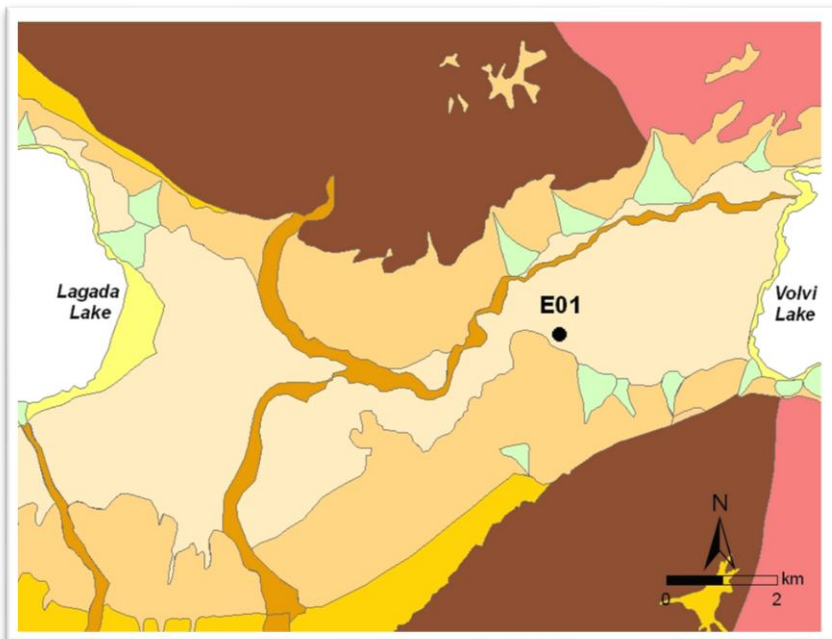
Elevation (from sea level): 51 m

Station coordinates: 23.306758⁰E / 40.670590⁰N

Projection system: WGS84

Site morphology: Valley center (east part 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 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 E01 include:

1. Cone penetration test (EUROSEISRISK project reports, 2002 – 2005).

Data are available in ascii format in:

http://euroseisdb.civil.auth.gr/uploads/station/geotechnical/3/Site_characterization_geotechnical_E01.txt

