Energy Islands – North Sea Offshore Wind Farm Area

Investigation Results

Geotechnics

Part I: Main Text, Appendix A, and Appendix I

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Contents

Appendices

Appendix A	Plates referenced in Main Text
Appendix B	Geotechnical Logs
Appendix C	Results of Borehole Geophysical Logging
Appendix D	Results of In Situ Tests
Appendix E	Results of Geotechnical Laboratory Tests
Appendix F	Cone Calibration Certificates
Appendix G	Overview of Sample Material
Appendix H	Descriptions of Methods and Practices
Appendix I	Supplementary Information about Document

Executive Summary

Following a decision in the Danish Parliament in June 2020, Denmark is on the path to develop two new offshore energy hubs in the Danish North Sea and Danish Baltic Sea. The energy hubs consist of energy islands and offshore wind farms, providing offshore energy to the Danish mainland and neighbouring countries.

The offshore part of the project in the North Sea includes the following:

- Offshore wind farm area;
- Energy island to host substation functionality;
- Subsea cables from the energy island to the offshore wind farm area;
- Subsea cables from the energy island to Denmark;
- Subsea cables from the energy island to neighbouring countries.

Following the political decision, the Danish Energy Agency has instructed Energinet Eltransmission A/S to initiate site investigations, environmental studies, and metocean studies for the main project parts mentioned above.

The planned developments are located in the Danish Sector of the North Sea, approximately 60 km off the west coast of Jutland, Denmark. Energinet Eltransmission A/S has requested Fugro to perform a geotechnical site investigation for the offshore wind farm area and the artificial island. The offshore wind farm area is located on a sand dune consisting of Holocene marine sands. The underlying stratigraphy in the top 120 m below seafloor consists of Pleistocene sediments with various thicknesses deposited during glacials and interglacials on top of Miocene marine sediments. A glacial tunnel valley crosses the investigation area.

The geotechnical site investigation and associated laboratory testing programme intend to provide geotechnical data to improve the geological and geotechnical understanding of the area, and to support the design and installation requirements for the planned artificial island and offshore wind farm area.

The site phase included seafloor in situ testing, borehole geophysical logging, geotechnical borehole drilling with downhole sampling and/or downhole in situ testing, and offshore geotechnical laboratory testing. An office programme of geotechnical laboratory testing and reporting of results followed the site phase.

This report presents geotechnical results obtained for the proposed offshore wind farm area and includes the following:

- Forty-nine geotechnical logs for 64 boreholes at 49 locations, which include results from downhole in situ testing and/or downhole sampling;
- One-hundred and fifty-seven geotechnical logs for 157 locations, which include interpreted results from seafloor cone penetration tests and seismic cone penetration tests
- Results of downhole cone penetration tests in 20 boreholes at 16 locations;

- Results of 208 seafloor cone penetration tests (of which 17 were performed as seismic cone penetration tests) at 157 locations;
- Results of seismic velocity tests performed in 12 test points at eight locations;
- Results of borehole geophysical logging performed in boreholes at eight locations;
- Results of geotechnical laboratory tests on a selection of samples.

Seafloor operations as part of the geotechnical site investigation performed for the offshore wind farm area were conducted from 'Normand Mermaid' between 26 February and 7 May 2022. Downhole operations were conducted from 'Fugro Scout', 'Gargano', and 'Highland Eagle' between 14 March and 13 June 2022. Water depths at the investigated locations range from approximately 29 m to 48 m reduced to Mean Sea Surface (DTU21MSS) height.

1. Overview

1.1 Introduction

Following a decision in the Danish Parliament in June 2020, Denmark is on the path to develop two new offshore energy hubs in the Danish North Sea and Danish Baltic Sea. The energy hubs consist of energy islands and offshore wind farms, providing offshore energy to the Danish mainland and neighbouring countries.

The offshore part of the project in the North Sea includes the following:

- Offshore wind farm area;
- Energy island to host substation functionality;
- Subsea cables from energy island to offshore wind farm area;
- Subsea cables from energy island to Denmark;
- Subsea cables from energy island to neighbouring countries.

Following the political decision, the Danish Energy Agency has instructed Energinet Eltransmission A/S to initiate site investigations, environmental studies and metocean studies for the main project parts mentioned above.

Energinet Eltransmission A/S, henceforth referred to as 'client', has requested Fugro to perform a geotechnical site investigation for the development of an offshore energy hub consisting of an artificial island and an offshore wind farm area. These planned developments are situated in the Danish Sector of the North Sea, approximately 60 km off the west coast of Jutland, Denmark.

1.2 Purpose of Report

This report presents geotechnical information in support of the development of the offshore wind farm area. The geotechnical site investigation and associated laboratory testing programme intend to provide geotechnical data to improve the geological and geotechnical understanding of the area, and to support the design and installation requirements for the offshore wind farms.

The site phase included seafloor in situ testing, borehole geophysical logging, geotechnical borehole drilling with downhole sampling and/or downhole in situ testing, and offshore geotechnical laboratory testing. An office programme of geotechnical laboratory testing and reporting of results followed the site phase.

1.3 Scope of Report

This report presents results of seafloor in situ testing, borehole geophysical logging, geotechnical borehole drilling with downhole sampling and/or downhole in situ testing, geotechnical laboratory testing and comprises the following:

- Forty-nine geotechnical logs for 64 boreholes at 49 locations, which include results from downhole sampling and/or downhole in situ testing;
- One-hundred and fifty-seven geotechnical logs for 157 locations, which include interpreted results from seafloor cone penetration tests and seismic cone penetration tests;
- Results of downhole cone penetration testing in 20 boreholes at 16 locations;
- Results of 208 seafloor cone penetration tests (of which 17 performed as seismic cone penetration tests) performed at 157 locations;
- Results of seismic velocity tests performed in 12 test points at eight locations;
- Results of borehole geophysical logging performed in boreholes at eight locations;
- Results of geotechnical laboratory tests on a selection of samples.

The term 'location' used in this report refers to a specified target location. A location can consist of single or multiple boreholes and/or test points, whereby the term 'borehole' is defined as a geotechnical borehole with associated downhole in situ testing and/or downhole sampling, and the term 'test point' as a seafloor in situ testing operation.

1.4 Report Format

Following a client request this report was split in various parts, as follows:

- Part I: Main Text, Appendix A, and Appendix I;
- Part II: Appendix B to D and Appendix F to I;
- Part III: Appendix E.1, E.2, E.4 to E.10, and Appendix I;
- Parts IV to X: Appendix E.3 (issued as seven separate volumes) and Appendix I.

Each part should be read in conjunction with the other parts.

The principal sections of this report are the Executive Summary, Main Text, and Appendix A to G. Comments are as follows:

- The Executive Summary section allows a quick-scan management overview;
- The Main Text focuses on methodology;
- Appendix B to E provide the principal information as described in Section 1.2 'Scope of Report'. These sections should be read in conjunction with Appendix A, where applicable;
- Each of the Appendix B to E start with primary information, which may consist of links to plates in Appendix B to E. Plate numbering starts with a section number, e.g. Plate B.1-1 belongs to Section B.1;
- Appendix F provides cone calibration certificates for the cone penetrometers used;

- Appendix G provides an overview of the sample material which was acquired during the geotechnical site investigation;
- Appendix H provides general practice statements and terminology. This background information supports the Main Text. It will be familiar to expert users of the type of information presented in this report;
- Appendix I provides information about report issue control.

1.5 Project Responsibilities and Use of Report

This report presents information according to a project specification determined and monitored by the client. The Main Text section titled 'Sources of Information and References' provides further details. Particularly, the client approved borehole and test point locations, sampling and in situ test depths, monitored and approved data acquisition and supplied information for geotechnical project use.

The report was prepared in accordance with contract 272583 – 21/03351 between Energinet Eltransmission A/S and Fugro Netherlands Marine B.V., dated 3 November 2021.

Read this report in its entirety. Particularly, take careful note of the document 'Use of Geodata and Advice', presented in the appendix 'Descriptions of Methods and Practices'.

Fugro understands that this report will be used for the purpose described in this Main Text section. That purpose was a significant factor in determining the scope and level of the services. Results must not be used if the purpose for which the report was prepared or the client's proposed development or activity changes. Results may possibly suit alternative use. Suitability must be verified.

2. Investigation Programme

2.1 Project-specific Data Acquisition

This report includes results from a project-specific geotechnical investigation. The client planned the investigation programme in terms of investigation quantities, target depths, and target locations. During the investigation, the programme was adjusted to suit as-found conditions and operational constraints, such as minor deviations from target locations. The scope of the report includes results of the final programme.

The site phase of the geotechnical site investigation comprised seafloor and downhole operations. Seafloor operations were conducted from 'Normand Mermaid' between 26 February and 7 May 2022. Downhole operations were conducted from 'Fugro Scout', 'Gargano', and 'Highland Eagle' between 14 March and 13 June 2022.

Acquired data and recovered samples were processed in the site laboratories. Samples were stored onboard in a temperature-controlled environment and transferred to shore for additional laboratory testing and sample storage. An in-office phase comprising a laboratory testing programme and reporting followed the site phase.

The following sub-sections provide details.

2.2 Positioning Survey and Water Depth Measurement

Boreholes and test points are displayed on Plate A-2 titled 'Detailed Location Plan Overview' in appendix titled 'Plates referenced in Main Text'. Detailed positioning of additional test points and boreholes is displayed on Plates A-3 to A-5 titled 'Detailed Location Plan' in appendix titled 'Plates referenced in Main Text'. Coordinates and water depths of boreholes and test points are presented on Plates A-17 to A-46. The coordinate reference system uses European Terrestrial Reference System (ETRS) 1989 as datum with spheroid Geodetic Reference System (GRS) 1980. The horizontal projection is Universal Transverse Mercator (UTM) with a Central Meridian of 9° east (Zone 32N), refer to Plate A-47 for details. Plates A-48 to A-50 present details on positioning and water depth measurements.

Sub-surface positioning was performed using an ultra-short baseline (USBL) system with a transponder mounted on the seabed frame.

DTU21MSS and seafloor are used as vertical reference levels for water depth measurements and geotechnical testing and sampling. Water depth measurements were performed using:

- a CTD probe (measuring conductivity, temperature, and depth), mounted on the seabed frame, applicable to 'Gargano', 'Highland Eagle', and 'Normand Mermaid';
- a pressure sensor, mounted on the seabed frame, applicable to 'Fugro Scout';

- a USBL system, with a transducer mounted on the vessel and a transponder located on the seabed frame;
- drill string by direct sounding when drilling was initiated for downhole sampling and in situ testing.

Water depths derived with the CTD probe for boreholes BH-1013, BH-1013a, and BH-1043 are not considered credible or were not derived due to technical issues and are therefore not presented.

The user of the geodetic information presented must consider the accuracy of measurements, particularly where use may differ from original intentions. For example, the presented water depth measurements serve to determine the depths below seafloor (BSF).

2.3 Drilling, Logging, Sampling and In Situ Testing

The site investigation consisted of seafloor in situ testing and geotechnical borehole drilling with downhole sampling and in situ testing:

- One-hundred and ninety-one seafloor cone penetration tests (CPTs) at 157 target locations to a target depth of 55 m BSF;
- Seventeen seafloor seismic CPTs (SCPTs) at eight locations to a target depth of 55 m BSF, of which twelve test points included seismic velocity tests (SVTs) at selected depths;
- Thirty-six boreholes at 25 target locations with downhole sampling to a target depth of 70 m BSF;
- Twenty boreholes at 16 target locations with downhole sampling followed by alternating in situ testing and (over-)sampling to a target depth of 70 m BSF;
- Eight boreholes at eight target locations with downhole sampling and borehole geophysical logging (BGL) to a target depth of 70 m BSF.

A SEACALF® 20 tons MkV Constant Drive System with Deep Drive® technology deployed from Normand Mermaid was used for seafloor in situ testing. CPTs were performed using CP15 cone penetrometers with an approximate tip area of 1500 mm^2. At test points CPT-1108b and CPT-1115d a Fugro Deepcone® penetrometer with an approximate tip area of 1500 mm^2 was used. The Fugro Deepcone® is a heavy-duty piezocone penetrometer designed to enhance penetration capacity (Deepcones are indicated with cone penetrometer identification 'CP15-CF200PB20SN2-P1E2M4-V2' in Appendix D.1.1 'Practice for Cone Penetration Tests').

SCPTs were performed using dual array seismic cone penetrometers with an approximate tip area of 1500 mm^2. The seismic source consisted of a Hydraulic Underwater Shearwave Hammer (HUSH) box, consisting of a spring-driven steel mass hammered to a steel striking plate, mounted on the seabed frame.

Borehole drilling and downhole sampling and in situ testing were performed from 'Fugro Scout', 'Gargano', and 'Highland Eagle'. The employed drilling method was open-hole rotary drilling. Pure-Bore®, bentonite, and/or water were used as drill fluid. Borehole drilling

included the use of a SEACLAM seabed frame to facilitate re-entry of the drill string in the borehole and for axial and lateral support of the drill string at seafloor.

Downhole push sampling and in situ testing employed a WIPSAMPLER and WISON® downhole tools. The sampler was fitted with flush stainless steel Shelby tubes. Downhole tools were operated and retrieved by a hydraulic-electrical umbilical system which provides real-time control of the in situ testing and sampling process. Downhole CPTs were performed using cone penetrometers with an approximate cone tip area of 1000 mm^2 (CP10).

BGL was performed using a suite of wireline-operated tools: calliper, natural gamma radiation, and P and S suspension logger.

Three locations including boreholes with downhole sampling and seafloor in situ testing located in the vicinity of the planned energy island are presented on plate A-2 title 'Detailed Location Plan Overview'. Results of these locations are presented in report 'Energy Islands – North Sea Artificial Island' (Fugro, 2023a).

Recovery depths for each borehole and test point are presented on Plates A-6 to A-16 titled 'Location Overview'. Please note that recovery depth may differ from penetration depth. Penetration depth is defined as the deepest point reached by drilling, sampling, logging, or in situ testing. Recovery depth is the deepest point for which sampling or in situ testing data is available. Penetration depths are presented on Plates A-17 to A-46 titled 'Coordinates and Water Depth'.

Total recoveries for this project phase are:

- Seafloors (S)CPTs: 4259 m;
- Borehole drilling with downhole in situ testing and/or downhole sampling: 3720 m;
- Sample material: 1619 m;
- Downhole CPTs: 499 m.

Additional boreholes or test points were required to successfully achieve target depth or to optimise recovery. Boreholes and test points designated with a suffix (e.g. BH-1010a and CPT-1008a) refer to additional operations at a specific location. An overview is presented on Plates A-6 to A-16 titled 'Location Overview' in appendix titled 'Plates referenced in Main Text'.

Boreholes BH-1027 and BH-1019a were terminated prematurely due to obstructions. In consultation with the client, it was decided to end the aforementioned boreholes at a shallower depth than the target depth and not to perform additional boreholes.

A total of 51 additional seafloor (S)CPTs were performed in order to successfully achieve target depth following early termination of the original test due to various reasons as listed on Plates A-6 to A-16 titled 'Location Overview' in appendix titled 'Plates referenced in Main Text'.

Additional boreholes or test points were positioned within 5 m distance from the target location and not closer than 3 m distance from nearby test points and/or boreholes, with the exception of borehole BH-1029 which was positioned within 3 m distance from test point CPT-1029 due to a communication error.

Refer to Appendix B titled 'Geotechnical Logs', Appendix C titled 'Results of Borehole Geophysical Logging', Appendix D titled 'Results of In Situ Test Results', and Appendix E titled 'Results of Geotechnical Laboratory Tests' for test details and results. Refer to Appendix H titled 'Descriptions of Methods and Practices' for details about methodologies and test procedures.

2.4 Sample Handling

Onsite sample handling comprised the following:

- Removal of sample tube from sampling tool;
- Measurement of sample recovery in sample tube;
- Transfer of sample tube to site laboratory;
- Where applicable: sample extrusion, sample photography, and soil description and classification;
- Laboratory testing on selected sample sections;
- Sample packaging, labelling, and storage in a temperature-controlled container onboard;
- Sample offloading and transport to the Fugro geotechnical laboratory in Wallingford (UK) and other Fugro-nominated laboratories.

For a selection of samples acquired in very soft clay material the sample tubes were sealed for extrusion and further processing in the office laboratory facilities in order to minimize sample disturbance.

Further details on sample handling are provided in Appendix E titled 'Results of Geotechnical Laboratory Tests'.

2.5 Laboratory Testing

Onsite geotechnical laboratory testing comprised (where appropriate) soil description and classification in accordance with Larsen et al. (1995), ISO 14688-1:2017, and ISO 14688-2:2017, geotechnical index, geochemical index, and strength index.

Office geotechnical laboratory testing comprised (where appropriate) soil description and classification (as part of other tests, where applicable) according to Larsen et al. (1995), ISO 14688-1:2017, and ISO 14688-2:2017, geotechnical index, geochemical index, one-dimensional consolidation, strength, thermal conductivity, sample microscopic photography, and dynamic response.

Laboratory test results are provided in Appendix E titled 'Results of Geotechnical Laboratory Tests' and summaries of selected test results are presented on the geotechnical logs in Appendix B 'Geotechnical Logs'.

2.6 Geotechnical Data Processing

Geotechnical data processing performed in the preparation of this report included:

- Preparation of geotechnical logs by interpreting CPT data;
- Preparation of geotechnical logs by interpreting and integrating geophysical data, sample descriptions, and laboratory test results, where applicable;
- Preparation of geotechnical cross-sections by interpreting and integrating geophysical and geotechnical data;
- Assessment of cone factor N_{kt} by interpreting CPT data and laboratory test data;
- Summary of (parameters derived from) CPT data and geotechnical laboratory test data;
- Evaluation, basic verification where practicable, and incorporation of selected information supplied by client.

Further details on geotechnical data processing are described in Appendix B titled 'Geotechnical Logs', Appendix C titled 'Results of Borehole Geophysical Logging', Appendix D titled 'Results of In Situ Tests, and Appendix E titled 'Results of Geotechnical Laboratory Tests', where appropriate.

3. Site Conditions

3.1 Geological Setting

The investigation area is located within a Palaeozoic and Mesozoic rift basin of the North Sea. Rifting was followed by thermal subsidence during the Cretaceous and Cenozoic. The thickness of the Cenozoic sediments in the Danish Sector of the North Sea reaches 2000 m, thinning out towards the margins of the basin, where Cretaceous and Paleogene deposits dominate. These are overlain unconformably by Quaternary sediments.

During the Late Cretaceous, a major tectonic inversion episode affected the North Sea region, associated with initiation of the Alpine Orogeny (Clausen & Huuse, 1999). Cretaceous tectonism was followed by sequential episodes of uplift and major sea level fluctuations during the Paleogene to the Neogene (Japsen et al., 2008). These events resulted in variable rates and types of sediment deposition.

From the Neogene to the Early Quaternary the depositional environment of the Danish Sector of the North Sea was deltaic, comprising the drainage area of the northwest European rivers, i.e. Eridanos River system also known as Baltic River system (Figure 3.1). Cenozoic deposits are hundreds of meters thick and expectsed to comprise coarsening upward deltaic successions of clay and sand. Over time, the depo-centre of the Eridanos River system shifted westward and during the Early Pleistocene, fluvial sediments were deposited.

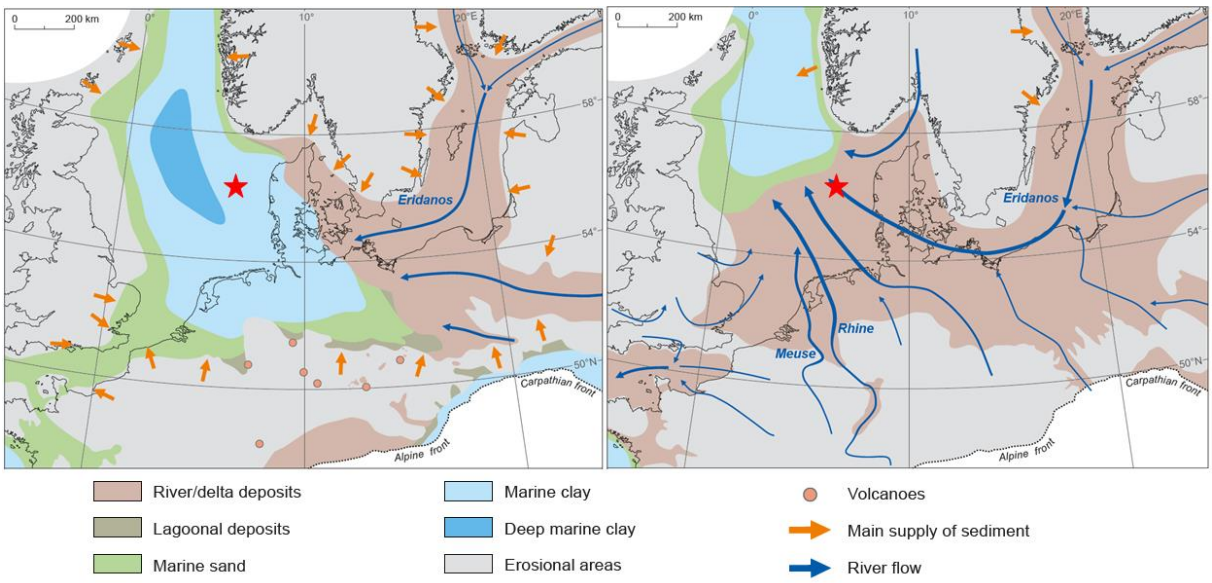

Figure 3.1: Miocene palaeogeography (left image) and Early to Middle Pleistocene palaeogeography (right image), after Gibbard & Lewin (2016). The investigation area is marked with a red star.

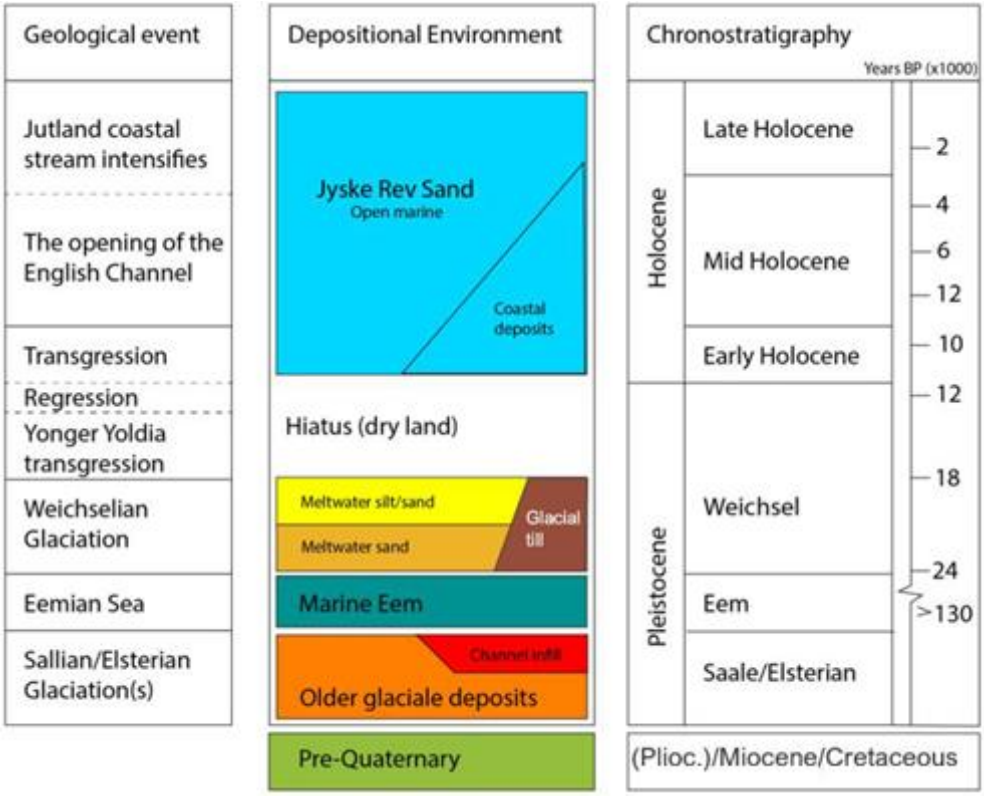

Figure 3.2: Stratigraphy in the investigation area (after GEUS & Orbicon (2010); Ramboll, (2021)).

During the Middle to the Late Pleistocene the investigation area was under the influence of a series of glaciations separated by interglacial periods (Gatliff et al., 1994) (Figure 3.2). The repeated advance and retreat of ice sheets resulted in accumulation of complex sequences of subglacial, fluvioglacial, glaciolacustrine, and marine sediments, which were further modified by periglacial activity and marine reworking. The Pre-Pleistocene and the Early Pleistocene sediments were glacio-tectonically deformed during the glaciations (Huuse & Lykke-Andersen, 2000a, 2000b; Larsen & Andersen, 2005).

During the Elsterian and the Saalian glacial periods, ice sheets covered the entire investigation area. The advancing ice sheets eroded sediments, creating deep glacial valleys, which cut up to 350 m into older deposits and are up to several tens of kilometres long. The complex infill of these glacial valleys comprises sand, clay, and locally glacial till (Andersen, 2004; Novak & Duarte, 2018).

The glaciations were separated by warmer interglacial periods during which glaciers melted and retreated. Interglacial deposits are locally preserved and consist of Holsteinian and Eemian marine sand and clay (Larsen & Andersen, 2005; GEUS & Orbicon, 2010; Ramboll, 2021).

