



# Kelk Lake Underwater Acoustic Calibration Centre



Neptune Sonar Ltd  
Kelk Lake  
Kelk, Driffield  
East Yorkshire  
United Kingdom  
YO25 8HL

Telephone: +44 (0) 1262 490234  
Facsimile: +44 (0) 1262 490485  
info@neptune-sonar.co.uk  
www.neptune-sonar.co.uk

Neptune Sonar have recently commissioned a third generation, open-water Acoustic Calibration Laboratory at their Kelk Lake Site in East Yorkshire.

As the largest privately owned laboratory of its type in the UK it is equipped with the most technically advanced instrumentation and software designed to provide engineers and scientists with the ability to perform accurate underwater measurements on a wide range of underwater acoustic equipment.

Available to hire, manufacturers and end-users alike will find the facility invaluable whether calibrating a single hydrophone or establishing the underwater performance of a complex sonar system.

The measurement laboratory is constructed on a floating platform 17m by 10m and connected to the shore by a 40m long gangway. The ease of access provided by this gangway offers significant benefits over the use of boats, simplifying the movement and deployment of heavy equipment and reducing Health and Safety risks.

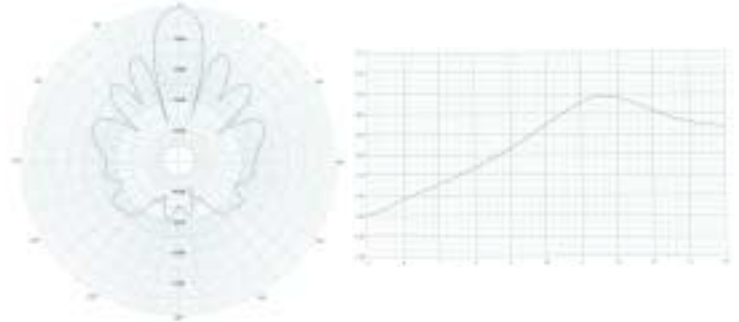


**The Laboratory includes the following facilities:**

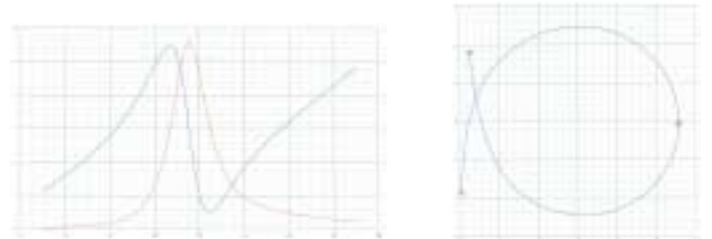
- 60,000 square metre fresh water lake, 10m depth.
- 17m x 10m raft platform, with 4.9m x 2.3m moon pool.
- Direct access via 40m x 2m wide gangway.
- Frequency range from less than 1kHz to 1MHz
- A wide range of calibrated reference Hydrophones and Projectors.
- All measurement certificates fully traceable to National Standards.
- Simulated depth, using submersible GRP acoustic pressure vessel.
- Power Supply 20 amp 3 phase 50Hz.
- Cranes and handling equipment, capable of deploying transducers up to 2000Kg.
- Site security approved by the UK Ministry of Defence.
- Other facilities include R&D lab, machine shop, pressure vessels and storage area.
- Telephone, fax, email and internet access.
- Quiet rural surroundings.
- Car park for direct access to facility.

**Measurement and presentation Examples:**

Complex Impedance —  
Fully automated test and presented with Polar, Cartesian and Tabular graphical format



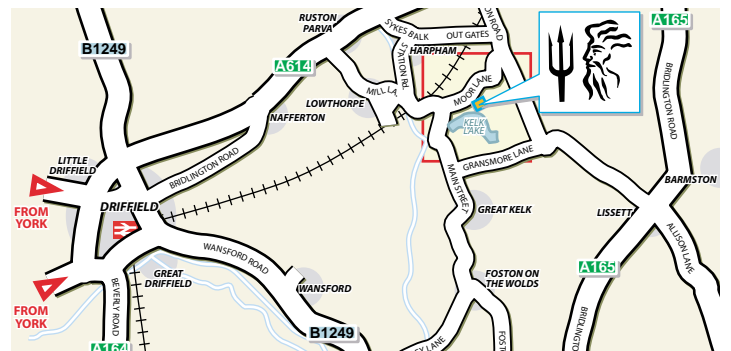
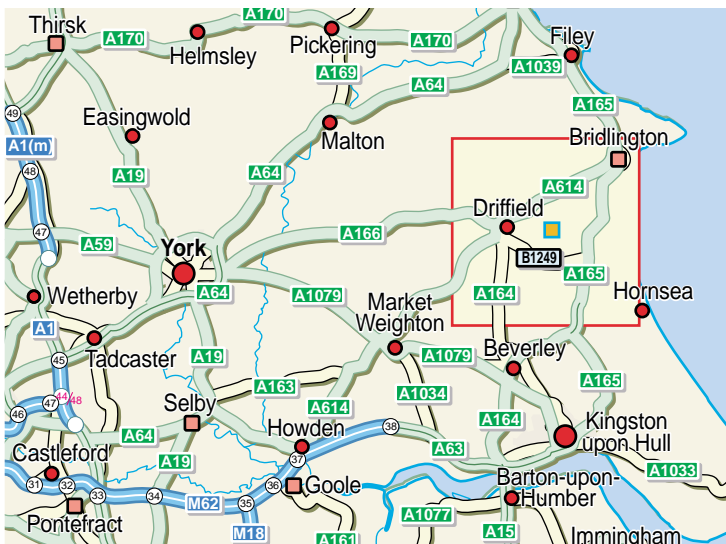
Beam Pattern —  
in either Transmit or Receive mode, measurement for -3dB, -10dB and sidelobe levels.



Sensitivity Graphs —  
Receive, Projector Sensitivity and Source Level measurements fully automated test and presented with Linear, Log and Tabular graphical format.

**The laboratory is available for hire at a daily rate, and includes a highly trained calibration engineer.**

**To request prices and further information:  
Telephone +44 (0)1262 490234, email [info@neptune-sonar.co.uk](mailto:info@neptune-sonar.co.uk) or visit our web site at [www.neptune-sonar.co.uk](http://www.neptune-sonar.co.uk).**



**Neptune Sonar Ltd**  
Kelk Lake  
Kelk, Driffield  
East Yorkshire  
United Kingdom  
YO25 8HL

**Telephone: +44 (0) 1262 490234**  
**Facsimile: +44 (0) 1262 490485**  
**[info@neptune-sonar.co.uk](mailto:info@neptune-sonar.co.uk)**  
**[www.neptune-sonar.co.uk](http://www.neptune-sonar.co.uk)**