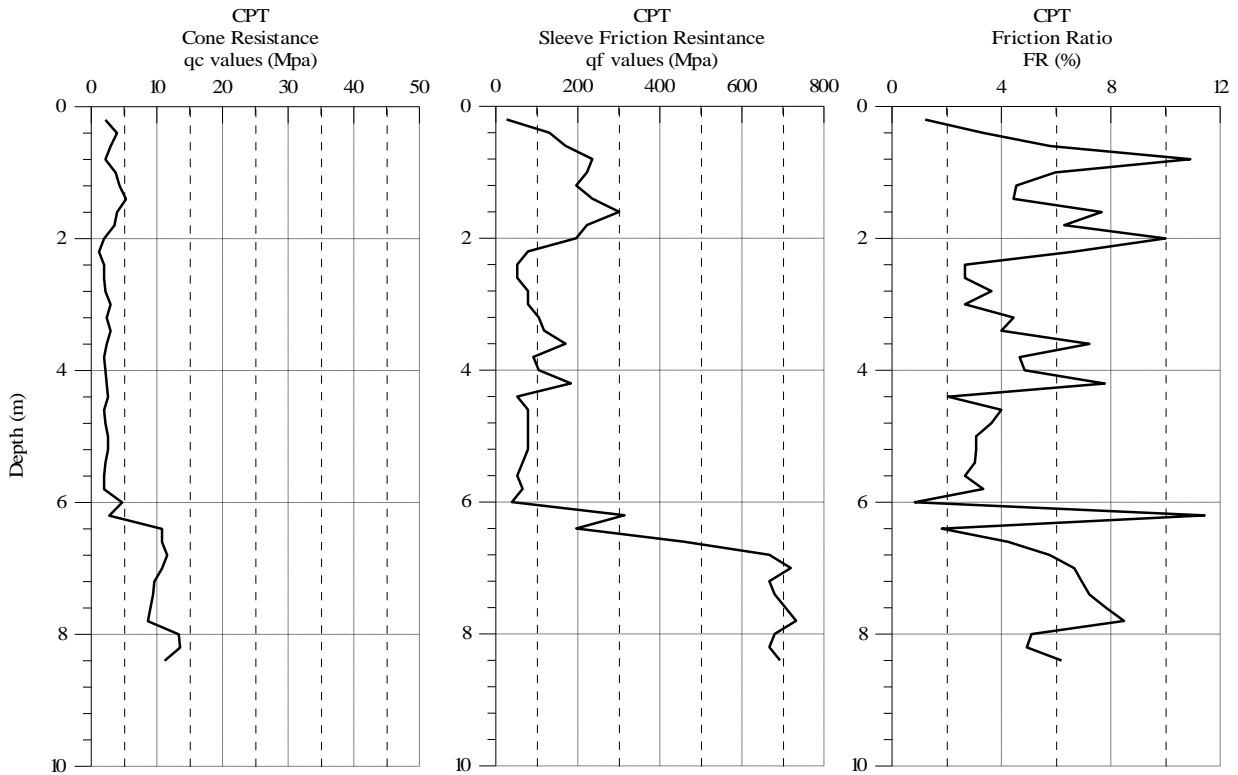


Figure 3: Geotechnical data at station E01

5. GEOPHYSICAL SITE CHARACTERIZATION

Geophysical site characterization data for station E01 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/3/Site_characterization_geophysical_E01.txt

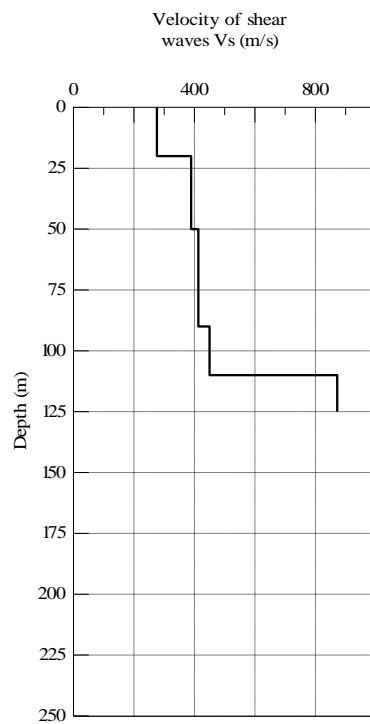


Figure 4: Shear wave velocity values close to station E01

6. SITE RESPONSE

Site response data for station E01 include:

1. Horizontal-to-vertical spectral ratios (HVSr) applied on single station noise measurements (Raptakis et al., 2005)

Data are available in ascii format in:

http://euroseisdb.civil.auth.gr/uploads/station/response/3/Site_response_E01.txt

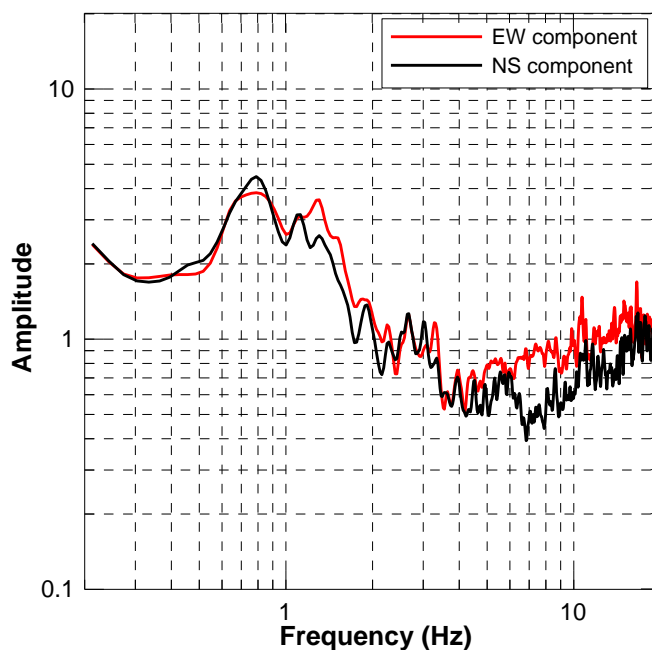


Figure 5: Horizontal-to-Vertical Spectral Ratios (HVSr) for the two horizontal components at station E01. Ratios are based on single station noise measurements

7. REFERENCES

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.