During the Weichselian glacial period, the southern margin of the icesheet was located within the investigation area (Huuse & Lykke-Andersen, 2000b), approximately just north of the energy island area (Fugro, 2023a). As a result, glacial till and glacio-tectonic deformation may

be expected, whereas towards the south outwash plain deposits may be expected (GEUS & Orbicon, 2010; Ramboll, 2021).

During the Late Weichselian to the Early Holocene, after the end of the Last Glacial Maximum, marine transgression commenced and deposition in fluvial and estuarine environments prevailed in the investigation area (Leth, 1996; Larsen & Andersen, 2005; Jensen et al., 2008).

During the Holocene, the investigation area was inundated due to rapid sea level rise and marine sands were deposited. A curved sand bank consisting of Holocene marine sands is present in the investigation area (Fugro, 2023b).

3.2 Stratigraphy

The geotechnical data presented in this report were aligned with the (seismo)stratigraphic units as interpreted by MMT (2022) for the eastern part of the investigation area (i.e. 'OWF (offshore wind farm) Zone East') and interpreted by Fugro (2022) for the western part of the investigation area (i.e. 'OWF Zone West'). These interpretations have been aligned in the integration report by Fugro (2023b).

A schematic overview of the (seismo)stratigraphic units is presented in Figure 3.3. Refer to Fugro (2023b) for distribution of the (seismo)stratigraphic units. Unit U20 is locally a fluvial channel fill. Units U40 and U70 represent glacial valley fills. Internal horizon H69 of unit U70 marks the actual position of the glacial valley. Unit U70 outside the extent of horizon H69 is rather deformed strata (Unit KSA as interpreted by (MMT, 2022)). Unit U50 has only been interpreted in the northern part of 'OWF Zone East' (MMT, 2022).

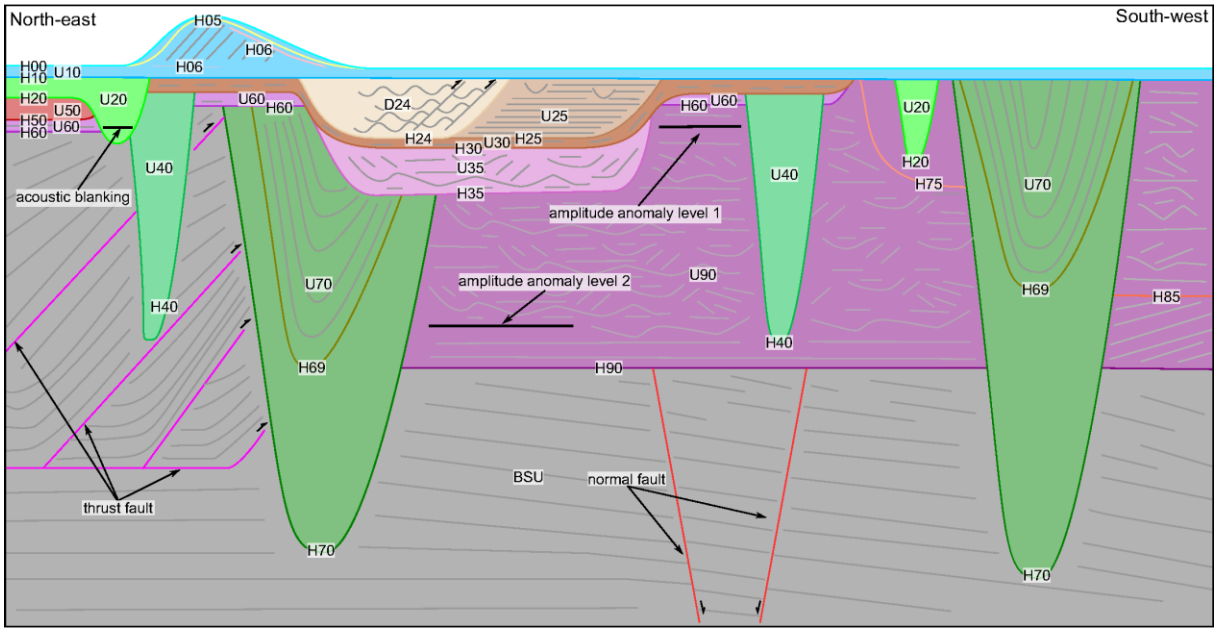

Figure 3.3: Schematic overview of (seismo)stratigraphic units (Fugro, 2023b)

Twelve (seismo)stratigraphic units were identified in the offshore wind farm area (Fugro, 2023b). Unit D24 has only been interpreted in 'OWF Zone West' (Fugro, 2022) and unit U25

has only been interpreted in 'OWF Zone East' (MMT, 2022). The lithology of unit D24 is similar to unit U25, where D24 mainly represents the deformed equivalent of unit U25 (Fugro, 2023b). Units D24 and U25 are therefore regarded as the same unit.

Table 3.1 presents the stratigraphy in the investigation area. The presented depths of the identified units and the description of the units are based on several criteria, including composition, geotechnical properties, and soil behaviour as determined by and derived from results from laboratory testing and in situ testing.

Cross-sections presented on Plates A-51 to A-57 schematically illustrate the stratigraphy and the general spatial variability of the units. For locations with (multiple) boreholes and/or test points, a single geotechnical log has been compiled for inclusion in the cross-sections. The reference level (elevation) of data presented in the geotechnical logs included in the cross-sections refers to the water depth of the dominant investigation location (borehole or test point), similar to the approach followed for geotechnical logs on Plates B.1-1 to B.1-145 and Plates B.2-1 to B.2-254.

Differences in unit depths identified from geotechnical data and depths of corresponding (seismo)stratigraphic units may apply. Typically, these differences increase with increasing depth and may locally be up to approximately 3 m. The differences are attributed to:

- Generation of grids of the seismic unit boundaries;
- Offset of the geotechnical locations from the geophysical lines;
- Conversion of (geophysical) data to DTU21MSS (i.e. time-depth conversion); the effects of time-depth conversion increase with depth below DTU21MSS;
- Depth uncertainty for geotechnical data, as explained on Plate A-48 to Plate A-50 titled 'Practice for Positioning Survey and Depth Measurement';
- Differences in subsurface interpretation in 'OWF Zone West' (Fugro, 2022) and 'OWF Zone East' (MMT, 2022);
- Integration methodology (Fugro, 2023b).

Depositional environments and geological ages have been assigned to each unit, according to Larsen et al. (1995). It is based on the geotechnical ground properties, the stratigraphic position, and interpretative information provided in Fugro (2023b). It should be noted that the interpretation of depositional environments and age is only indicative and should be used with caution. Detailed sedimentary logging of soil samples and targeted geological dating analyses should be performed to provide more definite indications of depositional environment and geological ages.

The units and the corresponding environments and geological ages are included on the geotechnical logs in appendix B.1 titled 'Geotechnical Logs'. The base of the units was picked primarily based on sample descriptions and laboratory test results. Within intervals where no samples were available, the base of the unit is based on CPT data. Where CPT data were inconclusive, the top of the closest soil sample below the reflector was used.

Regarding the interpretation of depositional environments and ages, the following should be considered:

- Units U10 and U20 are interpreted to be of Holocene age, deposited after the Last Glacial Maximum, Postglacial according to Larsen et al. (1995);
- The remaining units are interpreted to be of Pleistocene age, according to Larsen et al. (1995) assigned ages are either Interglacial or Glacial;
- Units U40 and U70 are the only units that are interpreted as comprising layers deposited during glacial and interglacial times and, hence, in various environments, i.e. glacier, meltwater, and freshwater deposits;
- Term 'meltwater' describes variable deposits ranging from well sorted fluvial sediments to less sorted (unsorted to moderately sorted) outwash plain sediments, deposited proximal to a source (glacier) typically in high-energy conditions;
- Term 'freshwater' describes typically laminated sediments deposited in a lacustrine or restricted basin, a low-energy setting.

Table 3.1: Stratigraphy in investigation area

Unit	Depth to Base of Unit [m BSF]	Strata Description	Depositional Environment	Geological Age
U10	0 to 19.3	SAND, fine to medium, poorly to well sorted, slightly silty to silty, with rare shell fragments, with rare organic matter Locally CLAY, low plasticity, sandy, silty	Marine (Ma) deposit	Postglacial (Pg)
U20	1.2 to 44.8	SAND, fine to coarse, poorly sorted to sorted, slightly gravelly, slightly silty to silty CLAY, medium to high plasticity, sandy	Meltwater (Mw) deposit	Postglacial (Pg)
D24/U25	0.2 to 28.4	CLAY, low to medium plasticity, silty to very silty, with locally extremely closely spaced thin laminae of silt	Freshwater (Fw) to Meltwater (Mw) deposit	Interglacial (Ig)
U30	1.6 to 40.8	SAND, fine to medium, poorly sorted to sorted, slightly silty to silty	Meltwater (Mw) to Marine (Ma) deposit	Interglacial (Ig)
U35	8.1 to 48.5	SAND, fine to coarse, poorly sorted to well sorted, slightly silty to silty, slightly gravelly to gravelly, with rare to occasional shell fragments Locally GRAVEL and STONES	Meltwater (Mw) deposit	Interglacial (Ig)
U40	4.4 to 70.5	SAND, fine to medium, poorly sorted to sorted, locally slightly gravelly to gravelly, slightly silty to silty, with rare organic matter CLAY, medium plasticity, locally gravelly, silty	Glacier (Gl), Meltwater (Mw), Freshwater (Fw) deposit	Glacial (Gc) and Interglacial (Ig)
U50	3.0 to 18.2	CLAY, medium to high plasticity, slightly sandy, silty SAND, fine to medium, sorted, slightly silty to silty	Freshwater (Fw) to Marine (Ma) deposit	Interglacial (Ig)

Unit	Depth to Base of Unit [m BSF]	Strata Description	Depositional Environment	Geological Age
U60	6.3 to 61.6	SAND, fine to medium, sorted, slightly gravelly to gravelly, slightly silty to silty	Meltwater (Mw) deposit	Interglacial (Ig)
U70	20.0 to 71.5	CLAY, medium to high plasticity, silty, occasionally with closely spaced thin to thick laminae of fine sand and silt; locally fissured SAND, fine to coarse, poorly sorted to sorted, slightly gravelly, slightly silty to silty Locally GRAVEL and STONES	Glacier (Gl), Meltwater (Mw), Freshwater (Fw) deposit	Glacial (Gc) and Interglacial (Ig)
U90	20.3 to 70.3	SAND, fine to medium, poorly sorted to well sorted, slightly silty to silty, locally slightly gravelly to gravelly	Meltwater (Mw) to Marine (Ma) deposit	Interglacial (Ig)
BSU	BPD	SAND, fine to medium, poorly sorted to sorted, silty to very silty, with locally extremely closely spaced thin laminae to thin beds of clay CLAY, medium to high plasticity, silty, sandy to very sandy, with locally extremely closely spaced thin laminae to thin beds of silt and fine sand	Marine (Ma) deposit	Miocene (Mi)

Notes:
Unit U70 incorporates both Unit U70 and Unit KSA (Kinematic Seismostratigraphic Unit A) as interpreted by MMT (2022)
BSU = base seismic unit
BSF = below seafloor
BPD = below penetration depth
'Depths to Base of Unit' values are based on geotechnical boundaries from borehole and CPT locations
Information is presented for depth range of interest and/or as investigated
'Depositional Environment' and 'Geological Age' according to Larsen et al. (1995)

3.3 Geotechnical Characteristics

3.3.1 Geotechnical Laboratory Test Results

Geotechnical laboratory test results presented in appendix titled 'Results of Geotechnical Laboratory Tests' are summarised per unit and presented on Plates A-58 to A-61 titled 'Summary of Geotechnical Laboratory Test Results'. Where there are multiple test results listed for a given unit, the minimum measured value, the maximum measured value, the average value, and the number of tests is presented. Where there is only one test result for a given unit, only the average value and the number of tests are presented.

Units and soil types are presented in Table 3.1. Unit boundaries are defined in each borehole based primarily on sampling data. All laboratory test results are grouped per corresponding unit and soil type based on geotechnical log strata descriptions of the material on which the tests are performed.

For a selection of units presented in Table 3.1 the strata description indicates two main soil types within the specific unit. For these units, Plates A-58 to A-61 present the minimum measured value, the maximum measured value, the average value, and the number of tests for each main soil type within the unit.

Values presented on plates A-58 to A-61 may not be characteristic for a soil unit, or subdivision within a soil unit, but cannot be distinguished to be included in separate subdivisions. For example, Atterberg limits assigned to sand unit U20 (SAND) were assigned to clay beds within the predominantly sand portion of this unit U20. Further, loss on ignition analyses were assigned on identified peat horizons. Consequently, loss on ignition values are not necessarily representing organic content of the whole unit.

3.3.2 Geotechnical Parameters derived from In Situ Test Data

Geotechnical characteristics based on (S)CPT data are presented on Plates A-62to A-65 titled 'Summary of Parameters derived from In Situ Test Data' providing relative density (D_r), undrained shear strength (s_u), effective angle of internal friction (φ'), shear wave velocity (v_s), and small strain shear modulus (G_{max}). Refer to section titled 'Practice for Geotechnical Log' presented in appendix titled 'Geotechnical Logs – CPT Interpreted' and section titled 'Practice for Seismic Cone Penetration Test' in appendix titled 'Results of Seismic Cone Penetration Testing' for more information on methods used for the derivation of these geotechnical parameters.

Unit boundaries were defined for each in situ test point and borehole including downhole in situ testing. Soil classification for CPT data is based on soil behaviour type identification according to Robertson (2009). Refer to document titled 'Geotechnical Parameter Values' in appendix titled 'Descriptions of Methods and Practices' for more information.

Geotechnical parameters derived from CPT data are presented based on the following soil behaviour type index I_c intervals per unit:

- coarse-grained, frictional soil behaviour: $I_c < 2.05$;
- intermediate, transitional soil behaviour: $2.05 < I_c < 2.60$;
- fine-grained, cohesive soil behaviour: $I_c > 2.60$.

A minimum, a maximum, and an average value is presented per soil behaviour type index interval and per unit. No seismic velocity tests were performed in unit BSU.

For intermediate, transitional soil ($2.05 < I_c < 2.60$) the values presented on Plates A-62 to A-65 may be considered 'theoretical' values not necessarily representative of in situ ground conditions. These values, in particular the minimum and maximum values presented, should be used with caution.

3.3.3 Cone Factor Analysis

Plate A-66 presents s_u derived from geotechnical laboratory test results versus net cone resistance (q_n) for an assessment of cone factor N_{kt}. Undrained shear strength was derived

from maximum deviator stress reached during unconsolidated undrained (UU) triaxial and (an)isotropically consolidated undrained (CAUc/CIUc) triaxial tests.

Triaxial tests performed on samples for which no seafloor and/or downhole CPT data were available were not considered in this analysis. Additionally, a selection of triaxial test results were omitted. Refer to section 'Comments on Results' in appendix titled 'Results of Triaxial Tests' for details on omitting the following tests:

- UU triaxial test performed on sample 06WaxA (4.70 m BSF) from borehole BH-1010;
- UU triaxial test performed on sample 03WaxD (2.45 m BSF) from borehole BH-1014;
- UU triaxial test performed on sample 02WaxB (1.40 m BSF) from borehole BH-1028;
- UU triaxial test performed on sample 06WaxB (5.15 m BSF) from borehole BH1028;
- CAUc triaxial test performed on sample 02WaxC (1.30 m BSF) from borehole BH-1049.

4. Sources of Information and References

4.1 Client-supplied Information

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- MMT. (2021), *Geophysical Survey Report for Offshore Wind Farms and Energy Island, North Sea*, Draft, 13 December 2021.

4.2 Fugro Information

This report uses and summarises Fugro-held information:

- Information about regional geology;
- General geotechnical data.

4.3 References in Main Text

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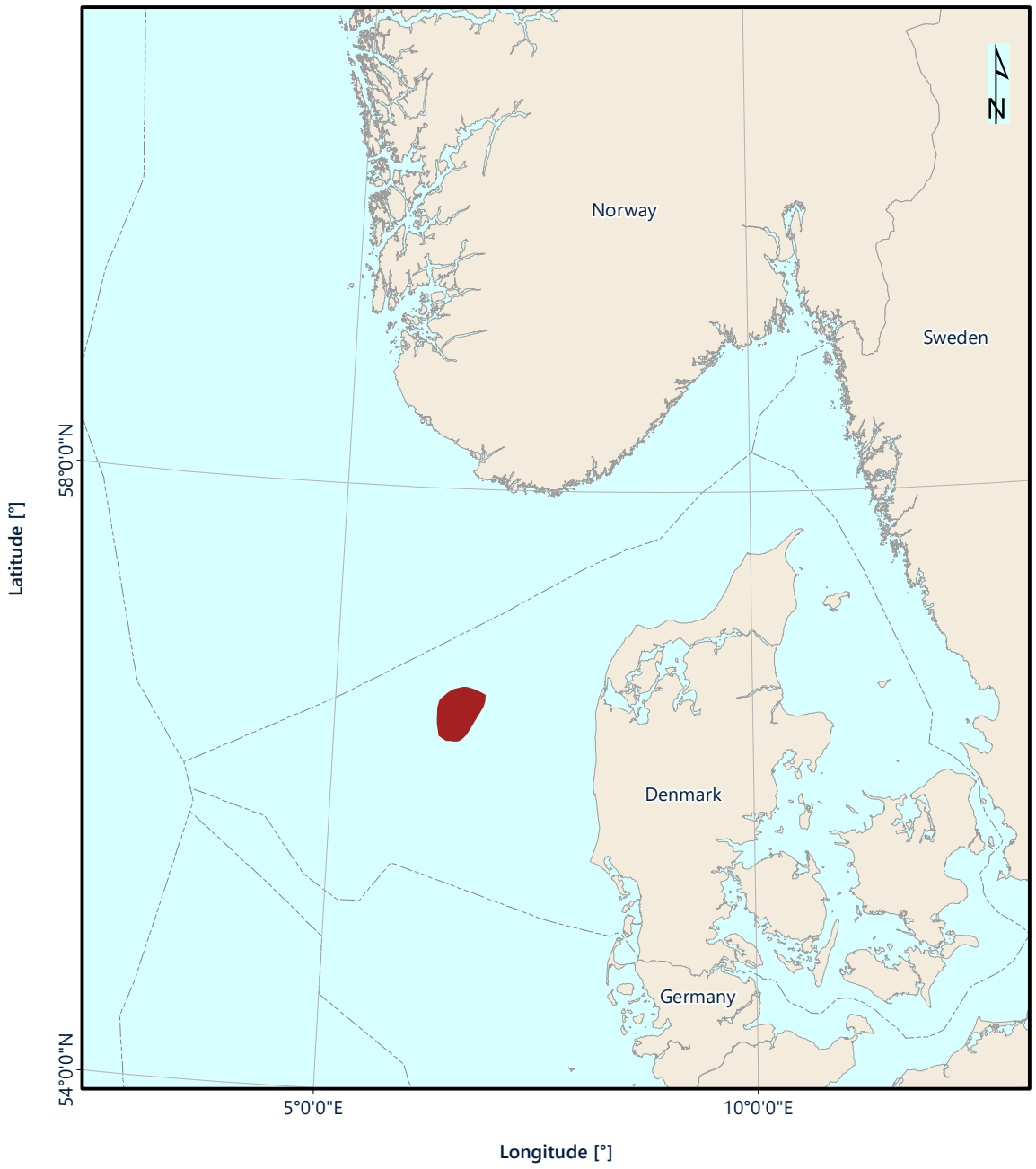
Appendix A

Plates referenced in Main Text

Contents Appendix A: Plates referenced in Main Text

List of Plates



Investigation Area
Maritime Boundary

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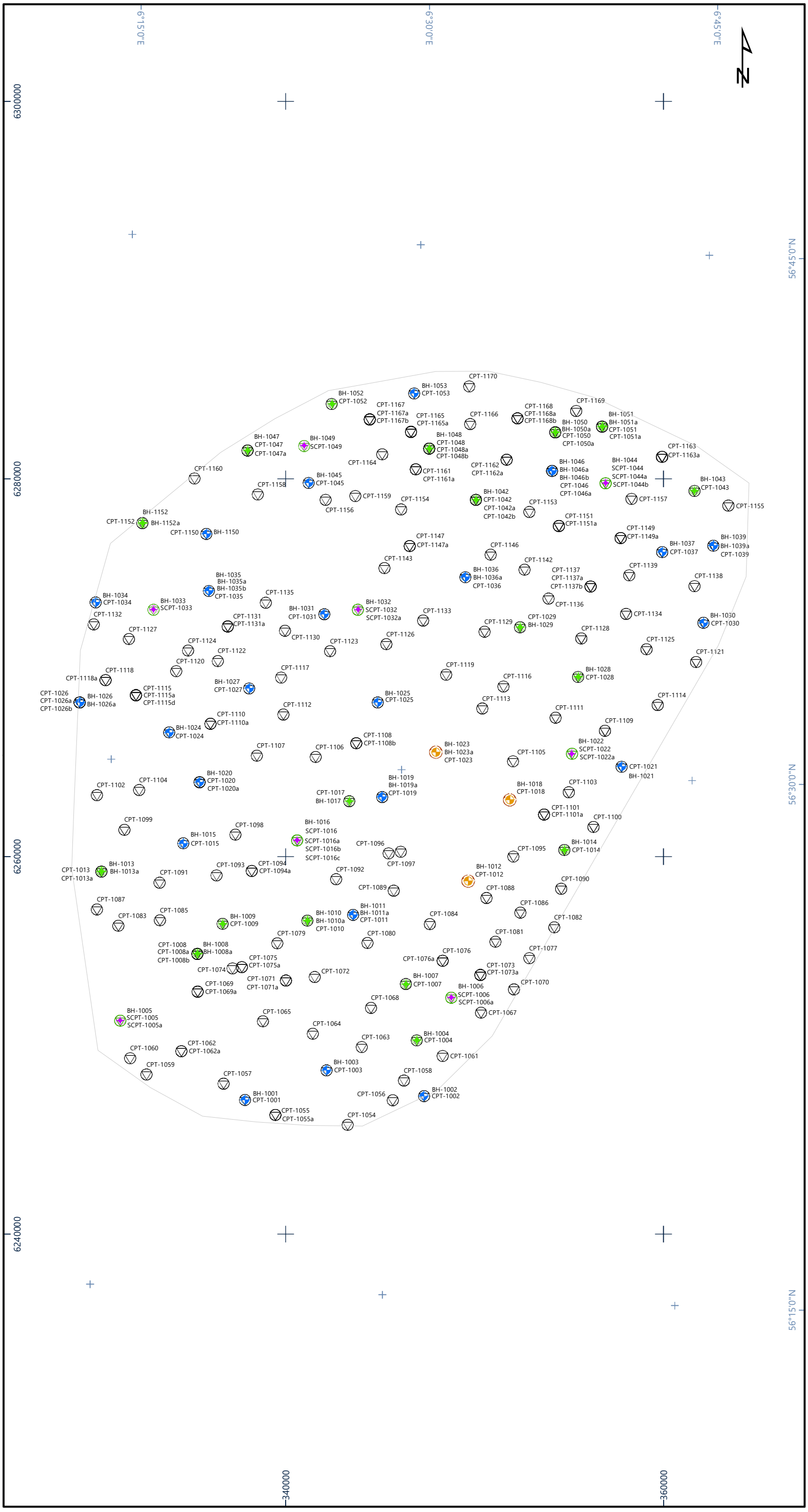

LEGEND

- Geotechnical borehole drilling - Downhole sampling
- Geotechnical borehole drilling - Downhole sampling and borehole geophysical logging
- Geotechnical borehole drilling - Downhole sampling and in situ testing
- Seafloor in situ testing - Cone penetration test
- Seafloor in situ testing - Seismic cone penetration test
- Geotechnical borehole drilling - Downhole sampling (Lot 1)
- Seafloor in situ testing - Cone penetration test (Lot 1)
- Investigation Area

GEODETIC PARAMETERS

GEODETIC DATUM	European Terrestrial Reference System 1989
ELLIPSOID	Geodetic Reference System 1980
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Latitude of Origin	00°00'00" N
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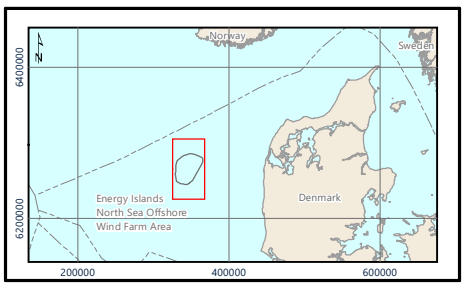

