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Dogger Bank South Offshore Wind Farms

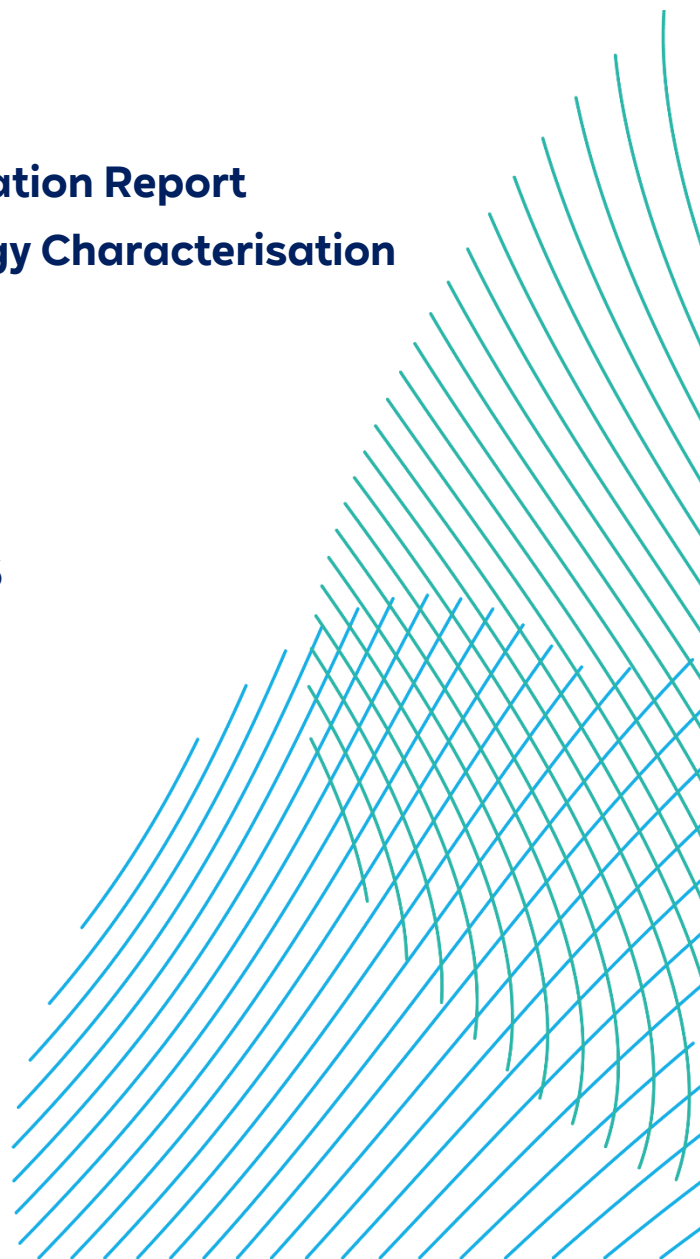
**Preliminary Environmental Information Report
Appendix 9-2 Draft Benthic Ecology Characterisation
Report**

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DBS WPM1 WPM2 WPM3 – Benthic Ecology Monitoring Report - Draft

Dogger Bank South Site Investigation | Southern North Sea
Survey Period: 6 to 19 August 2022

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RWE Renewables UK

The RWE logo, consisting of the letters 'RWE' in a bold, blue, sans-serif font, with a faint, larger 'RWE' watermark in the background.

RWE



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Frontispiece



Executive Summary

Introduction

RWE Renewables UK contracted Fugro to undertake a benthic ecology monitoring survey at the Dogger Bank South (DBS) proposed offshore windfarm (OWF) array and associated export cable route (ECR) options, hereafter referred to as ECR. Operations were conducted onboard the DSV Curtis Marshall during the survey period 6 to 19 August 2022. The DBS site is in the Southern North Sea, to the south-west of the Sofia OWF, which is currently being developed by RWE. The site comprises two adjacent blocks, Dogger Bank South East and Dogger Bank South West and the associated ECR. Water depths are reported to range from 10 m to 40 m in the DBS array and be up to 80 m along the ECR. The cable landfall is expected to be in the vicinity of Creyke Beck.

The aim of the survey was to characterise the DBS offshore array and ECR areas for foundation design and inform the project environmental impact assessment (EIA) and the final Development Consent Order (DCO) application.

The aim of the study was fulfilled through acquisition of seabed video and photographic data and sediment samples. The seabed video and photography allowed evaluation of the habitat types across the survey area, with particular focus on habitats of conservation importance, such as those listed under Annex I of the Conservation of Habitats and Species Regulations 2019 and on the Oslo and Paris (OSPAR) list of threatened and/or declining habitats and species (OSPAR, 2022). Sediment samples allowed evaluation of the physico-chemical and biological properties of the seabed and characterisation of the biotic communities, including identification of potential non-native species (NNS). Epibenthic survey trawls were also undertaken, by means of 2 m beam trawls for semi-quantitative assessment of epibenthos, fish, and shellfish species.

Survey Strategy

A total of 197 environmental sampling stations was selected to ensure spatial coverage of the proposed DBS arrays and ECR, and to investigate any features of interest highlighted by the geophysical data. Acquisition of environmental data by drop-down video was proposed at 104 stations and grab sampling was proposed at 180 stations. Acquisition of photographic data was proposed along an approximately 100 m long transect at each environmental station with a minimum of three good quality still photographs taken.

Seabed photography was acquired using a Subsea Technology and Rentals Limited (STR) SeaSpyder HD camera system. An STR SeaSpyder Nano HD video camera system was utilised while resolving an issue with the primary camera system.

Fauna and particle size distribution (PSD) samples were acquired using a 0.1 m² Hamon grab. Chemistry samples were acquired using a 0.1 m² Day grab.

Grab samples were successfully acquired at 179 of the 180 proposed grab sampling stations. Station ST097 was abandoned due to coarse substrate which prevented acquisition of sufficient sample

volume. At station ST166, only a PSD sample could be acquired owing to the coarseness of the sediment. Stations ST163, ST167, and ST168 were relocated after three unsuccessful attempts at their original locations.

A complete suite of samples (one macrofauna and one PSD samples) was retained at all stations successfully sampled. Single sediment sample for chemistry analysis (CA) were collected successfully at all 30 proposed grab sampling stations.

Sediment Characteristics

Sediment across the DBS survey area comprised mostly sand and, to a lesser extent, gravel, whereas the mud content was low, with 94 stations being devoid of mud. Shell fragments contributed to the gravel content, as recorded on survey from the qualitative description of the grab samples. The sediment sorting ranged from well sorted to very poorly sorted, with most stations having moderately well sorted sediments

The sediment diversity resulted in seven sediment classes being identified through the Folk (British Geological Survey [BGS] modified) classification. Of these, 'sand' typified 136 stations, 'sandy gravel', typified 16 stations, and 'gravelly sand' typified 11 stations, whereas 'muddy, sandy gravel' and 'muddy sand' each typified 6 stations. Of the remaining Folk (BGS modified) sediment classes 'gravelly muddy sand' typified 3 stations and 'gravel' typified 1 station.

The Wentworth (1922) scale was used to assess the coarseness of the sediment resulting in seven sediment descriptions being identified, including 'fine sand', which typified 100 stations, 'medium sand', which typified 51 stations, 'coarse sand', which typified 9 stations, 'granule', which typified 7 stations, 'very coarse sand', which typified 6 stations, 'fine pebble', which typified 5 stations, and 'coarse pebble', which typified 1 station.

Most stations had unimodal distributions. Twenty-eight stations had bimodal or polymodal distributions, the latter being indicative of different sources of sediment likely associated sediment disturbance in a high energy environment, such as that of the study area.

Sediment Chemistry

Sediment samples were analysed for total hydrocarbon content (THC), polycyclic aromatic hydrocarbons (PAHs), metal content, polychlorinated biphenyls (PCBs), and organotins. Twenty-two PAHs were analysed, including the United States Environmental Protection Agency (US EPA) 16 PAHs, selected alkyl naphthalenes, phenanthrenes, benzo[e]pyrene and perylene.

Results were compared against marine sediment quality guidelines (SQGs) including the OSPAR effects range low (ERL), the National Oceanic and Atmospheric Administration (NOAA) effects range median (ERM), the Centre for Environment, Fisheries and Aquaculture Science (Cefas) Guideline Action Levels (ALs), and the Canadian threshold effect level (TEL) and probable effect level (PEL).

THC content was below the Cefas AL1 at all stations apart from station ST161. The THC content in the array was generally lower than the THC content along the ECR.

Concentrations of individual PAHs were below all marine SQGs apart from the concentration of naphthalene at station ST168 which was higher than the Canadian TEL. In general, PAH concentrations were higher along the ECR than further offshore in the array.

Arsenic concentrations were above the Canadian TEL at 11 stations with station ST164 also above the Canadian PEL. Three stations (ST125, ST161, and ST164) had arsenic concentrations above the Cefas AL1 with station ST164 also above the NOAA ERM.

The lead concentration at station ST164 was above the Canadian TEL.

All other metals concentrations were below the marine SQGs.

The concentrations of the majority of individual PCB congeners analysed were below the limit of detection (LOD). Values above the LOD were reported for selected congeners at stations ST078 and ST098 located in the west of the array. The sum of the 25 congeners was below the Cefas ALs at all stations.

The organotins analysed were dibutyltin (DBT) and tributyltin (TBT), the concentrations of which were below their respective LOD and below the Cefas ALs across all stations.

Macrofauna

The macrofaunal community comprised infaunal and epifaunal taxa, the latter being represented by solitary and colonial organisms. Annelida were dominant in terms of taxa composition and abundance of the enumerated macrofauna, which comprised infauna and solitary epifauna. Annelida comprised polychaetes such as *Spiophanes bombyx* agg., *Scoloplos armiger*, *Ophelia borealis*, *Nephtys cirrosa*, *Lagis koreni*, and species of the genera *Owenia* and *Notomastus*. The polychaete *Sabellaria spinulosa* was recorded in grab samples from seven stations, with abundances of between one and nineteen individuals.

Arthropoda were represented mainly by amphipods such as *Bathyporeia elegans*, *Bathyporeia guilliamsoniana*, *Phtisica marina*, *Urothoe marina*, *Perioculodes longimanus*, and the cumacean *Diastylis rugosa*. Mollusca were represented mainly by bivalves such as *Abra alba*, *Chamelea striatula*, *Fabulina fabula*, *Abra prismatica*, *Thracia phaseolina*, and *Ensis*. The bivalves *Kurtiella bidentata* and *Nucula nitidosa* were recorded at notable abundance at selected stations.

Echinodermata were represented mainly by the urchin *Echinocyamus pusillus* and *Echinocardium cordatum* and the brittlestars *Amphiura filiformis*, *Acrocnida brachiata*, and *Ophiura albida*. Other phyla were represented mainly by species of Nemertea and *Phoronis*, the lancelet *Branchiostoma lanceolatum*, and anemones, namely *Cerianthus lloydii* and species of the family Edwardsiidae.

The macrobenthic communities recorded in this study are in line with those reported to be typical of this region of the North Sea and the Dogger Bank. The faunal diversity, calculated through the Shannon-Wiener ($H' \log_2$) and assessed in line with the criteria of Dauvin et al. (2012), was good across the DBS survey area, with faunal abundances fairly evenly distributed across the taxa recorded as indicated by the Pielou's index of evenness.

Eight macrofaunal assemblages were identified through the multivariate analysis, each group having an average similarity of 40.0 % to 48.2 % and reflecting the diversity of the sediment.

The infaunal biomass was represented mainly by echinoderms and molluscs, the former owing to the abundance as well as the size of invertebrates, notably urchins. The biomass of molluscs was associated with their numerical abundance as well as the size of selected bivalves.

Colonial epifauna from the grab samples was recorded across most of the survey area and was represented mainly by low-lying bryozoans and hydroids.

The epibiotic assemblages recorded through the trawl sampling and seabed video are in line with those reported to be typical of this region of the North Sea and comprised crustaceans, sea spiders and fish, as well as colonial epifauna.

Seabed Habitats and Biotopes

One habitat and five biotopes were identified and included:

- 'Circalittoral coarse sediment' (MC3), assigned to 10 stations, including 8 in the array and 2 stations along the ECR;
- '*Nephtys cirrosa* and *Bathyporeia* spp. in Atlantic infralittoral sand' (MB5233), assigned to 75 stations, including 73 in the array and 2 along the ECR;
- '*Branchiostoma lanceolatum*' in Atlantic circalittoral coarse sand with shell gravel (MC3215), assigned to 11 stations in the array;
- '*Mediomastus fragilis*, *Lumbrineris* spp. and venerid bivalves in Atlantic circalittoral coarse sand or gravel' (MC3212), assigned to five stations along the ECR;
- '*Abra prismatica*, *Bathyporeia elegans* and polychaetes in circalittoral fine sand' (MC5212), assigned to 46 stations, including 18 in the array and 28 along the ECR;
- '*Abra alba* and *Nucula nitidosa* in circalittoral muddy sand or slightly mixed sediment' (MC5214) was assigned to 31 stations, including 21 in the array and 10 along the ECR;

In addition, the biotope 'Piddocks with a sparse associated fauna in Atlantic circalittoral very soft chalk or clay' (MC1251), was assigned to areas of mud bored with round burrows of piddocks (*Imparidentia*) recorded through seabed video and photography only.

Potentially Sensitive Habitats and Species

Two UK Biodiversity Action Plan (BAP) priority habitat were recorded, namely 'Piddocks with a sparse associated fauna in Atlantic circalittoral very soft chalk or clay' (MC1251) and the broad scale habitat (BSH) 'Subtidal sands and gravel', which encompass sandy and coarse sediment habitats and biotopes. The BSH 'Subtidal sands and gravel' is also a habitat of conservation importance (HOCl) in Marine Protected Zones (MCZs), whereas 'Piddocks with a sparse associated fauna in Atlantic circalittoral very soft chalk or clay' (MC1251) may occur in the habitat 'Peat and clay exposure' which is a HOCl in MCZ.

Aggregations of cobbles at 16 stations were evaluated for the potential of Annex I habitat 'Reef' (geogenic). The overall assessment for the aggregations of cobbles was of 'no resemblance' or 'low

resemblance' to a stony reef and as such, unlikely to represent Annex I habitat under the current marine nature conservation legislation.

Species of conservation importance recorded in this study included the fish *Pleuronectes platessa*, *Solea solea*, and *Gadus morhua*, which are UK BAP priority species. *G. morhua* is also on the OSPAR list of threatened and/or declining habitats and species for regions II and III and on the IUCN red list of threatened species as 'vulnerable'. Sandeel of the family Ammodytidae and anemones of the family Edwardsiidae were recorded, therefore there is the potential for the UK BAP species *Ammodytes marinus* and *Edwardsia timida* to occur in the DBS survey area.

Non-native (NNS) and Cryptogenic species

One non-native species (NNS) was recorded in the grab samples, namely *Goniadella gracilis* and one cryptogenic species, namely *Polydora cornuta*. In addition, species of the genus *Molgula* were recorded, therefore there is the potential for the cryptogenic species *Molgula manhattensis* to occur in the DBS survey area.

Contents

Executive Summary	iv
1. Introduction	1
1.1 General Project Description	1
1.2 Scope of Work	1
1.2.1 Geophysical Survey	1
1.2.2 Environmental Survey	1
1.3 Environmental Legislation	2
1.4 Regional Habitats, Species and Protected Areas	3
1.5 Environmental Quality Standards for Sediment Chemical Concentrations	6
1.6 Coordinate Reference System	8
2. Survey Strategy	9
2.1 Geophysical Survey	9
2.2 Benthic Ecological Survey	9
2.2.1 Beam Trawl Sampling	20
3. Methods	21
3.1 Survey Methods	21
3.1.1 Seabed Photography	21
3.1.2 Sediment Sampling	21
3.2 Laboratory Methods	21
3.2.1 Sediment Characteristics	22
3.2.2 Sediment Hydrocarbons	22
3.2.3 Sediment Metals	23
3.2.4 Sediment Polychlorinated Biphenyls	23
3.2.5 Sediment Organotins	23
3.2.6 Sediment Macrofauna	23
3.3 Data Analysis	24
3.3.1 Sediment Particle Size Distribution Statistics	24
3.3.2 Sediment Macrofauna Data Rationalisation	25
3.3.3 Sediment Macrofaunal Univariate Analysis	25
3.3.4 Biomass Analysis	25
3.3.5 Multivariate Analysis	26
3.3.6 Seabed Habitats and Biotopes	27
4. Results	29
4.1 Field Operations	29
4.1.1 Sediment Sampling	29
4.1.2 Beam Trawl Sampling	34
4.1.3 Seabed Photography	36

4.2	Sediment Characterisation	45
4.2.1	Univariate Analysis	45
4.2.2	Investigation of Granulometric Similarities	60
4.3	Sediment Chemistry	70
4.3.1	Sediment Hydrocarbons	70
4.3.2	Sediment Metals	75
4.3.3	Sediment Polychlorinated Biphenyls	80
4.3.4	Sediment Organotins	84
4.4	Sediment Macrofauna	86
4.4.1	Infaunal and Solitary Epifauna from the Grab Samples	86
4.4.2	Colonial Epifauna	118
4.4.3	Macrofaunal Communities from the 2 m Beam Trawl Samples	123
4.5	Seabed Habitats and Biotopes	139
4.5.1	Biotope Classifications	140
5.	Discussion	152
5.1	Sediment Characterisation	152
5.2	Sediment Chemistry	153
5.2.1	Sediment Hydrocarbons	153
5.2.2	Sediment Metals	154
5.2.3	Sediment Polychlorinated Biphenyls	155
5.2.4	Sediment Organotins	155
5.3	Macrofaunal Communities	156
5.3.1	Grab samples	156
5.3.2	Epibiota from Beam Trawl Samples and Seabed Video	158
5.4	Seabed Habitats and Biotopes	160
5.4.1	Potentially Sensitive Habitats and Species	161
5.5	Cryptogenic and Non-native Species (NNS)	162
6.	Conclusions	164
7.	References	166

Appendices

Appendix A Guidelines on Use of Report

Appendix B Methodologies

B.1 Survey Methods

Appendix C Logs

- C.1 Survey Log
 - C.2 Grab Log
 - C.3 Video and Photographic Log
-

Appendix D Sediment Particle Size and Grab Sample Photographs

- D.1 Sediment Particle Size Certificates
 - D.2 Grab Sample Photographs
 - D.3 Grab Sample Photographs
-

Appendix E Chemistry Analysis Certificates**Appendix F Macrofaunal Analysis**

- F.1 Subtidal Grabs Macrofaunal Abundance
 - F.2 Subtidal Grabs Macrofaunal Biomass
 - F.3 2 m Beam Trawls Macrofaunal Abundance
-

Figures in the Main Text

Figure 1.1: Protected areas relating to benthic habitat and species relevant to the survey area, Dogger Bank South Site Investigation	5
Figure 2.1: Proposed survey, array, Dogger Bank South Site Investigation	18
Figure 2.2: Proposed survey, export cable route, Dogger Bank South Site Investigation	19
Figure 4.1: Completed survey locations overlaid on bathymetry, array, Dogger Bank South Site Investigation	43
Figure 4.2: Completed survey locations overlaid on bathymetry, ECR, Dogger Bank South Site Investigation	44
Figure 4.3: Sediment fractional composition, array, Dogger Bank South Site Investigation	53
Figure 4.4: Sediment fractional composition, export cable route, Dogger Bank South Site Investigation	54
Figure 4.5: Spatial variations of percentage of sand, gravel and fines, array, Dogger Bank South Site Investigation	55
Figure 4.6: Spatial variations of percentage of sand, gravel and fines, export cable route, Dogger Bank South Site Investigation	56
Figure 4.7: Spatial variations of the median [μm] sediment particle size, array, Dogger Bank South Site Investigation	57
Figure 4.8: Spatial variations of the median [μm] sediment particle size, export cable route, Dogger Bank South Site Investigation	58
Figure 4.9: Folk (BGS modified) sediment description, Dogger Bank South Site Investigation	59
Figure 4.10: Wentworth (1922) sediment description, Dogger Bank South Site Investigation	59
Figure 4.11: Dendrogram of hierarchical clustering of sediment characteristics data, Dogger Bank South Site Investigation	62
Figure 4.12: nMDS of hierarchical clustering analysis of sediment particle size, Dogger Bank South Site Investigation	63
Figure 4.13: nMDS ordination of hierarchical clustering analysis of PSD with superimposed circles proportional in diameter to percentage of particles driving the separation of multivariate groups Dogger Bank South Site Investigation	65

Figure 4.14: Spatial distribution of the sediment groups identified through the multivariate analysis, array, Dogger Bank South Site Investigation	66
Figure 4.15: Spatial distribution of the sediment groups identified through the multivariate analysis, export cable route, Dogger Bank South Site Investigation	67
Figure 4.16: 2D PCA of sediment composition with superimposed, survey areas and circles proportional in diameter to percentage of mud, Dogger Bank South Site Investigation	68
Figure 4.17: 2D PCA of sediment composition with superimposed, survey areas and circles proportional in diameter to percentage of gravel, Dogger Bank South Site Investigation	69
Figure 4.18: 2D PCA of sediment composition with superimposed, survey areas and circles proportional in diameter to percentage of fines, Dogger Bank South Site Investigation	69
Figure 4.19: Spatial distribution of arsenic concentrations, array, Dogger Bank South Site Investigation	78
Figure 4.20: Spatial distribution of arsenic concentrations, export cable route, Dogger Bank South Site Investigation	79
Figure 4.21: Phyletic composition of enumerated macrofaunal (A) taxa and (B) individuals from the grab samples, array, Dogger Bank South	88
Figure 4.22: Phyletic composition of enumerated macrofaunal (A) taxa and (B) individuals from the grab samples, export cable route, Dogger Bank South	89
Figure 4.23: Spatial variations of the number of taxa (0.1m ²), array, Dogger Bank South Site Investigation	95
Figure 4.24: Spatial variations of the number of taxa (0.1m ²), export cable route, Dogger Bank South Site Investigation	96
Figure 4.25: Spatial variations of the number of individuals (0.1m ²), array, Dogger Bank South Site Investigation	97
Figure 4.26: Spatial variations of the number of individuals (0.1m ²), array, Dogger Bank South Site Investigation	98
Figure 4.27: Dendrogram of hierarchical clustering analysis of enumerated fauna from the grab samples, Dogger Bank South Site Investigation	102
Figure 4.28: Spatial distribution of macrofaunal groups identified through the multivariate analysis, array, Dogger Bank South Site Investigation	106
Figure 4.29: Spatial distribution of macrofaunal groups identified through the multivariate analysis, export cable route, Dogger Bank South Site Investigation	107
Figure 4.30: 2D PCA of sediment composition with superimposed macrofaunal (A) multivariate groups and (B) Shannon-Wiener [H'Log ₂] index of diversity of enumerated macrofauna from the grab samples, Dogger Bank South Site Investigation	108
Figure 4.31: Phyletic composition of macrofaunal biomass from the grab samples, main array, Dogger Bank South Site Investigation	114
Figure 4.32: Phyletic composition of macrofaunal biomass from the grab samples, export cable route, Dogger Bank South Site Investigation	114
Figure 4.33: Spatial variations of total macrofaunal biomass from the grab samples, array, Dogger Bank South Site Investigation	115
Figure 4.34: Spatial variations of total macrofaunal biomass from the grab samples, export cable route, Dogger Bank South Site Investigation	116
Figure 4.35: 2D PCA of sediment composition with superimposed location and circles proportional in diameter to the abundance of major taxonomic groups of enumerated fauna from the grab samples, Dogger Bank South Site Investigation	117

