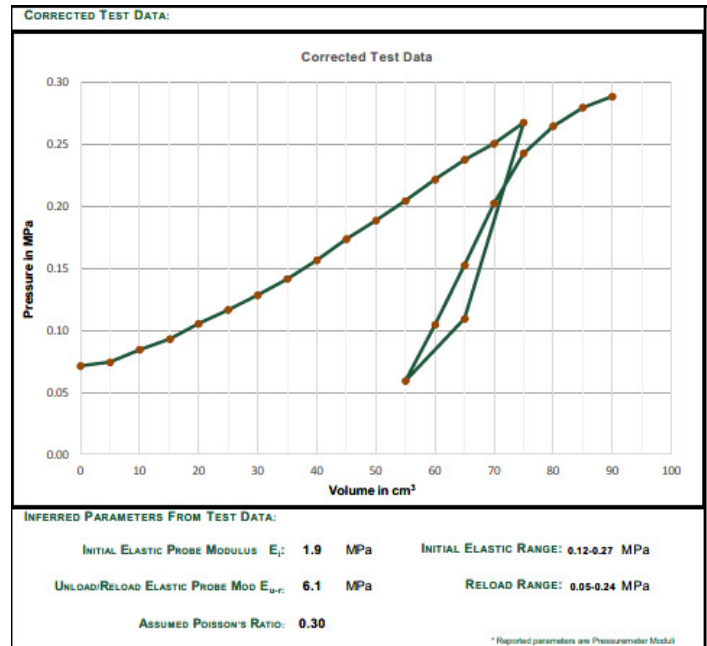




EXPLANATION SHEET

PENCEL PRESSUREMETER 2,500kPa maximum pressure 35mm diameter – for soft to hard soil

23 February 2021



- Roctest 35mm diameter Pressuremeter for use with CPT holes or direct-pushing within boreholes.
- Testing can be undertaken in most soil types.
- Load, unload and reload cycles possible.
- The PENCEL can be used with any of IGS's fleet of in situ testing rigs.
- Combined with a 35mm diameter dummy probe the PENCEL can be used from the bottom of a conventional site investigation borehole. In soft soils the dummy probe may not be necessary.
- Probe maximum pressure capacity = 2,500 kPa.
- Maximum test depth – currently ~60m.

The pressuremeter is a well-established geotechnical test that yields a stress strain type of curve from which different geotechnical parameters can be derived, including:

- In situ lateral stress – K_0 .
- Young's Modulus E .
- Constrained Modulus M (by calculation).
- By extrapolation, undrained shear strength for cohesive soils.
- By extrapolation, friction angle for granular soils.