Detailed Location Plan Overview

Energy Islands - North Sea Offshore Wind Farm Area
Danish Sector, North Sea

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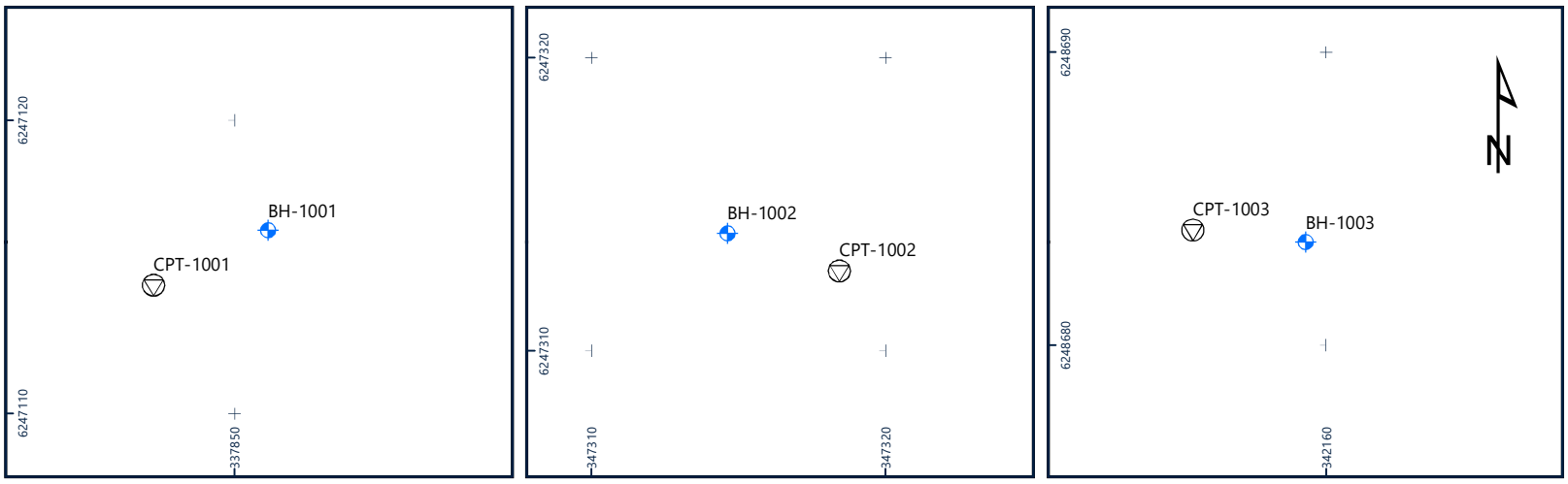

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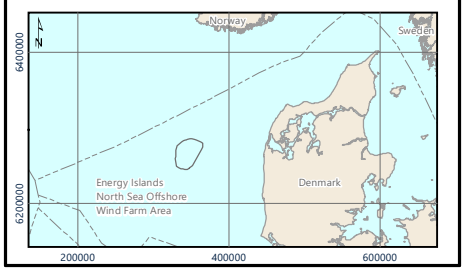

Detailed Location Plan

Energy Islands - North Sea Offshore Wind Farm Area
Danish Sector, North Sea

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LEGEND

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GEODETIC PARAMETERS

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ELLIPSOID	Geodetic Reference System 1980
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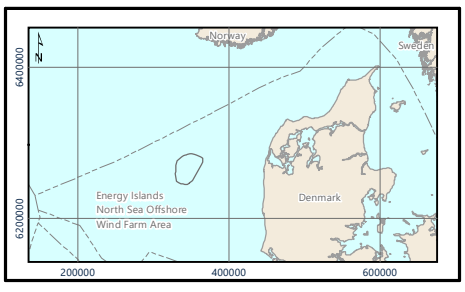

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Energy Islands - North Sea Offshore Wind Farm Area
Danish Sector, North Sea

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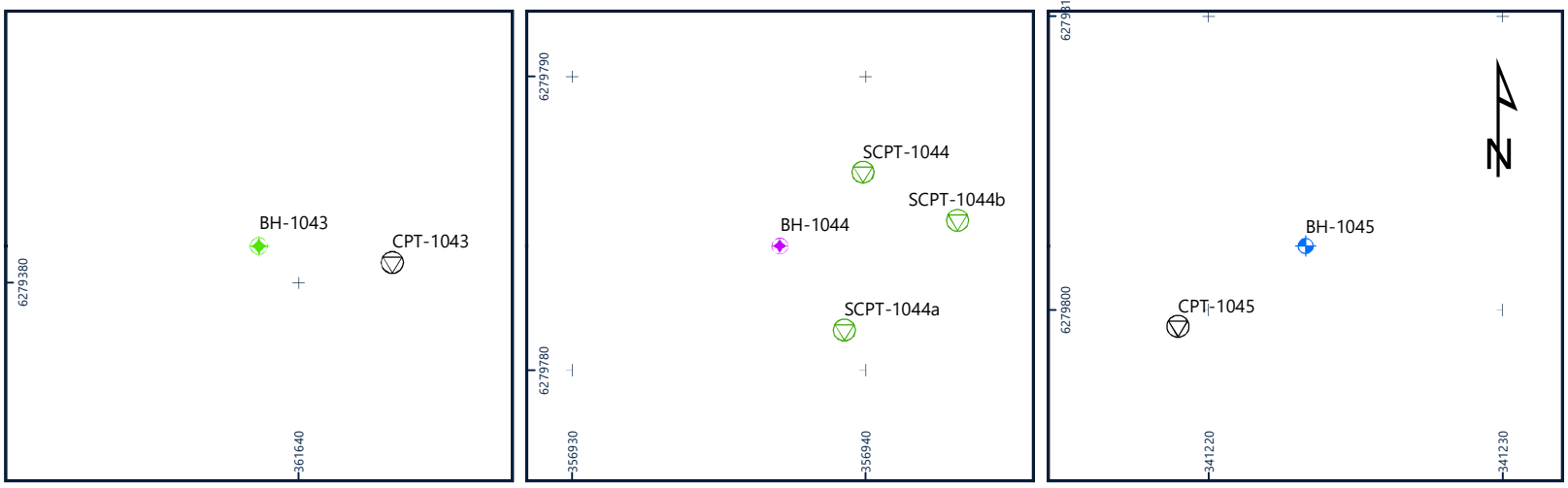

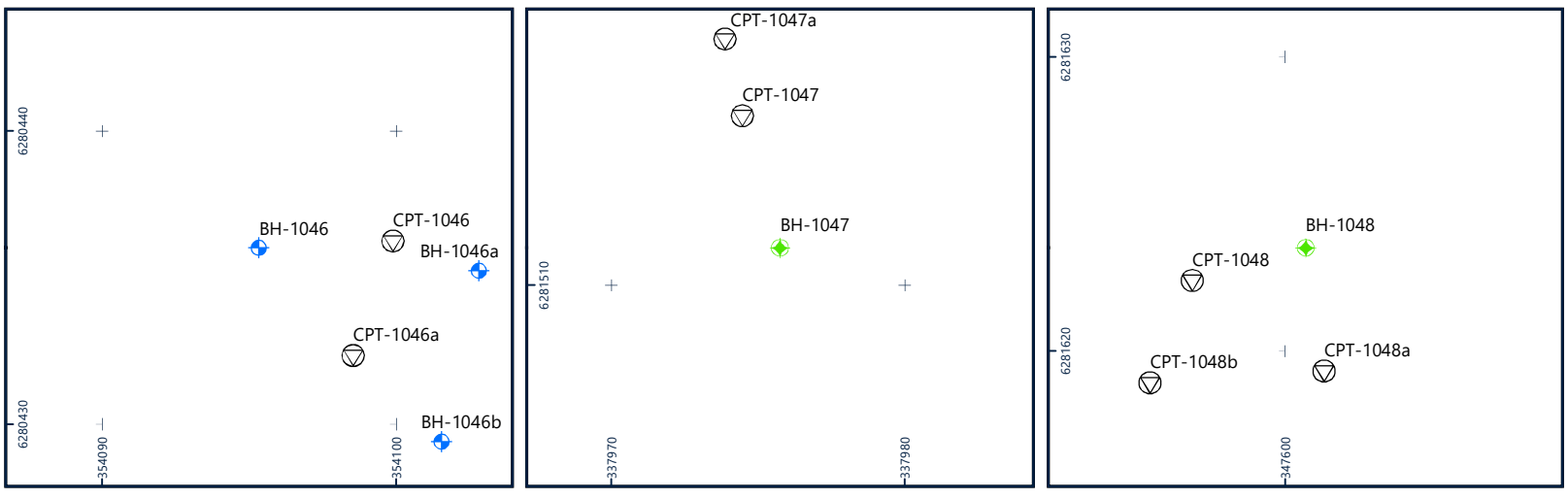

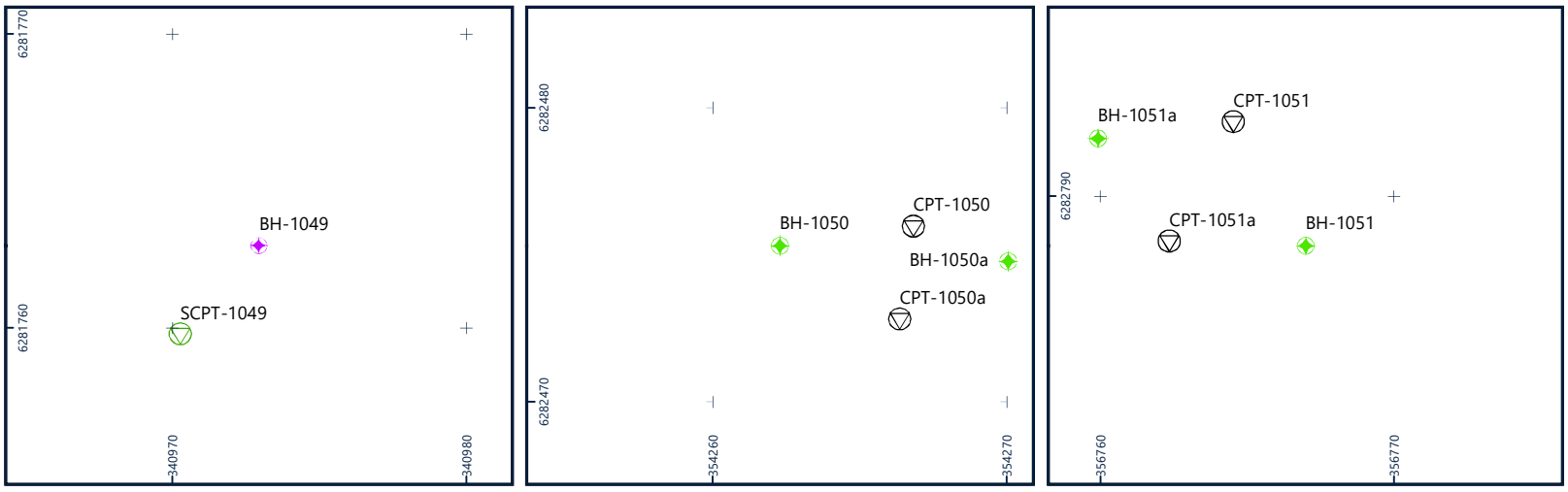

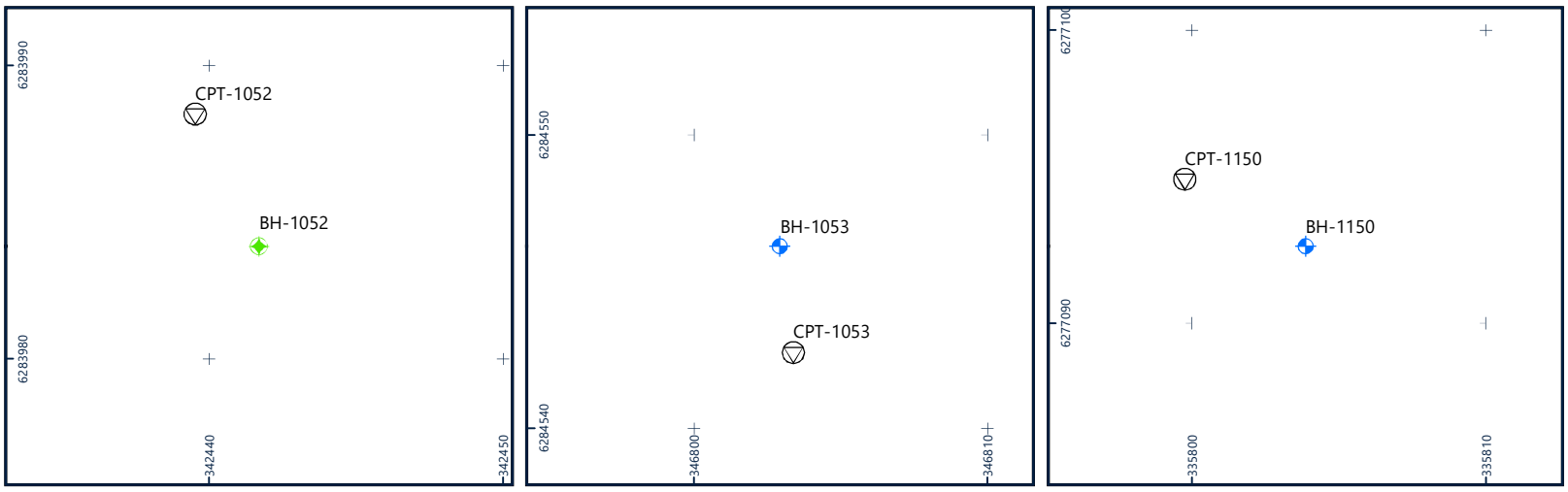

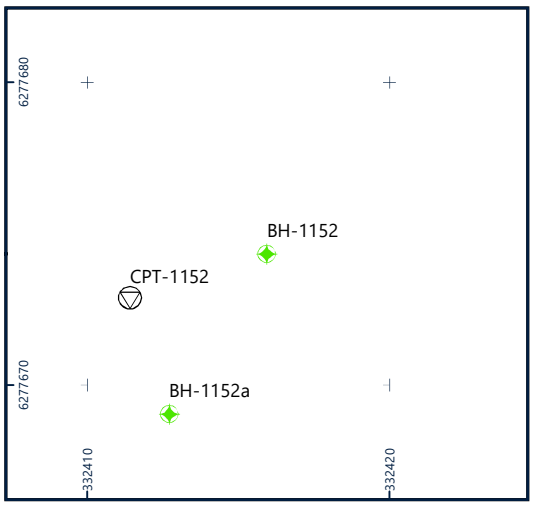

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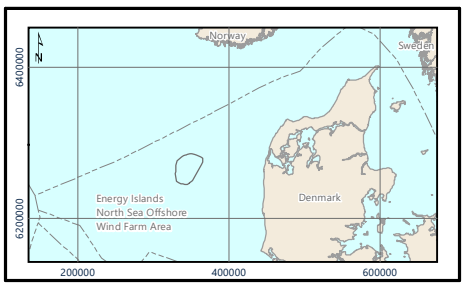

Detailed Location Plan

Energy Islands - North Sea Offshore Wind Farm Area
Danish Sector, North Sea

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Fugro Document No. F191074/02 | 03 | Plate A-5

Borehole	Recovery Depth [m BSF]	Drill-out [m BSF]	Sample Recovery [m]	In Situ Test Recovery [m]	Number of Oversamples	Remarks
BH-1001	70,2	-	30,0	-	-	
BH-1002	70,4	-	25,4	-	-	
BH-1003	70,3	-	31,0	-	-	
BH-1004	71,5	-	23,7	44,1	11	
BH-1005	69,3	-	31,8	-	-	
BH-1006	69,5	-	26,1	-	-	
BH-1007	70,9	-	24,9	26,4	8	
BH-1008	0,0	-	-	-	-	Aborted due to obstructions
BH-1008a	70,2	-	26,8	30,8	7	
BH-1009	70,2	-	22,3	31,6	12	
BH-1010	48,1	-	28,9	20,3	9	Aborted due to adverse weather conditions
BH-1010a	70,1	47,0	4,8	10,0	1	
BH-1011	70,1	-	33,6	-	-	Data gap of 2.5 m was present in the sampling process due to obstacles
BH-1011a	22,3	19,5	1,3	-	-	Additional borehole added to acquire samples between 19.5 m and 22.0 m BSF to recover data gap in BH-1011
BH-1013	0,1	-	0,1	-	-	Aborted due to malfunction of the sampling tool and drilling equipment
BH-1013a	70,2	-	16,9	41,1	14	
BH-1014	70,3	-	30,3	-	-	
BH-1015	70,2	-	36,3	-	-	
BH-1016	69,3	-	31,3	-	-	
BH-1017	69,8	-	20,7	32,0	13	
BH-1019	4,6	-	2,9	-	-	Aborted due to adverse weather conditions
BH-1019a	64,2	2,0	35,5	-	-	Aborted due to obstructions
BH-1020	70,9	-	42,7	-	-	
BH-1021	70,3	-	37,8	-	-	
BH-1022	69,6	-	41,5	-	-	
BH-1024	70,2	-	49,6	-	-	
BH-1025	70,2	-	47,2	-	-	
BH-1026	10,5	-	4,4	-	-	Aborted due to obstructions
BH-1026a	70,2	5,5	37,7	-	-	
BH-1027	65,0	-	40,3	-	-	Aborted due to obstructions
BH-1028	71,5	-	29,8	29,5	13	
BH-1029	70,0	-	30,6	21,0	13	

Notes:
BSF = Below seafloor

Location Overview

Borehole	Recovery Depth [m BSF]	Drill-out [m BSF]	Sample Recovery [m]	In Situ Test Recovery [m]	Number of Oversamples	Remarks
BH-1030	69,5	-	38,6	-	-	
BH-1031	69,5	-	43,8	-	-	
BH-1032	70,3	-	40,5	-	-	
BH-1033	69,2	-	21,5	-	-	
BH-1034	69,7	-	33,1	-	-	
BH-1035	18,3	-	13,1	-	-	Aborted due to adverse weather conditions
BH-1035a	21,5	1,0	1,5	-	-	Aborted due to obstructions
BH-1035b	70,3	17,0	23,9	-	-	
BH-1036	16,6	-	10,0	-	-	Aborted due to adverse weather conditions
BH-1036a	69,5	16,0	35,3	-	-	
BH-1037	70,1	-	32,1	-	-	
BH-1039	30,1	-	16,0	-	-	Borehole collapsed
BH-1039a	69,8	-	14,3	-	-	
BH-1042	70,0	-	22,0	42,9	21	
BH-1043	69,3	-	36,1	-	-	
BH-1044	70,0	-	28,7	-	-	
BH-1045	70,3	-	50,3	-	-	
BH-1046	41,4	-	24,4	-	-	Aborted due to obstructions
BH-1046a	45,2	41,0	2,6	-	-	Aborted due to adverse weather conditions
BH-1046b	69,2	45,0	14,2	-	-	
BH-1047	70,0	-	30,3	33,2	23	
BH-1048	71,0	-	23,2	29,5	16	
BH-1049	70,5	-	32,2	-	-	
BH-1050	35,6	-	10,8	15,5	14	Aborted due to obstructions
BH-1050a	68,6	35,0	5,3	18,7	6	
BH-1051	18,4	-	9,3	7,2	4	Aborted due to adverse weather conditions
BH-1051a	70,8	15,0	16,4	17,9	20	
BH-1052	69,5	-	36,9	11,9	-	
BH-1053	69,8	-	37,6	-	-	
BH-1150	70,1	-	45,8	-	-	
BH-1152	26,3	-	13,9	8,3	4	Aborted due to adverse weather conditions
BH-1152a	69,8	26,0	11,0	27,3	4	

Notes:
BSF = Below seafloor

Location Overview

Test Point	Recovery Depth [m BSF]	Settlement Gauge Reading [m BSF]	Corrected Start Depth [m BSF]	Stop Criteria	Remarks
CPT-1001	34.9	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1002	14.4	0.00	-	B	
CPT-1003	17.4	0.00	-	D	
CPT-1004	13.9	0.00	-	B	
SCPT-1005	18.7	0.00	-	B	
SCPT-1005a	15.6	0.00	-	B	
SCPT-1006	10.2	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
SCPT-1006a	10.3	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1007	17.2	0.02	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1008	7.2	0.00	-	G	Equipment malfunction
CPT-1008a	18.6	0.00	-	G	Equipment malfunction
CPT-1008b	14.9	0.00	-	B	
CPT-1009	14.8	0.00	-	B	
CPT-1010	11.9	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1011	10.9	0.00	-	B	
CPT-1013	10.1	0.00	-	B	
CPT-1013a	10.0	0.00	-	B	
CPT-1014	14.2	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1015	17.5	0.01	-	B	
SCPT-1016	21.2	0.00	-	G	Equipment malfunction
SCPT-1016a	5.0	0.00	-	G	Stopped on operator's discretion due to suspected obstacle
SCPT-1016b	16.1	0.00	-	E	

Notes:

BSF = Below seafloor

Stop Criteria:

A = Target penetration depth reached

B = Cone tip load is 100 % of the cone tip capacity

C = Sleeve friction is more than 15 % of the cone tip capacity or 1.5 MPa

D = Total thrust equals nominal reaction provided

E = Rod deviation between the tip and seafloor value is greater than 15°

F = Rod deviation is greater than 3° over a length of penetration of 1 m or less

G = Discretion of equipment operator. For example safety of personnel, risk of damage to apparatus, or determined by software algorithms. Remark provided.

Refer to appendix titled 'Results of In Situ Tests' for details regarding CPT termination criteria, seabed frame settlement and corrected start depth.

Location Overview

Test Point	Recovery Depth [m BSF]	Settlement Gauge Reading [m BSF]	Corrected Start Depth [m BSF]	Stop Criteria	Remarks
SCPT-1016c	29.0	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1017	13.4	0.47	0.47	B	
CPT-1019	37.0	0.00	-	D	
CPT-1020	17.5	0.00	-	B	
CPT-1020a	23.3	0.00	-	B	
CPT-1021	34.0	0.00	-	D	
SCPT-1022	10.3	0.01	-	G	Test terminated to avoid rod buckling and possible equipment damage
SCPT-1022a	53.3	0.11	0.11	A	
CPT-1024	24.4	0.00	-	B	
CPT-1025	25.5	0.01	-	B	
CPT-1026	18.6	0.00	-	G	Equipment malfunction
CPT-1026a	10.3	0.00	-	G	Equipment malfunction
CPT-1026b	32.1	Not recorded	-	B	
CPT-1027	36.3	0.00	-	B	
CPT-1028	14.4	0.01	-	D	
CPT-1029	29.8	0.00	-	B	
CPT-1030	17.5	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1031	34.8	0.00	-	B	
SCPT-1032	23.1	0.00	-	G	Equipment malfunction
SCPT-1032a	51.9	0.02	-	A	
SCPT-1033	17.4	0.01	-	B	
CPT-1034	34.9	0.00	-	D	
CPT-1035	28.6	0.00	-	D	
CPT-1036	42.1	0.00	-	F	
CPT-1037	26.6	0.21	0.21	B	
CPT-1039	20.9	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1042	3.5	0.00	-	G	Equipment malfunction

BSF = Below seafloor

Stop Criteria:

A = Target penetration depth reached

B = Cone tip load is 100 % of the cone tip capacity

C = Sleeve friction is more than 15 % of the cone tip capacity or 1.5 MPa

D = Total thrust equals nominal reaction provided

E = Rod deviation between the tip and seafloor value is greater than 15°

F = Rod deviation is greater than 3° over a length of penetration of 1 m or less

G = Discretion of equipment operator. For example safety of personnel, risk of damage to apparatus, or determined by software algorithms. Remark provided.

Refer to appendix titled 'Results of In Situ Tests' for details regarding CPT termination criteria, seabed frame settlement and corrected start depth.

Location Overview

Test Point	Recovery Depth [m BSF]	Settlement Gauge Reading [m BSF]	Corrected Start Depth [m BSF]	Stop Criteria	Remarks
CPT-1042a	3.5	0.00	-	B	
CPT-1042b	3.6	0.00	-	G	Stopped on operator's discretion due to sharp rise on cone tip resistance
CPT-1043	16.0	0.00	-	D	
SCPT-1044	6.7	0.00	-	B	
SCPT-1044a	7.0	0.00	-	B	
SCPT-1044b	6.7	0.00	-	B	
CPT-1045	51.5	0.02	-	A	
CPT-1046	6.1	0.00	-	B	
CPT-1046a	25.8	0.00	-	B	
CPT-1047	4.3	0.00	-	B	
CPT-1047a	4.4	0.00	-	B	
CPT-1048	6.8	0.00	-	B	
CPT-1048a	7.6	0.00	-	G	Equipment malfunction
CPT-1048b	10.6	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
SCPT-1049	36.9	0.00	-	B	
CPT-1050	6.2	0.00	-	B	
CPT-1050a	6.1	0.00	-	B	
CPT-1051	5.9	0.00	-	B	
CPT-1051a	6.1	0.00	-	B	
CPT-1052	52.3	0.00	-	A	
CPT-1053	13.1	0.00	-	D	
CPT-1054	42.9	0.00	-	E	
CPT-1055	8.6	0.02	-	B	
CPT-1055a	13.2	0.00	-	B	
CPT-1056	21.4	0.00	-	B	
CPT-1057	50.9	0.00	-	A	
CPT-1058	11.8	0.00	-	B	
CPT-1059	38.4	0.00	-	E	

Notes:

BSF = Below seafloor

Stop Criteria:

A = Target penetration depth reached

B = Cone tip load is 100 % of the cone tip capacity

C = Sleeve friction is more than 15 % of the cone tip capacity or 1.5 MPa

D = Total thrust equals nominal reaction provided

E = Rod deviation between the tip and seafloor value is greater than 15°

F = Rod deviation is greater than 3° over a length of penetration of 1 m or less

G = Discretion of equipment operator. For example safety of personnel, risk of damage to apparatus, or determined by software algorithms. Remark provided.

Refer to appendix titled 'Results of In Situ Tests' for details regarding CPT termination criteria, seabed frame settlement and corrected start depth.