Figure 4.36: 2D PCA of sediment composition with superimposed location and circles proportional in diameter to the number of colonial epifauna from the grab samples, Dogger Bank South Site Investigation	119
Figure 4.37: Phyletic composition of epifaunal taxa from the grab samples, array, Dogger Bank South Site Investigation	120
Figure 4.38: Phyletic composition of epifaunal taxa from the grab samples, export cable route, Dogger Bank South Site Investigation	120
Figure 4.39: Spatial variations of colonial epifauna from the grab samples, array, Dogger Bank South Site Investigation	121
Figure 4.40: Spatial variations of colonial epifauna from the grab samples, export cable route, Dogger Bank South Site Investigation	122
Figure 4.41: Phyletic composition of enumerated macrofaunal (A) taxa and (B) individuals from the trawl samples, Dogger Bank South Site Investigation	124
Figure 4.42: Spatial variations of the number of taxa from the 2 m beam trawl samples, array, Dogger Bank South Site Investigation	127
Figure 4.43: Spatial variations of the number of taxa from the 2 m beam trawl samples, export cable route, Dogger Bank South Site Investigation	128
Figure 4.44: Spatial variations of the number of individuals from the 2 m beam trawl samples, array, Dogger Bank South Site Investigation	129
Figure 4.45: Spatial variations of the number of individuals from the 2 m beam trawl samples, array, Dogger Bank South Site Investigation	130
Figure 4.46: Mean length distribution of commercially important fish and shellfish from the 2 m beam trawl samples, Dogger Bank South Site Investigation	134
Figure 4.47: Dendrogram of hierarchical clustering analysis of enumerated fauna from the trawl samples, Dogger Bank South Site Investigation	135
Figure 4.48: Phyletic composition of epifaunal taxa from the trawl samples, Dogger Bank South Site Investigation	138
Figure 4.49: Spatial distribution of EUNIS habitats and biotopes, array, Dogger Bank South Site Investigation	148
Figure 4.50: Spatial distribution of EUNIS habitats and biotopes, export cable route, Dogger Bank South Site Investigation	149
Figure 4.51: EUNIS habitats and biotopes following extrapolation of grab samples data over areas with similar geophysical signature, array, Dogger Bank South Site Investigation	150
Figure 4.52: EUNIS habitats and biotopes following extrapolation of grab samples data over areas with similar geophysical signature, export cable route, Dogger Bank South Site Investigation	151

Tables in the Main Text

Table 1.1: Marine environmental legislation	2
Table 1.2: Marine protected areas biodiversity features	3
Table 1.3: Summary of nearby marine protected areas relating to benthic habitats and species, Dogger Bank South Site Investigation	3
Table 1.4: Project geodetic and projection parameters	8
Table 2.1: Proposed sampling stations, Dogger Bank South Site Investigation	10
Table 3.1: Sediment particle size distribution statistics	24

Table 3.2: Macrofaunal Univariate Statistics	25
Table 3.3: Macrofaunal standard biomass corrections by phyla	25
Table 3.4: Multivariate Statistics	26
Table 3.5: EUNIS (European Environment Agency [EEA], 2022) biotope classification hierarchy example	27
Table 4.1: Completed sediment sampling stations, Dogger Bank South Site Investigation	29
Table 4.2: Completed beam trawl stations	35
Table 4.3: Completed transects Dogger Bank South Site Investigation	36
Table 4.4: Summary of sediment characteristics, Dogger Bank South Site Investigation	47
Table 4.5: Summary of particle size distribution, Dogger Bank South Site Investigation	50
Table 4.6: Summary of physical characteristics of sediment groups identified through the cluster analysis, Dogger Bank South Site Investigation	64
Table 4.7: Summary of sediment hydrocarbon analysis, Dogger Bank South Site Investigation	70
Table 4.8: Summary of sediment polycyclic aromatic hydrocarbons analysis, Dogger Bank South Site Investigation	72
Table 4.9: Summary of sediment metals analysis, Dogger Bank South Site Investigation	76
Table 4.10: Summary of polychlorinated biphenyls (PCBs) analysis, Dogger Bank South Site Investigation	81
Table 4.11: Summary of organotins analysis, Dogger Bank South Site Investigation	84
Table 4.12: Taxonomic groups of enumerated fauna from the grab samples, Dogger Bank South	86
Table 4.13: Community statistics of enumerated fauna from the grab samples (0.1 m ²), Dogger Bank South Site Investigation	91
Table 4.14: Summary of attributes of multivariate groups of enumerated macrofauna from the grab samples, Dogger Bank South Site Investigation	103
Table 4.15: Taxonomic groups of macrofaunal biomass from the grab samples, Dogger Bank South Site Investigation	109
Table 4.16: Phyletic composition of macrofaunal biomass from the grab samples (0.1 m ²), Dogger Bank South Site Investigation	110
Table 4.17: Taxonomic groups of colonial epifauna from the grab samples, Dogger Bank South Site Investigation	118
Table 4.18: Top ten most frequently occurring colonial epifaunal taxa from the grab samples, Dogger Bank South Site Investigation	118
Table 4.19: Taxonomic groups of enumerated fauna from the trawl samples, Dogger Bank South Site Investigation	123
Table 4.20: Community statistics of enumerated fauna from the trawl samples, Dogger Bank South Site Investigation	125
Table 4.21: Fish recorded in the 2 m beam trawl samples, Dogger Bank South Site Investigation	131
Table 4.22: Summary statistics of fish population from 2 m beam trawl samples, Dogger Bank South Site Investigation	132
Table 4.23: Summary statistics of shellfish population from 2 m beam trawl samples, Dogger Bank South Site Investigation	133
Table 4.24: Characterising taxa of multivariate groups of enumerated macrofauna from the trawl samples, Dogger Bank South Site Investigation	136
Table 4.25: Taxonomic groups of colonial epifauna from the 2 m beam trawl samples, Dogger Bank South Site Investigation	137

Table 4.26: Top ten most frequently occurring colonial epifaunal taxa from the 2 m beam trawl samples, Dogger Bank South Site Investigation	137
Table 4.27: Habitat classification, Dogger Bank South Site Investigation	141
Table 4.28: Summary of EUNIS habitat classifications, Dogger Bank South Site Investigation	142

Abbreviations

2DHR	Two-dimensional high resolution
AFDW	Ash free dry weight
AL1/AL2	Action Level 1 or 2
BAC	Background assessment concentration
BC	Background concentration
BGS	British Geological Survey
BSH	Broad-scale habitat
BIOENV	Biological and Environmental
BS	British Standards
CBD	Convention on Biological Diversity
CCME	Canadian Council of Ministers of the Environment
Cefas	Centre for Environment, Fisheries and Aquaculture Science
CEMP	Coordinated Environmental Monitoring Programme
CSEMP	Clean Seas Environmental Monitoring Programme
CM	Central meridian
DAISIE	Delivering Alien Invasive Species Inventories for Europe
DBT	Dibutyltin
DCO	Development Consent Order
DDV	Drop down video
DSV	Dive support vessel
DVV	Dual van Veen grab
EBS	Environmental baseline survey
EC	European Commission
ECR	Export cable route
EEA	European Environment Agency
EIA	Environmental Impact Assessment
EMODnet	European Marine Observation Data Network
EOL	End of line
EPSG	European Petroleum Survey Group
ERL	Effects range low
ERM	Effects range median
EU	European Union
EUNIS	European Nature Information System
FA	Faunal sample A
FOCI	Feature of Conservation Importance
GC	Gas chromatography
GC-MS	Gas chromatography – mass spectrometry
GES	Good environmental status
HC	Hydrocarbon
HD	Hard drive

HM	Heavy metal (sample)
HOCI	Habitat of Conservation Importance
IC	Interconnector
ICES	International Council for the Exploration of the Sea
ICP-MS	Inductively coupled plasma-mass spectrometry
ICP-OES	Inductively coupled plasma-optical emission spectrometry
ISO	International Organization for Standardization
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
KP	Kilometre point
LAT	Lowest Astronomical Tide
LED	Light-emitting diode
LOD	Limit of detection
MBES	Multi beam echosounder
MCZ	Marine Conservation Zone
MERMAN	Marine Environment Monitoring and Assessment National (database)
MALSF	Marine Aggregate Levy Sustainability Fund
MMO	Marine Management Organisation
MNCR	Marine Nature Conservation Review
MPA	Marine Protected Area
MSL	Mean Sea Level
MV	Motor vessel
NA	North array
NBN	National Biodiversity Network
NEMESIS	National Exotic Marine and Estuarine Species Information System
NERC	Natural Environment and Rural Communities
NF	No fix
NMBAQC	North East Marine Biological Association Quality Control
NNS	Non-native species
NNSS	Non-native Species Secretariat
nMDS	Non-metric multi-dimensional scaling
NOAA	National Oceanic and Atmospheric Administration
NS	No sample
OSPAR	Oslo and Paris Commission
OWF	Offshore Wind Farm
PAH	Polycyclic aromatic hydrocarbon
PC	Physico-chemical sample
PCA	Principal component analysis
PCB	Polychlorinated biphenyls
PEL	Probable effects level
PRIMER	Plymouth Routines in Multivariate Ecological Research
PSA	Particle size analysis
PSD	Particle size distribution
RSD	Relative standard deviation
SA	South array
SAC	Special Area of Conservation
SACFOR	Superabundant, abundant, common, frequent, occasional, and rare (semi-quantitative abundance scale)
SIMPER	Similarity percentage (analysis)

SIMPROF	Similarity Profile
SOL	Start of line
SPA	Special Protection Area
SQG	Sediment quality guideline
SSS	Side scan sonar
SSSI	Site of Special Scientific Interest
STR	Subsea Technology and Rentals
TBT	Tributyltin
TEL	Threshold effects level
THC	Total hydrocarbon content
UKAS	United Kingdom Accreditation Service
US EPA	United States Environmental Protection Agency
USBL	Ultra-short baseline
UTC	Coordinated Universal Time
UTM	Universal Transverse Mercator
WGS 84	World Geodetic System 1984
WoRMS	World Register of Marine Species

1. Introduction

1.1 General Project Description

RWE Renewables UK contracted Fugro to undertake a benthic ecology monitoring survey at the Dogger Bank South Site Investigation (DBS) proposed offshore windfarm (OWF) array and export cable route (ECR) options, hereafter referred to as ECR. Operations were conducted onboard the DSV Curtis Marshall during the survey period 6 to 19 August 2022.

The DBS site is in the Southern North Sea, to the south-west of the Sofia OWF, which is currently being developed by RWE. The site comprises two adjacent blocks, Dogger Bank South East and Dogger Bank South West and the associated ECR. Water depths are reported to range from 10 m to 40 m at the DBS array and be up to 80 m along the ECR. The cable landfall is expected to be in the vicinity of Creyke Beck.

This report is structured to characterise the area across the DBS array and along the ECR, with no distinction between DBS East and DBS West.

The aim of the survey was to characterise the DBS offshore array and ECR areas for foundation design and inform the project environmental impact assessment (EIA) and the final Developmental Consent Order (DCO) application.

Appendix A outlines the guidelines for use of this report.

1.2 Scope of Work

1.2.1 Geophysical Survey

Geophysical survey data acquisition was conducted in the proposed arrays and along the proposed ECR. At the time of the benthic survey, the geophysical survey was still underway, but the geophysical data available were used to inform final station selection for the benthic survey.

1.2.2 Environmental Survey

The aims of the benthic survey were to:

- Produce a robust characterisation of the physico-chemical and biological properties across the proposed array areas and export cable routes, to inform the EIA;
- Identify the occurrence and distribution of habitats and species sensitive to potential project impacts, such that these impacts can be avoided, mitigated, or otherwise reduced where possible;
- Identify and document the occurrence of any species or communities of conservation importance.

The aims of the study were fulfilled through acquisition of seabed video and photographic data and sediment samples. The seabed video and photography allowed evaluation of the habitat types across the survey area, with particular focus on habitats of conservation importance, such as those listed under Annex I of the of the Conservation of Habitats and Species Regulations 2019 and on the Oslo and Paris (OSPAR) list of threatened and/or declining habitats and species (OSPAR, 2022). Sediment samples allowed evaluation of the physico-chemical and biological properties of the seabed and the characterisation of the biotic communities including the identification of potential non-native species (NNS). Epibenthic survey trawls were also undertaken, by means of 2 m beam trawls for semi-quantitative assessment of epibenthos and fish and shellfish species.

1.3 Environmental Legislation

The relevant environmental legislation applying to the DBS survey area has been detailed in the Environmental Feature Report (Fugro, 2022a) and summarised in Tables 1.1 and 1.2. Together they guided the identification of habitats and species of conservation importance in the study area.

Table 1.1: Marine environmental legislation

Legislation	Key aims
Conservation of Habitats and Species (Amendment (EU Exit) Regulations 2019), referred to as the 2019 Regulations	Transposes the requirements of the European Union (EU) Habitats Directive and some elements of the Wild Birds Directive (together forming the Nature Directives) into UK law; aims at conserving biodiversity through measures for protection of habitats and species, through the establishment of a national site network of protected sites, referred to as Special Areas of Conservation (SACs) and Special Protection Area (SPA)
UK Marine Strategy	Provides a framework for community action in the field of marine environmental policy through three components: 1. assessment of the state of UK seas and revised objectives for good environmental status (GES) for 2018 to 2024; 2. monitoring progress against set targets and indicators; 3. measuring the achievement of GES
Marine and Coastal and Access Act 2009	Enables the designation of Marine Conservation Zones (MCZs) in England, Wales and UK offshore waters
Natural Environment and Rural Communities Act 2006 (NERC)	Requires the relevant Secretary of State to compile a list of habitats and species of principal importance for the conservation of biodiversity.
The Wildlife and Countryside Act 1981 (as amended)	Regulates the designation of Site of Special Scientific Interest (SSSIs), which underpins the designation of Ramsar sites
Oslo and Paris (OSPAR) Convention	Establishes Marine Protected Areas (MPAs)

Convention on Biological Diversity (CBD)	Conservation of biological diversity and sustainable use of its components
Ramsar Convention	Aims at the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development

Table 1.2: Marine protected areas biodiversity features

Biodiversity Features	Description
Broad-scale habitats (BSH)	Represent the main types of seabed and associated biota in UK; their conservation ensures preservation of the full range of marine biodiversity
Features of conservation importance (FOCI)	Represent habitats and/or species are particularly threatened, rare or declining and therefore need protection
UK Post-2010 Biodiversity Framework priority habitats and/or species	List of important (priority) habitats and species, produced by the UK Biodiversity Action Plan (BAP), superseded by the UK Post-2010 Biodiversity Framework, under the Convention on Biological Diversity (CBD). Under the NERC Act 2006, the UK BAP priority species and habitats in England are referred to as habitats and species of principal importance
Oslo and Paris (OSPAR) list of threatened and/or declining (T&D) species and habitats	Allows setting priorities for further conservation and protection of marine biodiversity

1.4 Regional Habitats, Species and Protected Areas

Background regional information on protected marine benthic habitats and species, in relation to the survey area, has been detailed in the Environmental Features Report (Fugro, 2022a) and summarised in Table 1.3 and illustrated in Figure 1.1.

Table 1.3: Summary of nearby marine protected areas relating to benthic habitats and species, Dogger Bank South Site Investigation

Protected Area	Status	Distance* [km]	Direction*	Protected Habitats/Species
Dogger Bank	SAC	Overlapped by array and ECR		Annex I habitat ■ Sandbanks which are slightly covered by sea water all the time
Flamborough Head*	SAC	7	NNW	Annex I habitats ■ Reefs ■ Submerged or partially submerged sea caves
North Norfolk Sandbanks and Saturn Reef†	SAC	71	SSW	Annex I habitats ■ Reefs ■ Sandbanks which are slightly covered by sea water all the time

Inner Dowsing, Race Bank and North Ridge*	SAC	81	SSE	Annex I habitats ■ Reefs ■ Sandbanks which are slightly covered by sea water all the time
Holderness Offshore*	MCZ	2	SSE	FOCI ■ Ocean quahog (<i>Arctica islandica</i>) Broad-scale habitats ■ Subtidal coarse sediment ■ Subtidal mixed sediments ■ Subtidal sand
Holderness Inshore‡	MCZ	Partially overlapped by the southernmost section of the ECR		Broad-scale habitats ■ High energy circalittoral rock ■ Intertidal sand and muddy sand ■ Moderate energy circalittoral rock ■ Subtidal coarse sediment ■ Subtidal mixed sediments ■ Subtidal mud ■ Subtidal sand
		1	S	
Markham's Triangle#	MCZ	53	SSE	Broad-scale habitats ■ Subtidal coarse sediment ■ Subtidal mixed sediments ■ Subtidal mud ■ Subtidal sand
Swallow Sand^	MCZ	85	N	Broad-scale habitats ■ Subtidal coarse sediment ■ Subtidal sand
Notes ECR = Export cable route FOCI = Feature of conservation importance MCZ = Marine Conservation Zone SAC = Special Area of Conservation * = Distance (to nearest kilometre) and direction from the closest sampling station, ST166, on the proposed ECR † = Distance (to nearest kilometre) and direction from the closest sampling station, ST002 in the proposed eastern array ‡ = Distance (to nearest kilometre) and direction from the closest sampling stations, ST177 and ST181, on the proposed ECR # = Distance (to nearest kilometre) and direction from the closest sampling station, ST008 in the proposed eastern array ^ = Distance (to nearest kilometre) and direction from the closest sampling stations, ST128 and ST129 in the proposed western array				

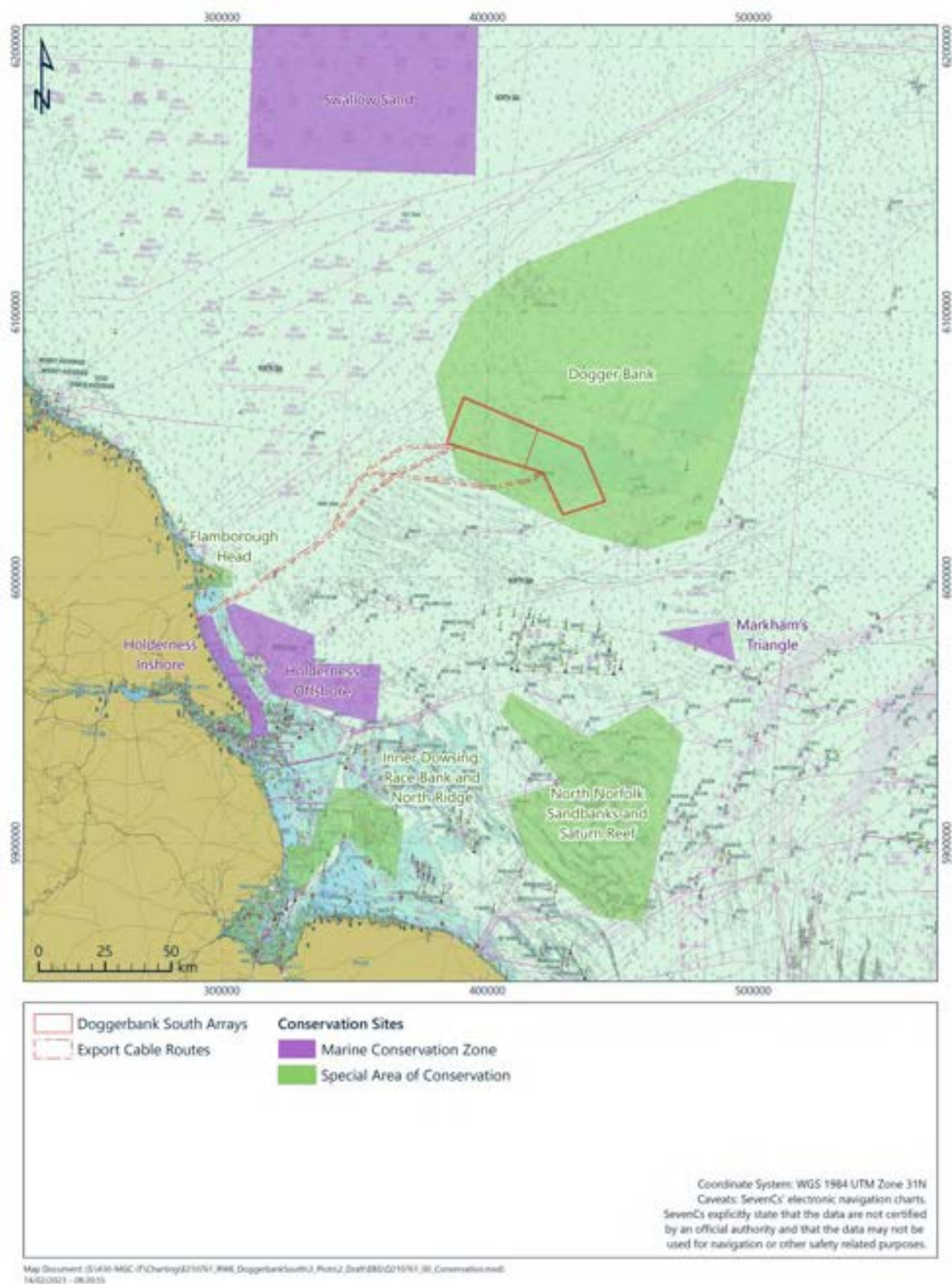


Figure 1.1: Protected areas relating to benthic habitat and species relevant to the survey area, Dogger Bank South Site Investigation

1.5 Environmental Quality Standards for Sediment Chemical Concentrations

Sediment quality guidelines (SQGs) to evaluate the chemical concentrations included:

- The effects range low (ERL) and effects range median (ERM) concentrations (OSPAR, 2014);
- The Centre for Environment, Fisheries and Aquaculture Science (Cefas) Guideline Action Levels (ALs) for the disposal of dredged material (Marine Monitoring Organisation [MMO], 2015);
- The Canadian SQGs for the Protection of Aquatic Life (Canadian Council of Ministers of the Environment [CCME], 2022).

The ERL value is defined as the lower tenth percentile of the dataset of concentrations in sediments associated with biological effects; the ERM is defined as the median (or 50th percentile) of the concentrations associated with biological effects (OSPAR, 2009). Adverse effects on organisms are rarely observed when concentrations fall below the ERL, while they are often or always observed at concentrations above the ERM (OSPAR, 2009). The numerical values of ERL and ERM were derived from biological toxicity assays and synoptic sampling and are incorporated in SQGs developed for the National Oceanic and Atmospheric Administration (NOAA) National Status and Trends program, as informal tools to evaluate whether a contaminant concentration in sediment might have toxicological effects (Long et al., 1995).

The UK adopts the ERLs as a signatory of the Oslo and Paris (OSPAR) Convention for the assessment of monitoring data of hazardous substances in the environment (OSPAR, 2014), delivering its commitment through the Clean Seas Environmental Monitoring Programme (CSEMP). Some ERLs, however, have not been used in the OSPAR assessment, because their values are less than the OSPAR Background Assessment Concentration (BAC) used to evaluate the contamination status of marine sediment across the OSPAR maritime area. This is the case for the metals arsenic and nickel (OSPAR, 2009). Background Assessment Concentrations are normalised to 5 % aluminium, while no normalisation is made when deriving the ERL values (OSPAR, 2009).

