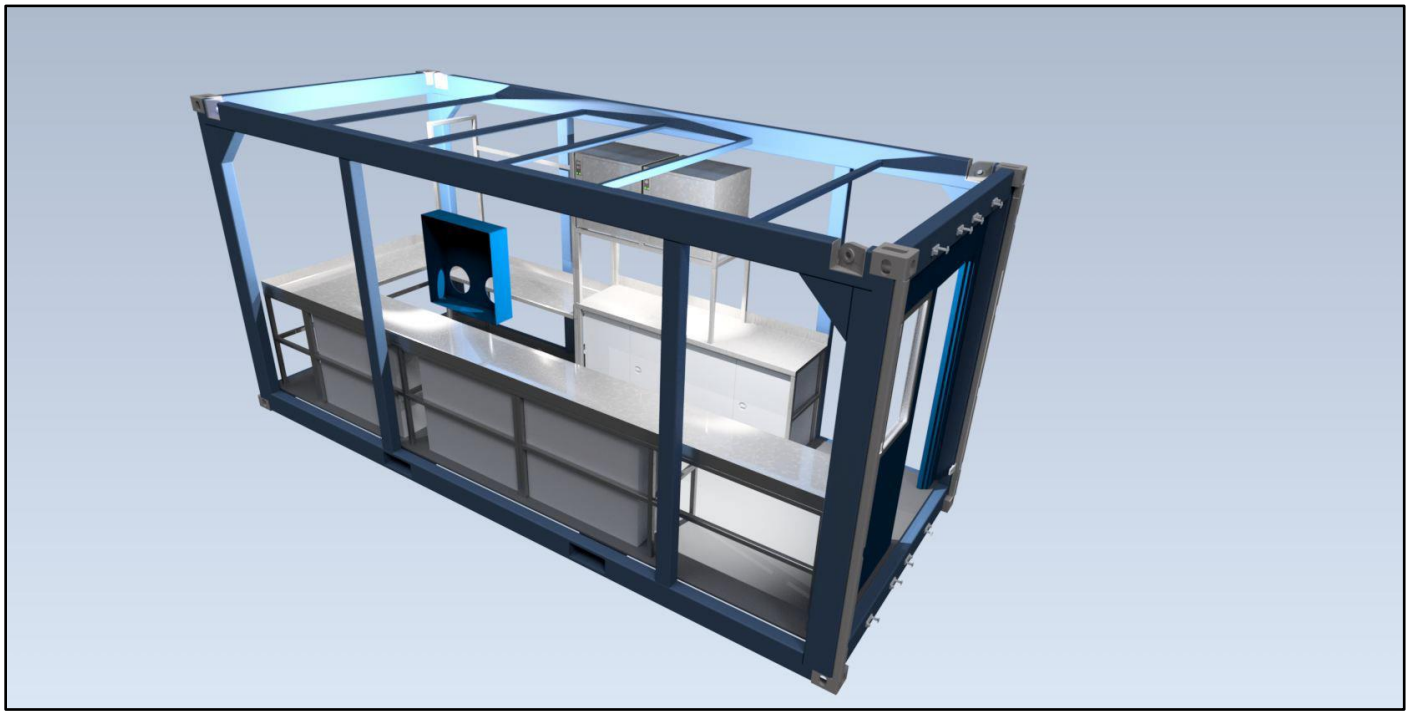
Offshore Laboratory



Laboratory Description

GTSL can mobilise a fully equipped offshore geotechnical laboratory to support real-time sample assessment, basic index testing, and preliminary soil classification during offshore field campaigns. This capability provides rapid insight into subsurface conditions and enables adaptive planning and prioritisation of samples for onshore laboratory testing. The laboratory is housed within DNV-certified, temperature-controlled containers, specifically rated for safe offshore lifting and deck installation. These units are engineered for efficient and safe operation in challenging marine environments. By delivering early geotechnical insights and enhancing sample quality assurance, GTSL's offshore testing capability supports faster, data-driven decision-making ahead of comprehensive onshore laboratory analysis.

Technical Specifications

- Dimensions: 6058*2438*2591mm
- Weight = 5000kgs

Scope of Offshore Laboratory Testing

- Preliminary soil descriptions of exposed liner ends and, where feasible, through clear liners
- Visual logging of full core sections where split-core logging is required
- Hydrochloric acid (HCl) test for carbonate content identification
- Moisture content determination
- Total unit weight calculation via volume-mass method
- Thermal conductivity testing using a needle probe in accordance with ASTM D5334-14
- Electrical resistivity testing (if required)
- Pocket penetrometer and torvane tests to determine intact undrained shear strength of cohesive soils, conducted prior to sample trimming and sealing
- Fall cone testing for consistency and shear strength evaluation
- Laboratory vane shear testing
- High-resolution core photography (both ends and split surfaces)
- Triaxial test system mobilisation, available on request for specialised offshore testing