Location Overview

Test Point	Recovery Depth [m BSF]	Settlement Gauge Reading [m BSF]	Corrected Start Depth [m BSF]	Stop Criteria	Remarks
CPT-1060	15.1	0.00	-	B	
CPT-1061	35.4	0.00	-	D	
CPT-1062	3.2	0.00	-	D	
CPT-1062a	5.5	0.00	-	D	
CPT-1063	12.9	0.00	-	B	
CPT-1064	37.6	0.00	-	D	
CPT-1065	10.4	0.01	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1067	24.9	0.00	-	B	
CPT-1068	19.9	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1069	8.8	0.02	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1069a	12.2	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1070	14.3	0.01	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1071	7.2	0.00	-	B	
CPT-1071a	51.3	0.00	-	A	
CPT-1072	16.5	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1073	7.8	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1073a	14.3	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1074	24.7	0.00	-	D	
CPT-1075	11.0	0.00	-	B	
CPT-1075a	11.3	0.01	-	B	
CPT-1076	5.2	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage

Notes:

BSF = Below seafloor

Stop Criteria:

A = Target penetration depth reached

B = Cone tip load is 100 % of the cone tip capacity

C = Sleeve friction is more than 15 % of the cone tip capacity or 1.5 MPa

D = Total thrust equals nominal reaction provided

E = Rod deviation between the tip and seafloor value is greater than 15°

F = Rod deviation is greater than 3° over a length of penetration of 1 m or less

G = Discretion of equipment operator. For example safety of personnel, risk of damage to apparatus, or determined by software algorithms. Remark provided.

Refer to appendix titled 'Results of In Situ Tests' for details regarding CPT termination criteria, seabed frame settlement and corrected start depth.

Location Overview

Test Point	Recovery Depth [m BSF]	Settlement Gauge Reading [m BSF]	Corrected Start Depth [m BSF]	Stop Criteria	Remarks
CPT-1076a	5.3	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1077	15.9	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1079	12.3	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1080	18.6	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1081	15.2	0.01	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1082	12.4	0.05	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1083	30.6	0.01	-	D	
CPT-1084	11.0	0.01	-	B	
CPT-1085	30.7	0.00	-	B	
CPT-1086	15.0	0.10	0.10	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1087	16.2	0.01	-	B	
CPT-1088	14.1	0.17	0.17	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1089	17.3	0.01	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1090	14.6	0.01	-	B	
CPT-1091	25.9	0.00	-	D	
CPT-1092	25.3	0.00	-	B	
CPT-1093	15.4	0.02	-	B	
CPT-1094	12.3	0.00	-	B	
CPT-1094a	10.3	0.01	-	B	
CPT-1095	20.5	0.00	-	B	
CPT-1096	29.3	0.00	-	E	

Notes:

BSF = Below seafloor

Stop Criteria:

A = Target penetration depth reached

B = Cone tip load is 100 % of the cone tip capacity

C = Sleeve friction is more than 15 % of the cone tip capacity or 1.5 MPa

D = Total thrust equals nominal reaction provided

E = Rod deviation between the tip and seafloor value is greater than 15°

F = Rod deviation is greater than 3° over a length of penetration of 1 m or less

G = Discretion of equipment operator. For example safety of personnel, risk of damage to apparatus, or determined by software algorithms. Remark provided.

Refer to appendix titled 'Results of In Situ Tests' for details regarding CPT termination criteria, seabed frame settlement and corrected start depth.

Location Overview

Test Point	Recovery Depth [m BSF]	Settlement Gauge Reading [m BSF]	Corrected Start Depth [m BSF]	Stop Criteria	Remarks
CPT-1097	19.5	0.00	-	B	
CPT-1098	13.8	0.01	-	B	
CPT-1099	11.7	0.00	-	B	
CPT-1100	38.4	0.25	0.25	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1101	10.5	0.21	0.21	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1101a	10.3	0.01	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1102	28.1	0.01	-	B	
CPT-1103	13.7	0.08	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1104	21.4	0.00	-	D	
CPT-1105	51.4	0.00	-	A	
CPT-1106	30.9	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1107	50.3	0.07	-	A	
CPT-1108	23.5	0.03	-	B	
CPT-1108b	41.0	0.08	-	D	
CPT-1109	53.8	0.00	-	A	
CPT-1110	6.6	0.00	-	B	
CPT-1110a	6.8	0.00	-	B	
CPT-1111	17.0	0.03	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1112	26.1	0.17	0.17	B	
CPT-1113	21.9	0.00	-	B	
CPT-1114	24.1	0.00	-	B	
CPT-1115	4.9	0.00	-	B	
CPT-1115a	6.3	0.00	-	B	
CPT-1115d	25.3	0.00	-	D	

Notes:

BSF = Below seafloor

Stop Criteria:

A = Target penetration depth reached

B = Cone tip load is 100 % of the cone tip capacity

C = Sleeve friction is more than 15 % of the cone tip capacity or 1.5 MPa

D = Total thrust equals nominal reaction provided

E = Rod deviation between the tip and seafloor value is greater than 15°

F = Rod deviation is greater than 3° over a length of penetration of 1 m or less

G = Discretion of equipment operator. For example safety of personnel, risk of damage to apparatus, or determined by software algorithms. Remark provided.

Refer to appendix titled 'Results of In Situ Tests' for details regarding CPT termination criteria, seabed frame settlement and corrected start depth.

Location Overview

Test Point	Recovery Depth [m BSF]	Settlement Gauge Reading [m BSF]	Corrected Start Depth [m BSF]	Stop Criteria	Remarks
CPT-1116	24.0	0.00	-	D	
CPT-1117	28.2	0.00	-	B	
CPT-1118	8.9	0.01	-	B	
CPT-1118a	9.1	0.00	-	B	
CPT-1119	28.1	0.00	-	B	
CPT-1120	26.0	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1121	32.1	0.00	-	D	
CPT-1122	44.8	Not recorded	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1123	33.7	0.00	-	B	
CPT-1124	39.2	0.00	-	B	
CPT-1125	19.4	0.18	0.18	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1126	30.9	0.03	-	B	
CPT-1127	39.2	0.00	-	D	
CPT-1128	18.0	0.19	0.19	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1129	39.0	0.02	-	B	
CPT-1130	30.9	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1131	4.1	0.00	-	B	
CPT-1131a	7.7	0.00	-	B	
CPT-1132	31.9	0.00	-	B	
CPT-1133	50.1	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1134	32.4	0.08	-	B	
CPT-1135	27.0	0.00	-	B	
CPT-1136	51.5	0.00	-	A	

Notes:

BSF = Below seafloor

Stop Criteria:

A = Target penetration depth reached

B = Cone tip load is 100 % of the cone tip capacity

C = Sleeve friction is more than 15 % of the cone tip capacity or 1.5 MPa

D = Total thrust equals nominal reaction provided

E = Rod deviation between the tip and seafloor value is greater than 15°

F = Rod deviation is greater than 3° over a length of penetration of 1 m or less

G = Discretion of equipment operator. For example safety of personnel, risk of damage to apparatus, or determined by software algorithms. Remark provided.

Refer to appendix titled 'Results of In Situ Tests' for details regarding CPT termination criteria, seabed frame settlement and corrected start depth.

Location Overview

Test Point	Recovery Depth [m BSF]	Settlement Gauge Reading [m BSF]	Corrected Start Depth [m BSF]	Stop Criteria	Remarks
CPT-1137	7.5	0.03	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1137a	5.6	0.04	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1137b	6.1	0.02	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1138	18.2	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1139	21.5	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1142	21.4	0.00	-	D	
CPT-1143	31.3	0.00	-	D	
CPT-1146	51.4	0.00	-	A	
CPT-1147	12.9	0.00	-	B	
CPT-1147a	41.9	0.00	-	B	
CPT-1149	7.5	0.00	-	B	
CPT-1149a	7.5	0.02	-	B	
CPT-1150	50.3	0.00	-	A	
CPT-1151	12.4	0.00	-	B	
CPT-1151a	12.1	0.01	-	B	
CPT-1152	14.1	0.04	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1153	22.7	0.01	-	B	
CPT-1154	13.6	0.15	0.15	B	
CPT-1155	11.0	0.01	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1156	27.6	0.00	-	D	
CPT-1157	51.6	0.00	-	A	
CPT-1158	21.6	0.00	-	B	
CPT-1159	50.4	0.00	-	A	

Notes:

BSF = Below seafloor

Stop Criteria:

A = Target penetration depth reached

B = Cone tip load is 100 % of the cone tip capacity

C = Sleeve friction is more than 15 % of the cone tip capacity or 1.5 MPa

D = Total thrust equals nominal reaction provided

E = Rod deviation between the tip and seafloor value is greater than 15°

F = Rod deviation is greater than 3° over a length of penetration of 1 m or less

G = Discretion of equipment operator. For example safety of personnel, risk of damage to apparatus, or determined by software algorithms. Remark provided.

Refer to appendix titled 'Results of In Situ Tests' for details regarding CPT termination criteria, seabed frame settlement and corrected start depth.

Location Overview

Test Point	Recovery Depth [m BSF]	Settlement Gauge Reading [m BSF]	Corrected Start Depth [m BSF]	Stop Criteria	Remarks
CPT-1160	16.5	0.05	-	B	
CPT-1161	5.8	0.00	-	B	
CPT-1161a	5.7	0.00	-	B	
CPT-1162	9.3	0.00	-	B	
CPT-1162a	13.9	0.02	-	B	
CPT-1163	10.9	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1163a	9.2	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1164	50.7	0.00	-	A	
CPT-1165	16.5	0.00	-	E	
CPT-1165a	10.4	0.00	-	D	
CPT-1166	19.7	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage
CPT-1167	0.2	0.00	-	G	Test terminated on operator's discretion, possible obstacle
CPT-1167a	12.1	0.00	-	D	Test terminated on operator's discretion, possible obstacle
CPT-1167b	10.9	0.00	-	B	
CPT-1168	6.0	0.00	-	B	
CPT-1168a	6.4	0.01	-	B	
CPT-1168b	5.9	0.00	-	B	
CPT-1169	45.7	0.00	-	B	
CPT-1170	45.8	0.00	-	G	Test terminated to avoid rod buckling and possible equipment damage

Notes:

BSF = Below seafloor

Stop Criteria:

A = Target penetration depth reached

B = Cone tip load is 100 % of the cone tip capacity

C = Sleeve friction is more than 15 % of the cone tip capacity or 1.5 MPa

D = Total thrust equals nominal reaction provided

E = Rod deviation between the tip and seafloor value is greater than 15°

F = Rod deviation is greater than 3° over a length of penetration of 1 m or less

G = Discretion of equipment operator. For example safety of personnel, risk of damage to apparatus, or determined by software algorithms. Remark provided.

Refer to appendix titled 'Results of In Situ Tests' for details regarding CPT termination criteria, seabed frame settlement and corrected start depth.

Location Overview

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
BH-1001	70.2	337851	6247116	56°20'27.4" N	6°22'35.9" E
CPT-1001	34.9	337847	6247114	56°20'27.3" N	6°22'35.6" E
BH-1002	70.4	347315	6247314	56°20'45.1" N	6°31'46.0" E
CPT-1002	14.4	347318	6247313	56°20'45.0" N	6°31'46.3" E
BH-1003	70.3	342159	6248684	56°21'23.2" N	6°26'43.1" E
CPT-1003	17.4	342155	6248684	56°21'23.2" N	6°26'42.9" E
BH-1004	71.5	346933	6250275	56°22'20.3" N	6°31'17.6" E
CPT-1004	13.9	346930	6250273	56°22'20.3" N	6°31'17.4" E
BH-1005	69.3	331240	6251314	56°22'34.7" N	6°16'1.6" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
BH-1001	12-Apr-2022	40.9	40.5	-	40.9
CPT-1001	19-Mar-2022	-	40.0	-	40.9
BH-1002	15-Apr-2022	38.9	38.7	-	39.3
CPT-1002	14-Mar-2022	-	38.5	-	39.2
BH-1003	13-Apr-2022	40.3	40.1	-	40.4
CPT-1003	19-Mar-2022	-	39.8	-	40.5
BH-1004	21-May-2022	42.7	42.3	-	42.8
CPT-1004	15-Mar-2022	-	41.9	-	42.7
BH-1005	29-Mar-2022	42.2	-	41.9	42.1

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
SCPT-1005	18.7	331236	6251312	56°22'34.6" N	6°16'1.4" E
SCPT-1005a	15.6	331237	6251315	56°22'34.7" N	6°16'1.4" E
BH-1006	69.5	348762	6252531	56°23'35.3" N	6°32'59.4" E
SCPT-1006	10.2	348766	6252533	56°23'35.4" N	6°32'59.7" E
SCPT-1006a	10.3	348765	6252529	56°23'35.3" N	6°32'59.6" E
BH-1007	70.8	346355	6253246	56°23'55.6" N	6°30'37.7" E
CPT-1007	17.2	346358	6253247	56°23'55.7" N	6°30'37.9" E
BH-1008	0.0	335320	6254856	56°24'34.3" N	6°19'51.2" E
BH-1008a	70.3	335321	6254859	56°24'34.4" N	6°19'51.2" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
SCPT-1005	14-Mar-2022	-	41.3	-	42.0
SCPT-1005a	14-Mar-2022	-	41.3	-	42.0
BH-1006	31-Mar-2022	41.7	-	41.6	41.8
SCPT-1006	14-Mar-2022	-	41.1	-	41.8
SCPT-1006a	14-Mar-2022	-	41.1	-	41.8
BH-1007	29-Apr-2022	40.9	40.7	-	41.1
CPT-1007	14-Mar-2022	-	40.4	-	41.1
BH-1008	14-May-2022	41.1	40.7	-	41.3
BH-1008a	16-May-2022	41.0	40.7	-	41.2

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1008	7.2	335322	6254857	56°24'34.3" N	6°19'51.3" E
CPT-1008a	18.6	335322	6254851	56°24'34.1" N	6°19'51.2" E
CPT-1008b	14.9	335326	6254854	56°24'34.2" N	6°19'51.5" E
BH-1009	70.2	336663	6256441	56°25'27.2" N	6°21'5.9" E
CPT-1009	14.8	336663	6256445	56°25'27.3" N	6°21'5.8" E
BH-1010	48.2	341141	6256600	56°25'37.8" N	6°25'26.6" E
BH-1010a	70.2	341143	6256606	56°25'38.0" N	6°25'26.7" E
CPT-1010	11.8	341145	6256603	56°25'37.9" N	6°25'26.8" E
BH-1011	70.2	343560	6256918	56°25'51.0" N	6°27'47.0" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1008	19-Mar-2022	-	40.3	-	41.1
CPT-1008a	19-Mar-2022	-	40.3	-	41.1
CPT-1008b	16-Apr-2022	-	40.5	-	41.2
BH-1009	18-May-2022	41.3	41.1	-	41.6
CPT-1009	06-May-2022	-	40.9	-	41.5
BH-1010	26-Apr-2022	34.6	34.9	-	34.9
BH-1010a	29-Apr-2022	34.6	34.4	-	34.9
CPT-1010	19-Mar-2022	-	34.1	-	34.9
BH-1011	23-Apr-2022	36.5	36.2	-	36.7

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
BH-1011a	22.7	343558	6256913	56°25'50.8" N	6°27'46.9" E
CPT-1011	10.9	343562	6256914	56°25'50.9" N	6°27'47.1" E
BH-1013	1.0	330230	6259215	56°26'48.6" N	6°14'44.4" E
BH-1013a	70.2	330233	6259215	56°26'48.6" N	6°14'44.5" E
CPT-1013	10.1	330233	6259218	56°26'48.7" N	6°14'44.5" E
CPT-1013a	10.0	330236	6259218	56°26'48.7" N	6°14'44.7" E
BH-1014	70.3	354751	6260342	56°27'54.5" N	6°38'32.8" E
CPT-1014	14.2	354750	6260345	56°27'54.6" N	6°38'32.7" E
BH-1015	70.3	334575	6260696	56°27'42.0" N	6°18'54.4" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
BH-1011a	25-Apr-2022	36.4	36.6	-	36.7
CPT-1011	19-Mar-2022	-	35.8	-	36.6
BH-1013	18-May-2022	45.1	44.8	-	45.3
BH-1013a	20-May-2022	45.1	45.0	-	45.3
CPT-1013	06-May-2022	-	44.6	-	45.3
CPT-1013a	06-May-2022	-	44.7	-	45.2
BH-1014	22-Apr-2022	43.0	42.5	-	42.8
CPT-1014	14-Mar-2022	-	42.1	-	42.7
BH-1015	31-May-2022	43.2	43.2	-	43.4

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1015	17.5	334576	6260701	56°27'42.2" N	6°18'54.5" E
BH-1016	69.3	340604	6260855	56°27'54.6" N	6°24'45.9" E
SCPT-1016	21.3	340598	6260854	56°27'54.6" N	6°24'45.6" E
SCPT-1016a	5.0	340599	6260851	56°27'54.6" N	6°24'45.6" E
SCPT-1016b	16.1	340603	6260851	56°27'54.5" N	6°24'45.9" E
SCPT-1016c	29.1	340596	6260852	56°27'54.5" N	6°24'45.5" E
BH-1017	69.7	343364	6262939	56°29'5.3" N	6°27'22.5" E
CPT-1017	13.4	343364	6262935	56°29'5.2" N	6°27'22.5" E
BH-1019	5.4	345097	6263156	56°29'14.4" N	6°29'3.3" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1015	16-Apr-2022	-	42.6	-	43.2
BH-1016	27-Mar-2022	43.1	-	42.8	43.0
SCPT-1016	13-Mar-2022	-	42.2	-	42.9
SCPT-1016a	13-Mar-2022	-	42.2	-	42.8
SCPT-1016b	13-Mar-2022	-	42.2	-	42.9
SCPT-1016c	18-Mar-2022	-	42.1	-	42.9
BH-1017	01-Jun-2022	43.6	43.7	-	43.7
CPT-1017	16-Apr-2022	-	43.1	-	43.8
BH-1019	10-May-2022	42.1	41.8	-	42.2

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
BH-1019a	64.2	345099	6263157	56°29'14.4" N	6°29'3.4" E
CPT-1019	37.0	345102	6263155	56°29'14.3" N	6°29'3.6" E
BH-1020	70.9	335431	6263944	56°29'28.0" N	6°19'37.0" E
CPT-1020	17.4	335435	6263946	56°29'28.1" N	6°19'37.2" E
CPT-1020a	23.3	335435	6263950	56°29'28.2" N	6°19'37.2" E
BH-1021	70.3	357783	6264770	56°30'20.9" N	6°41'21.1" E
CPT-1021	34.0	357785	6264772	56°30'21.0" N	6°41'21.2" E
BH-1022	69.7	355156	6265446	56°30'39.9" N	6°38'46.2" E
SCPT-1022	10.3	355160	6265447	56°30'39.9" N	6°38'46.5" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
BH-1019a	12-May-2022	42.1	41.9	-	42.5
CPT-1019	26-Feb-2022	-	41.3	-	42.3
BH-1020	30-May-2022	45.4	45.1	-	45.6
CPT-1020	16-Apr-2022	-	44.8	-	45.4
CPT-1020a	16-Apr-2022	-	44.8	-	45.4
BH-1021	18-Apr-2022	42.0	41.5	-	42.0
CPT-1021	14-Mar-2022	-	41.2	-	41.8
BH-1022	14-Mar-2022	42.0	-	41.8	42.0
SCPT-1022	13-Mar-2022	-	41.5	-	42.1

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
SCPT-1022a	53.0	355159	6265444	56°30'39.8" N	6°38'46.4" E
BH-1024	70.3	333829	6266569	56°30'50.8" N	6°17'57.4" E
CPT-1024	24.4	333829	6266574	56°30'51.0" N	6°17'57.4" E
BH-1025	70.3	344877	6268170	56°31'56.1" N	6°28'39.6" E
CPT-1025	25.5	344874	6268167	56°31'56.0" N	6°28'39.5" E
BH-1026	0.0	329098	6268178	56°31'36.7" N	6°13'17.2" E
BH-1026a	70.2	329099	6268175	56°31'36.6" N	6°13'17.2" E
CPT-1026	18.6	329095	6268176	56°31'36.6" N	6°13'17.0" E
CPT-1026a	10.3	329095	6268179	56°31'36.7" N	6°13'17.0" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
SCPT-1022a	12-Mar-2022	-	41.5	-	42.1
BH-1024	01-Jun-2022	41.2	40.3	-	41.2
CPT-1024	16-Apr-2022	-	40.4	-	41.1
BH-1025	06-May-2022	47.6	47.5	-	47.8
CPT-1025	17-Apr-2022	-	47.0	-	47.6
BH-1026	20-May-2022	37.0	37.1	-	37.6
BH-1026a	22-May-2022	37.0	37.1	-	37.6
CPT-1026	15-Apr-2022	-	36.8	-	37.4
CPT-1026a	15-Apr-2022	-	36.8	-	37.5

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1026b	32.1	329092	6268178	56°31'36.7" N	6°13'16.8" E
BH-1027	65.0	338074	6268920	56°32'12.1" N	6°22'0.2" E
CPT-1027	36.3	338070	6268918	56°32'12.0" N	6°22'0.0" E
BH-1028	71.4	355492	6269525	56°32'52.1" N	6°38'57.7" E
CPT-1028	14.4	355492	6269521	56°32'51.9" N	6°38'57.7" E
BH-1029	70.0	352411	6272151	56°34'13.5" N	6°35'52.1" E
CPT-1029	29.8	352409	6272151	56°34'13.5" N	6°35'52.0" E
BH-1030	69.6	362118	6272378	56°34'31.4" N	6°45'19.9" E
CPT-1031	34.8	342046	6272853	56°34'24.0" N	6°25'43.9" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1026b	16-Apr-2022	-	36.8	-	37.4
BH-1027	24-May-2022	41.8	41.8	-	42.2
CPT-1027	16-Apr-2022	-	41.6	-	42.3
BH-1028	05-May-2022	43.3	43.4	-	43.4
CPT-1028	14-Mar-2022	-	42.4	-	43.1
BH-1029	09-May-2022	36.6	36.6	-	36.7
CPT-1029	17-Apr-2022	-	36.0	-	36.7
BH-1030	13-Apr-2022	40.3	40.5	-	40.7
CPT-1031	25-Apr-2022	-	40.7	-	41.1

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
BH-1032	70.4	343830	6273083	56°34'33.6" N	6°27'27.8" E
SCPT-1032	23.1	343826	6273083	56°34'33.6" N	6°27'27.5" E
SCPT-1032a	51.9	343826	6273081	56°34'33.5" N	6°27'27.6" E
BH-1033	69.2	333003	6273088	56°34'20.4" N	6°16'54.0" E
SCPT-1033	17.4	332999	6273088	56°34'20.4" N	6°16'53.9" E
BH-1034	69.7	329928	6273468	56°34'28.7" N	6°13'53.2" E
CPT-1034	34.9	329927	6273472	56°34'28.8" N	6°13'53.1" E
BH-1035	0.0	335930	6274085	56°34'56.3" N	6°19'43.1" E
BH-1035a	20.5	335929	6274090	56°34'56.5" N	6°19'43.0" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
BH-1032	24-Mar-2022	38.0	-	37.9	38.0
SCPT-1032	13-Mar-2022	-	37.2	-	37.9
SCPT-1032a	13-Mar-2022	-	37.2	-	37.9
BH-1033	25-Mar-2022	32.1	31.8	-	32.0
SCPT-1033	18-Mar-2022	-	31.2	-	32.0
BH-1034	03-Jun-2022	35.7	35.4	-	36.0
CPT-1034	15-Apr-2022	-	35.3	-	35.9
BH-1035	06-Jun-2022	34.9	34.2	-	34.9
BH-1035a	07-Jun-2022	35.2	34.6	-	35.2

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
BH-1035b	70.5	335936	6274086	56°34'56.4" N	6°19'43.4" E
CPT-1035	28.6	335933	6274088	56°34'56.4" N	6°19'43.2" E
BH-1036	16.9	349513	6274807	56°35'36.0" N	6°32'56.9" E
BH-1036a	69.9	349511	6274812	56°35'36.2" N	6°32'56.7" E
CPT-1036	42.1	349510	6274808	56°35'35.9" N	6°32'56.7" E
BH-1037	70.3	359943	6276131	56°36'30.4" N	6°43'5.2" E
CPT-1037	26.6	359941	6276136	56°36'30.6" N	6°43'5.1" E
BH-1039	30.5	362647	6276469	56°36'44.2" N	6°45'43.0" E
BH-1039a	69.9	362647	6276475	56°36'44.4" N	6°45'43.0" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
BH-1035b	07-Jun-2022	34.9	34.6	-	35.1
CPT-1035	15-Apr-2022	-	34.5	-	35.1
BH-1036	10-May-2022	31.6	31.5	-	31.7
BH-1036a	10-May-2022	31.7	31.6	-	31.8
CPT-1036	16-Mar-2022	-	30.7	-	31.5
BH-1037	15-Apr-2022	43.1	43.6	-	43.6
CPT-1037	15-Mar-2022	-	42.8	-	43.4
BH-1039	16-Apr-2022	41.0	41.1	-	41.1
BH-1039a	17-Apr-2022	41.0	41.3	-	41.5