The Cefas ALs are non-statutory guidelines to determine whether dredged material is suitable for disposal at sea by providing a proxy risk assessment for potential impacts to biological features such as fish and benthos (Mason et al., 2022). In general, concentrations below Cefas AL1 are of no concern, while concentrations above Cefas AL2 indicate that dredged material is unsuitable for disposal at sea. Values between Cefas AL1 and AL2 may require further investigatory work prior to a disposal decision (Marine Monitoring Organisation [MMO], 2015).

The Canadian SQGs for the Protection of Aquatic Life are numerical concentrations or narrative statements intended to protect all forms of freshwater and marine (including estuarine) aquatic life for an indefinite period of exposure to substances associated with seabed sediments (CCME, 2022). The guidelines consist of threshold effects levels (TELs) and

probable effects levels (PELs). Together, they are used to identify three ranges of chemical concentrations for biological effects:

- Values below TEL indicate the minimal effect range within which adverse effects rarely occur;
- Values between TEL and PEL indicate the possible effect range where adverse effects occasionally occur;
- Values above the PEL indicate the probable effect range within which adverse effects frequently occur.

1.6 Coordinate Reference System

All coordinates detailed in this report are referenced to the World Geodetic System 1984 (WGS84), Universal Transverse Mercator (UTM) projection Zone 31N central meridian (CM) 3° East. Table 1.4 provides the detailed geodetic and projection parameters.

Table 1.4: Project geodetic and projection parameters

Global Positioning System Geodetic Parameters*	
Datum:	World Geodetic System 1984 (WGS84)
EPSG Code:	4326
Spheroid:	World Geodetic System 1984
Semi major axis:	a = 6 378 137.000 m
Reciprocal flattening:	1/f = 298.257 223 563
Project Projection Parameters	
Grid Projection:	Universal Transverse Mercator (UTM)
UTM Zone:	31N
Central Meridian:	3° East
Latitude of Origin:	00° 00' 00.000" North
Longitude of Origin	003° 00' 00.000" East
False Easting:	500 000.000
False Northing:	0.000
Scale factor on Central Meridian:	0.9996
EPSG Code:	32631
Units:	Metre
Notes * = Fugro Starfix navigation software always uses WGS84 geodetic parameters as a primary datum for any geodetic calculations	

2. Survey Strategy

2.1 Geophysical Survey

Geophysical data collection was still underway upon commencement of the benthic survey, but the available geophysical data were used to inform station selection for the environmental work. Geophysical data were acquired using multibeam echosounder (MBES) and backscatter (MBBS), side scan sonar (SSS), and magnetometer. Only MBES data, and associated MBBS, could be acquired along certain areas of the ECR due to the presence of fishing gear (predominantly in nearshore areas).

Further details will be presented in the geophysical reports (Seafloor Results and Shallow Geological Results Reports; Fugro, 2022c, d, e).

2.2 Benthic Ecological Survey

A total of 197 environmental sampling stations was selected to ensure spatial coverage of the proposed DBS array and ECR, and to investigate any features of interest highlighted by the geophysical data. Acquisition of environmental data by drop-down video was proposed at 104 stations and grab sampling was proposed at 180 stations. Acquisition of photographic data was proposed along an approximately 100 m long transect at each environmental station with a minimum of three good quality still photographs taken.

Acquisition of single sediment grab samples was proposed for macrofaunal and particle size distribution (PSD) analysis. The sample for PSD analysis was collected as a subsample of the faunal sample. Acquisition of single sediment samples for chemistry analysis was proposed at 30 grab sampling stations. In addition, 24 stations were sampled using a scientific 2 m beam trawl. For the selection of the environmental stations, emphasis was placed on locating areas of potential conservation value (e.g. Annex I listed habitats), on boundaries between areas of differing sonic reflectivity, bathymetric highs and lows, and areas characteristic of the general background conditions of the site. Most stations were pre-determined by the client, with some stations being relocated to avoid existing infrastructure while additional stations were proposed to target features evident from the geophysical data. The pre-determined stations were in a grid pattern of approximately 3 km by 3 km within the proposed arrays and approximately 5 km spaced along the ECR.

Table 2.1 provides the coordinates, proposed data acquisition and rationale for each location. Acceptable sampling accuracy was agreed with the client representative as within 25 m of the target location. Figures 2.1 and 2.2 spatially display the proposed survey locations overlaid on a side scan sonar (SSS) mosaic for the DBS array and the ECR, respectively.

Table 2.1: Proposed sampling stations, Dogger Bank South Site Investigation

Station	Easting	Northing	Rationale	Data and Sample Acquisition
Grab and DDV Stations				
ST001	427 683.8	6 024 782.7	Spatial coverage	DDV, FA, PSD
ST002	430 441.6	6 024 628.4	Spatial coverage	FA, PSD
ST003	427 679.2	6 027 343.7	Spatial coverage, moved 680 m south-east of an oil and gas pipeline, to accommodate DDV	DDV, FA, PSD
ST004	430 441.6	6 027 628.4	Spatial coverage	FA, PSD
ST005	433 441.6	6 027 628.4	Spatial coverage	FA, PSD
ST006	436 441.6	6 027 628.4	Spatial coverage	FA, PSD
ST007	439 441.6	6 027 628.4	Spatial coverage	FA, PSD
ST008	442 324.4	6 027 995.2	Spatial coverage	FA, PSD
ST009	424 780.9	6 030 850.6	Spatial coverage	DDV, FA, PSD
ST010	427 441.6	6 030 628.4	Spatial coverage	DDV, FA, PSD
ST011	430 532.8	6 030 498.7	Spatial coverage, moved 150 m south-east to avoid oil and gas pipeline 500 m buffer	FA, PSD
ST012	433 441.6	6 030 628.4	Spatial coverage, DDV to confirm SSS feature	DDV, FA, PSD, CA
ST013	436 441.6	6 030 628.4	Spatial coverage	FA, PSD
ST014	439 441.6	6 030 628.4	Spatial coverage	FA, PSD
ST015	442 441.6	6 030 628.4	Spatial coverage, DDV to confirm SSS feature	DDV, FA, PSD
ST016	424 441.6	6 033 628.4	Spatial coverage	DDV, FA, PSD
ST017	427 441.6	6 033 628.4	Spatial coverage	FA, PSD, CA
ST018	430 441.6	6 033 628.4	Spatial coverage	FA, PSD
ST019	433 383.6	6 033 704.6	Spatial coverage, moved 100 m north-west to avoid an oil and gas pipeline 500 m buffer	FA, PSD
ST020	436 441.6	6 033 628.4	Spatial coverage	FA, PSD
ST021	439 441.6	6 033 628.4	Spatial coverage	FA, PSD
ST022	442 363.7	6 033 593.0	Spatial coverage	FA, PSD
ST023	421 855.1	6 036 885.7	Spatial coverage	DDV, FA, PSD
ST024	424 441.6	6 036 628.4	Spatial coverage	DDV, FA, PSD
ST025	427 441.6	6 036 628.4	Spatial coverage	FA, PSD
ST026	430 441.6	6 036 628.4	Spatial coverage	FA, PSD
ST027	433 441.6	6 036 628.4	Spatial coverage	FA, PSD
ST028	436 441.6	6 036 628.4	Spatial coverage	FA, PSD
ST029	439 622.8	6 036 370.4	Spatial coverage, moved 300 m south-east to avoid an oil and gas pipeline 500 m buffer	FA, PSD
ST030	418 583.6	6 039 959.0	Spatial coverage	DDV, FA, PSD

Station	Easting	Northing	Rationale	Data and Sample Acquisition
ST031	420 725.5	6 039 351.0	Spatial coverage, moved to cover intersects of Block F option, array and 1 km inter array option	DDV, FA, PSD, CA
ST032	424 986.9	6 039 649.7	Spatial coverage, to accommodate DDV, moved > 650 m east of the charted position of known wreck Emmalies Funk	DDV, FA, PSD
ST033	427 441.6	6 039 628.4	Spatial coverage	FA, PSD
ST034	430 295.5	6 039 196.6	Spatial coverage, moved 450 m south-west to avoid an oil and gas pipeline 500 m buffer	FA, PSD
ST035	433 441.6	6 039 628.4	Spatial coverage	FA, PSD
ST036	436 441.6	6 039 628.4	Spatial coverage	FA, PSD
ST037	439 441.6	6 039 628.4	Spatial coverage	FA, PSD
ST038	409 462.1	6 042 701.3	Spatial coverage	DDV, FA, PSD, CA
ST039	412 441.6	6 042 628.4	Spatial coverage	FA, PSD
ST040	415 441.6	6 042 628.4	Spatial coverage	FA, PSD, CA
ST041	418 441.6	6 042 628.4	Spatial coverage	DDV, FA, PSD
ST042	421 665.9	6 043 250.4	Spatial coverage, to accommodate DDV, moved 675 m north-east to avoid an oil and gas pipeline 500 m buffer	DDV, FA, PSD
ST043	424 441.6	6 042 628.4	Spatial coverage	DDV, FA, PSD
ST044	427 441.6	6 042 628.4	Spatial coverage	FA, PSD, CA
ST045	430 441.6	6 042 628.4	Spatial coverage	FA, PSD
ST046	433 441.6	6 042 628.4	Spatial coverage	FA, PSD, CA
ST047	436 441.6	6 042 628.4	Spatial coverage	FA, PSD
ST048	400 441.6	6 045 628.4	Spatial coverage	DDV, FA, PSD
ST049	403 441.6	6 045 628.4	Spatial coverage	DDV, FA, PSD
ST050	406 441.6	6 045 628.4	Spatial coverage	DDV, FA, PSD
ST051	409 441.6	6 045 628.4	Spatial coverage	DDV, FA, PSD
ST052	412 655.5	6 046 158.3	Spatial coverage, accommodating DDV, moved 700 m from an oil and gas pipeline with 500 m buffer	DDV, FA, PSD
ST053	415 441.6	6 045 628.4	Spatial coverage	FA, PSD
ST054	418 441.6	6 045 628.4	Spatial coverage	DDV, FA, PSD
ST055	421 441.6	6 045 628.4	Spatial coverage	DDV, FA, PSD
ST056	424 441.6	6 045 628.4	Spatial coverage	DDV, FA, PSD
ST057	427 441.6	6 045 628.4	Spatial coverage	FA, PSD
ST058	430 441.6	6 045 628.4	Spatial coverage	FA, PSD
ST059	433 441.6	6 045 628.4	Spatial coverage	FA, PSD

Station	Easting	Northing	Rationale	Data and Sample Acquisition
ST060	436 441.6	6 045 628.4	Spatial coverage	FA, PSD
ST061	391 441.6	6 048 628.4	Spatial coverage	DDV, FA, PSD
ST062	394 441.6	6 048 628.4	Spatial coverage	DDV, FA, PSD
ST063	396 891.3	6 048 624.1	Spatial coverage, accommodating DDV, moved to 675 m west of an oil and gas pipeline with 500 m buffer	DDV, FA, PSD, CA
ST064	400 441.6	6 048 628.4	Spatial coverage	DDV, FA, PSD
ST065	403 535.2	6 048 930.0	Spatial coverage, moved 500 m northeast to avoid an oil and gas pipeline 500 m buffer	DDV, FA, PSD
ST066	406 441.6	6 048 628.4	Spatial coverage	DDV, FA, PSD
ST067	409 441.6	6 048 628.4	Spatial coverage	DDV, FA, PSD
ST068	412 441.6	6 048 628.4	Spatial coverage	FA, PSD
ST069	415 441.6	6 048 628.4	Spatial coverage	DDV, FA, PSD, CA
ST070	418 441.6	6 048 628.4	Spatial coverage	DDV, FA, PSD
ST071	421 441.6	6 048 628.4	Spatial coverage	DDV, FA, PSD, CA
ST072	424 441.6	6 048 628.4	Spatial coverage	DDV, FA, PSD
ST073	427 441.6	6 048 628.4	Spatial coverage	FA, PSD
ST074	430 441.6	6 048 628.4	Spatial coverage	FA, PSD, CA
ST075	433 441.6	6 048 628.4	Spatial coverage	FA, PSD
ST076	435 961.6	6 048 395.7	Spatial coverage	FA, PSD
ST077	385 441.6	6 051 628.4	Spatial coverage	DDV, FA, PSD
ST078	388 335.6	6 051 708.2	Spatial coverage, accommodating DDV, moved 650 m from known wreck	DDV, FA, PSD, CA
ST079	391 441.6	6 051 628.4	Spatial coverage	DDV, FA, PSD
ST080	394 441.6	6 051 628.4	Spatial coverage	DDV, FA, PSD
ST081	397 093.3	6 051 665.4	Spatial coverage, accommodating DDV, moved 690 m west of an oil and gas pipeline with 500 m buffer	DDV, FA, PSD
ST082	400 441.6	6 051 628.4	Spatial coverage	DDV, FA, PSD
ST083	403 441.6	6 051 628.4	Spatial coverage	DDV, FA, PSD
ST084	406 441.6	6 051 628.4	Spatial coverage	DDV, FA, PSD
ST085	409 441.6	6 051 628.4	Spatial coverage	DDV, FA, PSD, CA
ST086	412 441.6	6 051 628.4	Spatial coverage	FA, PSD
ST087	415 441.6	6 051 628.4	Spatial coverage	DDV, FA, PSD
ST088	418 441.6	6 051 628.4	Spatial coverage	DDV, FA, PSD
ST089	421 441.6	6 051 628.4	Spatial coverage	DDV, FA, PSD

Station	Easting	Northing	Rationale	Data and Sample Acquisition
ST090	424 441.6	6 051 628.4	Spatial coverage	FA, PSD, DDV
ST091	427 441.6	6 051 628.4	Spatial coverage	FA, PSD
ST092	430 303.3	6 051 311.7	Spatial coverage	FA, PSD
ST093	385 863.9	6 054 512.8	Spatial coverage	DDV, FA, PSD
ST094	388 441.6	6 054 628.4	Spatial coverage	DDV, FA, PSD
ST095	391 441.6	6 054 628.4	Spatial coverage	DDV, FA, PSD
ST096	394 441.6	6 054 628.4	Spatial coverage	DDV, FA, PSD
ST097	397 441.6	6 054 628.4	Spatial coverage, 675 m west of a pipeline, beyond 500 m buffer	DDV, FA, PSD
ST098	400 963.7	6 054 540.2	Spatial coverage, accommodating DDV, moved 650 m east of an oil and gas pipeline, away from 500 m buffer	DDV, FA, PSD, CA
ST099	403 441.6	6 054 628.4	Spatial coverage	DDV, FA, PSD
ST100	406 441.6	6 054 628.4	Spatial coverage	DDV, FA, PSD
ST101	409 441.6	6 054 628.4	Spatial coverage	DDV, FA, PSD
ST102	412 441.6	6 054 628.4	Spatial coverage	FA, PSD
ST103	415 441.6	6 054 628.4	Spatial coverage	DDV, FA, PSD, CA
ST104	418 441.6	6 054 628.4	Spatial coverage	DDV, FA, PSD
ST105	421 441.6	6 054 628.4	Spatial coverage	DDV, FA, PSD, CA
ST106	388 441.6	6 057 628.4	Spatial coverage	DDV, FA, PSD
ST107	391 441.6	6 057 628.4	Spatial coverage	DDV, FA, PSD, CA
ST108	394 441.6	6 057 628.4	Spatial coverage	DDV, FA, PSD
ST109	397 441.6	6 057 628.4	Spatial coverage	DDV, FA, PSD
ST110	400 441.6	6 057 628.4	Spatial coverage	DDV, FA, PSD
ST111	403 441.6	6 057 628.4	Spatial coverage	DDV, FA, PSD
ST112	406 441.6	6 057 628.4	Spatial coverage	DDV, FA, PSD
ST113	409 441.6	6 057 628.4	Spatial coverage	DDV, FA, PSD, CA
ST114	412 441.6	6 057 628.4	Spatial coverage	FA, PSD
ST115	415 441.6	6 057 628.4	Spatial coverage	DDV, FA, PSD
ST116	388 441.6	6 060 628.4	Spatial coverage	DDV, FA, PSD
ST117	391 441.6	6 060 628.4	Spatial coverage	DDV, FA, PSD
ST118	394 441.6	6 060 628.4	Spatial coverage	DDV, FA, PSD
ST119	397 441.6	6 060 628.4	Spatial coverage	DDV, FA, PSD
ST120	400 441.6	6 060 628.4	Spatial coverage	DDV, FA, PSD

Station	Easting	Northing	Rationale	Data and Sample Acquisition
ST121	403 900.2	6 061 092.5	Spatial coverage, accommodating DDV, moved 650 m off an oil and gas pipeline 500 m buffer, wellhead and MTF obstruction buffer	DDV, FA, PSD, CA
ST122	406 441.6	6 060 628.4	Spatial coverage	DDV, FA, PSD
ST123	409 342.5	6 060 321.8	Spatial coverage	DDV, FA, PSD
ST124	391 441.6	6 063 628.4	Spatial coverage	DDV, FA, PSD
ST125	394 441.6	6 063 628.4	Spatial coverage	DDV, FA, PSD, CA
ST126	397 441.6	6 063 628.4	Spatial coverage	DDV, FA, PSD
ST127	400 441.6	6 063 628.4	Spatial coverage, SSS data available - no DDV required	FA, PSD
ST128	391 441.6	6 066 628.4	Spatial coverage	DDV, FA, PSD
ST129	394 441.6	6 066 628.4	Spatial coverage	DDV, FA, PSD
ST130	394 326.8	6 047 339.1	Spatial coverage, moved within array and 1 km inter array option	DDV, FA, PSD
ST131	404 013.5	6 044 308.4	Spatial coverage, moved within array and 1 km inter array option and MPG SSS data; no DDV required	FA, PSD
ST132	413 431.5	6 041 528.4	Spatial coverage, moved to confirm within array and 1 km inter array option	DDV, FA, PSD
ST133	384 144.5	6 047 530.8	Spatial coverage	FA, PSD
ST134	379 633.1	6 045 375.0	Spatial coverage	FA, PSD, CA
ST135	375 121.7	6 043 219.3	Spatial coverage	FA, PSD
ST136	370 610.2	6 041 063.6	Spatial coverage	FA, PSD
ST137	365 770.3	6 038 750.8	Spatial coverage	FA, PSD
ST138	416 529.1	6 036 843.9	Spatial coverage	FA, PSD
ST139	411 614.5	6 035 923.6	Spatial coverage, DDV to scope out potential rough signature before grab and trawl	DDV, FA, PSD
ST140	406 700.0	6 035 003.4	Spatial coverage	FA, PSD
ST141	401 774.3	6 034 148.5	Spatial coverage	FA, PSD, CA
ST142	396 710.1	6 034 445.3	Spatial coverage, moved 160 m west to avoid an oil and gas pipeline 500 m buffer	FA, PSD
ST143	391 920.3	6 035 118.4	Spatial coverage	FA, PSD
ST144	386 968.9	6 035 814.3	Spatial coverage	FA, PSD
ST145	382 017.6	6 036 510.1	Spatial coverage	FA, PSD
ST146	377 058.2	6 037 144.5	Spatial coverage	FA, PSD, CA
ST147	372 094.1	6 037 742.2	Spatial coverage	FA, PSD
ST148	359 906.0	6 043 975.9	Spatial coverage	FA, PSD
ST149	364 132.7	6 046 647.0	Spatial coverage	FA, PSD

Station	Easting	Northing	Rationale	Data and Sample Acquisition
ST150	368 443.0	6 049 061.4	Spatial coverage	FA, PSD
ST151	373 432.7	6 049 378.5	Spatial coverage, potential for some fines for chemistry with mainly sandy sediment	FA, PSD, CA
ST152	378 432.2	6 049 443.3	Spatial coverage	FA, PSD
ST153	383 431.8	6 049 508.1	Spatial coverage	FA, PSD
ST154	345 150.4	6 025 839.6	Spatial coverage	FA, PSD
ST155	347 259.9	6 030 372.8	Spatial coverage	FA, PSD
ST156	349 890.2	6 034 612.0	Spatial coverage	FA, PSD, CA
ST157	353 041.0	6 038 474.8	Spatial coverage	FA, PSD
ST158	335 836.7	6 012 841.0	Spatial coverage	FA, PSD
ST159	331 661.9	6 010 089.5	Spatial coverage	FA, PSD
ST160	327 487.0	6 007 338.1	Spatial coverage	FA, PSD
ST161	323 312.2	6 004 586.6	Spatial coverage	DDV, FA, PSD, CA
ST162	319 188.0	6 001 763.2	Spatial coverage	FA, PSD
ST163	315 206.2	5 998 739.2	Spatial coverage	FA, PSD
ST164	311 224.4	5 995 715.1	Spatial coverage	FA, PSD, CA
ST165	306 835.5	5 993 655.3	Spatial coverage	FA, PSD
ST166	302 408.2	5 991 333.0	Spatial coverage, no current SSS data; low MBES indicate no risk but DDV to confirm	DDV, FA, PSD
ST167	298 045.1	5 988 652.5	Spatial coverage, moved 175 m south-west to capture rough and smoother sediment	DDV, FA, PSD
ST168	293 533.5	5 986 827.3	Spatial coverage	FA, PSD, CA
ST169	343 856.9	6 018 790.3	Spatial coverage	FA, PSD
ST170	347 053.7	6 022 569.1	Spatial coverage	FA, PSD
ST171	350 478.8	6 026 211.8	Spatial coverage	FA, PSD
ST172	353 903.8	6 029 854.4	Spatial coverage	FA, PSD, CA
ST173	357 556.9	6 033 228.6	Spatial coverage	FA, PSD
ST174	361 706.2	6 036 018.4	Spatial coverage	FA, PSD
ST175	360 768.4	6 038 891.3	Spatial coverage	FA, PSD
ST176	355 769.3	6 038 984.0	Spatial coverage	FA, PSD
ST177	292 012.8	5 986 474.7	Spatial coverage	FA, PSD
ST178	339 958.9	6 015 658.8	Spatial coverage, mixed sediment	FA, PSD, CA
ST179	342 599.2	6 020 518.8	Spatial coverage, repositioned to avoid NEP pipeline corridor area	FA, PSD
ST180	355 679.3	6 041 304.7	Spatial coverage	FA, PSD
ST181	291 294.1	5 986 494.6	Spatial coverage, on border of rough to smoother signature	DDV

Station	Easting	Northing	Rationale	Data and Sample Acquisition
ST182	315 890.0	5 999 023.2	Spatial coverage, clearance for BT20 and check for (unlikely) potential sensitive habitat with trawl marks covering 3.5 km route to the west. SSS indicates rippled sandy sediment	DDV
ST183	320 787.3	6 002 785.4	Spatial coverage, signature feature for investigation	DDV
ST184	349 369.5	6 034 713.9	Spatial coverage, unknown feature; potential false effect of SSS data to scope out. Similar signature to the west	DDV
ST185	371 640.6	6 049 271.6	Spatial coverage, irregular rough feature to investigate. Not covered by grabs to the east or west	DDV
ST186	382 948.4	6 049 501.9	Spatial coverage, irregular rough feature to investigate, similar to ST185 DDV	DDV
ST187	385 044.8	6 048 363.7	Spatial coverage, irregular rough feature to investigate. Not covered locally by grab	DDV
ST188	413 944.7	6 036 359.6	Spatial coverage, feature to be scoped out	DDV
ST189	423 819.7	6 038 077.6	Spatial coverage, DDV clearance for BT09	DDV
ST190*	423 754.9	6 046 555.5	Spatial coverage, DDV clearance for BT07	DDV
ST200	408 841.4	6 045 437.8	Spatial coverage, DDV clearance for BT06	DDV
ST201	404 735.9	6 055 376.5	Spatial coverage, DDV clearance for BT04	DDV
ST202	395 167.0	6 047 537.6	Spatial coverage, DDV clearance for BT015	DDV
ST203	394 587.3	6 055 716.5	Spatial coverage, DDV clearance for BT02	DDV
ST204	393 142.9	6 062 371.8	Spatial coverage, DDV clearance for BT01	DDV
ST205	387 894.0	6 051 586.0	Spatial coverage, DDV clearance for BT04	DDV
Beam Trawl Stations				
BT01	393 143.1	6 062 372.0	Spatial coverage	BT
BT02	394 587.3	6 055 716.5	Spatial coverage	BT
BT03	387 893.9	6 051 585.9	Spatial coverage	BT
BT04	404 735.8	6 055 376.8	Spatial coverage	BT
BT05	412 656.5	6 051 657.2	Spatial coverage	BT
BT06	408 841.7	6 045 437.7	Spatial coverage	BT
BT07	423 754.7	6 046 555.7	Spatial coverage	BT
BT08	427 610.0	6 050 489.1	Spatial coverage, Moved over 900 m from 500 m buffer of the abandoned wellhead 43/15B-3A	BT
BT09	423 819.4	6 038 078.2	Spatial coverage	BT
BT10	438 155.6	6 030 526.6	Spatial coverage	BT
BT11	430 604.0	6 027 203.0	Spatial coverage	BT

