We know piling
G-Octopus, a Cathie Associates company, is a provider of on-site pile testing and advanced interpretation of Pile Driving Monitoring Data. With over 15 years of experience, our engineers perform quality assessments and testing of deep foundations. We provide pile instrumentation solutions and advanced interpretation of pile driving monitoring data onshore, nearshore, offshore and underwater.

Since inception, we have been successfully involved in several PDM projects throughout the world. Our team provides round-the-clock assistance on all piling issues and on-site analysis of data, enabling a real-time preliminary assessment of the hammer/pile/soil system. Our engineers are familiar with the offshore environment and trained to liaise with barge masters and deck foreman to minimize interference with the installation schedule. Our equipment is thoroughly checked before the operations and mobilised with 100 percent redundancy.

**Pile Driving Monitoring**
The primary purpose of Pile Dynamic Load Testing is to establish the bearing capacity of a pile. In addition, electronic monitoring of strain and acceleration waves at the top of a pile or a sheet pile during impact or vibro-driving, allows for:
- A control of the hammer efficiency,
- A control of the soil behaviour during driving,
- A control of the induced stress and particularly the risk of pipe buckling at toe.

**Fiber Optic Dynamic and Static Pile Monitoring Systems**
G-Octopus has implemented the new fiber optic technology into the pile dynamic and static testing. This new technology allows to measure strains along the pile shaft during driving (dynamic) and during static or cyclic testing. The installations of the gauges is robust, resists and works during and after driving and allows to minimise the impact on pile preparation and does not require the installation of additional protection along the pile.

The system allows to obtain an insight of pile behaviour and capacity during driving, during axial and lateral testing, static and cyclic, with great advantages for pile design and acceptance.

**Dynamic Load Testing**
The dynamic load test allows to measure the ultimate bearing capacity of a pile by impact from a hammer or free fall drop weight. This method allows a large number of piles to be tested in record time and at low cost, which greatly improves the reliability of the data.

**Static Load Testing**
Static load testing measures the load resistance behaviour of deep foundations. It differs from rapid and dynamic load testing as the load is slowly applied to the deep foundation. Static Load Tests can be performed to validate foundation design assumptions regarding the axial compression or axial tension resistance provided by a deep foundation element, or its deflected shape under a lateral load.

**Training and more**
As a proven expert, we offer tailored training services to a range of companies wishing to develop their understanding in Pile Testing. We are an accredited training company providing theoretical and onsite practical training.

We also offer specialised services such as Pile integrity testing services, bottom of bored piles inspection and Diesel hammer instrumentation.
Equipment

As a distributor and representative in France, Spain and North Africa of world leading manufacturer Pile Dynamics, Inc. (PDI), we provide foundation control equipment. Based on our experience, we can also help you determining which static testing equipment you need as we are also vendors of Sisgeo instruments.

Clients

- Ørsted
- SOGER SATOM
- SOLETANCHE BACHY
- Total
- VATTENFALL
- VINCI
- NPCC
- ERG
- HYDROGEOCHEMIE
- EIFFAGE
- GEOTEC
- fondassl
- SAIPEN
- GeoSea