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1039	20.9	362650	6276473	56°36'44.4" N	6°45'43.2" E
BH-1042	69.9	350068	6278908	56°37'49.2" N	6°33'20.8" E
CPT-1042	3.5	350065	6278908	56°37'49.2" N	6°33'20.6" E
CPT-1042a	3.5	350065	6278906	56°37'49.1" N	6°33'20.7" E
CPT-1042b	3.6	350065	6278912	56°37'49.3" N	6°33'20.6" E
BH-1043	69.3	361639	6279381	56°38'17.3" N	6°44'38.4" E
CPT-1043	16.0	361643	6279381	56°38'17.3" N	6°44'38.6" E
BH-1044	70.0	356937	6279784	56°38'25.2" N	6°40'1.8" E
SCPT-1044	6.7	356940	6279787	56°38'25.3" N	6°40'2.0" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1039	15-Mar-2022	-	40.6	-	41.2
BH-1042	14-May-2022	38.9	38.7	-	38.9
CPT-1042	15-Mar-2022	-	37.9	-	38.6
CPT-1042a	15-Mar-2022	-	37.9	-	38.6
CPT-1042b	15-Mar-2022	-	37.9	-	38.6
BH-1043	19-Apr-2022	40.5	-	-	40.7
CPT-1043	15-Mar-2022	-	40.0	-	40.7
BH-1044	20-Mar-2022	40.3	-	40.3	40.3
SCPT-1044	12-Mar-2022	-	39.5	-	40.2

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
SCPT-1044a	6.9	356939	6279781	56°38'25.1" N	6°40'2.0" E
SCPT-1044b	6.7	356943	6279785	56°38'25.2" N	6°40'2.2" E
BH-1045	70.5	341223	6279802	56°38'7.6" N	6°24'40.4" E
CPT-1045	51.5	341219	6279799	56°38'7.5" N	6°24'40.1" E
BH-1046	41.4	354095	6280436	56°38'43.1" N	6°37'13.8" E
BH-1046a	45.3	354103	6280435	56°38'43.1" N	6°37'14.3" E
BH-1046b	69.3	354102	6280429	56°38'42.9" N	6°37'14.2" E
CPT-1046	6.1	354100	6280436	56°38'43.1" N	6°37'14.1" E
CPT-1046a	25.8	354099	6280432	56°38'43.0" N	6°37'14.0" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
SCPT-1044a	12-Mar-2022	-	39.6	-	40.2
SCPT-1044b	12-Mar-2022	-	39.6	-	40.2
BH-1045	11-Jun-2022	34.6	34.2	-	34.7
CPT-1045	17-Apr-2022	-	34.1	-	34.8
BH-1046	21-Apr-2022	41.0	41.0	-	41.2
BH-1046a	23-Apr-2022	41.1	41.1	-	41.3
BH-1046b	25-Apr-2022	41.1	41.0	-	41.0
CPT-1046	15-Mar-2022	-	40.4	-	41.2
CPT-1046a	15-Mar-2022	-	40.4	-	41.2

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
BH-1047	70.0	337976	6281511	56°38'58.8" N	6°21'26.1" E
CPT-1047	4.3	337974	6281516	56°38'58.9" N	6°21'26.0" E
CPT-1047a	4.3	337974	6281518	56°38'59.0" N	6°21'26.0" E
BH-1048	71.0	347601	6281624	56°39'14.0" N	6°30'50.4" E
CPT-1048	6.8	347597	6281622	56°39'14.0" N	6°30'50.2" E
CPT-1048a	7.6	347601	6281619	56°39'13.9" N	6°30'50.5" E
CPT-1048b	10.6	347595	6281619	56°39'13.9" N	6°30'50.1" E
BH-1049	70.5	340973	6281763	56°39'10.6" N	6°24'21.3" E
SCPT-1049	36.9	340970	6281760	56°39'10.5" N	6°24'21.2" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
BH-1047	21-May-2022	46.7	46.8	-	47.0
CPT-1047	15-Apr-2022	-	46.1	-	46.8
CPT-1047a	15-Apr-2022	-	46.2	-	46.8
BH-1048	17-May-2022	36.1	35.7	-	35.8
CPT-1048	15-Mar-2022	-	35.1	-	35.7
CPT-1048a	15-Mar-2022	-	34.9	-	35.7
CPT-1048b	15-Mar-2022	-	35.0	-	35.8
BH-1049	22-Mar-2022	42.3	-	42.2	42.3
SCPT-1049	18-Mar-2022	-	41.4	-	42.1

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
BH-1050	35.5	354262	6282475	56°39'49.2" N	6°37'19.5" E
BH-1050a	68.6	354270	6282475	56°39'49.2" N	6°37'19.9" E
CPT-1050	6.2	354267	6282476	56°39'49.2" N	6°37'19.8" E
CPT-1050a	6.1	354266	6282473	56°39'49.1" N	6°37'19.7" E
BH-1051	18.9	356767	6282788	56°40'2.1" N	6°39'45.8" E
BH-1051a	70.8	356760	6282792	56°40'2.2" N	6°39'45.4" E
CPT-1051	5.9	356765	6282793	56°40'2.2" N	6°39'45.7" E
CPT-1051a	6.1	356762	6282788	56°40'2.1" N	6°39'45.6" E
BH-1052	69.4	342442	6283984	56°40'24.2" N	6°25'42.6" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
BH-1050	26-Apr-2022	39.2	39.1	-	39.1
BH-1050a	27-Apr-2022	39.3	39.2	-	39.3
CPT-1050	15-Mar-2022	-	38.5	-	39.3
CPT-1050a	15-Mar-2022	-	38.5	-	39.2
BH-1051	02-May-2022	39.9	39.8	-	39.6
BH-1051a	03-May-2022	40.0	39.8	-	40.2
CPT-1051	15-Mar-2022	-	39.1	-	39.9
CPT-1051a	15-Mar-2022	-	39.2	-	39.9
BH-1052	21-May-2022	41.7	41.7	-	41.8

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1052	52.3	342440	6283988	56°40'24.3" N	6°25'42.5" E
BH-1053	69.8	346803	6284546	56°40'47.5" N	6°29'57.4" E
CPT-1053	13.1	346803	6284543	56°40'47.4" N	6°29'57.4" E
CPT-1054	42.9	343282	6245789	56°19'51.1" N	6°27'54.6" E
CPT-1055	8.6	339451	6246309	56°20'3.2" N	6°24'10.7" E
CPT-1055a	13.2	339451	6246313	56°20'3.4" N	6°24'10.7" E
CPT-1056	21.4	345664	6247100	56°20'36.2" N	6°30'10.4" E
CPT-1057	50.9	336700	6247977	56°20'53.7" N	6°21'27.0" E
CPT-1058	11.8	346254	6248144	56°21'10.7" N	6°30'42.6" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1052	16-Mar-2022	-	40.9	-	41.6
BH-1053	01-May-2022	34.9	34.6	-	34.9
CPT-1053	16-Mar-2022	-	34.2	-	35.0
CPT-1054	02-May-2022	-	39.6	-	40.2
CPT-1055	02-May-2022	-	39.6	-	40.0
CPT-1055a	02-May-2022	-	39.4	-	39.8
CPT-1056	02-May-2022	-	38.8	-	39.3
CPT-1057	03-May-2022	-	41.8	-	42.2
CPT-1058	02-May-2022	-	41.3	-	41.9

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1059	38.4	332636	6248465	56°21'4.4" N	6°17'29.4" E
CPT-1060	15.1	331772	6249330	56°21'31.2" N	6°16'37.1" E
CPT-1061	35.4	348303	6249452	56°21'55.3" N	6°32'39.1" E
CPT-1062	3.2	334469	6249708	56°21'46.9" N	6°19'13.2" E
CPT-1062a	5.4	334468	6249705	56°21'46.8" N	6°19'13.2" E
CPT-1063	12.9	344016	6249915	56°22'5.2" N	6°28'28.5" E
CPT-1064	37.6	341436	6250612	56°22'24.7" N	6°25'56.8" E
CPT-1065	10.4	338798	6251268	56°22'42.7" N	6°23'21.8" E
CPT-1067	24.9	350342	6251732	56°23'11.3" N	6°34'33.2" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1059	05-May-2022	-	44.6	-	45.3
CPT-1060	05-May-2022	-	42.3	-	43.0
CPT-1061	02-May-2022	-	40.9	-	41.5
CPT-1062	05-May-2022	-	42.3	-	42.9
CPT-1062a	05-May-2022	-	42.4	-	42.9
CPT-1063	02-May-2022	-	40.5	-	41.1
CPT-1064	02-May-2022	-	41.0	-	41.5
CPT-1065	05-May-2022	-	43.3	-	43.9
CPT-1067	01-May-2022	-	40.4	-	40.9

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1068	19.9	344508	6251994	56°23'13.0" N	6°28'52.7" E
CPT-1069	8.8	335332	6252845	56°23'29.3" N	6°19'56.4" E
CPT-1069a	12.2	335334	6252841	56°23'29.3" N	6°19'56.4" E
CPT-1070	14.3	352090	6252962	56°23'53.0" N	6°36'12.5" E
CPT-1071	7.2	340005	6253439	56°23'54.3" N	6°24'27.3" E
CPT-1071a	51.3	340005	6253442	56°23'54.4" N	6°24'27.3" E
CPT-1072	16.5	341527	6253633	56°24'2.4" N	6°25'55.5" E
CPT-1073	7.8	350299	6253740	56°24'16.2" N	6°34'26.5" E
CPT-1073a	14.3	350299	6253737	56°24'16.1" N	6°34'26.5" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1068	02-May-2022	-	40.4	-	40.9
CPT-1069	05-May-2022	-	40.1	-	40.8
CPT-1069a	05-May-2022	-	40.1	-	40.8
CPT-1070	01-May-2022	-	42.2	-	42.7
CPT-1071	05-May-2022	-	41.1	-	41.1
CPT-1071a	05-May-2022	-	40.5	-	41.1
CPT-1072	06-May-2022	-	40.1	-	40.7
CPT-1073	01-May-2022	-	41.0	-	41.5
CPT-1073a	01-May-2022	-	41.0	-	41.5

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1074	24.7	337191	6254090	56°24'11.8" N	6°21'41.9" E
CPT-1075	11.0	337680	6254150	56°24'14.4" N	6°22'10.3" E
CPT-1075a	11.3	337680	6254154	56°24'14.5" N	6°22'10.3" E
CPT-1076	5.2	348299	6254484	56°24'37.9" N	6°32'28.4" E
CPT-1076a	5.3	348299	6254486	56°24'38.0" N	6°32'28.4" E
CPT-1077	15.9	352903	6254630	56°24'47.9" N	6°36'56.5" E
CPT-1079	12.3	339556	6255398	56°24'57.1" N	6°23'56.8" E
CPT-1080	18.6	344322	6255427	56°25'3.7" N	6°28'34.6" E
CPT-1081	15.2	351103	6255490	56°25'13.6" N	6°35'9.8" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1074	05-May-2022	-	40.5	-	41.2
CPT-1075	05-May-2022	-	42.8	-	43.4
CPT-1075a	05-May-2022	-	42.8	-	43.4
CPT-1076	01-May-2022	-	39.6	-	40.2
CPT-1076a	01-May-2022	-	39.6	-	40.0
CPT-1077	01-May-2022	-	41.1	-	41.5
CPT-1079	06-May-2022	-	37.6	-	38.2
CPT-1080	02-May-2022	-	39.8	-	40.3
CPT-1081	01-May-2022	-	41.1	-	41.5

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1082	12.4	354210	6256259	56°25'42.0" N	6°38'9.4" E
CPT-1083	30.6	331141	6256339	56°25'16.9" N	6°15'44.2" E
CPT-1084	11.0	347632	6256429	56°25'40.0" N	6°31'45.5" E
CPT-1085	30.7	333334	6256619	56°25'28.7" N	6°17'51.3" E
CPT-1086	15.0	352419	6257033	56°26'5.0" N	6°36'23.4" E
CPT-1087	16.2	329999	6257205	56°25'43.4" N	6°14'35.6" E
CPT-1088	15.0	350633	6257807	56°26'28.0" N	6°34'37.6" E
CPT-1089	17.3	345723	6258193	56°26'34.8" N	6°29'50.4" E
CPT-1090	14.6	354589	6258307	56°26'48.6" N	6°38'27.4" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1082	01-May-2022	-	42.4	-	42.9
CPT-1083	06-May-2022	-	40.7	-	41.4
CPT-1084	01-May-2022	-	38.8	-	39.3
CPT-1085	06-May-2022	-	41.3	-	42.0
CPT-1086	01-May-2022	-	42.9	-	43.3
CPT-1087	06-May-2022	-	44.3	-	44.7
CPT-1088	01-May-2022	-	41.5	-	41.9
CPT-1089	01-May-2022	-	35.9	-	36.3
CPT-1090	30-Apr-2022	-	43.5	-	44.0

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1091	25.9	333330	6258631	56°26'33.7" N	6°17'46.5" E
CPT-1092	25.3	342661	6258814	56°26'51.2" N	6°26'50.4" E
CPT-1093	15.4	336337	6259018	56°26'50.0" N	6°20'41.1" E
CPT-1094	12.4	338191	6259253	56°26'59.9" N	6°22'28.7" E
CPT-1094a	10.3	338191	6259257	56°27'0.1" N	6°22'28.7" E
CPT-1095	20.5	352041	6260007	56°27'40.7" N	6°35'55.3" E
CPT-1096	29.3	345454	6260179	56°27'38.6" N	6°29'30.4" E
CPT-1097	19.5	346082	6260259	56°27'41.9" N	6°30'6.9" E
CPT-1098	13.8	337327	6261161	56°28'0.5" N	6°21'34.0" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1091	06-May-2022	-	41.2	-	41.9
CPT-1092	02-May-2022	-	38.7	-	39.2
CPT-1093	06-May-2022	-	44.1	-	44.8
CPT-1094	06-May-2022	-	43.1	-	43.7
CPT-1094a	06-May-2022	-	43.1	-	43.7
CPT-1095	30-Apr-2022	-	39.5	-	40.0
CPT-1096	01-May-2022	-	37.1	-	37.6
CPT-1097	01-May-2022	-	31.4	-	31.9
CPT-1098	06-May-2022	-	42.8	-	43.5

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1099	11.7	331459	6261424	56°28'1.6" N	6°15'50.9" E
CPT-1100	38.7	356303	6261563	56°28'35.7" N	6°40'0.9" E
CPT-1101	10.7	353668	6262234	56°28'54.4" N	6°37'25.8" E
CPT-1101a	10.3	353666	6262237	56°28'54.5" N	6°37'25.6" E
CPT-1102	28.1	330004	6263254	56°28'58.8" N	6°14'21.7" E
CPT-1103	13.7	355000	6263413	56°29'34.0" N	6°38'41.2" E
CPT-1104	21.4	332237	6263535	56°29'10.8" N	6°16'31.4" E
CPT-1105	51.4	352035	6265062	56°30'24.0" N	6°35'44.6" E
CPT-1106	30.9	341591	6265269	56°30'18.5" N	6°25'33.9" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1099	06-May-2022	-	44.0	-	44.6
CPT-1100	30-Apr-2022	-	42.7	-	43.1
CPT-1101	30-Apr-2022	-	40.8	-	41.2
CPT-1101a	30-Apr-2022	-	40.7	-	41.2
CPT-1102	06-May-2022	-	40.2	-	40.9
CPT-1103	30-Apr-2022	-	41.6	-	42.1
CPT-1104	06-May-2022	-	40.3	-	40.9
CPT-1105	30-Apr-2022	-	30.5	-	31.0
CPT-1106	23-Apr-2022	-	43.7	-	44.4

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1107	50.3	338465	6265337	56°30'16.8" N	6°22'31.1" E
CPT-1108	23.5	343732	6266009	56°30'44.9" N	6°27'37.4" E
CPT-1108b	41.0	343730	6266007	56°30'44.9" N	6°27'37.3" E
CPT-1109	53.8	356910	6266671	56°31'21.4" N	6°40'26.3" E
CPT-1110	6.6	336012	6267041	56°31'8.8" N	6°20'3.9" E
CPT-1110a	6.8	336011	6267044	56°31'8.9" N	6°20'3.9" E
CPT-1111	16.9	354280	6267357	56°31'40.7" N	6°37'51.1" E
CPT-1112	26.2	339874	6267534	56°31'29.5" N	6°23'48.6" E
CPT-1113	21.9	350407	6267854	56°31'52.4" N	6°34'3.7" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1107	23-Apr-2022	-	44.8	-	45.5
CPT-1108	23-Apr-2022	-	46.1	-	46.7
CPT-1108b	27-Apr-2022	-	46.4	-	46.7
CPT-1109	29-Apr-2022	-	42.6	-	43.1
CPT-1110	23-Apr-2022	-	42.6	-	43.4
CPT-1110a	23-Apr-2022	-	42.7	-	43.4
CPT-1111	29-Apr-2022	-	40.9	-	41.3
CPT-1112	23-Apr-2022	-	44.3	-	45.1
CPT-1113	30-Apr-2022	-	34.5	-	35.0

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1114	24.1	359702	6268035	56°32'8.5" N	6°43'6.9" E
CPT-1115	4.9	332067	6268558	56°31'52.8" N	6°16'9.8" E
CPT-1115a	6.3	332065	6268553	56°31'52.7" N	6°16'9.7" E
CPT-1115d	25.3	332064	6268556	56°31'52.8" N	6°16'9.7" E
CPT-1116	24.0	351529	6269019	56°32'31.3" N	6°35'7.0" E
CPT-1117	28.2	339760	6269492	56°32'32.7" N	6°23'37.5" E
CPT-1118	8.9	330453	6269356	56°32'16.5" N	6°14'33.6" E
CPT-1118a	9.1	330453	6269360	56°32'16.6" N	6°14'33.6" E
CPT-1119	28.1	348492	6269639	56°32'47.8" N	6°32'7.9" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1114	29-Apr-2022	-	40.4	-	40.9
CPT-1115	23-Apr-2022	-	33.8	-	34.6
CPT-1115a	23-Apr-2022	-	33.8	-	34.5
CPT-1115d	26-Apr-2022	-	34.0	-	34.5
CPT-1116	30-Apr-2022	-	33.6	-	34.1
CPT-1117	23-Apr-2022	-	41.1	-	42.0
CPT-1118	23-Apr-2022	-	35.6	-	36.3
CPT-1118a	23-Apr-2022	-	35.4	-	36.2
CPT-1119	30-Apr-2022	-	38.7	-	39.1

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1120	26.0	334199	6269836	56°32'36.8" N	6°18'11.5" E
CPT-1121	32.1	361734	6270313	56°33'24.3" N	6°45'1.4" E
CPT-1122	44.8	336408	6270365	56°32'56.7" N	6°20'19.5" E
CPT-1123	33.7	342355	6270875	56°33'20.5" N	6°26'6.3" E
CPT-1124	39.2	334821	6270916	56°33'12.5" N	6°18'45.4" E
CPT-1125	19.4	359115	6270992	56°33'43.5" N	6°42'26.8" E
CPT-1126	30.9	345325	6271249	56°33'36.2" N	6°28'59.2" E
CPT-1127	39.2	331690	6271530	56°33'28.3" N	6°15'40.8" E
CPT-1128	18.0	355660	6271552	56°33'57.8" N	6°39'3.5" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1120	24-Apr-2022	-	34.0	-	34.8
CPT-1121	29-Apr-2022	-	38.1	-	38.5
CPT-1122	25-Apr-2022	-	37.0	-	37.5
CPT-1123	25-Apr-2022	-	40.5	-	40.9
CPT-1124	25-Apr-2022	-	33.4	-	34.0
CPT-1125	29-Apr-2022	-	44.0	-	44.3
CPT-1126	25-Apr-2022	-	42.2	-	42.6
CPT-1127	24-Apr-2022	-	32.4	-	33.3
CPT-1128	29-Apr-2022	-	42.8	-	43.2

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1129	39.0	350529	6271911	56°34'3.6" N	6°34'2.4" E
CPT-1130	30.9	339951	6271971	56°33'53.0" N	6°23'43.2" E
CPT-1131	4.1	336924	6272195	56°33'56.5" N	6°20'45.6" E
CPT-1131a	7.7	336924	6272191	56°33'56.3" N	6°20'45.6" E
CPT-1132	31.9	329827	6272301	56°33'50.8" N	6°13'50.0" E
CPT-1133	50.0	347279	6272501	56°34'18.9" N	6°30'50.9" E
CPT-1134	32.4	358021	6272867	56°34'42.9" N	6°41'19.0" E
CPT-1135	27.0	338949	6273462	56°34'39.9" N	6°22'41.2" E
CPT-1136	51.5	353904	6273673	56°35'4.4" N	6°37'16.3" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1129	30-Apr-2022	-	32.8	-	33.2
CPT-1130	25-Apr-2022	-	38.2	-	38.7
CPT-1131	25-Apr-2022	-	33.3	-	33.9
CPT-1131a	25-Apr-2022	-	33.2	-	33.8
CPT-1132	24-Apr-2022	-	31.4	-	32.2
CPT-1133	25-Apr-2022	-	38.5	-	39.0
CPT-1134	29-Apr-2022	-	43.6	-	43.9
CPT-1135	27-Apr-2022	-	34.0	-	34.5
CPT-1136	28-Apr-2022	-	39.3	-	39.7

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1137	7.5	356149	6274316	56°35'27.6" N	6°39'26.6" E
CPT-1137a	5.6	356149	6274314	56°35'27.6" N	6°39'26.6" E
CPT-1137b	6.1	356150	6274320	56°35'27.8" N	6°39'26.6" E
CPT-1138	18.2	361654	6274329	56°35'34.0" N	6°44'49.0" E
CPT-1139	21.4	358189	6274907	56°35'49.0" N	6°41'24.9" E
CPT-1142	21.4	352641	6275199	56°35'52.3" N	6°35'59.3" E
CPT-1143	31.3	345231	6275277	56°35'46.2" N	6°28'45.1" E
CPT-1146	51.4	350854	6275994	56°36'15.9" N	6°34'13.0" E
CPT-1147	12.9	346570	6276446	56°36'25.5" N	6°30'1.0" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1137	28-Apr-2022	-	41.7	-	42.1
CPT-1137a	28-Apr-2022	-	41.7	-	42.2
CPT-1137b	28-Apr-2022	-	41.7	-	42.1
CPT-1138	29-Apr-2022	-	40.9	-	41.3
CPT-1139	28-Apr-2022	-	41.9	-	42.3
CPT-1142	28-Apr-2022	-	39.3	-	39.6
CPT-1143	25-Apr-2022	-	31.2	-	31.8
CPT-1146	28-Apr-2022	-	38.7	-	39.1
CPT-1147	25-Apr-2022	-	29.9	-	30.3

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1147a	41.9	346571	6276449	56°36'25.6" N	6°30'1.1" E
CPT-1149	7.5	357735	6276868	56°36'51.9" N	6°40'54.4" E
CPT-1149a	7.5	357736	6276872	56°36'52.0" N	6°40'54.5" E
BH-1150	70.1	335804	6277093	56°36'33.3" N	6°19'28.8" E
CPT-1150	50.3	335800	6277095	56°36'33.4" N	6°19'28.6" E
CPT-1151	12.4	354471	6277525	56°37'9.5" N	6°37'41.8" E
CPT-1151a	12.1	354467	6277522	56°37'9.4" N	6°37'41.5" E
BH-1152	26.4	332416	6277674	56°36'47.8" N	6°16'9.0" E
BH-1152a	69.8	332413	6277669	56°36'47.6" N	6°16'8.8" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1147a	25-Apr-2022	-	29.8	-	30.3
CPT-1149	28-Apr-2022	-	39.4	-	39.9
CPT-1149a	29-Apr-2022	-	39.4	-	39.8
BH-1150	11-Jun-2022	40.0	39.2	-	40.3
CPT-1150	27-Apr-2022	-	39.8	-	40.2
CPT-1151	28-Apr-2022	-	39.4	-	39.9
CPT-1151a	28-Apr-2022	-	39.5	-	39.9
BH-1152	24-May-2022	45.8	45.9	-	46.0
BH-1152a	25-May-2022	46.1	46.0	-	46.2

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1152	14.1	332411	6277673	56°36'47.7" N	6°16'8.7" E
CPT-1153	22.7	352891	6278261	56°37'31.5" N	6°36'7.7" E
CPT-1154	13.6	346105	6278408	56°37'28.4" N	6°29'29.6" E
CPT-1155	11.0	363442	6278596	56°37'53.8" N	6°46'25.6" E
CPT-1156	27.6	342108	6278908	56°37'39.8" N	6°25'34.2" E
CPT-1157	51.6	358309	6278955	56°37'59.9" N	6°41'23.9" E
CPT-1158	21.6	338523	6279192	56°37'44.5" N	6°22'3.4" E
CPT-1159	50.4	343686	6279108	56°37'48.1" N	6°27'6.2" E
CPT-1160	16.5	335175	6280038	56°38'7.7" N	6°18'45.3" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1152	26-Apr-2022	-	45.6	-	46.0
CPT-1153	28-Apr-2022	-	41.6	-	42.0
CPT-1154	25-Apr-2022	-	28.8	-	29.3
CPT-1155	29-Apr-2022	-	42.1	-	42.5
CPT-1156	26-Apr-2022	-	32.6	-	33.0
CPT-1157	29-Apr-2022	-	41.1	-	41.5
CPT-1158	26-Apr-2022	-	40.4	-	40.9
CPT-1159	26-Apr-2022	-	29.7	-	30.1
CPT-1160	26-Apr-2022	-	46.7	-	47.2

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1161	5.8	346890	6280523	56°38'37.6" N	6°30'11.1" E
CPT-1161a	5.7	346888	6280520	56°38'37.6" N	6°30'11.0" E
CPT-1162	9.3	351697	6281021	56°38'59.3" N	6°34'52.0" E
CPT-1162a	13.9	351698	6281018	56°38'59.2" N	6°34'52.0" E
CPT-1163	10.9	359930	6281174	56°39'13.4" N	6°42'54.7" E
CPT-1163a	9.2	359935	6281173	56°39'13.4" N	6°42'54.9" E
CPT-1164	50.7	345100	6281312	56°39'1.1" N	6°28'24.4" E
CPT-1165	16.6	346636	6282508	56°39'41.5" N	6°29'51.9" E
CPT-1165a	10.4	346636	6282504	56°39'41.4" N	6°29'52.0" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1161	25-Apr-2022	-	36.2	-	36.7
CPT-1161a	25-Apr-2022	-	36.2	-	36.7
CPT-1162	27-Apr-2022	-	41.4	-	41.8
CPT-1162a	28-Apr-2022	-	39.1	-	41.7
CPT-1163	29-Apr-2022	-	40.6	-	41.0
CPT-1163a	29-Apr-2022	-	40.6	-	41.1
CPT-1164	26-Apr-2022	-	35.9	-	36.4
CPT-1165	26-Apr-2022	-	34.9	-	35.4
CPT-1165a	26-Apr-2022	-	35.0	-	35.4

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

Coordinates

Test Point	Penetration Depth [m]	Easting [m]	Northing [m]	Latitude [-]	Longitude [-]
CPT-1166	19.7	349766	6282921	56°39'58.5" N	6°32'54.7" E
CPT-1167	0.2	344440	6283171	56°40'0.3" N	6°27'41.6" E
CPT-1167a	12.1	344445	6283169	56°40'0.2" N	6°27'41.9" E
CPT-1167b	10.9	344440	6283165	56°40'0.1" N	6°27'41.7" E
CPT-1168	6.0	352265	6283230	56°40'11.3" N	6°35'20.7" E
CPT-1168a	6.4	352266	6283232	56°40'11.4" N	6°35'20.8" E
CPT-1168b	5.9	352261	6283233	56°40'11.4" N	6°35'20.5" E
CPT-1169	45.7	355393	6283623	56°40'27.5" N	6°38'23.5" E
CPT-1170	45.8	349718	6284918	56°41'3.0" N	6°32'47.7" E

Datum : ETRS89 Projection : UTM Zone 32N
Ellipsoid : GRS80 Central Meridian : 9° E
Penetration Depth: deepest point reached by drilling, sampling, logging or in situ testing, relative to seafloor
For further details, refer to plate titled 'Geodetic Parameters'

Water Depth

Test Point	Date	Drill String Reduced [m]	CTD Probe Reduced [m]	PS Reduced [m]	USBL Reduced [m]
CPT-1166	27-Apr-2022	-	39.2	-	39.6
CPT-1167	26-Apr-2022	-	37.8	-	38.3
CPT-1167a	26-Apr-2022	-	37.9	-	38.3
CPT-1167b	26-Apr-2022	-	37.8	-	38.2
CPT-1168	27-Apr-2022	-	40.9	-	41.3
CPT-1168a	27-Apr-2022	-	40.9	-	41.4
CPT-1168b	27-Apr-2022	-	40.9	-	41.3
CPT-1169	27-Apr-2022	-	39.7	-	40.1
CPT-1170	27-Apr-2022	-	39.7	-	40.2

Reduced water depths are relative to Mean Sea Surface DTU21MSS
Refer to plates titled 'Location Overview'.