Station	Easting	Northing	Rationale	Data and Sample Acquisition
BT12	435 960.6	6 037 889.2	Spatial coverage	BT
BT13	309 577.2	5 994 464.2	Spatial coverage	BT
BT14	323 078.7	6 004 432.7	Spatial coverage	BT
BT15	395 167.1	6 047 537.4	Spatial coverage, moved 500 m of the SEAL Shearwater to Bacton active gas pipeline	BT
BT16	354 978.9	6 040 553.4	Spatial coverage	BT
BT17	352 471.6	6 028 331.2	Spatial coverage	BT
BT18	386 160.7	6 035 920.8	Spatial coverage	BT
BT19	295 555.3	5 987 542.4	Spatial coverage	BT
BT20	315 893.8	5 999 023.4	Spatial coverage, SSS indicates trawl marks.	BT
BT21	415 159.8	6 041 259.8	Spatial coverage	BT
BT22	339 267.7	6 015 103.2	Spatial coverage	BT
BT23	376 333.1	6 043 778.3	Spatial coverage	BT
BT24	411 874.8	6 035 982.9	Spatial coverage	BT
Notes *= There are no sampling stations denoted ST191 to ST199 DDV = Drop-down video MBES = Multibeam echosounder SSS = Side scan sonar CA = Chemical analysis FA = Faunal sample A PSD = Particle size distribution BT = Beam trawl				

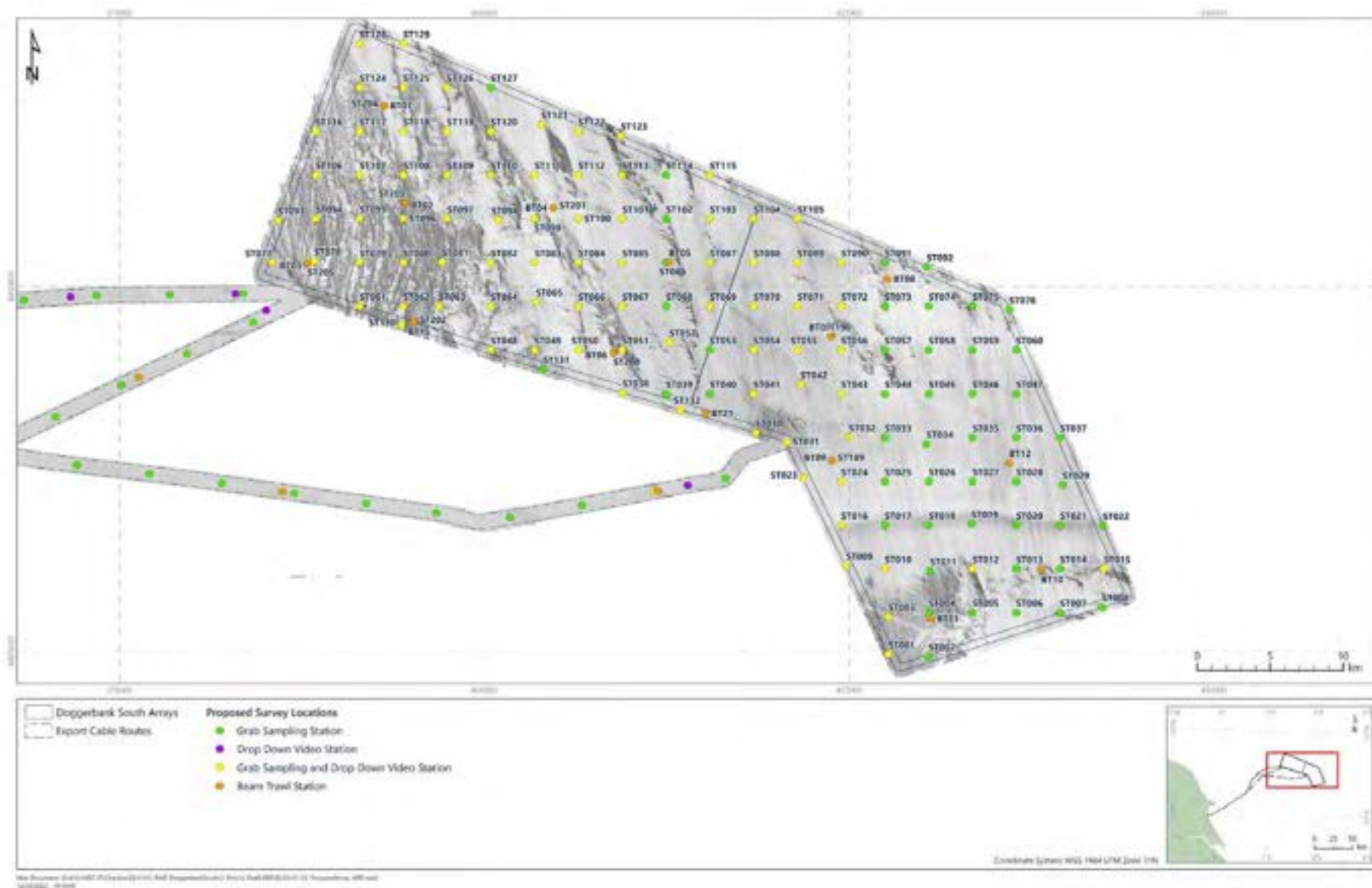


Figure 2.1: Proposed survey, array, Dogger Bank South Site Investigation

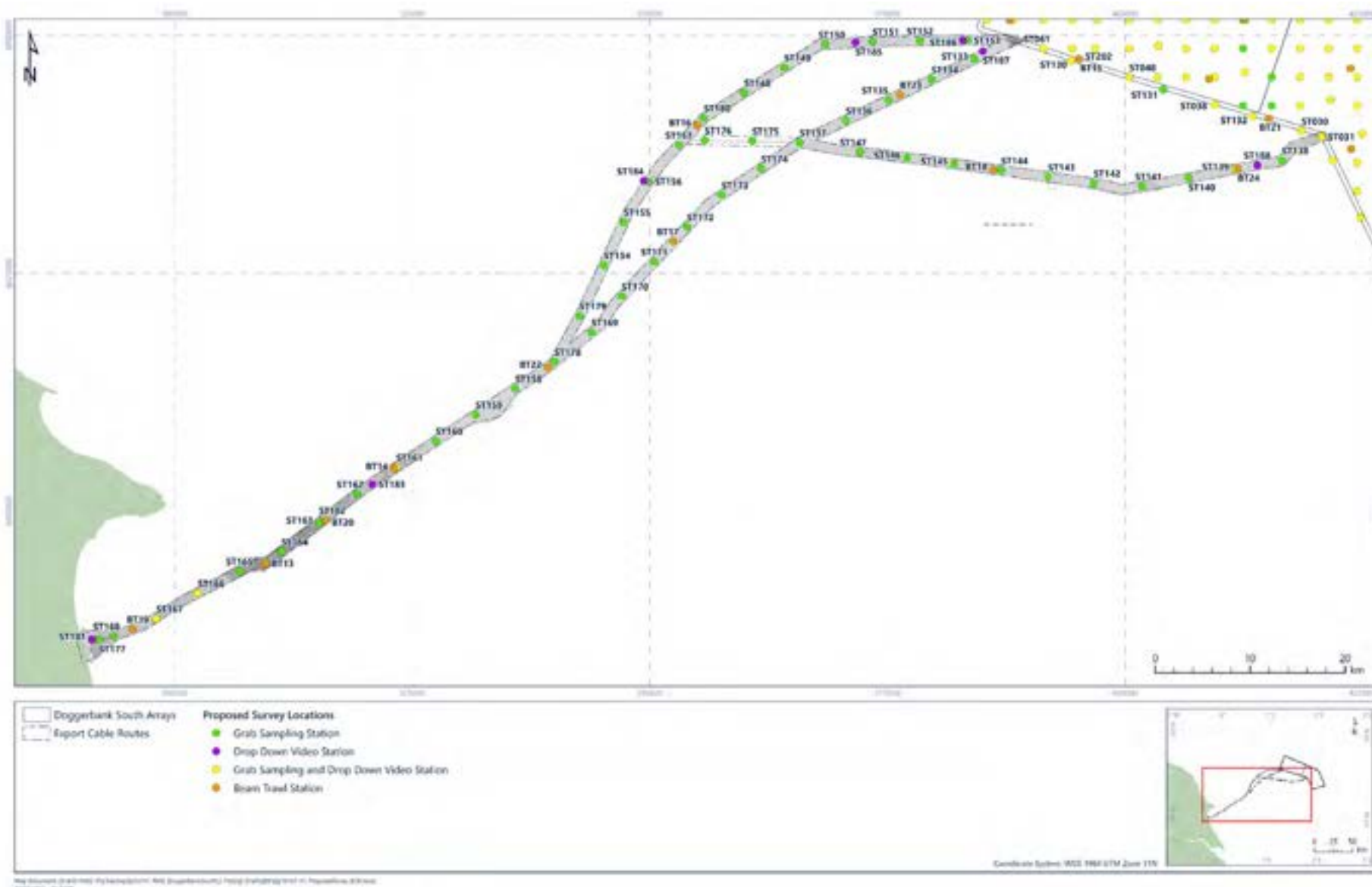


Figure 2.2: Proposed survey, export cable route, Dogger Bank South Site Investigation

2.2.1 Beam Trawl Sampling

Beam trawl samples were collected using a scientific 2 m beam trawl fitted with a 5 mm mesh cod end. A concession was put in place prior to the survey commencing, with respect to a change in the cod end mesh size from 3 mm to 5 mm. Beam trawl samples were positioned using layback calculated from the amount of wire paid out. Further details of operational procedures for beam trawl sampling are in the operations report (Fugro, 2022b).

3. Methods

3.1 Survey Methods

3.1.1 Seabed Photography

Seabed photography was acquired using a Subsea Technology and Rentals Limited (STR) SeaSpyder HD camera system mounted within a purpose-built camera frame, complete with high-definition (HD) video camera and high-resolution stills camera (14.7 mega pixel), a separate high-power strobe and four light emitting diode (LED) lamps. Four lasers were set up in 23 cm by 26.5 cm configuration to provide a scale. The camera system was equipped with an ultra-short baseline (USBL) beacon for subsea positioning. A Sonardyne Scout Plus USBL system was used to provide real-time subsea positioning of the camera system. The operations report (Fugro, 2022b) provides further details.

A STR SeaSpyder Nano HD video camera system mounted within a purpose-built camera frame was available as a backup system and was utilised while an issue with the primary camera system topside unit was being resolved (Fugro, 2022b).

Seabed video footage was displayed on a computer monitor and recorded directly onto a hard disk drive. A navigation string from the attached USBL beacon, including the time, date, depth, and location (easting and northing) was overlain on the video. The survey location and station number were also displayed (manually updated). The stills camera imagery was visible on a second window of the computer. Footage was viewed in real time via the camera systems umbilicals, assisting in the control of the camera in the water.

A minimum of three good quality still photographs were acquired along a 100 m long transect at each station.

Further details of operational procedures for seabed photography are in the operations report (Fugro, 2022b).

3.1.2 Sediment Sampling

Fauna and PSD samples were acquired using a 0.1 m² Hamon grab. Chemistry samples were acquired using a 0.1 m² Day grab. Grab samples were positioned using a USBL beacon attached to the grab frame, with a positional fix taken when the grab reached the seabed (evidenced through a distinct slackening of the wire rope and snatch block).

Further details of survey methodology are available in Appendix B.

3.2 Laboratory Methods

A sample delivery log accompanied the samples to Fugro laboratories as part of the chain of custody. Upon receipt of samples at Fugro laboratories, sample handling and labelling of each sample was inspected to ascertain correct storage in line with the sampling methods.

Any potential deviations from sampling methods would be addressed and resolved at this stage in line with Fugro's Quality Assurance Management System.

3.2.1 Sediment Characteristics

3.2.1.1 Particle Size Distribution

Sediment samples were analysed by Fugro using dry sieve analysis and laser diffraction.

Dry sieve PSD analysis was undertaken in accordance with FGBML in-house methods based on the North East Atlantic Marine Biological Association Quality Control (NMBAQC) scheme's best practice guidance document – Particle Size Analysis (PSA) for Supporting Biological Analysis: 2016 (Mason, 2016), and British Standards (BS) 1377: Parts 1: 2016 and 2: 1990). Representative material > 1 mm was split from the bulk sub-sample and oven dried before being sieved through a series of sieves with apertures corresponding to 0.5 phi intervals between 63 mm and 1 mm as described by the Wentworth scale (Wentworth, 1922). The weight of the sediment fraction retained on each mesh was subsequently measured and recorded.

Laser diffraction PSD analysis was undertaken in accordance with FGBML in-house methods based on Mason (2016), and BS International Organization for Standardization (ISO) 13320: 2020. Representative material < 1 mm was removed from the bulk subsample for laser analysis, with a minimum of three triplicate analyses performed using the laser sizer at 0.5 phi intervals between < 1 mm to < 0.04 µm. Laser diffraction was carried out using a Malvern Mastersizer 2000 with a Hydro 2000G dispersion unit.

3.2.2 Sediment Hydrocarbons

The sediment samples were analysed for total hydrocarbon content (THC) and polycyclic aromatic hydrocarbons (PAHs) by SOCOTEC.

3.2.2.1 Total Hydrocarbon Content

Anhydrous sodium sulphate, sodium chloride and dichloromethane (DCM) were added to a portion of the sample and vigorously agitated. The sample was placed in an ultrasonic bath and then centrifuged. The extract was then analysed by ultraviolet fluorescence screening and quantified by comparing the results against a forties oil calibration curve.

3.2.2.2 Polycyclic Aromatic Hydrocarbons (PAH)

Methanol and DCM were added to a portion of the sample and mixed on a magnetic stirring plate. The solvent extract was then water partitioned and concentrated to a low volume. A double clean-up stage was employed to remove contaminants that may interfere with the analysis. The extract was then analysed by gas chromatography – mass spectrometry (GC-MS) and quantified by comparing the results against a calibration curve for each of the target analytes.

3.2.3 Sediment Metals

The sediment samples were analysed for trace and heavy metal content by SOCOTEC using an aqua regia digest. The eight metals analysed were arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc. A portion of air dried and ground sample was digested with aqua regia. Once cooled, the extract was filtered and pre-diluted before being analysed by inductively coupled plasma-mass spectrometry (ICP-MS) or by inductively coupled plasma-optical emission spectrometry (ICP-OES) and quantified by comparing the results against a calibration curve for each of the target analytes.

The analytical technique provides a strong partial digest, releasing into solution metals associated with the fines fraction within the sediments (but does not extract all trace elements associated with the coarse fraction). The concentrations of metals released by an aqua regia digest are considered indicative of those influencing biological interactions, as the released metals are not incorporated into the mineral matrix and are therefore potentially available for biological uptake.

3.2.4 Sediment Polychlorinated Biphenyls

Sediment samples were analysed by SOCOTEC using solvent extraction and clean-up followed by gas chromatography coupled to a triple quadrupole mass spectrometer (GC-MS-MS) analysis. A portion of air-dried and sieved sample was spiked with ^{13}C labelled internal standards, ultrasonically solvent extracted and concentrated under nitrogen. A clean-up stage was employed to remove contaminants that may interfere with the analysis. The sample extract was analysed by GC-MS-MS and quantified by comparison with a solution containing each of the targeted compounds, normalised to the ^{13}C labelled internal standards.

3.2.5 Sediment Organotins

Sediment samples were analysed by SOCOTEC using solvent extraction and derivatisation followed by GC-MS analysis. A portion of the sample was digested with hydrochloric acid and methanol before being extracted into toluene. The extract was then derivatised using sodium tetraethylborate before concentration and a copper/silica clean-up was performed. The extract was analysed by GC-MS and quantified by comparing the results against a calibration curve for each of the target analytes.

3.2.6 Sediment Macrofauna

Sample analysis was provided by NIRAS Group (UK) LTD in accordance with procedures consistent with the requirements of the NMBAQC scheme (Worsfold et al., 2010). Fugro undertook QC on the reference collection. Samples were sieved over a 1 mm mesh sieve and taxa were identified to the lowest taxonomic level and enumerated. Sessile colonial epifauna was recorded as present (P).

Species nomenclature is consistent with that of World Register of Marine Species (WoRMS Editorial Board, 2022). The taxonomic order is based on Species Directory codes (Howson & Picton, 1997). Taxa of doubtful identification due to damage of specimen or unresolved taxonomic status are indicated by a question mark preceding the genus (e.g. ?*Capitella*) or species (e.g. *Capitella* ?*capitata*) name.

Biomass analysis was undertaken on the infauna from the grab samples, following identification and enumeration. Infaunal biomass was carried out to phyla level using a blotted wet weight method.

3.3 Data Analysis

Summary statistics (minimum, maximum, mean, standard deviation) for all reported datasets were derived in Excel.

3.3.1 Sediment Particle Size Distribution Statistics

Data from the sieve and laser analysis were merged and entered in Gradistat version 8 (v8) (Blott, 2010) to derive statistics including cumulative percentage of each particle size passing through each sieve, percentage retained on each sieve stack, mean and median grain size, bulk sediment classes (percentage fines, sand and gravel), skewness and sorting coefficients, and Folk (1954) classification. Table 3.1 summarises the sediment PSD statistics that were calculated using Gradistat v8. Statistics are based on the Folk and Ward (1957) method.

The Wentworth (1922) sediment classification is based on mean sediment particle size. The Folk (British Geological Survey [BGS] modified) classification (Long, 2006) is based on percentages of main sediment fractions (fines, sand and gravel). Results are reported in micron (μm) and phi (ϕ) measurement units. Phi is a logarithmic scale which allows particle size data to be expressed in unit of equal value for graphical plotting and statistical calculations; the scale is based on the relationship:

$\text{Phi } (\phi) = -\log_2 d$, where d is the particle size diameter in mm.

Table 3.1: Sediment particle size distribution statistics

Statistic	Definition and Descriptive Terminology
Mean	The arithmetic mean of all the sediment particles in a sample; expressed in metric and phi units
Median	A measure of central tendency, that is the midpoint of the grain size distribution where half of the sediment grains resides above this point and half below
Mode	The peak of the frequency distribution, that is the particle size (or size range) most commonly found in the distribution
Modality	A measure of the number of peaks in the frequency distribution
Sorting	A measure of the grain size range and magnitude of their spread around the mean, presented as a coefficient and descriptor (as a range of values)
Skewness	A measure of the degree of symmetry, presented as a coefficient and descriptor (as a range of values)

3.3.2 Sediment Macrofauna Data Rationalisation

Prior to analysis, the macrofaunal dataset was rationalised. To avoid spurious enhancement of the species list, damaged taxa were removed whereas some taxa were merged with a higher corresponding taxon identified. Juveniles were also removed as they represent an ephemeral stage of the macrofaunal community and are, therefore, not representative of prevailing benthic conditions. Sessile colonial epifauna recorded as P was also removed prior to analysis and assessed separately from the enumerated data set.

3.3.3 Sediment Macrofaunal Univariate Analysis

Table 3.2 summarises the univariate statistics derived from Plymouth Routines in Multivariate Ecological Research (PRIMER) version 7 (v7).

Table 3.2: Macrofaunal Univariate Statistics

Statistic	Definition
Number of taxa (S)	Count of taxa
Abundance (N)	Count of individuals
Margalef's index of richness (d)	A measure of the number of species present for a given number of individuals
Shannon-Wiener index of diversity ($H' \log_2$)	A measure of the number of taxa in a sample and the distribution of abundance across these taxa; results were assessed in line with the threshold values in Dauvin et al. (2012): ■ High diversity ($H' \log_2 > 4.00$); ■ Good diversity ($3.00 < H' \log_2 < 4.00$); ■ Moderate diversity ($2.00 < H' \log_2 < 3.00$); ■ Poor diversity ($1.00 < H' \log_2 < 2.00$); ■ Bad diversity ($H' \log_2 < 1.00$).
Pielou's index of evenness (J)	A measure of how evenly distributed the individuals are among the different species;
Simpsons index of dominance (λ)	A measure of dominance whereby its largest value corresponds to assemblages the total abundance of which is dominated by one or very few of the taxa present

3.3.4 Biomass Analysis

The macrofaunal blotted wet weight biomass dataset was converted to ash free dry weight (AFDW) by applying the appropriate standard corrections, as outlined in Eleftheriou and Basford (1989). Table 3.3 summarises the corrections applied.

Table 3.3: Macrofaunal standard biomass corrections by phyla

Phyla	Standard Biomass Correction [%]
Annelida	15.5
Arthropoda	22.5
Mollusca	8.5
Echinodermata	8.0
Other Taxa	15.5

Phyla	Standard Biomass Correction [%]
Notes Standard biomass corrections to convert blotted wet weight to ash free dry weight, from Eleftheriou & Basford (1989)	

3.3.5 Multivariate Analysis

Table 3.4 summarises the multivariate analysis undertaken for macrofaunal and sediment datasets in PRIMER v7 (Clarke & Gorley, 2015). Data transformation was undertaken prior to multivariate analysis, where deemed necessary. Transformation was applied to sediment particle size data to reduce the degree of skewness and allow optimal performance of the multivariate analysis (detailed in Section 4.2.2). Transformation was applied to macrofaunal data matrix to reduce the influence of the numerically dominant taxa which may mask the underlying community composition (detailed in Section 4.4.1.3) (Clarke et al., 2014).

Table 3.4: Multivariate Statistics

Statistic	Definition
Cluster	Hierarchical clustering, 'Cluster' analysis, groups samples based on the nearest neighbour sorting of a matrix of sample similarities using Bray Curtis similarity (for biological datasets) or Euclidean distance measure (for environmental datasets)
Dendrogram and nMDS	Dendrogram and non-metric multidimensional scaling (nMDS) ordination are outputs of Bray Curtis and Euclidean Distance similarity/distance matrices. The dendrogram is a tree-like diagram illustrating the relationships between samples based on their level of similarity. The nMDS ordination places the samples in a two-dimensional plane where the more similar samples are, the nearer they are. The extent to which these relations can be adequately represented in a two-dimensional map is expressed as the stress coefficient statistic, low values (< 0.1) indicating a good ordination with no real prospect of misleading interpretation (Clarke et al., 2014). Used together, dendrogram and nMDS allow checking adequacy and mutual consistency of both representations to ensure correct interpretation
SIMPROF	Similarity profiling ('SIMPROF' algorithm), to identify statistically significant clusters; in ecological terms the statistical relevance of similarity profile testing is assessed in line with the recommendation of Clarke et al. (2008), thus defining coarser grouping can be appropriate if the resulting groups are supersets of the similarity profile clusters
SIMPER	Similarity Percentage analysis gauges the distinctiveness of each of the multivariate groups of samples, by listing the species that most contribute to the multivariate group in terms of abundance and frequency of occurrence
PCA	Principal component analysis (PCA), to identify multidimensional patterns and relationships between variables, subsequently compressed by reducing the number of dimensions without loss of information. The degree to which a 2D PCA succeeds in representing the full multidimensional information is in the percentage of the total variance expressed by the first two principal component axes. A picture which accounts for as much as 70 % to 75 % of the original variation describes the overall structure well (Clarke et al., 2014)
BIOENV	Identifies relationships between biological and environmental variables; available in PRIMER v7 as BEST, which amalgamates the Bio-Env and Stepwise procedures, and allows to evaluate the strength of association between the variables tested and the significance level

3.3.6 Seabed Habitats and Biotopes

Habitats and biotopes were classified in line with the hierarchical European Nature Information System (EUNIS) habitat classification (European Environment Agency [EEA], 2022), which has compiled criteria for habitat identification across Europe into a single database. Table 3.5 presents the EUNIS hierarchy, with an example of the coding system. Habitats and biotopes were classified by integrating the results of the grab sampling, detailed in this report, with the results of the video and still image analysis, detailed in the Environmental Features Report (Fugro, 2022a). Habitats and biotopes were subsequently assessed for their ecological and conservation importance drawing upon the current marine nature conservation legislation.

Table 3.5: EUNIS (European Environment Agency [EEA], 2022) biotope classification hierarchy example

Level	Example Classification Name	Example Classification Code
1. Environment	Marine benthic habitat	M
2. Biological Zone and Substrate	Circalittoral sand	MC5
3. Biogeographical Marine Region	Atlantic circalittoral sand	MC52
4. Biotope complex	Faunal communities of Atlantic circalittoral sand	MC521
5. Biotope	<i>Amphiura brachiata</i> with <i>Astropecten irregularis</i> and other echinoderms in circalittoral muddy sand	MC5215

3.3.6.1 Sensitive Habitats and Species Assessments

Habitats were assessed for their conservation status using the Annex I habitat list (Joint Nature Conservation Committee [JNCC], n.d.). Sensitive habitats such as geogenic reefs were assessed in line with the criteria in Irving (2009) and are detailed in the Environmental Features Report (Fugro 2022a).

Species were assessed for their conservation status using the Annex I habitats list (JNCC, n.d), Annex II species list (JNCC, n.d.), the UK Biodiversity Action Plan (BAP) list of priority species (JNCC, 2019) and the OSPAR list of threatened and/or declining species and habitats (OSPAR, 2022). The International Union for Conservation of Nature [IUCN] red list of threatened species (IUCN, 2022) was also consulted, although the latter is not a list of conservation priorities, rather a comprehensive inventory of the global conservation status of species and is used to assist with decision making about conserving biodiversity at local and global levels.

3.3.6.2 Non-native species (NNS)

Species of unknown origin (cryptogenic) and non-native (NNS) were assessed using pertinent literature including Cottier-Cook et al., (2017), Harrower et al., (2020); Hill et al., (2009) and Roy et al., (2012), as well as databases including Invasive Species Compendium (CABI, 2022), National Exotic Marine and Estuarine Species Information System [NEMESIS] (Fofonoff et al., 2022), National Biodiversity Network [NBN] (NBN, 2021), Non-native Species Secretariat

[NNSS] (NNSS, 2022), Delivering Alien Invasive Species Inventories for Europe [DAISIE] (DAISIE, 2022), and World Register of Marine Species [WoRMS] (WoRMS Editorial Board, 2022).

4. Results

4.1 Field Operations

4.1.1 Sediment Sampling

Grab samples were successfully acquired at 179 of the 180 proposed grab sampling stations (Table 4.1). Station ST097 was abandoned due to coarse substrate resulting in no sufficient sample being acquired. At station ST166 only a sample for PSD analysis could be acquired owing to the coarseness of the sediment. Stations ST163, ST167, and ST168 were relocated after three unsuccessful attempts at their original locations.

A complete suite of samples (one macrofauna and one PSD sample) was retained at all stations except at station ST097. Single sediment sample for chemistry analysis (CA) were collected successfully at all 30 proposed grab sampling stations. Figures 4.1 and 4.2 spatially display the completed environmental sampling stations within the proposed array and along the proposed ECR, respectively.

Table 4.1: Completed sediment sampling stations, Dogger Bank South Site Investigation

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]					
Station	Easting	Northing	Offset from Proposed [m]	Depth [m BSL]	Sample Acquisition
Array					
ST001	427 648.8	6 024 785.0	35.1	36.7	FA, PSD
ST002	430 450.8	6 024 621.0	11.8	36.9	FA, PSD
ST003	427 646.6	6 027 356.3	35.0	35.2	FA, PSD
ST004	430 455.8	6 027 622.6	15.3	35.7	FA, PSD
ST005	433 443.9	6 027 627.5	2.5	34.1	FA, PSD
ST006	436 443.4	6 027 659.6	31.3	33.2	FA, PSD
ST007	439 433.8	6 027 633.5	9.4	33.0	FA, PSD
ST008	442 298.0	6 028 006.3	28.6	31.1	FA, PSD
ST009	424 743.2	6 030 854.8	38.0	36.2	FA, PSD
ST010	427 436.4	6 030 619.4	10.4	34.8	FA, PSD
ST011	430 502.3	6 030 485.6	33.3	35.6	FA, PSD
ST012	433 414.7	6 030 618.0	28.8	33.0	FA, PSD, CA
ST013	436 446.1	6 030 643.6	15.9	34.1	FA, PSD
ST014	439 424.8	6 030 631.8	17.1	31.3	FA, PSD
ST015	442 399.5	6 030 638.4	43.3	32.0	FA, PSD,
ST016	424 442.6	6 033 605.7	22.7	26.3	FA, PSD
ST017	427 399.4	6 033 618.3	43.3	28.7	FA, PSD, CA

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]					
Station	Easting	Northing	Offset from Proposed [m]	Depth [m BSL]	Sample Acquisition
ST018	430 433.3	6 033 654.7	27.6	29.5	FA, PSD
ST019	433 388.3	6 033 703.3	4.9	29.1	FA, PSD
ST020	436 465.0	6 033 604.6	33.4	29.2	FA, PSD
ST021	439 434.1	6 033 600.8	28.6	27.8	FA, PSD
ST022	442 333.8	6 033 568.4	38.8	27.1	FA, PSD
ST023	421 859.8	6 036 858.6	27.6	19.0	FA, PSD,
ST024	424 435.4	6 036 612.0	17.5	18.4	FA, PSD
ST025	427 456.5	6 036 623.0	15.9	13.7	FA, PSD
ST026	430 458.4	6 036 639.4	20.1	13.8	FA, PSD
ST027	433 436.5	6 036 640.5	13.2	13.0	FA, PSD
ST028	436 415.3	6 036 620.4	27.5	17.1	FA, PSD
ST029	439 624.2	6 036 347.1	23.3	17.1	FA, PSD
ST030	418 611.9	6 039 938.2	35.2	19.7	FA, PSD,
ST031	420 728.2	6 039 327.8	23.4	18.8	FA, PSD, CA
ST032	424 988.6	6 039 623.6	26.2	19.7	FA, PSD,
ST033	427 421.6	6 039 623.0	20.7	14.8	FA, PSD
ST034	430 263.7	6 039 208.4	33.9	14.9	FA, PSD
ST035	433 391.8	6 039 629.8	49.8	14.9	FA, PSD
ST036	436 412.9	6 039 630.9	28.8	13.5	FA, PSD
ST037	439 409.7	6 039 640.6	34.1	13.8	FA, PSD
ST038	409 451.0	6 042 703.0	11.3	18.0	FA, PSD, CA
ST039	412 404.7	6 042 634.4	37.4	19.1	FA, PSD
ST040	415 433.0	6 042 609.6	20.6	20.7	FA, PSD, CA
ST041	418 431.9	6 042 633.0	10.7	18.0	FA, PSD
ST042	421 657.3	6 043 277.2	28.2	18.1	FA, PSD
ST043	424 431.6	6 042 620.7	12.6	19.7	FA, PSD
ST044	427 440.5	6 042 637.4	9.1	14.0	FA, PSD, CA
ST045	430 442.9	6 042 661.3	32.9	13.9	FA, PSD
ST046	433 420.2	6 042 660.1	38.3	15.0	FA, PSD, CA
ST047	436 417.5	6 042 615.1	27.5	14.0	FA, PSD
ST048	400 411.4	6 045 630.4	30.2	32.4	FA, PSD
ST049	403 452.3	6 045 588.3	41.4	36.3	FA, PSD
ST050	406 417.0	6 045 611.1	30.0	17.0	FA, PSD
ST051	409 432.4	6 045 647.3	21.0	23.0	FA, PSD
ST052	412 628.8	6 046 190.6	42.0	19.8	FA, PSD

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]					
Station	Easting	Northing	Offset from Proposed [m]	Depth [m BSL]	Sample Acquisition
ST053	415 450.3	6 045 619.1	12.7	17.9	FA, PSD
ST054	418 445.0	6 045 650.4	22.3	20.0	FA, PSD
ST055	421 448.0	6 045 625.8	6.9	19.3	FA, PSD
ST056	424 434.8	6 045 594.3	34.7	19.9	FA, PSD
ST057	427 432.8	6 045 636.5	11.9	21.6	FA, PSD
ST058	430 417.9	6 045 646.8	30.0	20.9	FA, PSD
ST059	433 430.9	6 045 634.8	12.5	20.5	FA, PSD
ST060	436 433.3	6 045 621.1	11.0	19.1	FA, PSD
ST061	391 430.0	6 048 625.2	12.0	31.9	FA, PSD
ST062	394 445.2	6 048 610.8	18.0	32.6	FA, PSD
ST063	396 920.9	6 048 592.5	43.3	29.0	FA, PSD, CA
ST064	400 401.2	6 048 611.0	44.0	28.8	FA, PSD
ST065	403 547.8	6 048 943.9	18.8	32.5	FA, PSD
ST066	406 404.6	6 048 649.9	42.7	23.0	FA, PSD
ST067	409 466.9	6 048 616.9	27.8	18.0	FA, PSD
ST068	412 428.0	6 048 622.6	14.7	18.6	FA, PSD
ST069	415 498.6	6 048 641.5	36.4	17.9	FA, PSD, CA
ST070	418 436.1	6 048 626.1	5.9	21.2	FA, PSD
ST071	421 446.2	6 048 610.2	18.8	20.3	FA, PSD, CA
ST072	424 455.6	6 048 664.7	39.0	22.3	FA, PSD
ST073	427 451.1	6 048 610.3	20.4	23.8	FA, PSD
ST074	430 470.4	6 048 630.7	28.9	21.3	FA, PSD, CA
ST075	433 462.8	6 048 615.7	24.7	22.2	FA, PSD
ST076	435 958.5	6 048 391.9	4.9	21.5	FA, PSD
ST077	385 425.8	6 051 615.0	20.6	26.6	FA, PSD
ST078	388 341.8	6 051 713.2	8.0	32.4	FA, PSD, CA
ST079	391 437.1	6 051 606.4	22.4	32.9	FA, PSD
ST080	394 421.9	6 051 630.0	19.8	29.2	FA, PSD
ST081	397 088.8	6 051 667.9	5.2	31.8	FA, PSD
ST082	400 404.7	6 051 648.3	41.9	31.9	FA, PSD
ST083	403 445.0	6 051 630.7	4.1	25.5	FA, PSD
ST084	406 437.0	6 051 630.7	5.1	28.7	FA, PSD
ST085	409 468.3	6 051 600.9	38.3	18.0	FA, PSD, CA
ST086	412 416.9	6 051 645.5	30.0	17.7	FA, PSD
ST087	415 444.8	6 051 638.1	10.2	19.9	FA, PSD

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]					
Station	Easting	Northing	Offset from Proposed [m]	Depth [m BSL]	Sample Acquisition
ST088	418 432.3	6 051 606.7	23.5	21.1	FA, PSD
ST089	421 418.2	6 051 617.1	25.9	21.6	FA, PSD
ST090	424 413.9	6 051 650.7	35.6	21.7	FA, PSD,
ST091	427 442.3	6 051 600.6	27.8	25.6	FA, PSD
ST092	430 308.1	6 051 286.8	25.4	22.7	FA, PSD
ST093	385 847.5	6 054 496.5	23.1	34.0	FA, PSD
ST094	388 454.5	6 054 637.5	15.8	34.6	FA, PSD
ST095	391 427.1	6 054 625.5	14.7	34.0	FA, PSD
ST096	394 401.4	6 054 642.9	42.8	34.0	FA, PSD
ST098	400 944.3	6 054 557.4	25.9	20.0	FA, PSD, CA
ST099	403 448.7	6 054 624.8	8.0	28.6	FA, PSD
ST100	406 441.5	6 054 604.8	23.6	24.6	FA, PSD
ST101	409 417.7	6 054 634.0	24.5	17.3	FA, PSD
ST102	412 410.1	6 054 632.2	31.7	23.4	FA, PSD
ST103	415 469.0	6 054 596.7	41.9	25.3	FA, PSD, CA
ST104	418 452.7	6 054 584.9	44.9	20.8	FA, PSD
ST105	421 461.4	6 054 582.7	49.8	22.7	FA, PSD, CA
ST106	388 428.2	6 057 624.4	13.9	38.0	FA, PSD
ST107	391 434.7	6 057 611.9	17.9	37.0	FA, PSD, CA
ST108	394 462.9	6 057 605.2	31.5	36.7	FA, PSD
ST109	397 463.0	6 057 628.5	21.5	33.0	FA, PSD
ST110	400 430.0	6 057 642.7	18.5	22.0	FA, PSD
ST111	403 455.3	6 057 621.6	15.3	27.8	FA, PSD
ST112	406 448.2	6 057 630.9	7.1	22.4	FA, PSD
ST113	409 425.7	6 057 654.1	30.2	14.8	FA, PSD, CA
ST114	412 435.6	6 057 631.3	6.6	18.6	FA, PSD
ST115	415 455.6	6 057 593.4	37.6	20.6	FA, PSD
ST116	388 409.0	6 060 643.2	35.8	39.0	FA, PSD
ST117	391 418.5	6 060 634.7	23.9	35.0	FA, PSD
ST118	394 465.8	6 060 622.2	25.0	33.1	FA, PSD
ST119	397 459.1	6 060 646.6	25.3	33.0	FA, PSD
ST120	400 426.6	6 060 631.0	15.2	28.0	FA, PSD
ST121	403 892.2	6 061 080.3	14.6	24.8	FA, PSD, CA
ST122	406 434.7	6 060 640.1	13.6	20.0	FA, PSD
ST123	409 339.8	6 060 329.3	8.0	25.4	FA, PSD

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]					
Station	Easting	Northing	Offset from Proposed [m]	Depth [m BSL]	Sample Acquisition
ST124	391 426.9	6 063 626.8	14.7	36.3	FA, PSD
ST125	394 476.8	6 063 620.7	36.0	36.7	FA, PSD, CA
ST126	397 452.3	6 063 635.3	12.8	30.0	FA, PSD
ST127	400 422.0	6 063 640.2	22.9	22.0	FA, PSD
ST128	391 444.7	6 066 648.8	20.6	30.1	FA, PSD
ST129	394 425.6	6 066 622.0	17.2	32.3	FA, PSD
ST130	394 322.6	6 047 333.0	7.4	30.3	FA, PSD
ST131	403 989.7	6 044 312.7	24.2	34.1	FA, PSD
ST132	413 454.2	6 041 548.0	30.0	15.9	FA, PSD
Export Cable Route					
ST133	384 153.2	6 047 509.7	22.8	52.6	FA, PSD
ST134	379 627.8	6 045 377.7	5.9	60.8	FA, PSD, CA
ST135	375 130.8	6 043 205.0	16.9	67.7	FA, PSD
ST136	370 623.2	6 041 051.3	17.8	56.0	FA, PSD
ST137	365 785.4	6 038 758.1	16.7	55.9	FA, PSD
ST138	416 539.7	6 036 817.2	28.8	17.3	FA, PSD
ST139	411 587.9	6 035 926.7	26.8	42.2	FA, PSD
ST140	406 676.1	6 035 020.2	29.2	45.0	FA, PSD
ST141	401 749.5	6 034 171.2	33.6	34.0	FA, PSD, CA
ST142	396 682.7	6 034 447.3	27.5	53.0	FA, PSD
ST143	391 884.4	6 035 140.6	42.1	49.0	FA, PSD
ST144	386 956.1	6 035 826.6	17.8	54.0	FA, PSD
ST145	382 003.9	6 036 521.7	17.9	48.0	FA, PSD
ST146	377 031.2	6 037 163.6	33.0	54.0	FA, PSD, CA
ST147	372 084.6	6 037 752.8	14.2	56.2	FA, PSD
ST148	359 894.6	6 043 991.7	19.5	55.9	FA, PSD
ST149	364 106.7	6 046 666.0	32.2	55.3	FA, PSD
ST150	368 417.9	6 049 057.9	25.3	56.2	FA, PSD
ST151	373 435.5	6 049 383.7	5.9	57.3	FA, PSD, CA
ST152	378 442.8	6 049 425.8	20.5	37.1	FA, PSD
ST153	383 426.4	6 049 499.0	10.6	49.1	FA, PSD
ST154	345 176.1	6 025 852.3	28.6	61.8	FA, PSD
ST155	347 243.8	6 030 370.9	16.3	62.8	FA, PSD
ST156	349 883.3	6 034 614.8	7.4	57.0	FA, PSD, CA
ST157	353 051.5	6 038 475.3	10.5	56.2	FA, PSD

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]					
Station	Easting	Northing	Offset from Proposed [m]	Depth [m BSL]	Sample Acquisition
ST158	335 843.0	6 012 824.4	17.8	60.2	FA, PSD
ST159	331 679.2	6 010 069.7	26.3	58.0	FA, PSD
ST160	327 515.4	6 007 350.3	30.9	54.0	FA, PSD
ST161	323 310.3	6 004 590.8	4.6	55.7	FA, PSD, CA
ST162	319 205.9	6 001 753.7	20.3	52.9	FA, PSD
ST163	315 200.0	5 998 829.8	90.8	53.6	FA, PSD
ST164	311 217.6	5 995 731.4	17.7	46.4	FA, PSD, CA
ST165	306 859.8	5 993 639.6	28.9	39.2	FA, PSD
ST166	302 402.3	5 991 327.9	7.8	23.4	PSD
ST167	298 087.5	5 988 761.9	117.4	20.5	FA, PSD
ST168	293 535.4	5 986 824.7	3.3	15.0	FA, PSD, CA
ST169	343 868.4	6 018 781.7	14.4	62.1	FA, PSD
ST170	347 067.0	6 022 563.8	14.2	59.2	FA, PSD
ST171	350 481.8	6 026 212.1	3.0	62.3	FA, PSD
ST172	353 913.8	6 029 849.1	11.3	50.3	FA, PSD, CA
ST173	357 569.3	6 033 243.8	19.6	47.6	FA, PSD
ST174	361 704.6	6 036 003.0	15.5	51.0	FA, PSD
ST175	360 763.2	6 038 880.6	11.9	49.8	FA, PSD
ST176	355 756.5	6 038 962.3	25.2	53.7	FA, PSD
ST177	292 004.2	5 986 478.0	9.2	15.4	FA, PSD
ST178	339 967.4	6 015 645.3	16.0	61.3	FA, PSD, CA
ST179	342 608.0	6 020 531.7	15.6	60.6	FA, PSD
ST180	355 651.0	6 041 313.8	29.7	57.2	FA, PSD
Notes Coordinates presented for CA grab sample BSL = Below sea level CA = Chemical analysis FA = Faunal sample A					

4.1.2 Beam Trawl Sampling

Beam trawl sampling was successfully completed at all 24 proposed stations (Table 4.2).

Table 4.2: Completed beam trawl stations

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]					
Beam trawl station		Easting	Northing	Depth [m BSL]	Length [m]
Array					
BT01	SOL	393 377	6 062 091	23	812.5
	EOL	392 884	6 062 737	36	
BT02	SOL	394 384	6 056 092	44	830.2
	EOL	394 793	6 055 369	44	
BT03	SOL	387 757	6 051 110	30	897.0
	EOL	387 944	6 051 987	30	
BT04	SOL	404 971	6 055 819	23	814.5
	EOL	404 551	6 055 108	27	
BT05	SOL	413 091	6 051 839	21	825.3
	EOL	412 277	6 051 512	15	
BT06	SOL	408 539	6 045 560	20	877.5
	EOL	409 299	6 045 197	20	
BT07	SOL	423 251	6 046 699	15	842.7
	EOL	424 039	6 046 649	15	
BT08	SOL	428 184	6 050 481	20	790.2
	EOL	427 342	6 050 494	20	
BT09	SOL	424 180	6 037 801	8	842.2
	EOL	423 556	6 038 311	8	
BT10	SOL	437 722	6 030 520	30	806.2
	EOL	438 554	6 030 509	31	
BT11	SOL	431 169	6 027 226	33	831.3
	EOL	430 311	6 027 219	32	
Export Cable Route					
BT12	SOL	436 157	6 037 539	14	857.7
	EOL	435 788	6 038 282	15	
BT13	SOL	309 427	5 994 212	45	828.9
	EOL	309 608	5 994 972	45	
BT14	SOL	322 642	6 004 599	51	781.4
	EOL	323 413	6 004 232	52	
BT15	SOL	394 969	6 047 844	28	853.8
	EOL	395 475	6 047 172	28	
BT16	SOL	355 225	6 041 063	54	841.1
	EOL	354 885	6 040 278	54	
BT17	SOL	352 753	6 028 064	48	855.3

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]					
Beam trawl station		Easting	Northing	Depth [m BSL]	Length [m]
	EOL	352 292	6 028 711	51	
BT18	SOL	385 763	6 036 030	55	795.1
	EOL	386 565	6 035 792	55	
BT19	SOL	295 200	5 987 483	6	782.3
	EOL	296 075	5 987 594	6	
BT20	SOL	316 101	5 998 703	48	836.7
	EOL	315 876	5 999 459	48	
BT21	SOL	415 436	6 041 573	15	882.2
	EOL	414 885	6 040 937	15	
BT22	SOL	339 075	6 014 827	58	788.7
	EOL	339 488	6 015 545	58	
BT23	SOL	375 982	6 043 969	65	842.2
	EOL	376 706	6 043 583	66	
BT24	SOL	411 632	6 036 307	39	828.6
	EOL	412 127	6 035 647	40	
Notes					
BSL = Below sea level					
SOL = Start of line					
EOL = End of line					

4.1.3 Seabed Photography

Video and stills photographic data were successfully acquired at all 104 proposed stations (Table 4.3). The STR SeaSpyder Nano camera was used at most stations (79 of 104 stations) due to technical issues with the STR SeaSpyder setup, as agreed with the client representative (Fugro, 2022e). Figures 4.1 and 4.2 spatially display the completed environmental sampling stations within the proposed DBS array and along the proposed ECR, respectively.