Coordinates and Water Depth

DGPS Geodetic Parameters		
Datum:		International Terrestrial Reference Frame 2014 (ITRF2014)
Spheroid:		Geodetic Reference System 1980 (GRS 1980)
Semi-Major Axis, a:		6 378 137.000 m
Inverse Flattening, 1/f:		298.257222101
Transformation Parameters		
From ITRF 2014 to Local Datum for epoch 2021.414 (1 June 2021)		
Source Shift		
dX:		+0.05584 m
dY:		+0.05334 m
dZ:		-0.09579 m
Rotation and Scale		
rX:		-0.0026255″
rY:		-0.0158827″
rZ:		+0.0256716″
dS (Scale Factor):		0.00337551 ppm
Local Datum Geodetic Parameters		
Datum:		European Terrestrial Reference System 1989 (ETRS 1989)
Spheroid:		GRS 1980
Semi-Major Axis, a:		6 378 137.000 m
Inverse Flattening, 1/f:		298.257222101
Local Projection Parameters		
Projection:		Universal Transverse Mercator (UTM)
Zone:		32
Hemisphere:		Northern
Central Meridian (CM):		09°00′00.0000″ E
Latitude of Origin:		00°00′00.0000″ N
False Easting:		500 000 m
False Northing:		0 m
Scale Factor on CM:		0.9996
Units:		Metres / degrees
Example Coordinates		
Local grid coordinates:	Easting	355 156.260 m
	Northing	6 265 445.52 m
Local geographical coordinates:	Latitude	56°30′39.8833″N
	Longitude	006°38′46.2341″E
Global geographical coordinates:	Latitude	56°30′39.9021″N
	Longitude	006°38′46.2637″E

Geodetic Parameters

Overview

General Procedure:	According to ISO 19901-8:2014 Metrological confirmation according to ISO 10012:2003 Refer to document titled 'Positioning Survey and Depth Measurement' presented in appendix titled 'Descriptions of Methods and Practices'
Purpose of Measurement(s):	▪ Provision of spatial (xyz) position of data points applicable to geotechnical investigation The user of the presented positioning survey and depth measurement data must consider the purpose and accuracy of measurements, particularly where use may differ from original intentions
Geodetic Parameters:	Refer to plate titled 'Geodetic Parameters'
Vertical Datum:	For water depth: Mean Sea Surface (MSS) based on DTU21 MSS height reference system For geotechnical investigation data: depth below seafloor (BSF)

Data Acquisition System(s)

'Normand Mermaid'	
Primary System for Positioning Survey:	GNSS with Starfix® G2+
Primary System for Water Depth Measurement:	CTD (conductivity temperature depth) profiling, with CTD probe mounted on seabed frame
Primary System for Investigation Data Points below Vertical Datum:	Refer to plate A-47 titled 'Geodetic Parameters'
Secondary System for Positioning Survey:	GNSS with Starfix® XP2
Secondary System for Water Depth Measurement:	Ultra short baseline (USBL) system
'Fugro Scout'	
Primary System for Positioning Survey:	GNSS with Starfix® G4+
Primary System for Water Depth Measurement:	Pressure sensor mounted on seabed frame
Primary System for Investigation Data Points below Vertical Datum:	Refer to plate A-47 titled 'Geodetic Parameters'

Practice for Positioning Survey and Depth Measurement

Secondary System for Positioning Survey:	GNSS with Starfix®G4+
Secondary System for Water Depth Measurement:	Ultra short baseline (USBL) system

'Gargano'

Primary System for Positioning Survey:	GNSS with Starfix®G4+
Primary System for Water Depth Measurement:	CTD (conductivity temperature depth) profiling, with CTD probe mounted on seabed frame
Primary System for Investigation Data Points below Vertical Datum:	Refer to plate A-47 titled 'Geodetic Parameters'
Secondary System for Positioning Survey:	GNSS with Starfix®G4+
Secondary System for Water Depth Measurement:	Ultra short baseline (USBL) system

'Highland Eagle'

Primary System for Positioning Survey:	GNSS with Starfix®G4+
Primary System for Water Depth Measurement:	CTD (conductivity temperature depth) profiling, with CTD probe mounted on seabed frame
Primary System for Investigation Data Points below Vertical Datum:	Refer to plate A-47 titled 'Geodetic Parameters'
Secondary System for Positioning Survey:	GNSS with Starfix®XP2
Secondary System for Water Depth Measurement:	Ultra short baseline (USBL) system

Results

Data Processing:	Fugro in-house software
Data Format(s):	PDF for viewing and printing (this primary document)
Conversion of Coordinates Systems:	Refer to plate(s) titled 'Geodetic Parameters'
Correlation of Depth Measurements:	Not considered, overall inspection of multiple data sets

Practice for Positioning Survey and Depth Measurement

Depth Correction(s) for Sloping or Irregular Seafloor:	Not considered
Depth Correction(s) for Very Soft Seabed:	Refer to report section(s) on investigation data, where applicable
Positioning Survey and Depth Measurement Data:	■ Refer to plate(s) titled 'Coordinates and Water Depths' ■ Refer to report section(s) on investigation data for elevation (depth) of data points below vertical datum ■ Presented water depth measurements serve to establish logging, testing and/or sampling depths below seafloor only

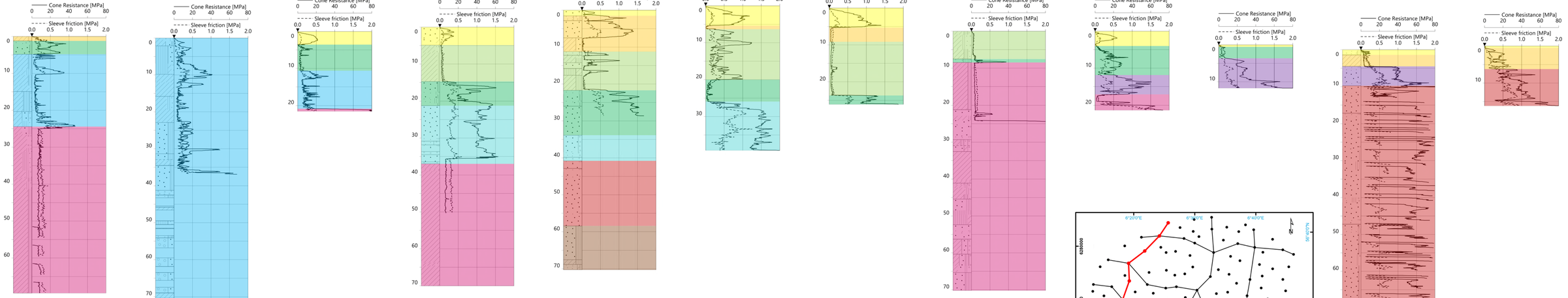
References

- International Organization for Standardization (2003). Measurement management systems - requirements for measurement processes and measuring equipment (ISO 10012:2003) https://www.iso.org/standard/26033.html.
- International Organization for Standardization (2014). Petroleum and natural gas industries – specific requirements for offshore structures – part 8: marine soil investigations (ISO 19901-8:2014). https://www.iso.org/standard/61145.html

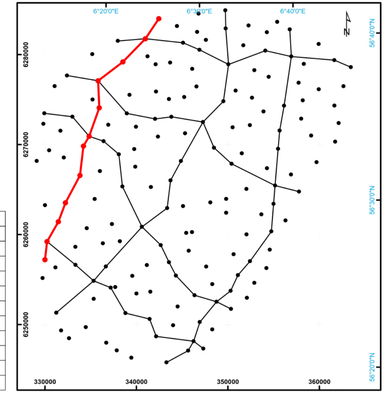
North-east to South-west 1

North-east **South-west**

BH-1052 CPT-1052 — 2663 m — BH-1049 CPT-1049 — 3551 m — CPT-1158 — 3435 m — BH-1150 CPT-1150 — 3011 m — BH-1035 CPT-1035 — 3357 m — CPT-1124 — 1246 m — CPT-1120 — 3288 m — BH-1024 CPT-1024 — 3426 m — CPT-1104 — 2250 m — CPT-1099 — 2528 m — BH-1013 CPT-1013 — 2023 m — CPT-1087



Unit	Depositional Environment	Geological Age
U10	Ma	Pg
U20	Mw	Pg
D24/U25	Fw, Mw	Ig
U30	Mw, Ma	Ig
U35	Mw	Ig
U40	Gl, Mw, Fw	Gc, Ig
U50	Fw, Mw	Ig
U60	Mw	Ig
U70	Gl, Mw, Fw	Gc, Ig
U90	Mw, Ma	Ig
BSU	Ma	MI



Notes:

- Relative horizontal position of the locations is not to scale
- Depth of geotechnical logs is in meters below seafloor (BSF)
- Elevation of geotechnical logs is in meters relative to mean sea surface height DTU21MSS (MSS)
- For details on depositional environments and geological ages refer to Main Text

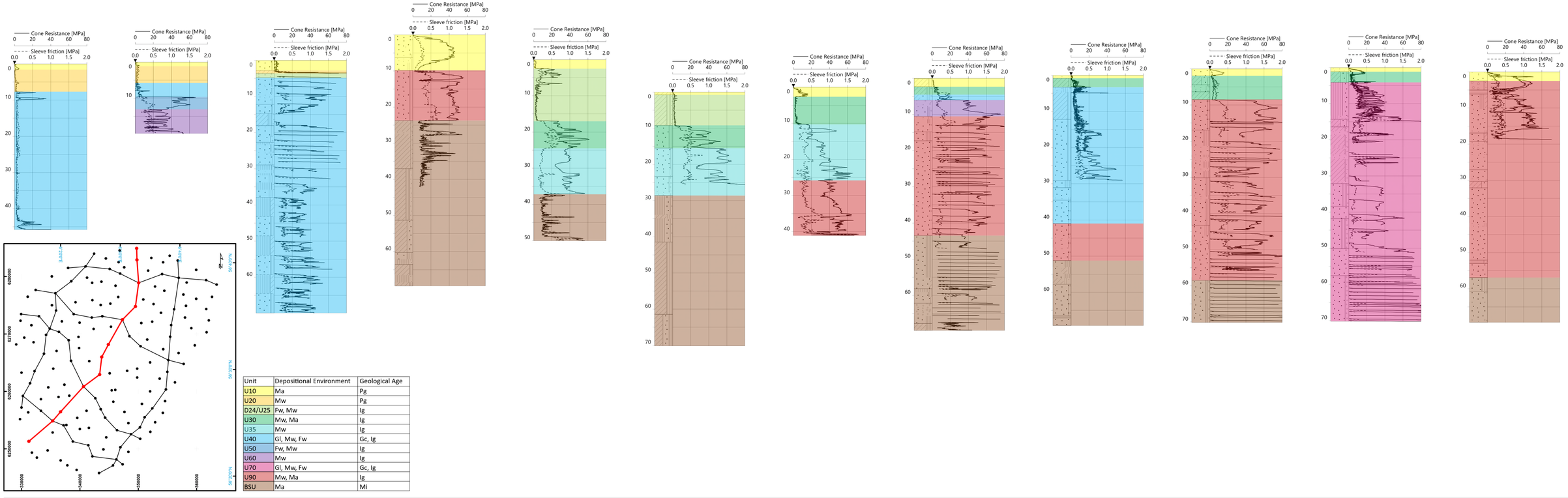
Geotechnical Cross-section

North-east to South-west 2

North-east

South-west

CPT-1170 — 1998 m — CPT-1166 — 4024 m — BH-1042 CPT-1042 — 4138 m — BH-1036 CPT-1036 — 3211 m — CPT-1133 — 4952 m — BH-1025 CPT-1025 — 2446 m — CPT-1108 — 3092 m — BH-1017 CPT-1017 — 3458 m — BH-1016 CPT-1016 — 5917 m — BH-1009 CPT-1009 — 2077 m — BH-1008 CPT-1008 — 5403 m — BH-1005 CPT-1005



Unit	Depositional Environment	Geological Age
U10	Ma	Pg
U20	Mw	Pg
D24/U25	Fw, Mw	Ig
U30	Mw, Ma	Ig
U35	Mw	Ig
U40	Gl, Mw, Fw	Gc, Ig
U50	Fw, Mw	Ig
U60	Mw	Ig
U70	Gl, Mw, Fw	Gc, Ig
U90	Mw, Ma	Ig
BSU	Ma	Mi

Notes:

- Relative horizontal position of the locations is not to scale
- Depth of geotechnical logs is in meters below seafloor (BSF)
- Elevation of geotechnical logs is in meters relative to mean sea surface height DTU21MSS (MSS)
- For details on depositional environments and geological ages refer to Main Text

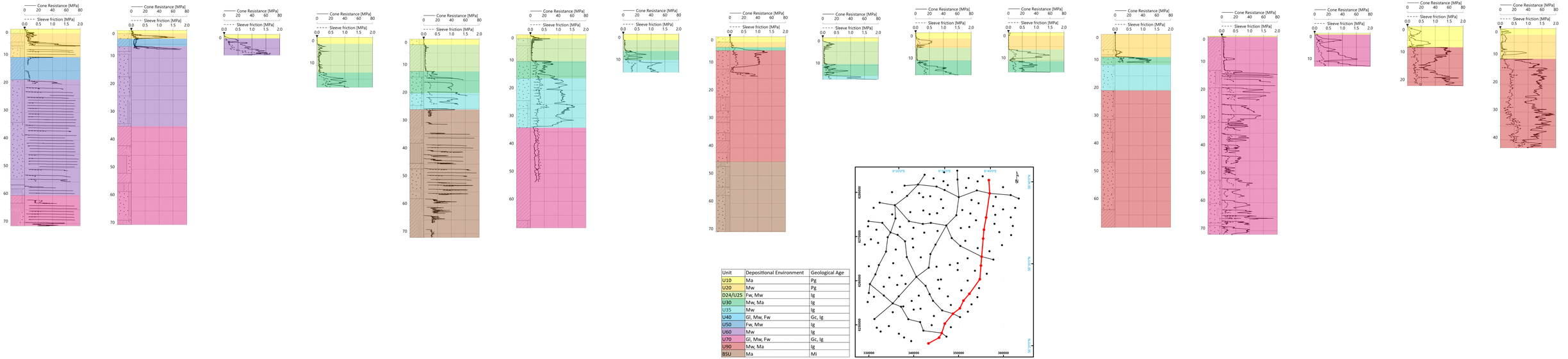
Geotechnical Cross-section

North-east to South-west 3

North-east

South-west

BH-1051 CPT-1051 — 3009 m — BH-1044 CPT-1044 — 5524 m — CPT-1137 — 2807 m — CPT-1128 — 2034 m — BH-1028 CPT-1028 — 4093 m — BH-1022 CPT-1022 — 2039 m — CPT-1103 — 3081 m — BH-1014 CPT-1014 — 4048 m — CPT-1086 — 2028 m — CPT-1081 — 1926 m — CPT-1073 — 1956 m — BH-1006 CPT-1006 — 2904 m — BH-1004 CPT-1004 — 2237 m — CPT-1058 — 1199 m — CPT-1056 — 2719 m — CPT-1054



Unit	Depositional Environment	Geological Age
U10	Ma	Pg
U20	Mw	Pg
D24/U25	Fw, Mw	Ig
U30	Mw, Ma	Ig
U35	Mw	Ig
U40	Gl, Mw, Fw	Gc, Ig
U50	Fw, Mw	Ig
U60	Mw	Ig
U70	Gl, Mw, Fw	Gc, Ig
U90	Mw, Ma	Ig
BSU	Ma	Mi

Notes:
- Relative horizontal position of the locations is not to scale
- Depth of geotechnical logs is in meters below seafloor (BSF)
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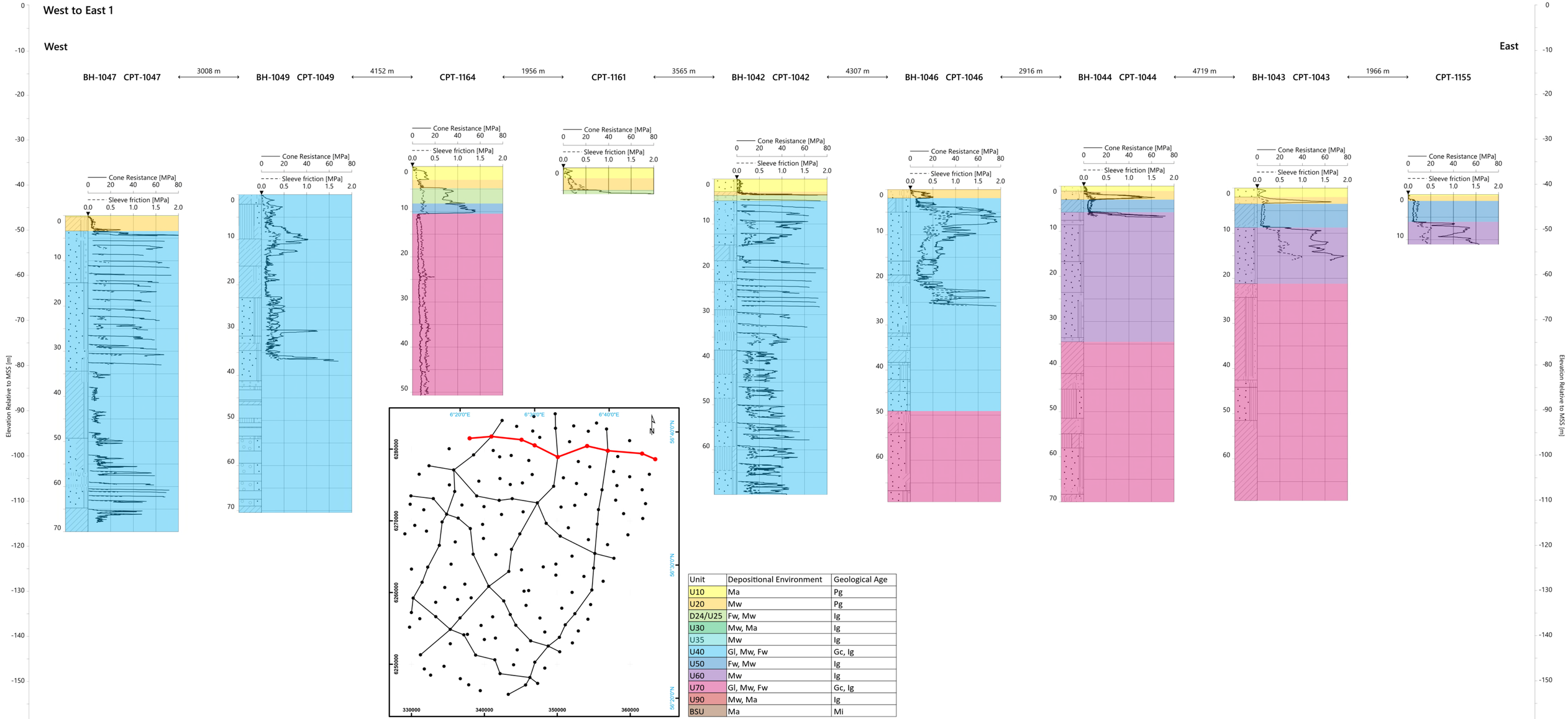
Geotechnical Cross-section

West to East 1

West **East**

BH-1047 CPT-1047 — 3008 m — BH-1049 CPT-1049 — 4152 m — CPT-1164 — 1956 m — CPT-1161 — 3565 m — BH-1042 CPT-1042 — 4307 m — BH-1046 CPT-1046 — 2916 m — BH-1044 CPT-1044 — 4719 m — BH-1043 CPT-1043 — 1966 m — CPT-1155



Unit	Depositional Environment	Geological Age
U10	Ma	Pg
U20	Mw	Pg
D24/U25	Fw, Mw	Ig
U30	Mw, Ma	Ig
U35	Mw	Ig
U40	Gl, Mw, Fw	Gc, Ig
U50	Fw, Mw	Ig
U60	Mw	Ig
U70	Gl, Mw, Fw	Gc, Ig
U90	Mw, Ma	Ig
BSU	Ma	Mi

Notes:

- Relative horizontal position of the locations is not to scale
- Depth of geotechnical logs is in meters below seafloor (BSF)
- Elevation of geotechnical logs is in meters relative to mean sea surface height DTU21MSS (MSS)
- For details on depositional environments and geological ages refer to Main Text

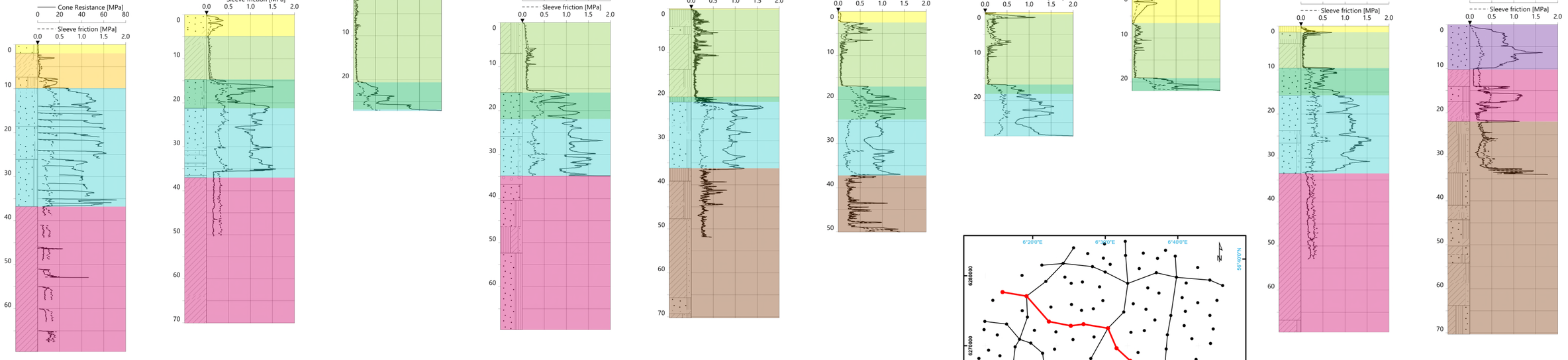
Geotechnical Cross-section

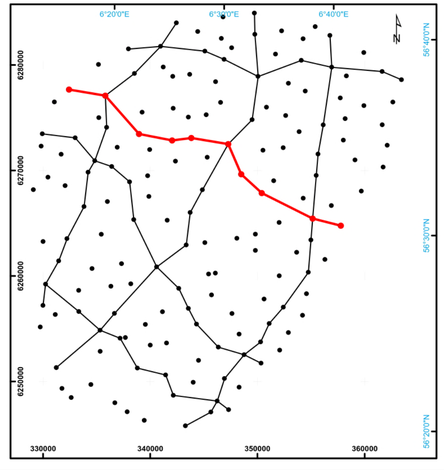
North-west to South-east 1

North-west

South-east

BH-1152 CPT-1152 — 3437 m — BH-1150 CPT-1150 — 4804 m — CPT-1135 — 3157 m — BH-1031 CPT-1031 — 1799 m — BH-1032 CPT-1032 — 3498 m — CPT-1133 — 3108 m — CPT-1119 — 2618 m — CPT-1113 — 5325 m — BH-1022 CPT-1022 — 2713 m — BH-1021 CPT-1021





Unit	Depositional Environment	Geological Age
U10	Ma	Pg
U20	Mw	Pg
D24/U25	Fw, Mw	Ig
U30	Mw, Ma	Ig
U35	Mw	Ig
U40	Gl, Mw, Fw	Gc, Ig
U50	Fw, Mw	Ig
U60	Mw	Ig
U70	Gl, Mw, Fw	Gc, Ig
U90	Mw, Ma	Ig
BSU	Ma	Mi

Notes:

- Relative horizontal position of the locations is not to scale
- Depth of geotechnical logs is in meters below seafloor (BSF)
- Elevation of geotechnical logs is in meters relative to mean sea surface height DTU21MSS (MSS)
- For details on depositional environments and geological ages refer to Main Text

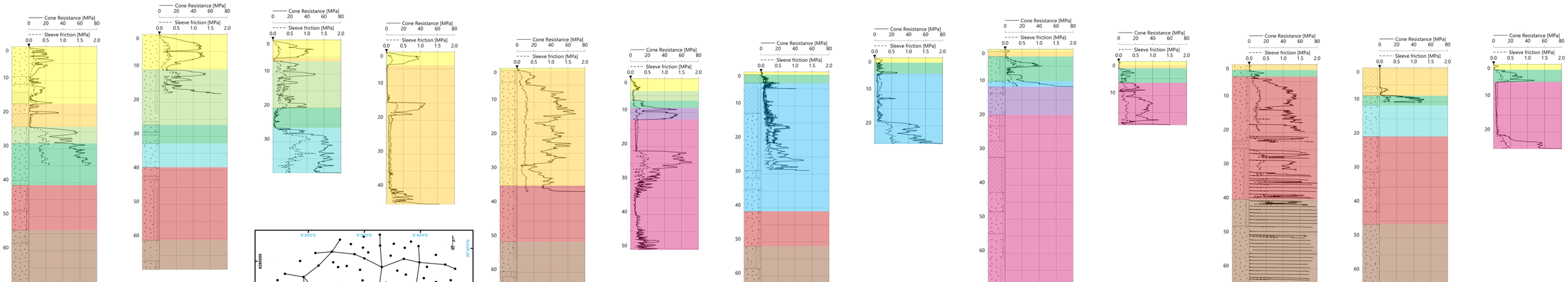
Geotechnical Cross-section

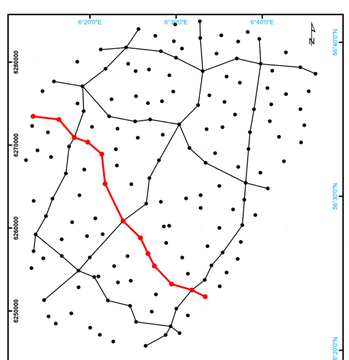
North-west to South-east 2

North-west

South-east

BH-1034 CPT-1034 — 3098 m — BH-1033 CPT-1033 — 2832 m — CPT-1124 — 1680 m — CPT-1122 — 2205 m — BH-1027 CPT-1027 — 3604 m — CPT-1107 — 4966 m — BH-1016 CPT-1016 — 2898 m — CPT-1092 — 2098 m — BH-1011 CPT-1011 — 1674 m — CPT-1080 — 2982 m — BH-1007 CPT-1007 — 2511 m — BH-1006 CPT-1006 — 1771 m — CPT-1067





Unit	Depositional Environment	Geological Age
U10	Ma	Pg
U20	Mw	Pg
D24/U25	Fw, Mw	Ig
U30	Mw, Ma	Ig
U35	Mw	Ig
U40	Gl, Mw, Fw	Gc, Ig
U50	Fw, Mw	Ig
U60	Mw	Ig
U70	Gl, Mw, Fw	Gc, Ig
U90	Mw, Ma	Ig
BSU	Ma	Mi

Notes:

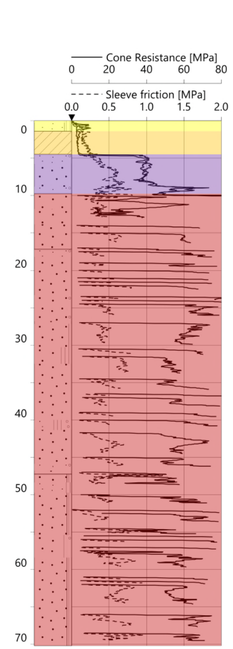
- Relative horizontal position of the locations is not to scale
- Depth of geotechnical logs is in meters below seafloor (BSF)
- Elevation of geotechnical logs is in meters relative to mean sea surface height DTU21MSS (MSS)
- For details on depositional environments and geological ages refer to Main Text

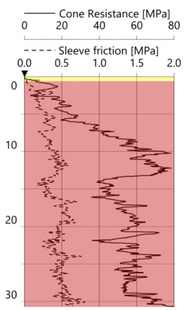
Geotechnical Cross-section

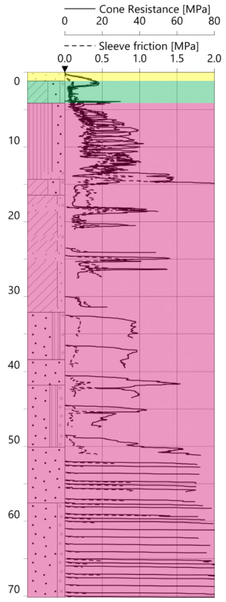
North-west to South-east 3

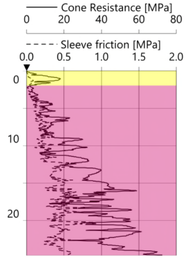
North-west **South-east**

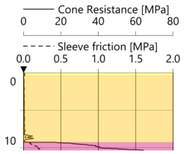
BH-1013 CPT-1013 — 4046 m — CPT-1085 — 2656 m — BH-1008 CPT-1008 — 2022 m — CPT-1074 — 3247 m — CPT-1065 — 2718 m — CPT-1064 — 2059 m — BH-1003 CPT-1003 — 4130 m — CPT-1058 — 1347 m — BH-1002 CPT-1002

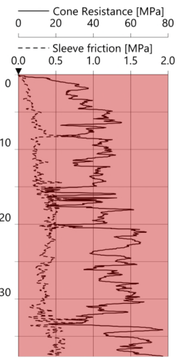


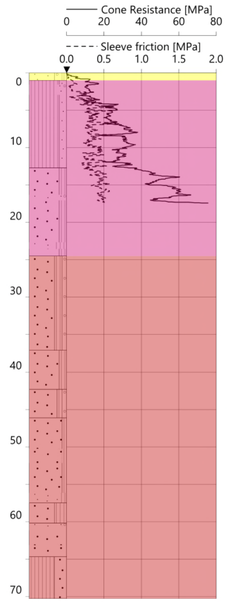


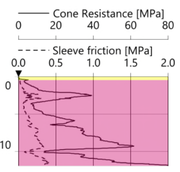


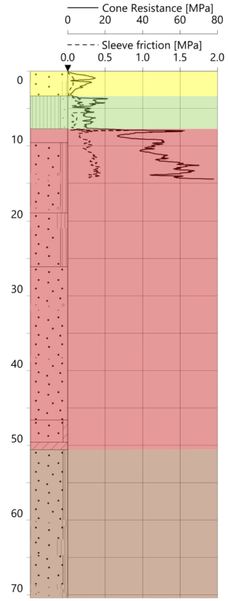


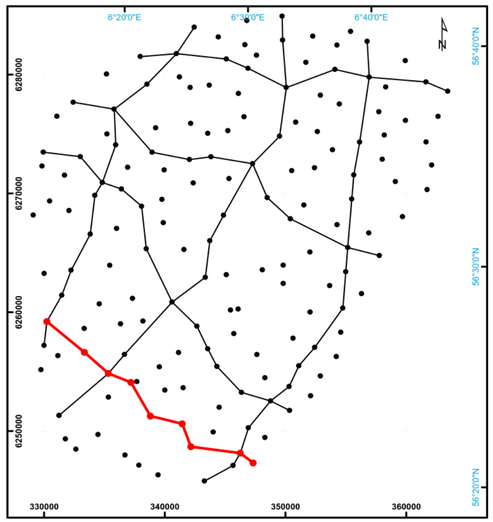












Unit	Depositional Environment	Geological Age
U10	Ma	Pg
U20	Mw	Pg
D24/U25	Fw, Mw	Ig
U30	Mw, Ma	Ig
U35	Mw	Ig
U40	Gl, Mw, Fw	Gc, Ig
U50	Fw, Mw	Ig
U60	Mw	Ig
U70	Gl, Mw, Fw	Gc, Ig
U90	Mw, Ma	Ig
BSU	Ma	Mi

Elevation Relative to MSS [m]

Notes:

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- For details on depositional environments and geological ages refer to Main Text

Geotechnical Cross-section

Soil Unit	Value Type	w	γ_1	γ_2	$\gamma_{d;min}$	$\gamma_{d;max}$	ρ_s	Particle Size Distribution				Atterberg Limits			Carbonate Content	Organic Matter LOI	Sulphate Content		Chloride Content		Roundness
								Clay	Silt	Sand	Gravel	W_p	W_L	I_p			Water Soluble	Acid Soluble	Water Soluble	Acid Soluble	
		[%]	[kN/m³]	[kN/m³]	[kN/m³]	[kN/m³]	[Mg/m³]	[%]	[%]	[%]	[%]	[%]	[%]	[%]	[% $CaCO_3$]	[%]	[mg/L SO_4]	[% SO_4]	[mg/L]	[%]	[-]
U10	1	294	294	141	22		41	49				4			36	-	34	34	34	34	18
	2	10.4	17.8	18.0	11.1	14.3	2.61	0.0	0.7	1.3	0.0	24	15	8	2.3	-	180	0.04	240	0.20	0.3
	3	40.3	22.5	23.1	14.2	23.4	2.70	41.4	72.9	98.9	58.9	38	20	19	18.8	-	910	0.21	3100	0.50	0.9
	4	23.4	19.9	20.0	13.0	16.5	2.64	3.5	12.0	80.2	4.3	29	18	12	3.9	-	366	0.10	1538	0.33	0.5
U20 (SAND)	1	144	144	64	10		18	22				4			19	2	16	16	15	16	12
	2	12.5	13.0	18.4	10.8	14.2	2.61	0.0	2.6	33.8	0.0	13	21	8	2.3	6.4	170	0.03	820	0.15	0.3
	3	105.6	22.0	22.1	13.7	17.7	2.71	26.6	41.0	97.3	63.1	19	42	23	4.1	30.0	940	0.29	2100	0.61	0.9
	4	22.5	20.0	20.1	12.8	16.6	2.65	1.9	12.7	76.0	9.4	17	36	19	2.5	18.2	360	0.09	1381	0.28	0.5
U20 (CLAY)	1	103	103	75	-		15	14				16			15	1	15	15	15	15	-
	2	13.0	15.5	15.1	-	-	2.62	0.0	2.3	0.0	0.0	15	30	12	2.3	-	180	0.05	48	0.19	-
	3	71.1	22.2	23.0	-	-	2.72	67.8	79.3	91.2	28.5	26	68	44	19.5	-	1900	0.66	2300	0.59	-
	4	29.0	19.4	19.4	-	-	2.67	36.2	41.8	19.2	2.7	20	45	25	5.7	2.4	463	0.16	1333	0.35	-
D24/ U25	1	394	392	199	6		40	47				34			38	-	33	33	33	33	8
	2	11.4	18.0	16.5	11.3	14.7	2.61	0.0	2.3	0.3	0.0	27	11	10	2.3	-	85	0.04	520	0.10	0.3
	3	38.4	22.6	23.0	14.0	17.3	2.70	81.0	91.5	97.4	52.7	51	22	29	17.7	-	3300	1.50	2600	0.50	0.7
	4	25.8	19.7	20.1	12.9	16.1	2.66	25.3	46.5	26.4	1.8	35	18	18	9.4	-	436	0.18	1523	0.31	0.5

Soil Unit	Value Type	Sphericity	PP	TV	LV	LV	UU	CIUc	CAUc	DSS	CIDc	OED-IL	UCS	Bender Elements		Resonant Column		Thermal Conductivity	
			s_u	s_u	s_u	$s_{u;r}$	s_u	s_u	s_u	s_u	φ'	σ'_p	c_u	G_{max}	v_s	G_{max}	D	k	$k_{r,rc}$
		[-]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[°]	[kPa]	[kPa]	[Mpa]	[m/s]	[Mpa]	[-]	[W/(mK)]	[W/(mK)]
U10	1	18	16	18	6	6	4	-	-	2	12	1	-	2	2	3	3	5	23
	2	0.3	7	8	3	1	19	-	-	24	32	-	-	32.20	135.25	43.98	0.25	1.43	1.99
	3	0.9	433	125	17	14	172	-	-	41	52	-	-	38.70	137.00	142.19	1.74	2.63	3.08
	4	0.7	152	54	10	3	82	-	-	33	40	185	-	35.45	136.13	82.85	0.82	2.05	2.63
U20 (SAND)	1	12	4	1	-	-	-	-	-	-	6	-	-	-	-	-	-	1	1
	2	0.3	24	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-	-
	3	0.9	267	-	-	-	-	-	-	-	48	-	-	-	-	-	-	-	-
	4	0.6	141	16	-	-	-	-	-	-	39	-	-	-	-	-	-	0.88	2.38
U20 (CLAY)	1	-	80	75	5	5	10	3	7	7	-	5	-	2	2	-	-	1	1
	2	-	3	1	16	1	8	22	56	7	-	53	-	8.03	68.44	-	-	-	-
	3	-	333	225	35	4	801	53	1009	215	-	414	-	28.99	120.56	-	-	-	-
	4	-	130	71	24	3	180	41	220	77	-	260	-	18.51	94.50	-	-	1.75	1.70
D24/ U25	1	8	170	138	-	-	14	1	12	9	8	6	-	-	-	2	2	3	1
	2	0.3	43	20	-	-	25	-	73	35	31	179	-	-	-	63.82	0.07	1.88	-
	3	0.9	367	200	-	-	231	-	411	87	39	839	-	-	-	709.51	0.30	2.15	-
	4	0.5	124	96	-	-	114	60	144	67	34	383	-	-	-	386.67	0.19	2.02	1.54

Notes:

Value Type:
1) quantity of laboratory tests per soil unit
2) minimum measured or derived laboratory test value per soil unit
3) maximum measured or derived laboratory test value per soil unit
4) calculated average laboratory test value per soil unit

w : water content
γ_1 : unit weight derived from water content
γ_2 : unit weight derived from volume-mass calculation
γ_{min} : minimum index dry unit weight
γ_{max} : maximum index dry unit weight
ρ_s : density of solid particles
w_p : plastic limit
w_L : liquid limit
I_p : plasticity index
LOI : loss on ignition
TV : torvane
LV : laboratory miniature vane
UU : unconsolidated undrained triaxial compression
CIUc : isotropically consolidated undrained triaxial compression
CAUc : anisotropically consolidated undrained triaxial compression
DSS : direct simple shear
CIDc : isotropically consolidated drained triaxial compression
OED-IL : one-dimensional consolidation
UCS : uni-axial compressive strength
s_u : undrained shear strength
$s_{u;r}$: undrained shear strength (remoulded)
φ' : effective angle of internal friction
σ'_p : effective preconsolidation pressure
c_u : unconfined compressive strength
G_{max} : small strain shear modulus
v_s : shear wave velocity
D : damping ratio
k : thermal conductivity
$k_{r,rc}$: thermal conductivity (remoulded, reconstituted)

Summary of Geotechnical Laboratory Test Results

Soil Unit	Value Type	w	γ_1	γ_2	$\gamma_{d;min}$	$\gamma_{d;max}$	ρ_s	Particle Size Distribution				Atterberg Limits			Carbonate Content	Organic Matter LOI	Sulphate Content		Chloride Content		Roundness
								Clay	Silt	Sand	Gravel	W_p	W_L	I_p			Water Soluble	Acid Soluble	Water Soluble	Acid Soluble	
		[%]	[kN/m³]	[kN/m³]	[kN/m³]	[kN/m³]	[Mg/m³]	[%]	[%]	[%]	[%]	[%]	[%]	[%]	[% $CaCO_3$]	[%]	[mg/L SO_4]	[% SO_4]	[mg/L]	[%]	[-]
U30	1	360	360	167	19		37	43				8			34	1	27	27	26	27	20
	2	10.2	11.7	18.0	10.9	14.7	2.61	0.0	1.7	0.2	0.0	11	23	12	2.3	-	30	0.02	570	0.12	0.3
	3	298.6	22.9	23.7	13.9	17.7	2.72	59.6	86.9	97.7	72.4	25	58	34	17.9	-	1300	0.91	3300	0.47	0.9
	4	25.3	19.8	19.8	13.2	16.5	2.65	7.7	16.6	72.0	3.8	19	42	23	5.3	62.0	393	0.13	1533	0.30	0.5
U35	1	336	336	138	23		28	30				1			24	1	6	6	6	6	20
	2	12.2	17.7	16.4	12.5	14.6	2.61	0.0	1.2	1.7	0.0	-	-	-	2.3	-	120	0.04	1100	0.18	0.3
	3	39.8	22.0	22.4	18.1	18.2	2.69	15.8	82.5	98.8	58.6	-	-	-	3.2	-	330	0.10	1500	0.29	0.9
	4	22.8	19.9	19.4	13.8	16.7	2.64	0.5	5.3	85.7	8.5	20	47	27	2.4	4.3	235	0.06	1317	0.24	0.6
U40 (SAND)	1	387	387	151	11		33	48				7			30	-	14	14	14	14	17
	2	9.4	18.0	17.2	12.7	16.0	2.61	0.0	0.2	3.3	0.0	7	27	7	2.3	-	190	0.04	76	0.22	0.3
	3	37.3	22.8	22.0	14.7	18.4	2.73	48.0	88.5	97.4	94.8	30	64	34	7.7	-	760	0.24	2200	0.48	0.9
	4	25.0	19.6	19.5	13.4	17.0	2.65	4.6	25.1	62.7	7.6	20	40	20	3.0	-	411	0.11	1275	0.32	0.5
U40 (CLAY)	1	159	155	100	-		26	27				23			20	-	14	14	14	14	4
	2	10.7	18.2	17.4	-	-	2.62	0.0	6.2	0.0	0.0	11	20	8	2.3	-	150	0.07	760	0.19	0.3
	3	36.9	22.8	24.4	-	-	2.72	63.0	89.1	92.6	5.4	27	76	51	13.4	-	1100	0.41	3700	0.48	0.7
	4	23.0	20.1	20.5	-	-	2.67	21.0	53.3	25.1	0.7	19	38	19	6.1	-	415	0.18	1430	0.32	0.5

Soil Unit	Value Type	Sphericity	PP	TV	LV	LV	UU	CIUc	CAUc	DSS	CIDc	OED-IL	UCS	Bender Elements		Resonant Column		Thermal Conductivity	
			s_u	s_u	s_u	$s_{u;r}$	s_u	s_u	s_u	s_u	φ'	σ'_p	c_u	G_{max}	v_s	G_{max}	D	k	$k_{r,rc}$
		[-]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[°]	[kPa]	[kPa]	[Mpa]	[m/s]	[Mpa]	[-]	[W/(mK)]	[W/(mK)]
U30	1	20	38	26	-	-	3	3	2	2	16	3	-	2	2	2	2	1	-
	2	0.3	58	63	-	-	44	87	82	30	31	125	-	74.50	189.11	83.53	0.44	-	-
	3	0.9	300	188	-	-	127	106	107	145	41	523	-	80.40	198.23	234.38	0.80	-	-
	4	0.6	145	126	-	-	77	94	94	88	35	318	-	77.45	193.67	158.96	0.62	1.60	-
U35	1	20	-	-	-	-	-	-	-	-	11	-	-	2	2	2	2	-	-
	2	0.3	-	-	-	-	-	-	-	-	33	-	-	94.90	233.40	127.35	0.34	-	-
	3	0.9	-	-	-	-	-	-	-	-	40	-	-	153.00	275.54	410.53	0.69	-	-
	4	0.7	-	-	-	-	-	-	-	-	37	-	-	123.95	254.47	268.94	0.52	-	-
U40 (SAND)	1	17	11	1	-	-	1	1	-	-	12	1	-	-	-	-	-	-	-
	2	0.3	50	-	-	-	-	-	-	-	33	-	-	-	-	-	-	-	-
	3	0.9	407	-	-	-	-	-	-	-	37	-	-	-	-	-	-	-	-
	4	0.7	238	99	-	-	229	254	-	-	34	1487	-	-	-	-	-	-	-
U40 (CLAY)	1	4	107	20	-	-	9	1	6	4	-	5	-	1	1	1	1	-	1
	2	0.3	50	40	-	-	105	-	108	83	-	117	-	-	-	-	-	-	-
	3	0.9	427	225	-	-	413	-	231	230	-	1095	-	-	-	-	-	-	-
	4	0.6	232	115	-	-	186	97	175	139	-	641	-	169.71	279.35	128.50	1.80	-	1.73

Notes:

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4) calculated average laboratory test value per soil unit

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UCS : uni-axial compressive strength
s_u : undrained shear strength
$s_{u;r}$: undrained shear strength (remoulded)
φ' : effective angle of internal friction
σ'_p : effective preconsolidation pressure
c_u : unconfined compressive strength
G_{max} : small strain shear modulus
v_s : shear wave velocity
D : damping ratio
k : thermal conductivity
$k_{r,rc}$: thermal conductivity (remoulded, reconstituted)

Summary of Geotechnical Laboratory Test Results

Soil Unit	Value Type	w	γ_1	γ_2	$\gamma_{d;min}$	$\gamma_{d;max}$	ρ_s	Particle Size Distribution				Atterberg Limits			Carbonate Content	Organic Matter LOI	Sulphate Content		Chloride Content		Roundness
								Clay	Silt	Sand	Gravel	W_p	W_L	I_p			Water Soluble	Acid Soluble	Water Soluble	Acid Soluble	
		[%]	[kN/m³]	[kN/m³]	[kN/m³]	[kN/m³]	[Mg/m³]	[%]	[%]	[%]	[%]	[%]	[%]	[%]	[% $CaCO_3$]	[%]	[mg/L SO_4]	[% SO_4]	[mg/L]	[%]	[-]
U50 (SAND)	1	15	15	9	1		1	2				-			3	-	2	2	2	2	2
	2	13.1	19.6	17.2	-	-	-	1.9	30.3	37.4	0.3	-	-	-	2.3	-	230	0.05	1200	0.24	0.5
	3	24.8	22.1	21.9	-	-	-	3.9	58.4	67.2	0.6	-	-	-	5.0	-	270	0.07	1300	0.34	0.7
	4	20.9	20.3	20.0	13.3	16.5	2.64	2.9	44.4	52.3	0.5	-	-	-	3.2	-	250	0.06	1250	0.29	0.6
U50 (CLAY)	1	26	19	22	-		4	4				5			4	-	5	5	5	5	-
	2	11.3	19.6	19.0	-	-	2.62	0.0	4.6	2.8	0.0	13	29	16	2.3	-	360	0.07	980	0.18	-
	3	28.7	22.6	21.2	-	-	2.74	61.1	73.9	19.3	76.1	24	48	27	9.3	-	640	0.14	1500	0.40	-
	4	22.9	20.4	20.0	-	-	2.68	34.4	36.8	9.7	19.1	20	43	24	4.1	-	476	0.11	1336	0.28	-
U60	1	318	318	150	22		30	33				-			30	-	18	18	18	18	20
	2	11.5	17.4	17.6	12.0	15.0	2.61	0.0	1.2	27.0	0.0	-	-	-	2.3	-	110	0.03	62	0.12	0.3
	3	42.8	22.2	22.7	14.3	17.9	2.73	37.6	50.4	98.7	46.3	-	-	-	8.9	-	550	0.14	2200	0.45	0.9
	4.0	23.1	19.9	19.8	13.2	16.6	2.64	2.5	9.5	84.5	3.6	-	-	-	2.8	-	275	0.07	1303	0.29	0.6
U70 (SAND)	1	755	755	331	35		53	77				16			55	-	6	6	6	6	25
	2	5.5	18.2	16.1	10.8	14.7	2.61	0.0	1.3	1.7	0.0	11	24	6	2.3	-	250	0.08	650	0.22	0.3
	3	35.5	23.9	22.7	14.3	18.1	2.70	58.1	91.6	97.9	52.6	28	68	40	22.7	-	750	0.23	1800	0.38	0.9
	4	23.8	19.8	19.5	12.9	16.5	2.64	8.8	24.0	64.2	3.1	20	35	15	4.1	-	428	0.13	1325	0.29	0.5