Table 4.3: Completed transects Dogger Bank South Site Investigation

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]						
Station		Easting	Northing	Depth [m BSL]	Length [m]	Data Acquisition
ST001	SOL	427 601.9	6 024 775.8	36.6	122.3	3 mins 39 secs 15 stills
	EOL	427 721.3	6 024 802.2	36.6		
ST003	SOL	427 614.7	6 027 325.1	36.0	120.8	4 mins 30 secs 13 stills
	EOL	427 723.9	6 027 376.8	35.5		
ST009	SOL	424 774.6	6 030 763.2	37.9	138.6	5 mins 16 secs 19 stills
	EOL	424 777.1	6 030 901.8	35.8		

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]						
Station		Easting	Northing	Depth [m BSL]	Length [m]	Data Acquisition
ST010	SOL	427 471.5	6 030 586.9	35.8	105.4	3 mins 36 secs
	EOL	427 398.0	6 030 662.4	35.2		15 stills
ST012	SOL	433 386.0	6 030 608.8	32.5	106.8	7 mins 3 secs
	EOL	433 479.9	6 030 659.7	33.1		15 stills
ST015A*	SOL	442 455.7	6 030 624.7	29.6	73.2	2 mins 51 secs
	EOL	442 510.4	6 030 673.3	32.3		13 stills
ST016	SOL	424 434.3	6 033 557.7	27.5	134.8	5 mins 55 secs
	EOL	424 443.3	6 033 692.2	24.1		17 stills
ST023	SOL	421 818.6	6 036 873.6	18.5	97.2	4 mins 23 secs
	EOL	421 912.1	6 036 900.3	18.2		16 stills
ST024	SOL	424 443.7	6 036 580.9	17.8	103.8	4 mins 47 secs
	EOL	424 447.8	6 036 684.7	18.2		19 stills
ST030	SOL	418 602.1	6 039 911.3	-	102.7	3 mins 0 secs
	EOL	418 606.0	6 040 013.9	19.5		13 stills
ST031	SOL	420 769.8	6 039 307.3	18.3	108.5	2 mins 51 secs
	EOL	420 724.9	6 039 406.1	18.8		19 stills
ST032	SOL	424 927.7	6 039 668.0	19.7	122.3	9 mins 24 secs
	EOL	425 049.0	6 039 652.1	19.4		13 stills
ST038	SOL	409 410.9	6 042 732.8	24.4	105.5	2 mins 31 secs
	EOL	409 499.1	6 042 674.9	22.6		16 stills
ST041	SOL	418 491.4	6 042 637.7	17.7	110.1	2 mins 37 secs
	EOL	418 381.7	6 042 647.5	17.9		14 stills
ST042	SOL	421 721.0	6 043 248.6	19.1	106.3	2 mins 19 secs
	EOL	421 622.0	6 043 210.0	18.9		15 stills
ST043	SOL	424 393.5	6 042 623.8	19.2	106.8	3 mins 44 secs
	EOL	424 500.1	6 042 627.5	20.3		17 stills
ST048	SOL	400 375.5	6 045 651.2	33.4	141.9	3 mins 21 secs
	EOL	400 512.5	6 045 614.1	33.4		12 stills
ST049	SOL	403 377.3	6 045 603.8	36.3	142.1	3 mins 34 secs
	EOL	403 503.1	6 045 669.9	35.1		10 stills
ST050	SOL	406 400.4	6 045 687.3	20.7	121.8	4 mins 2 secs
	EOL	406 446.8	6 045 574.7	20.5		22 stills
ST051	SOL	409 397.7	6 045 664.9	26.7	113.3	3 mins 10 secs
	EOL	409 481.9	6 045 589.1	27.2		19 stills
ST052	SOL	412 630.8	6 046 233.7	18.0	133.0	4 mins 33 secs

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]						
Station		Easting	Northing	Depth [m BSL]	Length [m]	Data Acquisition
	EOL	412 691.1	6 046 115.2	18.2		17 stills
ST054	SOL	418 494.5	6 045 615.6	20.2	96.6	3 mins 18 secs
	EOL	418 423.4	6 045 681.0	19.4		21 stills
ST055	SOL	421 484.1	6 045 587.1	19.0	128.5	2 mins 57 secs
	EOL	421 437.7	6 045 706.9	19.9		16 stills
ST056	SOL	424 371.7	6 045 675.1	19.7	148.2	12 mins 6 secs
	EOL	424 498.2	6 045 598.1	19.4		19 stills
ST061	SOL	391 400.5	6 048 666.8	-	109.6	4 mins 45 secs
	EOL	391 479.9	6 048 591.2	30.7		20 stills
ST062	SOL	394 413.7	6 048 687.1	30.2	110.9	4 mins 11 secs
	EOL	394 417.0	6 048 576.3	29.6		15 stills
ST063	SOL	396 921.9	6 048 551.1	30.9	125.1	3 mins 59 secs
	EOL	396 889.9	6 048 672.0	30.9		17 stills
ST064	SOL	400 394.8	6 048 666.6	30.6	127.1	3 mins 41 secs
	EOL	400 498.6	6 048 593.2	32.2		23 stills
ST065	SOL	403 480.5	6 048 854.9	34.9	162.5	3 mins 47 secs
	EOL	403 580.9	6 048 982.6	32.8		16 stills
ST066	SOL	406 398.5	6 048 671.2	27.0	111.9	3 mins 46 secs
	EOL	406 483.1	6 048 578.9	27.9		8 stills
ST067	SOL	409 486.5	6 048 584.4	21.2	110.8	2 mins 55 secs
	EOL	409 431.0	6 048 680.3	21.5		18 stills
ST069A*	SOL	415 426.0	6 048 669.3	19.8	87.1	7 mins 9 secs
	EOL	415 462.0	6 048 605.3	19.3		11 stills
ST070	SOL	418 478.2	6 048 601.2	21.6	105.5	3 mins 23 secs
	EOL	418 435.4	6 048 697.6	21.2		11 stills
ST071	SOL	421 487.4	6 048 595.9	21.1	112.9	2 mins 56 secs
	EOL	421 393.5	6 048 658.5	22.0		21 stills
ST072	SOL	424 371.7	6 048 656.7	21.1	103.5	4 mins 7 secs
	EOL	424 443.5	6 048 582.3	22.4		6 stills
ST077	SOL	385 514.2	6 051 610.6	28.9	115.4	4 mins 2 secs
	EOL	385 405.0	6 051 648.0	28.1		21 stills
ST078	SOL	388 380.6	6 051 644.8	33.2	123.6	3 mins 37 secs
	EOL	388 312.8	6 051 748.2	33.6		14 stills
ST079	SOL	391 385.0	6 051 639.1	32.1	115.6	3 mins 49 secs
	EOL	391 487.7	6 051 586.1	31.8		13 stills

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]						
Station		Easting	Northing	Depth [m BSL]	Length [m]	Data Acquisition
ST080	SOL	394 391.2	6 051 670.5	30.3	108.4	4 mins 23 secs
	EOL	394 469.3	6 051 595.4	30.9		16 stills
ST081	SOL	397 038.1	6 051 727.6	31.9	127.1	5 mins 40 secs
	EOL	397 107.4	6 051 621.0	32.1		20 stills
ST082	SOL	400 365.7	6 051 653.6	31.7	139.2	3 mins 51 secs
	EOL	400 503.8	6 051 636.4	30.8		10 stills
ST083	SOL	403 401.3	6 051 573.9	25.5	106.1	4 mins 25 secs
	EOL	403 420.3	6 051 678.2	25.0		10 stills
ST084	SOL	406 397.6	6 051 667.8	28.7	110.9	3 mins 9 secs
	EOL	406 496.9	6 051 618.7	28.5		17 stills
ST085	SOL	409 486.7	6 051 587.4	21.4	109.4	2 mins 32 secs
	EOL	409 450.4	6 051 690.6	21.1		15 stills
ST088	SOL	418 487.0	6 051 593.0	21.6	106.8	3 mins 26 secs
	EOL	418 437.9	6 051 687.8	21.2		10 stills
ST089	SOL	421 476.2	6 051 570.9	22.2	121.0	3 mins 27 secs
	EOL	421 439.0	6 051 686.0	22.7		10 stills
ST090	SOL	424 434.9	6 051 645.5	21.8	101.1	4 mins 1 secs
	EOL	424 532.1	6 051 617.8	21.1		12 stills
ST093	SOL	385 914.5	6 054 501.8	37.4	110.7	3 mins 50 secs
	EOL	385 808.0	6 054 531.7	37.5		21 stills
ST094	SOL	388 494.4	6 054 607.4	34.0	111.0	3 mins 49 secs
	EOL	388 392.7	6 054 651.9	34.3		17 stills
ST095	SOL	391 448.8	6 054 704.6	34.6	121.3	4 mins 1 secs
	EOL	391 409.8	6 054 589.8	34.4		12 stills
ST096	SOL	394 412.0	6 054 590.2	34.0	108.1	3 mins 26 secs
	EOL	394 481.0	6 054 673.4	34.2		10 stills
ST097	SOL	397 483.4	6 054 592.6	33.7	111.3	3 mins 13 secs
	EOL	397 402.9	6 054 669.4	34.7		16 stills
ST098	SOL	400 904.9	6 054 591.4	45.4	138.3	3 mins 32 secs
	EOL	401 025.6	6 054 524.0	44.5		9 stills
ST099	SOL	403 481.9	6 054 585.5	30.0	111.1	4 mins 55 secs
	EOL	403 407.6	6 054 668.1	29.2		12 stills
ST100	SOL	406 383.0	6 054 669.2	22.5	116.1	8 mins 38 secs
	EOL	406 466.8	6 054 588.8	22.4		15 stills
ST101	SOL	409 416.2	6 054 675.4	18.5	106.5	3 mins 44 secs

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]						
Station		Easting	Northing	Depth [m BSL]	Length [m]	Data Acquisition
	EOL	409 466.9	6 054 581.8	18.7		18 stills
ST103	SOL	415 500.8	6 054 629.8	21.9	117.5	3 mins 9 secs
	EOL	415 383.3	6 054 628.0	23.9		10 stills
ST104	SOL	418 503.9	6 054 617.5	21.2	114.1	3 mins 41 secs
	EOL	418 406.2	6 054 676.3	20.8		10 stills
ST105	SOL	421 490.2	6 054 576.6	22.3	129.9	4 mins 26 secs
	EOL	421 385.7	6 054 653.7	23.5		11 stills
ST106	SOL	388 481.2	6 057 592.7	36.6	102.5	2 mins 18 secs
	EOL	388 416.9	6 057 672.5	37.5		17 stills
ST107	SOL	391 442.0	6 057 573.3	36.1	111.8	4 mins 18 secs
	EOL	391 435.1	6 057 684.9	36.2		11 stills
ST108	SOL	394 444.0	6 057 564.6	36.8	127.2	4 mins 2 secs
	EOL	394 448.1	6 057 691.8	37.3		14 stills
ST109	SOL	397 485.4	6 057 610.5	36.0	102.5	3 mins 43 secs
	EOL	397 383.1	6 057 616.1	35.8		11 stills
ST110	SOL	400 387.6	6 057 680.1	25.3	130.2	3 mins 17 secs
	EOL	400 488.1	6 057 597.4	26.3		16 stills
ST111	SOL	403 490.5	6 057 590.5	28.6	118.7	3 mins 45 secs
	EOL	403 405.3	6 057 673.2	28.9		10 stills
ST112	SOL	406 401.1	6 057 671.7	23.2	108.6	3 mins 44 secs
	EOL	406 495.7	6 057 618.4	22.8		8 stills
ST113	SOL	409 383.4	6 057 673.5	16.2	110.8	4 mins 22 secs
	EOL	409 433.2	6 057 574.6	16.7		18 stills
ST115	SOL	415 489.4	6 057 560.6	19.8	130.6	3 mins 40 secs
	EOL	415 455.5	6 057 686.7	19.3		10 stills
ST116	SOL	388 353.6	6 060 670.2	39.5	144.6	4 mins 19 secs
	EOL	388 485.4	6 060 610.7	39.2		17 stills
ST117	SOL	391 350.4	6 060 636.5	35.2	130.1	5 mins 26 secs
	EOL	391 475.8	6 060 601.7	35.3		21 stills
ST118	SOL	394 466.7	6 060 579.8	46.3	119.4	4 mins 47 secs
	EOL	394 422.0	6 060 690.5	46.3		14 stills
ST119	SOL	397 474.7	6 060 577.1	36.0	117.0	2 mins 34 secs
	EOL	397 423.1	6 060 682.1	35.8		14 stills
ST120	SOL	400 364.6	6 060 653.8	31.2	135.5	3 mins 3 secs
	EOL	400 500.0	6 060 649.5	31.2		18 stills

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]						
Station		Easting	Northing	Depth [m BSL]	Length [m]	Data Acquisition
ST121	SOL	403 898.3	6 061 059.4	24.3	115.0	2 mins 22 secs
	EOL	403 870.0	6 061 170.9	24.8		7 stills
ST122	SOL	406 371.7	6 060 671.9	20.7	135.8	3 mins 50 secs
	EOL	406 493.1	6 060 611.0	19.6		8 stills
ST123	SOL	409 340.8	6 060 377.0	25.9	114.2	2 mins 44 secs
	EOL	409 341.9	6 060 262.8	26.1		11 stills
ST124	SOL	391 364.1	6 063 637.5	37.1	135.0	4 mins 53 secs
	EOL	391 477.2	6 063 563.8	37.4		17 stills
ST125	SOL	394 371.5	6 063 627.0	35.9	143.4	3 mins 47 secs
	EOL	394 514.8	6 063 627.6	36.2		10 stills
ST126	SOL	397 467.6	6 063 588.1	32.8	107.1	2 mins 33 secs
	EOL	397 414.6	6 063 681.2	33.1		21 stills
ST128	SOL	391 363.5	6 066 621.9	30.1	129.9	4 mins 1 sec
	EOL	391 486.9	6 066 581.2	30.8		14 stills
ST129	SOL	394 365.6	6 066 628.8	32.2	142.4	3 mins 53 secs
	EOL	394 507.0	6 066 645.3	32.7		13 stills
ST130	SOL	394 264.7	6 047 312.9	29.0	116.5	4 mins 4 secs
	EOL	394 375.1	6 047 350.1	29.0		13 stills
ST132B*	SOL	413 405.1	6 041 569.1	16.0	117.2	12 mins 35 secs
	EOL	413 499.9	6 041 500.2	15.9		12 stills
ST139	SOL	411 677.3	6 035 896.3	43.4	116.6	4 mins 2 secs
	EOL	411 579.3	6 035 959.4	44.2		19 stills
ST161	SOL	323 354.2	6 004 617.8	55.0	107.0	3 mins 33 secs
	EOL	323 252.9	6 004 583.6	55.9		17 stills
ST166	SOL	302 466.8	5 991 396.0	22.7	143.1	5 mins 20 secs
	EOL	302 404.4	5 991 267.3	23.0		19 stills
ST167	SOL	298 108.6	5 988 631.2	18.0	111.4	4 mins 7 secs
	EOL	298 035.2	5 988 714.9	18.4		15 stills
ST181	SOL	291 354.6	5 986 480.1	12.6	115.3	3 mins 3 secs
	EOL	291 249.9	5 986 528.5	13.3		22 stills
ST182	SOL	315 924.1	5 999 088.0	51.2	105.9	3 mins 31 secs
	EOL	315 929.3	5 998 982.3	-		15 stills
ST183	SOL	320 827.6	6 002 817.0	51.7	104.0	3 mins 26 secs
	EOL	320 745.7	6 002 753.0	51.9		18 stills
ST184	SOL	349 368.2	6 034 767.0	57.0	102.6	7 mins 41 secs

Geodetic Parameters: WG84, UTM Zone 31N, CM3°E [m]						
Station		Easting	Northing	Depth [m BSL]	Length [m]	Data Acquisition
	EOL	349 362.0	6 034 664.6	56.9		22 stills
ST185	SOL	371 600.2	6 049 319.4	62.6	89.4	6 mins 07 secs
	EOL	371 685.0	6 049 291.3	63.4		17 stills
ST186	SOL	383 005.7	6 049 536.0	50.0	113.0	5 mins 27 secs
	EOL	382 900.4	6 049 495.0	49.6		14 stills
ST187	SOL	385 056.8	6 048 304.4	42.4	116.3	4 mins 10 secs
	EOL	385 063.0	6 048 420.5	41.8		11 stills
ST188	SOL	414 008.3	6 036 325.8	17.9	123.7	3 mins 58 secs
	EOL	413 907.4	6 036 397.4	18.2		18 stills
ST189	SOL	423 848.8	6 038 035.6	19.7	95.7	10 mins 40 secs
	EOL	423 923.0	6 038 096.0	18.9		17 stills
ST190	SOL	423 746.5	6 046 612.9	22.4	105.0	3 mins 41 secs
	EOL	423 760.2	6 046 508.7	18.1		15 stills
ST200	SOL	408 822.5	6 045 474.1	23.9	101.4	2 mins 36 secs
	EOL	408 879.7	6 045 390.4	24.4		2 stills
ST201	SOL	404 772.3	6 055 344.0	30.7	111.9	3 mins 5 secs
	EOL	404 681.6	6 055 409.6	31.1		7 stills
ST202	SOL	395 108.6	6 047 537.6	30.5	110.1	4 mins 6 secs
	EOL	395 218.4	6 047 545.7	31.7		21 stills
ST203	SOL	394 537.0	6 055 674.5	34.3	123.3	3 mins 43 secs
	EOL	394 635.0	6 055 749.4	34.0		9 stills
ST204	SOL	393 121.0	6 062 317.2	37.1	111.5	2 mins 35 secs
	EOL	393 202.2	6 062 393.6	35.9		13 stills
ST205	SOL	387 895.0	6 051 511.6	33.1	122.1	6 mins 20 secs
	EOL	387 892.0	6 051 633.7	33.6		23 stills
Notes Coordinates presented for the first and last fix captured/start and end of video photography acquired * = Station rerun BSL = Below sea level SOL = Start of line EOL = End of line						

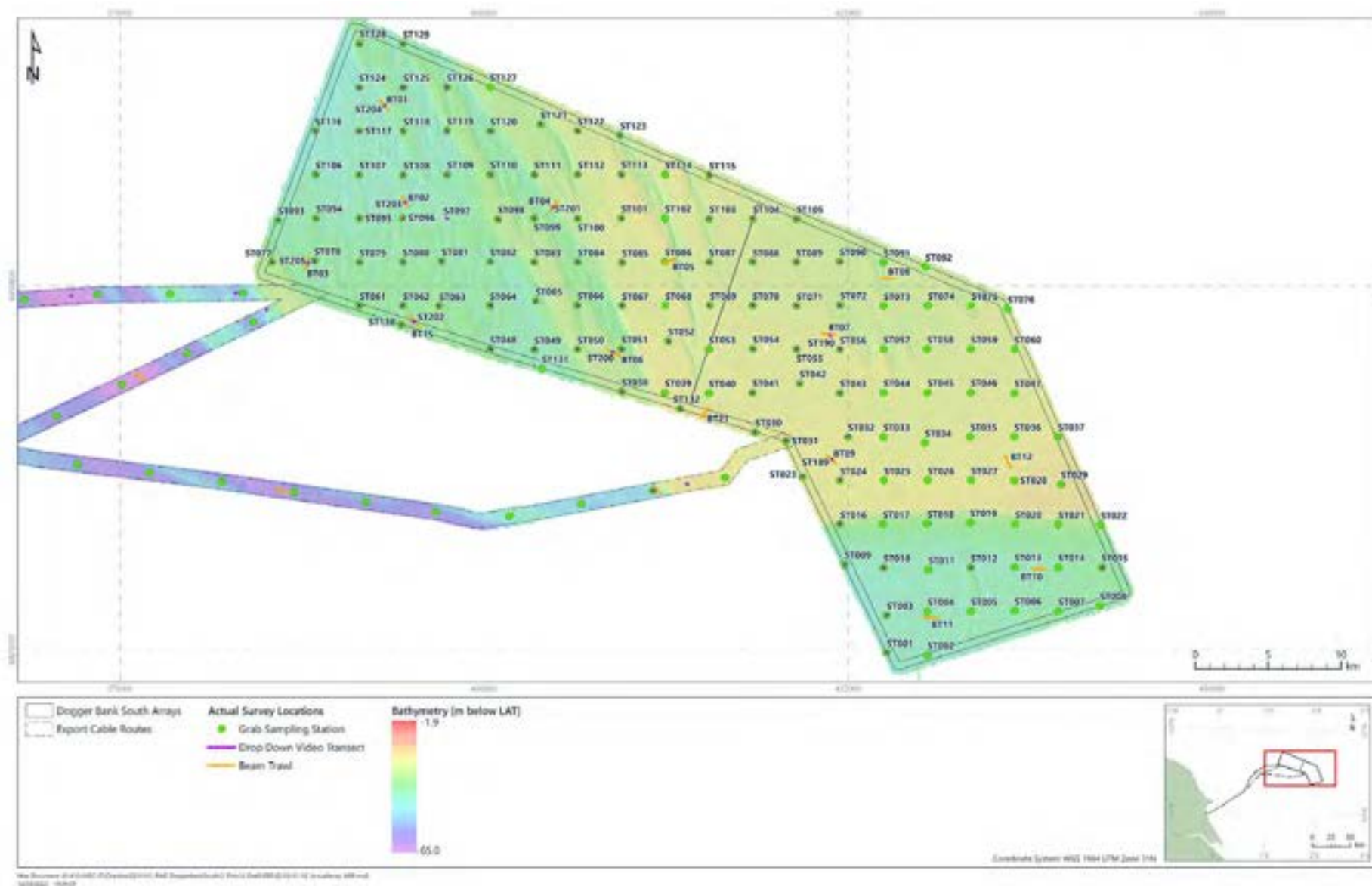


Figure 4.1: Completed survey locations overlaid on bathymetry, array, Dogger Bank South Site Investigation

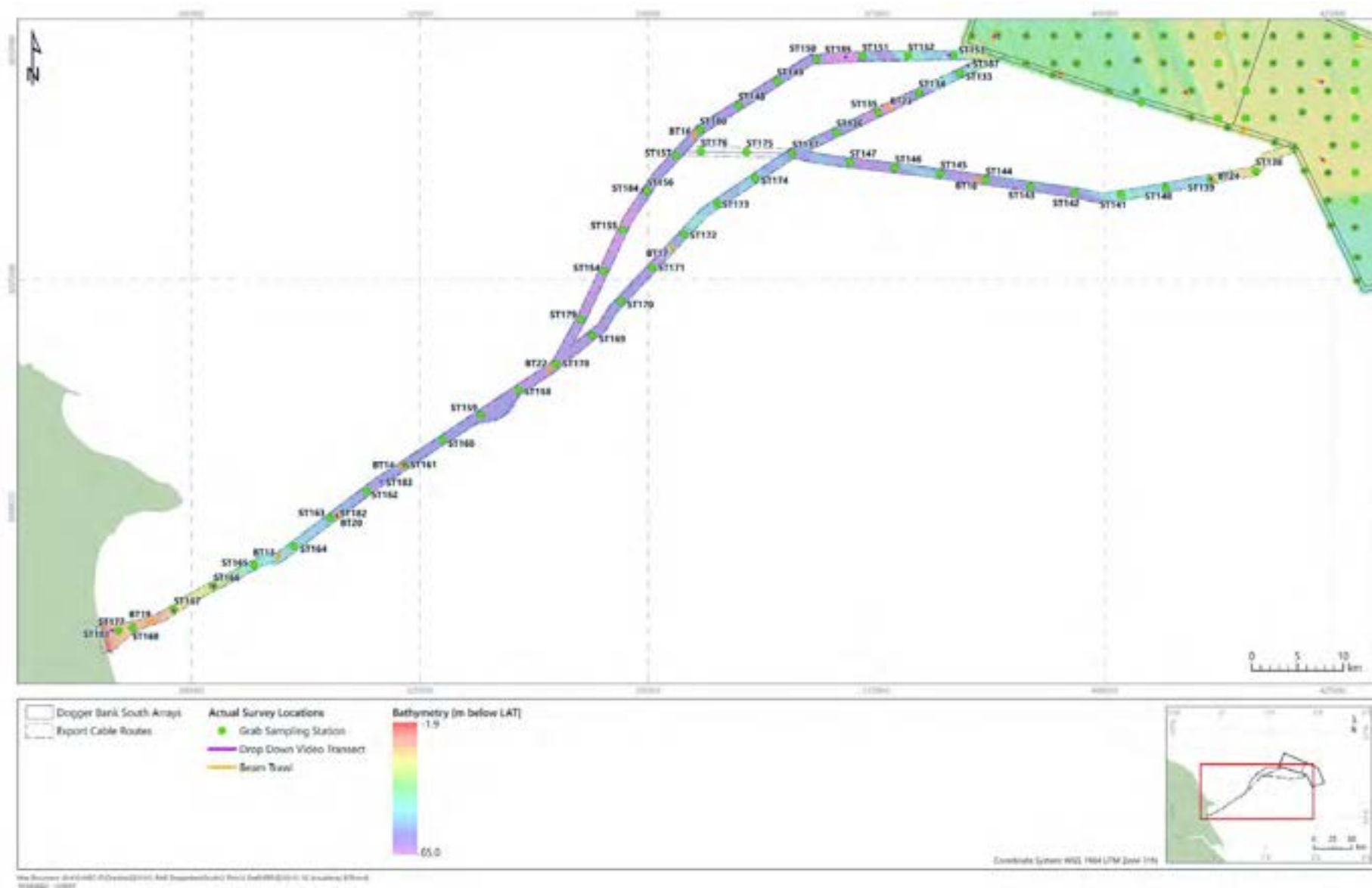


Figure 4.2: Completed survey locations overlaid on bathymetry, ECR, Dogger Bank South Site Investigation

4.2 Sediment Characterisation

4.2.1 Univariate Analysis

Table 4.4 presents the sediment particle size characteristics and Table 4.5 presents the sediment particle distribution across the DBS array and along the ECR. Figures 4.3 and 4.4 provides an overview of the variations of the fractional composition of the sediment in the array and along the ECR, respectively. Figures 4.5 and 4.6 illustrate the spatial variations of percentage sand, gravel and fines, in the array and along the ECR, respectively. Figures 4.7 and 4.8 illustrate the spatial variation of the median sediment particle size in the array and along the ECR, respectively. Figure 4.9 illustrates the percentage contribution of the Folk (BGS modified) sediment classes in the array and along the ECR. Figure 4.10 illustrates the percentage contribution of the Wentworth (1922) sediment descriptions in the array and along the ECR. Appendix D presents the details of particle size distribution for individual stations and the analysis certificates.

Sand was the predominant sediment fraction across the DBS survey area, with percentages ranging from 9.43 % (station ST166 along the ECR) to 100.00 % (stations ST077 in the array and ST141, ST152, ST156, ST171, ST176 along the ECR), with a mean of 89.32 % and a median of 98.14 % (Table 4.5 and Figures 4.3 to 4.6).

Gravel was absent at seven stations and, where present, had a content ranging from < 0.01 % (station ST077 in the array) to 89.87 % (station ST166, along the ECR), with a mean of 8.54 % and a median of 0.67 % (Table 4.5 and Figures 4.3 to 4.6).

Fines (or mud) were absent from 94 stations and at the remaining stations fines content ranged from 0.05 % (station ST125, in the array) to 18.07 % (station ST048, in the array) with a mean of 2.15 % and a median of 0.00 % (Table 4.5 and Figures 4.3 to 4.6). Of the fines, silt content was consistently higher than the clay content (Table 4.5 and Figures 4.3 and 4.4).

Seven sediment classes were identified through the Folk (BGS modified classification (Table 4.5 and Figure 4.9):

1. 'Sand', which typified 136 stations;
2. 'Sandy gravel', which typified 16 stations;
3. 'Gravelly sand', which typified 11 stations;
4. 'Muddy sand', which typified 6 stations
5. 'Muddy sandy gravel', which typified 6 stations
6. 'Gravelly muddy sand', which typified 3 stations
7. 'Gravel', which typified 1 station.

Of the 179 stations investigated, 151 had unimodal distributions, 19 had polymodal distributions and 9 had bimodal distributions (Table 4.5). Investigation of the particle size cumulative graphs (Appendix D) indicated that the most frequently occurring peak in the first mode was the 213.4 µm sediment particle size (fine sand), followed by the 301.8 µm and the

426.8 μm , both falling within the medium sand range. The most frequently recorded peaks in the second mode were the 603.5 μm (very coarse sand) and the 19 200 μm (coarse pebble) sediment particle size followed by the 2400 μm (granule). The most frequently occurring peak in the third mode was the 4800 μm sediment particle size followed by the 6800 μm , both falling within the fine pebble region.

The median sediment particle size ranged from 142 μm (fine sand) at station ST177 to 39 390 μm (very coarse pebble) at station ST166, both stations being along the ECR. The median sediment particle size had a mean of 953 μm (coarse sand) and a median of 235 μm (fine sand) across the entire survey area (Table 4.5).

The mean sediment particle size underpinned the Wentworth (1922) description, through which seven grain size classes were identified (Table 4.5 and Figure 4.10):

1. 'Fine sand', which typified 100 stations;
2. 'Medium sand', which typified 51 stations;
3. 'Coarse sand', which typified 9 stations;
4. 'Granule', which typified 7 stations;
5. 'Very coarse sand', which typified 6 stations;
6. 'Fine pebble', which typified 5 stations;
7. 'Coarse pebble', which typified 1 station.

In terms of sorting coefficient (Table 4.5), the sediment was:

- Moderately well sorted, at 93 stations;
- Very poorly sorted, at 26 stations;
- Moderately sorted, at 22 stations;
- Poorly sorted, at 22 stations;
- Well sorted at 16 stations.

In terms of skewness (Table 4.5), the sediment particle size distribution was:

- Symmetrical, at 121 stations;
- Fine skewed, at 21 stations;
- Very fine skewed, at 17 stations;
- Very coarse skewed, at 11 stations;
- Coarse skewed, at 9 stations.

Table 4.4: Summary of sediment characteristics, Dogger Bank South Site Investigation

Station	Fractional Composition			Fines		Folk Description (BGS modified)
	Gravel [%]	Sand [%]	Fines [%]	Silt [%]	Clay [%]	
Array						
ST001	4.88	91.37	3.76	2.58	1.17	Sand
ST002	5.79	91.26	2.96	2.46	0.49	Gravelly sand
ST003	1.34	94.91	3.74	2.72	1.02	Sand
ST004	2.87	95.16	1.96	1.69	0.27	Sand
ST005	38.75	57.49	3.76	2.60	1.17	Sandy gravel
ST006	0.09	94.80	5.11	3.83	1.28	Sand
ST007	14.32	74.05	11.63	7.26	4.38	Gravelly muddy sand
ST008	0.33	94.47	5.20	3.94	1.26	Sand
ST009	0.21	89.22	10.56	7.50	3.07	Muddy sand
ST010	0.02	89.47	10.51	7.27	3.24	Muddy sand
ST011	17.89	73.19	8.93	6.18	2.75	Gravelly muddy sand
ST012	53.34	43.17	3.49	2.71	0.78	Sandy gravel
ST013	0.47	91.80	7.73	5.98	1.75	Sand
ST014	2.55	95.71	1.74	1.66	0.08	Sand
ST015	69.46	29.28	1.26	1.04	0.22	Sandy gravel
ST016	0.07	99.93	0.00	0.00	0.00	Sand
ST017	0.73	93.68	5.59	4.46	1.13	Sand
ST018	0.53	93.80	5.67	4.46	1.21	Sand
ST019	0.30	94.48	5.22	4.09	1.12	Sand
ST020	4.18	90.75	5.07	4.07	0.99	Sand
ST021	1.82	94.64	3.54	2.89	0.65	Sand
ST022	0.63	95.89	3.48	2.86	0.62	Sand
ST023	2.21	97.79	0.00	0.00	0.00	Sand
ST024	0.10	99.90	0.00	0.00	0.00	Sand
ST025	1.74	98.26	0.00	0.00	0.00	Sand
ST026	2.18	97.82	0.00	0.00	0.00	Sand
ST027	0.67	99.33	0.00	0.00	0.00	Sand
ST028	0.47	99.53	0.00	0.00	0.00	Sand
ST029	0.72	99.28	0.00	0.00	0.00	Sand
ST030	1.15	98.85	0.00	0.00	0.00	Sand
ST031	0.58	99.42	0.00	0.00	0.00	Sand
ST032	1.55	98.45	0.00	0.00	0.00	Sand
ST033	1.28	98.72	0.00	0.00	0.00	Sand
ST034	1.31	98.69	0.00	0.00	0.00	Sand
ST035	0.42	99.58	0.00	0.00	0.00	Sand
ST036	6.27	93.73	0.00	0.00	0.00	Gravelly sand
ST037	0.15	99.85	0.00	0.00	0.00	Sand
ST038	0.33	99.67	0.00	0.00	0.00	Sand
ST039	0.05	99.95	0.00	0.00	0.00	Sand
ST040	2.09	97.91	0.00	0.00	0.00	Sand
ST041	3.20	96.80	0.00	0.00	0.00	Sand
ST042	7.49	92.51	0.00	0.00	0.00	Gravelly sand
ST043	1.40	98.60	0.00	0.00	0.00	Sand
ST044	0.26	99.74	0.00	0.00	0.00	Sand
ST045	4.59	95.41	0.00	0.00	0.00	Sand
ST046	0.81	99.19	0.00	0.00	0.00	Sand
ST047	0.62	99.38	0.00	0.00	0.00	Sand
ST048	12.50	69.43	18.07	11.92	6.15	Gravelly muddy sand
ST049	51.16	47.05	1.79	1.54	0.26	Sandy gravel
ST050	0.02	99.98	0.00	0.00	0.00	Sand
ST051	2.24	97.76	0.00	0.00	0.00	Sand
ST052	1.51	98.49	0.00	0.00	0.00	Sand
ST053	1.50	98.50	0.00	0.00	0.00	Sand
ST054	1.49	98.51	0.00	0.00	0.00	Sand
ST055	1.05	98.95	0.00	0.00	0.00	Sand
ST056	1.21	98.79	0.00	0.00	0.00	Sand
ST057	69.72	26.17	4.12	3.21	0.90	Muddy, sandy gravel
ST058	1.45	98.55	0.00	0.00	0.00	Sand
ST059	0.53	99.47	0.00	0.00	0.00	Sand
ST060	0.23	99.77	0.00	0.00	0.00	Sand
ST061	30.37	59.53	10.10	6.90	3.21	Muddy, sandy gravel
ST062	0.50	99.50	0.00	0.00	0.00	Sand
ST063	47.95	51.51	0.54	0.54	0.01	Sandy gravel
ST064	16.51	83.49	0.00	0.00	0.00	Gravelly sand
ST065	0.07	99.93	0.00	0.00	0.00	Sand
ST066	0.12	99.64	0.24	0.20	0.05	Sand
ST067	0.09	99.91	0.00	0.00	0.00	Sand



Station	Fractional Composition			Fines		Folk Description (BGS modified)
	Gravel [%]	Sand [%]	Fines [%]	Silt [%]	Clay [%]	
ST068	11.37	88.63	0.00	0.00	0.00	Gravelly sand
ST069	0.89	99.11	0.00	0.00	0.00	Sand
ST070	2.88	97.12	0.00	0.00	0.00	Sand
ST071	1.62	98.38	0.00	0.00	0.00	Sand
ST072	0.27	98.85	0.88	0.65	0.24	Sand
ST073	0.17	99.83	0.00	0.00	0.00	Sand
ST074	0.14	99.86	0.00	0.00	0.00	Sand
ST075	0.66	98.64	0.70	0.50	0.20	Sand
ST076	0.44	99.56	0.00	0.00	0.00	Sand
ST077	0.00	100.00	0.00	0.00	0.00	Sand
ST078	24.13	70.09	5.78	3.93	1.85	Gravelly sand
ST079	0.54	99.46	0.00	0.00	0.00	Sand
ST080	50.84	49.16	0.00	0.00	0.00	Sandy gravel
ST081	55.01	44.03	0.96	0.79	0.16	Sandy gravel
ST082	0.06	99.94	0.00	0.00	0.00	Sand
ST083	0.06	99.94	0.00	0.00	0.00	Sand
ST084	23.40	73.35	3.25	2.75	0.50	Gravelly sand
ST085	0.01	99.99	0.00	0.00	0.00	Sand
ST086	0.70	99.30	0.00	0.00	0.00	Sand
ST087	0.13	99.87	0.00	0.00	0.00	Sand
ST088	0.95	99.05	0.00	0.00	0.00	Sand
ST089	1.76	98.24	0.00	0.00	0.00	Sand
ST090	10.63	89.37	0.00	0.00	0.00	Gravelly sand
ST091	1.51	94.05	4.44	3.59	0.85	Sand
ST092	0.16	98.99	0.85	0.62	0.23	Sand
ST093	30.72	66.09	3.19	2.39	0.80	Sandy gravel
ST094	57.31	42.32	0.36	0.36	0.00	Sandy gravel
ST095	52.54	42.54	4.92	3.18	1.74	Muddy, sandy gravel
ST096	41.17	53.55	5.28	3.33	1.95	Sandy gravel
ST098	0.14	99.86	0.00	0.00	0.00	Sand
ST099	0.28	99.72	0.00	0.00	0.00	Sand
ST100	0.05	99.95	0.00	0.00	0.00	Sand
ST101	0.24	99.76	0.00	0.00	0.00	Sand
ST102	0.30	99.70	0.00	0.00	0.00	Sand
ST103	0.10	99.90	0.00	0.00	0.00	Sand
ST104	0.69	99.31	0.00	0.00	0.00	Sand
ST105	0.47	99.53	0.00	0.00	0.00	Sand
ST106	67.32	31.35	1.33	1.07	0.26	Sandy gravel
ST107	48.66	50.01	1.33	1.12	0.21	Sandy gravel
ST108	0.49	98.96	0.55	0.55	0.00	Sand
ST109	1.47	98.14	0.38	0.38	0.00	Sand
ST110	0.23	99.77	0.00	0.00	0.00	Sand
ST111	0.01	99.99	0.00	0.00	0.00	Sand
ST112	0.82	99.18	0.00	0.00	0.00	Sand
ST113	0.56	99.44	0.00	0.00	0.00	Sand
ST114	0.02	99.98	0.00	0.00	0.00	Sand
ST115	0.16	99.84	0.00	0.00	0.00	Sand
ST116	2.66	96.89	0.45	0.45	0.00	Sand
ST117	0.72	99.28	0.00	0.00	0.00	Sand
ST118	0.08	99.92	0.00	0.00	0.00	Sand
ST119	0.32	94.95	4.73	4.06	0.67	Sand
ST120	49.38	50.40	0.22	0.17	0.06	Sandy gravel
ST121	0.10	99.90	0.00	0.00	0.00	Sand
ST122	0.56	99.44	0.00	0.00	0.00	Sand
ST123	0.41	99.59	0.00	0.00	0.00	Sand
ST124	1.59	97.66	0.75	0.75	0.00	Sand
ST125	0.23	99.72	0.05	0.05	0.00	Sand
ST126	0.67	98.43	0.89	0.59	0.30	Sand
ST127	1.75	98.25	0.00	0.00	0.00	Sand
ST128	0.23	99.77	0.00	0.00	0.00	Sand
ST129	0.04	98.89	1.06	0.85	0.21	Sand
ST130	0.06	99.94	0.00	0.00	0.00	Sand
ST131	23.22	76.57	0.22	0.22	0.00	Gravelly sand
ST132	17.28	82.72	0.00	0.00	0.00	Gravelly sand
Export cable route ECR)						
ST133	0.29	90.39	9.32	7.81	1.52	Sand
ST134	0.43	89.52	10.05	8.08	1.97	Muddy sand
ST135	67.16	29.68	3.17	2.40	0.76	Sandy gravel
ST136	0.18	96.42	3.39	3.10	0.30	Sand
ST137	0.08	99.92	0.00	0.00	0.00	Sand



Station	Fractional Composition			Fines		Folk Description (BGS modified)
	Gravel [%]	Sand [%]	Fines [%]	Silt [%]	Clay [%]	
ST138	1.03	98.97	0.00	0.00	0.00	Sand
ST139	0.70	89.28	10.02	7.49	2.53	Muddy sand
ST140	0.07	89.92	10.01	7.47	2.54	Muddy sand
ST141	0.00	100.00	0.00	0.00	0.00	Sand
ST142	0.13	91.88	8.00	6.26	1.74	Sand
ST143	1.71	92.94	5.34	4.56	0.78	Sand
ST144	0.10	94.06	5.85	5.07	0.78	Sand
ST145	0.04	95.56	4.40	3.77	0.64	Sand
ST146	0.77	95.07	4.16	3.78	0.37	Sand
ST147	2.47	94.71	2.82	2.77	0.04	Sand
ST148	0.08	92.76	7.16	6.39	0.77	Sand
ST149	0.31	94.31	5.38	4.79	0.59	Sand
ST150	2.88	91.89	5.23	4.71	0.52	Sand
ST151	0.00	95.79	4.21	4.03	0.18	Sand
ST152	0.00	100.00	0.00	0.00	0.00	Sand
ST153	0.77	89.88	9.35	8.01	1.34	Sand
ST154	0.08	95.18	4.74	4.37	0.37	Sand
ST155	0.04	99.96	0.00	0.00	0.00	Sand
ST156	0.00	100.00	0.00	0.00	0.00	Sand
ST157	0.01	94.67	5.31	4.95	0.37	Sand
ST158	0.87	94.06	5.06	4.55	0.51	Sand
ST159	0.74	97.05	2.22	2.05	0.17	Sand
ST160	0.79	97.02	2.19	2.00	0.19	Sand
ST161	13.84	81.02	5.13	4.19	0.95	Gravelly sand
ST162	32.58	61.64	5.78	4.33	1.45	Sandy gravel
ST163	31.70	61.08	7.23	5.39	1.83	Muddy, sandy gravel
ST164	42.29	51.48	6.23	4.82	1.41	Muddy, sandy gravel
ST165	66.12	27.00	6.88	5.13	1.75	Muddy, sandy gravel
ST166	89.87	9.43	0.69	0.59	0.11	Gravel
ST167	72.78	26.58	0.63	0.49	0.14	Sandy gravel
ST168	0.07	92.78	7.15	5.73	1.42	Sand
ST169	0.24	94.94	4.82	4.21	0.61	Sand
ST170	0.47	99.53	0.00	0.00	0.00	Sand
ST171	0.00	100.00	0.00	0.00	0.00	Sand
ST172	0.03	99.97	0.00	0.00	0.00	Sand
ST173	1.77	98.23	0.00	0.00	0.00	Sand
ST174	0.56	99.30	0.14	0.13	0.01	Sand
ST175	0.00	100.00	0.00	0.00	0.00	Sand
ST176	0.00	100.00	0.00	0.00	0.00	Sand
ST177	0.09	86.65	13.26	10.22	3.04	Muddy sand
ST178	0.11	96.23	3.66	3.35	0.31	Sand
ST179	0.10	99.90	0.00	0.00	0.00	Sand
ST180	0.05	93.10	6.86	6.17	0.68	Sand
Minimum	0.00	9.43	0.00	0.00	0.00	-
Maximum	89.87	100.00	18.07	11.92	6.15	
Median	0.67	98.14	0.00	0.00	0.00	
Mean	8.54	89.32	2.15	1.69	0.46	
Standard Deviation	18.40	19.03	3.30	2.50	0.88	
Notes: BGS = British Geological Survey Fines = silt and clay content						
			Silt = < 4.0 phi to +8.0 phi (< 62.5 µm to 3.9 µm)		Clay = < 8.0 phi to +10.0 phi (<3.9 µm to < 0.04 µm)	

Table 4.5: Summary of particle size distribution, Dogger Bank South Site Investigation