Soil Unit	Value Type	Sphericity	PP	TV	LV	LV	UU	CIUc	CAUc	DSS	CIDc	OED-IL	UCS	Bender Elements		Resonant Column		Thermal Conductivity	
			s_u	s_u	s_u	$s_{u;r}$	s_u	s_u	s_u	s_u	φ'	σ'_p	c_u	G_{max}	v_s	G_{max}	D	k	$k_{r,rc}$
		[-]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[°]	[kPa]	[kPa]	[Mpa]	[m/s]	[Mpa]	[-]	[W/(mK)]	[W/(mK)]
U50 (SAND)	1	2	1	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	1
	2	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	0.8	342	-	-	-	238	-	-	-	33	-	-	-	-	-	-	-	3.02
U50 (CLAY)	1	-	33	3	-	-	3	-	3	3	-	2	-	-	-	-	-	-	-
	2	-	133	50	-	-	187	-	142	103	-	1161	-	-	-	-	-	-	-
	3	-	413	200	-	-	362	-	233	224	-	1209	-	-	-	-	-	-	-
	4	-	282	118	-	-	302	-	178	153	-	1185	-	-	-	-	-	-	-
U60	1	20	4	-	-	-	1	-	-	-	14	-	-	-	-	-	-	-	1
	2	0.3	217	-	-	-	-	-	-	-	32	-	-	-	-	-	-	-	-
	3	0.9	880	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	-
	4.0	0.7	421	-	-	-	254	-	-	-	35	-	-	-	-	-	-	-	2.84
U70 (SAND)	1	25	17	-	-	-	2	-	-	1	20	-	1	-	-	-	-	-	-
	2	0.3	22	-	-	-	208	-	-	-	32	-	-	-	-	-	-	-	-
	3	0.9	467	-	-	-	691	-	-	-	41	-	-	-	-	-	-	-	-
	4	0.6	262	-	-	-	450	-	-	156	34	-	248	-	-	-	-	-	-

Notes:

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Summary of Geotechnical Laboratory Test Results

Soil Unit	Value Type	w	γ_1	γ_2	$\gamma_{d;min}$	$\gamma_{d;max}$	ρ_s	Particle Size Distribution				Atterberg Limits			Carbonate Content	Organic Matter LOI	Sulphate Content		Chloride Content		Roundness
								Clay	Silt	Sand	Gravel	W_p	W_L	I_p			Water Soluble	Acid Soluble	Water Soluble	Acid Soluble	
		[%]	[kN/m³]	[kN/m³]	[kN/m³]	[kN/m³]	[Mg/m³]	[%]	[%]	[%]	[%]	[%]	[%]	[%]	[% $CaCO_3$]	[%]	[mg/L SO_4]	[% SO_4]	[mg/L]	[%]	[-]
U70 (CLAY)	1	880	840	611	1		77	80				73			55	-	18	18	18	18	5
	2	9.9	16.5	16.3	-	-	2.61	1.4	19.4	0.4	0.0	11	23	9	2.3	-	10	0.07	910	0.18	0.3
	3	55.2	23.0	24.0	-	-	2.72	76.2	90.5	67.6	13.7	32	83	51	29.5	-	920	0.28	2600	0.52	0.7
	4	22.9	20.2	20.3	12.1	17.0	2.66	27.5	50.2	21.2	1.1	22	49	27	8.1	-	497	0.16	1684	0.37	0.5
U90	1	1383	1383	557	51		93	115				18			89	7	31	31	31	31	31
	2	11.2	14.5	16.6	10.9	14.1	2.61	0.0	1.0	5.8	0.0	9	23	8	2.3	2.1	160	0.04	930	0.20	0.3
	3	94.5	22.6	22.2	14.4	20.3	2.70	48.2	51.6	98.7	26.9	30	58	31	7.7	75.0	4700	1.50	3900	0.46	0.9
	4	23.1	19.9	19.5	12.9	16.4	2.64	2.2	10.8	84.9	2.1	20	39	19	2.6	28.8	483	0.13	1506	0.30	0.5
BSU (SAND)	1	498	498	183	17		43	57				6			40	1	-	-	-	-	11
	2	14.5	17.9	15.5	11.2	14.1	2.62	0.0	2.1	3.3	0.0	20	38	18	2.3	-	-	-	-	-	0.3
	3	38.2	21.5	21.6	15.1	18.0	2.69	53.5	91.8	97.6	49.4	28	59	32	5.2	-	-	-	-	-	0.9
	4	25.2	19.6	19.2	12.7	16.0	2.64	3.6	22.3	72.0	2.1	24	48	24	2.5	50.0	-	-	-	-	0.5
BSU (CLAY)	1	359	359	176	-		34	38				28			23	-	-	-	-	-	3
	2	12.7	17.8	17.7	-	-	2.62	1.2	18.5	1.4	0.0	16	32	9	2.3	-	-	-	-	-	0.3
	3	38.7	22.2	22.2	-	-	2.71	62.3	90.1	80.1	30.9	35	63	35	6.8	-	-	-	-	-	0.5
	4	23.3	20.1	20.1	-	-	2.66	22.5	53.8	22.5	1.2	23	45	22	2.6	-	-	-	-	-	0.4

Soil Unit	Value Type	Sphericity	PP	TV	LV	LV	UU	CIUc	CAUc	DSS	CIDc	OED-IL	UCS	Bender Elements		Resonant Column		Thermal Conductivity	
			s_u	s_u	s_u	$s_{u;r}$	s_u	s_u	s_u	s_u	φ'	σ'_p	c_u	G_{max}	v_s	G_{max}	D	k	$k_{r,rc}$
		[-]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[kPa]	[°]	[kPa]	[kPa]	[Mpa]	[m/s]	[Mpa]	[-]	[W/(mK)]	[W/(mK)]
U70 (CLAY)	1	5	751	85	-	-	39	11	14	18	1	15	8	1	1	1	1	1	-
	2	0.3	54	50	-	-	114	87	76	83	-	379	102	-	-	-	-	-	-
	3	0.9	913	250	-	-	873	497	807	487	-	3040	697	-	-	-	-	-	-
	4	0.6	469	144	-	-	345	256	245	254	33	1376	425	122.06	244.47	389.30	1.40	1.59	-
U90	1	31	36	3	-	-	3	3	-	2	31	2	1	2	2	2	2	-	-
	2	0.3	191	113	-	-	209	268	-	109	31	603	-	105.09	0.81	105.09	0.81	-	-
	3	0.9	833	150	-	-	568	609	-	279	41	4187	-	149.95	2.10	149.95	2.10	-	-
	4	0.7	496	135	-	-	386	434	-	194	35	2395	544	139.05	261.44	127.52	1.46	-	-
BSU (SAND)	1	11	24	5	-	-	1	-	-	-	11	-	-	-	-	-	-	-	-
	2	0.3	150	85	-	-	-	-	-	-	32	-	-	-	-	-	-	-	-
	3	0.9	800	213	-	-	-	-	-	-	36	-	-	-	-	-	-	-	-
	4	0.7	411	162	-	-	701	-	-	-	33	-	-	-	-	-	-	-	-
BSU (CLAY)	1	3	228	2	-	-	13	4	5	7	1	5	1	-	-	-	-	-	-
	2	0.3	75	100	-	-	59	212	347	105	-	716	-	-	-	-	-	-	-
	3	0.9	867	150	-	-	720	416	638	369	-	1378	-	-	-	-	-	-	-
	4	0.5	500	125	-	-	475	328	480	225	32	1072	521	-	-	-	-	-	-

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Summary of Geotechnical Laboratory Test Results

Soil Unit	Value Type	CPT Derived Parameters						Seismic Velocity Tests	
		s_{u1}	s_{u2}	D_{r1}	D_{r2}	φ'_1	φ'_2	v_s	G_{max}
		[kPa]	[kPa]	[%]	[%]	[°]	[°]	[m/s]	[Mpa]
U10 (I_c < 2.05)	1	-	-	1	0	32	-	232.60	110.34
	2	-	-	156	149	52	-	348.08	247.10
	3	-	-	96	89	44	-	298.51	183.74
U10 (2.05 < I_c < 2.60)	1	9	7	0	0	27	1	-	-
	2	1011	758	85	78	43	90	-	-
	3	137	103	18	14	57	36	-	-
U10 (I_c > 2.60)	1	1	1	-	-	-	6	-	-
	2	246	184	-	-	-	79	-	-
	3	34	25	-	-	-	25	-	-
U20 (I_c < 2.05)	1	-	-	9	2	34	-	162.40	53.79
	2	-	-	162	155	52	-	237.45	114.99
	3	-	-	97	90	44	-	208.76	90.88
U20 (2.05 < I_c < 2.60)	1	11	8	0	0	27	2	-	-
	2	2234	1676	141	134	50	107	-	-
	3	301	226	37	31	37	51	-	-
U20 (I_c > 2.60)	1	5	4	-	-	-	1	74.99	11.47
	2	933	700	-	-	-	63	152.47	47.41
	3	86	65	-	-	-	27	101.28	22.36
D24 (I_c < 2.05)	1	-	-	33	26	37	-	222.44	100.91
	2	-	-	141	134	50	-	349.45	249.04
	3	-	-	88	81	43	-	268.41	149.94
D24 (2.05 < I_c < 2.60)	1	74	56	0	0	32	13	-	-
	2	1691	1268	90	83	44	82	-	-
	3	333	250	31	24	36	44	-	-
D24 (I_c > 2.60)	1	65	49	-	-	-	13	-	-
	2	532	399	-	-	-	50	-	-
	3	158	119	-	-	-	31	-	-
U25 (I_c < 2.05)	1	-	-	2	2	33	-	179.98	66.06
	2	-	-	159	152	52	-	214.91	94.19
	3	-	-	87	80	43	-	197.44	80.13
U25 (2.05 < I_c < 2.60)	1	29	22	0	0	29	10	90.23	16.60
	2	1008	756	79	72	43	87	305.63	190.50
	3	220	165	24	17	35	41	230.30	113.33

Notes:

Value Type :

1 : minimum derived parameter value

2 : maximum derived parameter value

3 : calculated average derived parameter value

v_s : shear wave velocity

G_{max} : small strain shear modulus

Dr_1 : relative density (K_0 = 0.5)

Dr_2 : relative density (K_0 = 1.0)

s_{u1} : undrained shear strength (N_k = 15)

s_{u2} : undrained shear strength (N_k = 20)

φ'_1 : effective angle of internal friction according to Mayne (2007)

φ'_2 : effective angle of internal friction according to Mayne (2001)

Summary of Parameters derived from in Situ Test Data

Soil Unit	Value Type	CPT Derived Parameters						Seismic Velocity Tests	
		s_{u1}	s_{u2}	D_{r1}	D_{r2}	φ'_1	φ'_2	v_s	G_{max}
		[kPa]	[kPa]	[%]	[%]	[°]	[°]	[m/s]	[Mpa]
U25 (I_c > 2.60)	1	14	10	-	-	-	7	232.74	110.47
	2	370	278	-	-	-	65	288.06	169.23
	3	152	114	-	-	-	32	261.61	140.12
U30 (I_c < 2.05)	1	-	-	1	2	32	-	168.74	58.07
	2	-	-	165	158	53	-	271.53	150.36
	3	-	-	91	84	44	-	221.29	102.61
U30 (2.05 < I_c < 2.60)	1	22	16	0	0	28	5	215.07	94.33
	2	2330	1747	89	82	44	75	375.96	288.27
	3	297	223	31	25	36	46	291.14	181.75
U30 (I_c > 2.60)	1	17	12	-	-	-	12	-	-
	2	638	478	-	-	-	65	-	-
	3	154	115	-	-	-	39	-	-
U35 (I_c < 2.05)	1	-	-	53	46	39	-	195.82	78.21
	2	-	-	130	123	48	-	391.94	313.29
	3	-	-	98	91	44	-	250.60	131.66
U35 (2.05 < I_c < 2.60)	1	192	144	17	10	35	25	-	-
	2	2116	1587	81	74	42	54	-	-
	3	903	683	55	48	39	44	-	-
U35 (I_c > 2.60)	1	252	252	-	-	-	26	-	-
	2	808	606	-	-	-	42	-	-
	3	456	380	-	-	-	36	-	-
U40 (I_c < 2.05)	1	-	-	15	9	35	-	150.52	46.20
	2	-	-	159	151	52	-	326.62	217.57
	3	-	-	97	90	44	-	273.39	155.10
U40 (2.05 < I_c < 2.60)	1	32	24	1	0	31	8	215.07	94.33
	2	4624	3468	131	124	48	78	326.71	217.68
	3	573	457	43	36	38	44	276.32	158.07
U40 (I_c > 2.60)	1	11	8	-	-	-	4	257.37	135.10
	2	1168	1028	-	-	-	68	326.71	217.69
	3	262	208	-	-	-	33	297.77	182.47
U50 (I_c < 2.05)	1	-	-	21	14	36	-	-	-
	2	-	-	145	138	50	-	-	-
	3	-	-	114	107	47	-	-	-

Notes:

Value Type :

1 : minimum derived parameter value

2 : maximum derived parameter value

3 : calculated average derived parameter value

v_s : shear wave velocity

G_{max} : small strain shear modulus

Dr_1 : relative density (K_0 = 0.5)

Dr_2 : relative density (K_0 = 1.0)

s_{u1} : undrained shear strength (N_k = 15)

s_{u2} : undrained shear strength (N_k = 20)

φ'_1 : effective angle of internal friction according to Mayne (2007)

φ'_2 : effective angle of internal friction according to Mayne (2001)

Summary of Parameters derived from in Situ Test Data

Soil Unit	Value Type	CPT Derived Parameters						Seismic Velocity Tests	
		s_{u1}	s_{u2}	D_{r1}	D_{r2}	φ'_1	φ'_2	v_s	G_{max}
		[kPa]	[kPa]	[%]	[%]	[°]	[°]	[m/s]	[Mpa]
U50 ($2.05 < I_c < 2.60$)	1	43	32	11	4	34	31	200.33	81.84
	2	1415	1061	102	95	45	80	394.30	317.07
	3	318	248	40	34	38	55	264.49	152.03
U50 ($I_c > 2.60$)	1	207	155	-	-	-	45	-	-
	2	247	185	-	-	-	61	-	-
	3	231	173	-	-	-	58	-	-
U60 ($I_c < 2.05$)	1	-	-	34	27	37	-	286.02	166.84
	2	-	-	164	157	53	-	324.08	214.19
	3	-	-	114	107	46	-	309.23	195.58
U60 ($2.05 < I_c < 2.60$)	1	160	120	8	2	33	10	-	-
	2	2299	1812	107	100	46	79	-	-
	3	746	582	54	47	39	53	-	-
U60 ($I_c > 2.60$)	1	108	81	-	-	-	23	-	-
	2	468	468	-	-	-	64	-	-
	3	308	232	-	-	-	38	-	-
U70 ($I_c < 2.05$)	1	-	-	29	22	36	-	-	-
	2	-	-	137	130	49	-	-	-
	3	-	-	90	83	43	-	-	-
U70 ($2.05 < I_c < 2.60$)	1	77	58	5	0	33	1	-	-
	2	3209	2819	95	88	44	72	-	-
	3	758	600	44	38	38	40	-	-
U70 ($I_c > 2.60$)	1	35	26	-	-	-	1	111.40	25.31
	2	2430	2430	-	-	-	62	306.31	191.35
	3	423	329	-	-	-	35	209.78	95.25
U90 ($I_c < 2.05$)	1	-	-	17	10	35	-	244.20	121.62
	2	-	-	166	159	53	-	407.67	338.94
	3	-	-	108	101	46	-	322.89	217.84
U90 ($2.05 < I_c < 2.60$)	1	30	23	1	0	32	3	202.54	83.66
	2	3295	2471	131	123	49	101	489.76	489.18
	3	1164	908	68	61	41	55	321.45	241.27
U90 ($I_c > 2.60$)	1	56	42	-	-	-	2	-	-
	2	1462	1136	-	-	-	101	-	-
	3	252	197	-	-	-	44	-	-

Notes:

Value Type :

1 : minimum derived parameter value

2 : maximum derived parameter value

3 : calculated average derived parameter value

v_s : shear wave velocity

G_{max} : small strain shear modulus

Dr_1 : relative density ($K_0 = 0.5$)

Dr_2 : relative density ($K_0 = 1.0$)

s_{u1} : undrained shear strength ($N_k = 15$)

s_{u2} : undrained shear strength ($N_k = 20$)

φ'_1 : effective angle of internal friction according to Mayne (2007)

φ'_2 : effective angle of internal friction according to Mayne (2001)

Summary of Parameters derived from in Situ Test Data

Soil Unit	Value Type	CPT Derived Parameters						Seismic Velocity Tests	
		s_{u1}	s_{u2}	D_{r1}	D_{r2}	φ'_1	φ'_2	v_s	G_{max}
		[kPa]	[kPa]	[%]	[%]	[°]	[°]	[m/s]	[Mpa]
BSU (I_c < 2.05)	1	-	-	32	25	37	-	-	-
	2	-	-	133	126	49	-	-	-
	3	-	-	94	87	44	-	-	-
BSU (2.05 < I_c < 2.60)	1	70	53	8	2	34	10	-	-
	2	3273	2857	96	89	44	67	-	-
	3	869	701	48	42	38	40	-	-
BSU (I_c > 2.60)	1	24	18	-	-	-	24	-	-
	2	1185	1139	-	-	-	53	-	-
	3	557	438	-	-	-	34	-	-

Notes:

Value Type :

1 : minimum derived parameter value

2 : maximum derived parameter value

3 : calculated average derived parameter value

v_s : shear wave velocity

G_{max} : small strain shear modulus

Dr_1 : relative density (K_0 = 0.5)

Dr_2 : relative density (K_0 = 1.0)

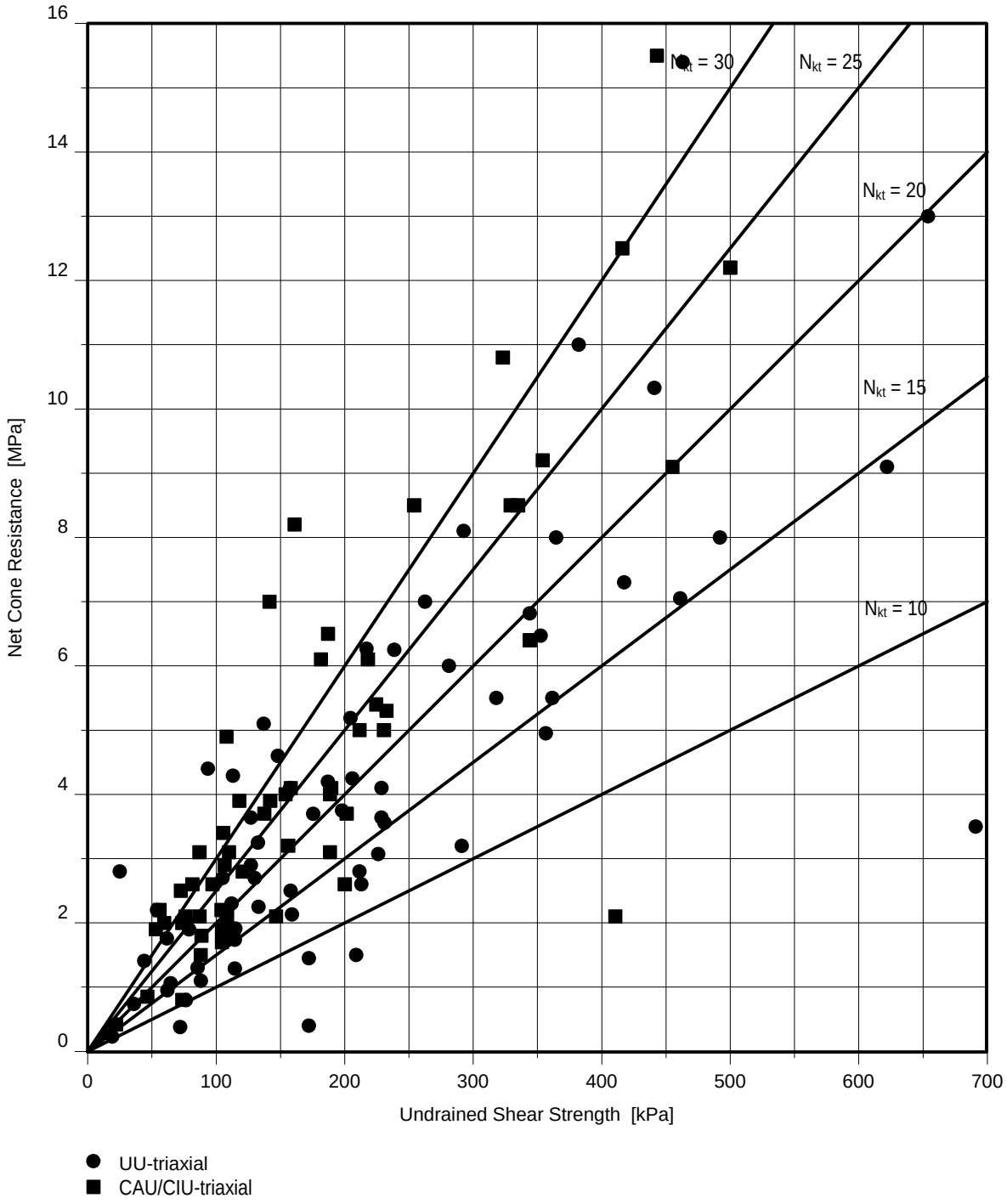
s_{u1} : undrained shear strength (N_k = 15)

s_{u2} : undrained shear strength (N_k = 20)

φ'_1 : effective angle of internal friction according to Mayne (2007)

φ'_2 : effective angle of internal friction according to Mayne (2001)

Summary of Parameters derived from in Situ Test Data



Net Cone Resistance Versus Undrained Shear Strength

Appendix I

Supplementary Information about Document

Contents Appendix I: Supplementary Information about Document

List of Documents

I.1 Quality Management Record

Fugro Project Lead: A. Kollatou
Senior Geotechnical Engineer

Report Review and Approval: E. Schoute
Principal Geotechnical Engineer

Document Section	Prepared By	Checked By
Main Text	AKU	JTT
A Plates referenced in Main Text	MTS/JSS	JTT
B Geotechnical Logs		
• Geotechnical Logs	MTS	JTT
• Geotechnical Logs - CPT Interpreted	AKU	JTT
C Results of Borehole Geophysical Logging	PMS	JTT
D Results of In Situ Tests		
• Results of Cone Penetration Tests - Seafloor	JSS	SJT
• Results of Cone Penetration Tests - Downhole	JSS	SJT
• Results of Seismic Cone Penetration Tests	AKU	SJT
E Results of Geotechnical Laboratory Tests		
• Laboratory Testing Overview	AKU/NSA	JTT
• Results of Classification Tests	NSA/PPT	JTT
• Sample Photographs	JSS	JTT
• Results of Sample Microscopy	NSA/PPT	JTT
• Results of Triaxial Tests	NSA/PPT	JTT
• Results of Direct Simple Shear Tests	NSA/PPT	JTT
• Results of One-dimensional Consolidation Tests	NSA	JTT
• Results of Resonant Column Tests	NSA/PPT	JTT
• Results of Thermal Conductivity Tests	NSA	JTT
• Results of Unconfined Compression Tests	NSA	JTT
F Cone Calibration Certificates	AKI	JTT
G Overview of Sample Material	JSS	JTT
H Description of Methods and Practices	AKU	JTT
I Supplementary Information about Document	AKU	JTT

Project Team

Initials	Name	Role
AKU	A. Kollatou	Senior Geotechnical Engineer
AKI	A. Klinkenberg	Geotechnical Engineer
JSS	J. Stokes	Geotechnical Engineer
JTT	J. Terwindt	Geotechnical Engineer
MTS	M. Tsermidis	Geotechnical Engineer
NSA	N. Santa	Geotechnical Engineer
PMS	P. Maas	Senior Geophysicist
PPT	P. Privat	Geotechnical Engineer
SJT	S. Timmermans	Senior Geotechnical Engineer

I.2 Sustainability

Fugro is committed to conducting its business ethically and responsibly and contributing to sustainable development. This requires balancing short- and long-term interests of our stakeholders and integrating economic, social and environmental considerations into decision making. Fugro's vision is to contribute to a safe and liveable world. With its solutions, Fugro delivers an essential contribution to sustainability, as Fugro's services enable clients to make sustainable use of the Earth and its resources and build assets.

Fugro is participant in the United Nations Global Compact https://www.unglobalcompact.org/.

I.3 Document Issue Record

Section	Page No.	Plate No.	Issue	Revision
Executive Summary	All	-	03	Editorial updates
Main Text	All	-	03	Editorial updates
A	-	A-2 to A-66	03	Editorial updates
B.1	All	B.1-1 to B.1-147	03	Presentation of the two CPT derived data with different line types and update of legend
B.2	All	-	03	Editorial updates
C	All	All	03	Editorial updates
D.1	All	-	03	Editorial updates
D.2	All	-	03	Editorial updates
D.3	All	-	03	Editorial updates
E.1	All	E.1.1 to E.1.2	03	Editorial updates; addition of unit weight, moisture content, pocket penetrometer, torvane and miniature laboratory vane on 'Overview of Laboratory Testing Programme' plate
E.5	All	-	03	Editorial updates
E.6	All	-	03	Editorial updates
E.7	All	-	03	Editorial updates
E.8	All	-	03	Editorial updates
Various	Various	Various	04	Appendices issued as separate documents following client request

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- The Issue number of this document is shown on the Document Control page presented after the title page of this document; some (unchanged) pages and plates can show a lower issue number
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