Station	Modality	Median [μm]	Mean Particle Size			Sorting Coefficient		Skewness	
			[μm]	[phi]	Wentworth (1922) Description	[μm]	Description†	[μm]	Description
Array									
ST001	Unimodal	287	293	1.77	Medium Sand	2.40	Poorly sorted	0.11	Coarse skewed
ST002	Unimodal	477	490	1.03	Medium Sand	2.00	Poorly sorted	0.14	Coarse skewed
ST003	Unimodal	272	267	1.90	Medium Sand	2.11	Poorly sorted	−0.06	Symmetrical
ST004	Unimodal	468	470	1.09	Medium Sand	1.76	Moderately sorted	0.04	Symmetrical
ST005	Polymodal	356	969	0.05	Coarse Sand	7.30	Very poorly sorted	0.57	Very coarse skewed
ST006	Unimodal	183	182	2.46	Fine Sand	1.81	Moderately sorted	−0.25	Fine skewed
ST007	Unimodal	188	289	1.79	Medium Sand	6.11	Very poorly sorted	0.24	Coarse skewed
ST008	Unimodal	170	170	2.56	Fine Sand	1.94	Moderately sorted	−0.17	Fine skewed
ST009	Unimodal	148	144	2.79	Fine Sand	2.13	Poorly sorted	−0.40	Very fine skewed
ST010	Unimodal	145	142	2.82	Fine Sand	2.16	Poorly sorted	−0.39	Very fine skewed
ST011	Polymodal	218	372	1.43	Medium Sand	6.55	Very poorly sorted	0.28	Coarse skewed
ST012	Bimodal	2279	1949	−0.96	Very Coarse Sand	4.49	Very poorly sorted	−0.23	Fine skewed
ST013	Unimodal	153	150	2.74	Fine Sand	1.98	Moderately sorted	−0.31	Very fine skewed
ST014	Unimodal	373	367	1.45	Medium Sand	1.83	Moderately sorted	−0.04	Symmetrical
ST015	Polymodal	6079	4647	−2.22	Pebble	5.02	Very poorly sorted	−0.28	Fine skewed
ST016	Unimodal	235	233	2.10	Fine Sand	1.49	Moderately well sorted	0.01	Symmetrical
ST017	Unimodal	185	184	2.44	Fine Sand	1.79	Moderately sorted	−0.27	Fine skewed
ST018	Unimodal	173	170	2.56	Fine Sand	1.80	Moderately sorted	−0.29	Fine skewed
ST019	Unimodal	179	178	2.49	Fine Sand	1.75	Moderately sorted	−0.27	Fine skewed
ST020	Unimodal	185	186	2.43	Fine Sand	1.90	Moderately sorted	−0.14	Fine skewed
ST021	Unimodal	209	209	2.26	Fine Sand	1.61	Moderately well sorted	0.00	Symmetrical
ST022	Unimodal	204	204	2.29	Fine Sand	1.60	Moderately well sorted	0.00	Symmetrical
ST023	Unimodal	219	220	2.19	Fine Sand	1.49	Moderately well sorted	0.07	Symmetrical
ST024	Unimodal	255	257	1.96	Medium Sand	1.53	Moderately well sorted	0.02	Symmetrical
ST025	Unimodal	241	244	2.03	Fine Sand	1.55	Moderately well sorted	0.08	Symmetrical
ST026	Unimodal	229	229	2.13	Fine Sand	1.50	Moderately well sorted	0.06	Symmetrical
ST027	Unimodal	228	228	2.13	Fine Sand	1.48	Moderately well sorted	0.04	Symmetrical
ST028	Unimodal	241	241	2.06	Fine Sand	1.47	Moderately well sorted	0.03	Symmetrical
ST029	Unimodal	242	242	2.05	Fine Sand	1.46	Moderately well sorted	0.02	Symmetrical
ST030	Unimodal	219	220	2.19	Fine Sand	1.48	Moderately well sorted	0.05	Symmetrical
ST031	Unimodal	224	224	2.16	Fine Sand	1.51	Moderately well sorted	0.04	Symmetrical
ST032	Unimodal	227	227	2.14	Fine Sand	1.49	Moderately well sorted	0.05	Symmetrical
ST033	Unimodal	218	219	2.19	Fine Sand	1.50	Moderately well sorted	0.05	Symmetrical
ST034	Unimodal	225	225	2.15	Fine Sand	1.56	Moderately well sorted	0.03	Symmetrical
ST035	Unimodal	226	226	2.15	Fine Sand	1.51	Moderately well sorted	0.03	Symmetrical
ST036	Unimodal	258	266	1.91	Medium Sand	2.39	Poorly sorted	0.38	Very coarse skewed
ST037	Unimodal	234	233	2.10	Fine Sand	1.46	Moderately well sorted	0.02	Symmetrical
ST038	Unimodal	232	231	2.11	Fine Sand	1.49	Moderately well sorted	0.03	Symmetrical
ST039	Unimodal	262	262	1.93	Medium Sand	1.43	Moderately well sorted	0.00	Symmetrical
ST040	Unimodal	217	218	2.20	Fine Sand	1.50	Moderately well sorted	0.07	Symmetrical
ST041	Unimodal	218	220	2.18	Fine Sand	1.56	Moderately well sorted	0.06	Symmetrical
ST042	Unimodal	241	252	1.99	Medium Sand	2.32	Poorly sorted	0.38	Very coarse skewed
ST043	Unimodal	220	221	2.18	Fine Sand	1.49	Moderately well sorted	0.06	Symmetrical
ST044	Unimodal	219	219	2.19	Fine Sand	1.54	Moderately well sorted	0.02	Symmetrical
ST045	Unimodal	222	225	2.15	Fine Sand	1.85	Moderately sorted	0.24	Coarse skewed
ST046	Unimodal	225	225	2.15	Fine Sand	1.52	Moderately well sorted	0.03	Symmetrical
ST047	Unimodal	262	265	1.92	Medium Sand	1.48	Moderately well sorted	0.01	Symmetrical
ST048	Unimodal	220	178	2.49	Fine Sand	7.66	Very poorly sorted	−0.16	Fine skewed
ST049	Bimodal	3173	2865	−1.52	Granule	8.82	Very poorly sorted	−0.08	Symmetrical
ST050	Unimodal	261	264	1.92	Medium Sand	1.55	Moderately well sorted	0.04	Symmetrical
ST051	Unimodal	477	475	1.07	Medium Sand	1.53	Moderately well sorted	0.01	Symmetrical
ST052	Unimodal	234	234	2.10	Fine Sand	1.47	Moderately well sorted	0.04	Symmetrical
ST053	Unimodal	235	235	2.09	Fine Sand	1.48	Moderately well sorted	0.04	Symmetrical
ST054	Unimodal	223	224	2.16	Fine Sand	1.51	Moderately well sorted	0.05	Symmetrical
ST055	Unimodal	215	216	2.21	Fine Sand	1.49	Moderately well sorted	0.05	Symmetrical
ST056	Unimodal	237	239	2.07	Fine Sand	1.55	Moderately well sorted	0.07	Symmetrical
ST057	Unimodal	12897	7007	−2.81	Pebble	6.96	Very poorly sorted	−0.53	Very fine skewed
ST058	Unimodal	211	212	2.24	Fine Sand	1.55	Moderately well sorted	0.04	Symmetrical
ST059	Unimodal	211	212	2.24	Fine Sand	1.54	Moderately well sorted	0.03	Symmetrical
ST060	Unimodal	210	211	2.24	Fine Sand	1.53	Moderately well sorted	0.02	Symmetrical
ST061	Polymodal	693	801	0.32	Coarse Sand	7.20	Very poorly sorted	−0.05	Symmetrical
ST062	Unimodal	458	456	1.13	Medium Sand	1.50	Moderately well sorted	0.01	Symmetrical
ST063	Polymodal	1693	2192	−1.13	Granule	4.46	Very poorly sorted	0.25	Coarse skewed
ST064	Polymodal	560	725	0.46	Coarse Sand	2.89	Poorly sorted	0.49	Very coarse skewed
ST065	Unimodal	383	384	1.38	Medium Sand	1.57	Moderately well sorted	0.01	Symmetrical
ST066	Unimodal	226	226	2.15	Fine Sand	1.53	Moderately well sorted	0.02	Symmetrical
ST067	Unimodal	232	232	2.11	Fine Sand	1.44	Moderately well sorted	0.03	Symmetrical
ST068	Bimodal	240	254	1.97	Medium Sand	2.75	Poorly sorted	0.46	Very coarse skewed

Station	Modality	Median [µm]	Mean Particle Size			Sorting Coefficient		Skewness	
			[µm]	[phi]	Wentworth (1922) Description	[µm]	Description†	[µm]	Description
ST069	Unimodal	236	236	2.08	Fine Sand	1.47	Moderately well sorted	0.03	Symmetrical
ST070	Unimodal	219	220	2.18	Fine Sand	1.50	Moderately well sorted	0.08	Symmetrical
ST071	Unimodal	215	216	2.21	Fine Sand	1.55	Moderately well sorted	0.04	Symmetrical
ST072	Unimodal	202	203	2.30	Fine Sand	1.50	Moderately well sorted	0.01	Symmetrical
ST073	Unimodal	229	229	2.13	Fine Sand	1.52	Moderately well sorted	0.02	Symmetrical
ST074	Unimodal	222	222	2.17	Fine Sand	1.55	Moderately well sorted	0.01	Symmetrical
ST075	Unimodal	207	210	2.25	Fine Sand	1.61	Moderately well sorted	0.05	Symmetrical
ST076	Unimodal	214	215	2.22	Fine Sand	1.57	Moderately well sorted	0.04	Symmetrical
ST077	Unimodal	264	263	1.92	Medium Sand	1.41	Moderately well sorted	−0.01	Symmetrical
ST078	Bimodal	508	896	0.16	Coarse Sand	5.86	Very poorly sorted	0.34	Very coarse skewed
ST079	Unimodal	443	442	1.18	Medium Sand	1.53	Moderately well sorted	0.01	Symmetrical
ST080	Bimodal	2212	2992	−1.58	Granule	5.54	Very poorly sorted	0.18	Coarse skewed
ST081	Polymodal	3102	2515	−1.33	Granule	6.60	Very poorly sorted	−0.16	Fine skewed
ST082	Unimodal	402	404	1.31	Medium Sand	1.59	Moderately well sorted	0.01	Symmetrical
ST083	Unimodal	250	250	2.00	Medium Sand	1.40	Well sorted	0.01	Symmetrical
ST084	Bimodal	269	585	0.77	Coarse Sand	5.37	Very poorly sorted	0.64	Very coarse skewed
ST085	Unimodal	228	229	2.13	Fine Sand	1.42	Moderately well sorted	0.03	Symmetrical
ST086	Unimodal	255	259	1.95	Medium Sand	1.56	Moderately well sorted	0.06	Symmetrical
ST087	Unimodal	226	226	2.15	Fine Sand	1.49	Moderately well sorted	0.04	Symmetrical
ST088	Unimodal	221	221	2.18	Fine Sand	1.49	Moderately well sorted	0.05	Symmetrical
ST089	Unimodal	215	216	2.21	Fine Sand	1.51	Moderately well sorted	0.05	Symmetrical
ST090	Unimodal	247	272	1.88	Medium Sand	2.61	Poorly sorted	0.43	Very coarse skewed
ST091	Unimodal	195	196	2.35	Fine Sand	1.54	Moderately well sorted	−0.03	Symmetrical
ST092	Unimodal	221	221	2.18	Fine Sand	1.57	Moderately well sorted	0.01	Symmetrical
ST093	Polymodal	654	1000	0.00	Coarse Sand	3.89	Poorly sorted	0.35	Very coarse skewed
ST094	Polymodal	3156	3241	−1.70	Granule	5.14	Very poorly sorted	0.00	Symmetrical
ST095	Bimodal	2283	1933	−0.95	Very Coarse Sand	4.71	Very poorly sorted	−0.26	Fine skewed
ST096	Polymodal	1206	1569	−0.65	Very Coarse Sand	7.73	Very poorly sorted	0.08	Symmetrical
ST098	Unimodal	397	399	1.32	Medium Sand	1.49	Moderately well sorted	0.02	Symmetrical
ST099	Unimodal	411	412	1.28	Medium Sand	1.55	Moderately well sorted	0.02	Symmetrical
ST100	Unimodal	218	219	2.19	Fine Sand	1.44	Moderately well sorted	0.04	Symmetrical
ST101	Unimodal	234	234	2.10	Fine Sand	1.46	Moderately well sorted	0.03	Symmetrical
ST102	Unimodal	229	229	2.13	Fine Sand	1.49	Moderately well sorted	0.04	Symmetrical
ST103	Unimodal	217	218	2.20	Fine Sand	1.46	Moderately well sorted	0.04	Symmetrical
ST104	Unimodal	225	225	2.15	Fine Sand	1.53	Moderately well sorted	0.04	Symmetrical
ST105	Unimodal	211	212	2.24	Fine Sand	1.49	Moderately well sorted	0.03	Symmetrical
ST106	Polymodal	3959	4112	−2.04	Pebble	5.09	Very poorly sorted	−0.05	Symmetrical
ST107	Polymodal	1872	1960	−0.97	Very Coarse Sand	4.74	Very poorly sorted	0.05	Symmetrical
ST108	Unimodal	396	395	1.34	Medium Sand	1.62	Moderately well sorted	−0.01	Symmetrical
ST109	Unimodal	492	491	1.03	Medium Sand	1.54	Moderately well sorted	−0.01	Symmetrical
ST110	Unimodal	446	443	1.18	Medium Sand	1.56	Moderately well sorted	−0.02	Symmetrical
ST111	Unimodal	232	231	2.11	Fine Sand	1.46	Moderately well sorted	0.03	Symmetrical
ST112	Unimodal	228	228	2.13	Fine Sand	1.47	Moderately well sorted	0.04	Symmetrical
ST113	Unimodal	348	352	1.51	Medium Sand	1.64	Moderately sorted	0.06	Symmetrical
ST114	Unimodal	316	315	1.67	Medium Sand	1.48	Moderately well sorted	0.02	Symmetrical
ST115	Unimodal	238	237	2.08	Fine Sand	1.47	Moderately well sorted	0.02	Symmetrical
ST116	Unimodal	423	424	1.24	Medium Sand	1.68	Moderately sorted	0.04	Symmetrical
ST117	Unimodal	384	386	1.37	Medium Sand	1.58	Moderately well sorted	0.01	Symmetrical
ST118	Unimodal	378	378	1.40	Medium Sand	1.44	Moderately well sorted	−0.02	Symmetrical
ST119	Unimodal	215	213	2.23	Fine Sand	1.59	Moderately well sorted	−0.06	Symmetrical
ST120	Polymodal	1836	2358	−1.24	Granule	8.67	Very poorly sorted	0.12	Coarse skewed
ST121	Unimodal	264	266	1.91	Medium Sand	1.48	Moderately well sorted	0.01	Symmetrical
ST122	Unimodal	224	224	2.16	Fine Sand	1.47	Moderately well sorted	0.05	Symmetrical
ST123	Unimodal	221	221	2.18	Fine Sand	1.52	Moderately well sorted	0.03	Symmetrical
ST124	Unimodal	297	299	1.74	Medium Sand	1.72	Moderately sorted	0.05	Symmetrical
ST125	Unimodal	280	281	1.83	Medium Sand	1.55	Moderately well sorted	0.01	Symmetrical
ST126	Unimodal	208	210	2.25	Fine Sand	1.57	Moderately well sorted	0.03	Symmetrical
ST127	Unimodal	220	221	2.18	Fine Sand	1.49	Moderately well sorted	0.06	Symmetrical
ST128	Unimodal	381	384	1.38	Medium Sand	1.48	Moderately well sorted	0.00	Symmetrical
ST129	Unimodal	232	230	2.12	Fine Sand	1.47	Moderately well sorted	0.01	Symmetrical
ST130	Unimodal	396	396	1.34	Medium Sand	1.46	Moderately well sorted	−0.03	Symmetrical
ST131	Polymodal	628	1083	−0.11	Very Coarse Sand	3.79	Poorly sorted	0.59	Very coarse skewed
ST132	Bimodal	491	673	0.57	Coarse Sand	3.51	Poorly sorted	0.44	Very coarse skewed
Export cable route (ECR)									
ST133	Unimodal	199	195	2.36	Fine Sand	2.39	Poorly sorted	−0.26	Fine skewed
ST134	Unimodal	212	211	2.25	Fine Sand	2.79	Poorly sorted	−0.24	Fine skewed
ST135	Polymodal	17553	5692	−2.51	Pebble	8.39	Very poorly sorted	−0.69	Very fine skewed
ST136	Unimodal	268	267	1.91	Medium Sand	1.46	Moderately well sorted	−0.07	Symmetrical
ST137	Unimodal	243	245	2.03	Fine Sand	1.39	Well sorted	0.03	Symmetrical
ST138	Unimodal	223	224	2.16	Fine Sand	1.48	Moderately well sorted	0.05	Symmetrical



Station	Modality	Median [μm]	Mean Particle Size			Sorting Coefficient		Skewness	
			[μm]	[phi]	Wentworth (1922) Description	[μm]	Description†	[μm]	Description
ST139	Unimodal	164	158	2.66	Fine Sand	2.12	Poorly sorted	−0.40	Very fine skewed
ST140	Unimodal	151	148	2.76	Fine Sand	2.19	Poorly sorted	−0.35	Very fine skewed
ST141	Unimodal	270	265	1.91	Medium Sand	1.36	Well sorted	−0.03	Symmetrical
ST142	Unimodal	214	207	2.27	Fine Sand	2.30	Poorly sorted	−0.33	Very fine skewed
ST143	Unimodal	283	282	1.83	Medium Sand	1.82	Moderately sorted	−0.20	Fine skewed
ST144	Unimodal	259	256	1.97	Medium Sand	1.84	Moderately sorted	−0.30	Fine skewed
ST145	Unimodal	267	265	1.92	Medium Sand	1.47	Moderately well sorted	−0.08	Symmetrical
ST146	Unimodal	268	265	1.92	Medium Sand	1.44	Moderately well sorted	−0.10	Symmetrical
ST147	Unimodal	319	318	1.65	Medium Sand	1.49	Moderately well sorted	0.01	Symmetrical
ST148	Unimodal	210	207	2.27	Fine Sand	1.82	Moderately sorted	−0.36	Very fine skewed
ST149	Unimodal	226	226	2.14	Fine Sand	1.66	Moderately sorted	−0.30	Very fine skewed
ST150	Unimodal	215	215	2.22	Fine Sand	1.70	Moderately sorted	−0.25	Fine skewed
ST151	Unimodal	251	249	2.01	Fine Sand	1.39	Well sorted	−0.08	Symmetrical
ST152	Unimodal	278	273	1.87	Medium Sand	1.34	Well sorted	−0.01	Symmetrical
ST153	Unimodal	211	207	2.27	Fine Sand	2.12	Poorly sorted	−0.35	Very fine skewed
ST154	Unimodal	221	221	2.18	Fine Sand	1.42	Moderately well sorted	−0.13	Fine skewed
ST155	Unimodal	230	234	2.10	Fine Sand	1.36	Well sorted	0.03	Symmetrical
ST156	Unimodal	227	230	2.12	Fine Sand	1.35	Well sorted	0.01	Symmetrical
ST157	Unimodal	202	198	2.33	Fine Sand	1.66	Moderately sorted	−0.32	Very fine skewed
ST158	Unimodal	218	216	2.21	Fine Sand	1.67	Moderately sorted	−0.28	Fine skewed
ST159	Unimodal	220	220	2.18	Fine Sand	1.44	Moderately well sorted	0.02	Symmetrical
ST160	Unimodal	217	216	2.21	Fine Sand	1.45	Moderately well sorted	0.01	Symmetrical
ST161	Unimodal	347	433	1.21	Medium Sand	3.81	Poorly sorted	0.17	Coarse skewed
ST162	Polymodal	691	842	0.25	Coarse Sand	6.41	Very poorly sorted	0.07	Symmetrical
ST163	Polymodal	656	803	0.32	Coarse Sand	6.01	Very poorly sorted	−0.02	Symmetrical
ST164	Polymodal	1406	1269	−0.34	Very Coarse Sand	5.32	Very poorly sorted	−0.24	Fine skewed
ST165	Polymodal	5953	3625	−1.86	Granule	9.06	Very poorly sorted	−0.44	Very fine skewed
ST166	Bimodal	39390	23621	−4.56	Pebble	3.69	Poorly sorted	−0.76	Very fine skewed
ST167	Unimodal	17016	5973	−2.58	Pebble	6.20	Very poorly sorted	−0.77	Very fine skewed
ST168	Unimodal	149	147	2.77	Fine Sand	1.93	Moderately sorted	−0.27	Fine skewed
ST169	Unimodal	243	241	2.05	Fine Sand	1.50	Moderately well sorted	−0.12	Fine skewed
ST170	Unimodal	232	234	2.10	Fine Sand	1.40	Well sorted	0.04	Symmetrical
ST171	Unimodal	242	245	2.03	Fine Sand	1.36	Well sorted	0.02	Symmetrical
ST172	Unimodal	297	297	1.75	Medium Sand	1.40	Well sorted	0.00	Symmetrical
ST173	Unimodal	258	256	1.96	Medium Sand	1.39	Well sorted	0.00	Symmetrical
ST174	Unimodal	258	257	1.96	Medium Sand	1.40	Well sorted	−0.02	Symmetrical
ST175	Unimodal	260	257	1.96	Medium Sand	1.33	Well sorted	−0.01	Symmetrical
ST176	Unimodal	216	216	2.21	Fine Sand	1.39	Well sorted	−0.01	Symmetrical
ST177	Unimodal	142	132	2.92	Fine Sand	2.39	Poorly sorted	−0.38	Very fine skewed
ST178	Unimodal	239	237	2.08	Fine Sand	1.46	Moderately well sorted	−0.03	Symmetrical
ST179	Unimodal	240	243	2.04	Fine Sand	1.37	Well sorted	0.03	Symmetrical
ST180	Unimodal	201	197	2.34	Fine Sand	1.79	Moderately sorted	−0.36	Very fine skewed
Minimum	-	142	132	−4.56	-	1.33	-	−0.77	-
Maximum		39390	23621	2.92		9.06		0.64	
Median		235	237	2.08		1.55		0.02	
Mean		953	705	1.56		2.38		−0.02	
Standard Deviation		3605	2005	1.26		1.78		0.21	
Notes									
Statistics based on Folk and Ward (1957) method derived in Gradistat (Blott, 2010)									

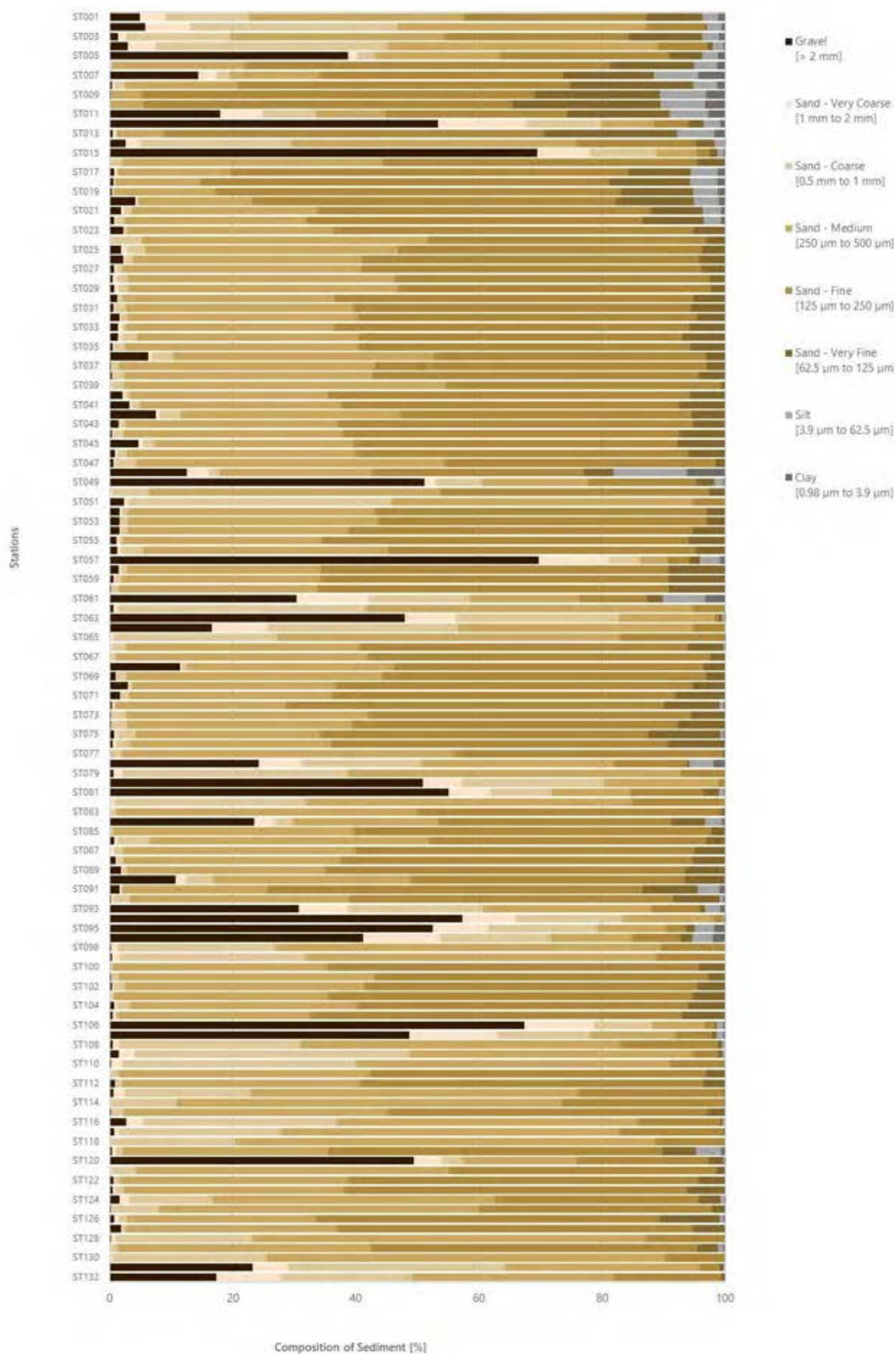


Figure 4.3: Sediment fractional composition, array, Dogger Bank South Site Investigation

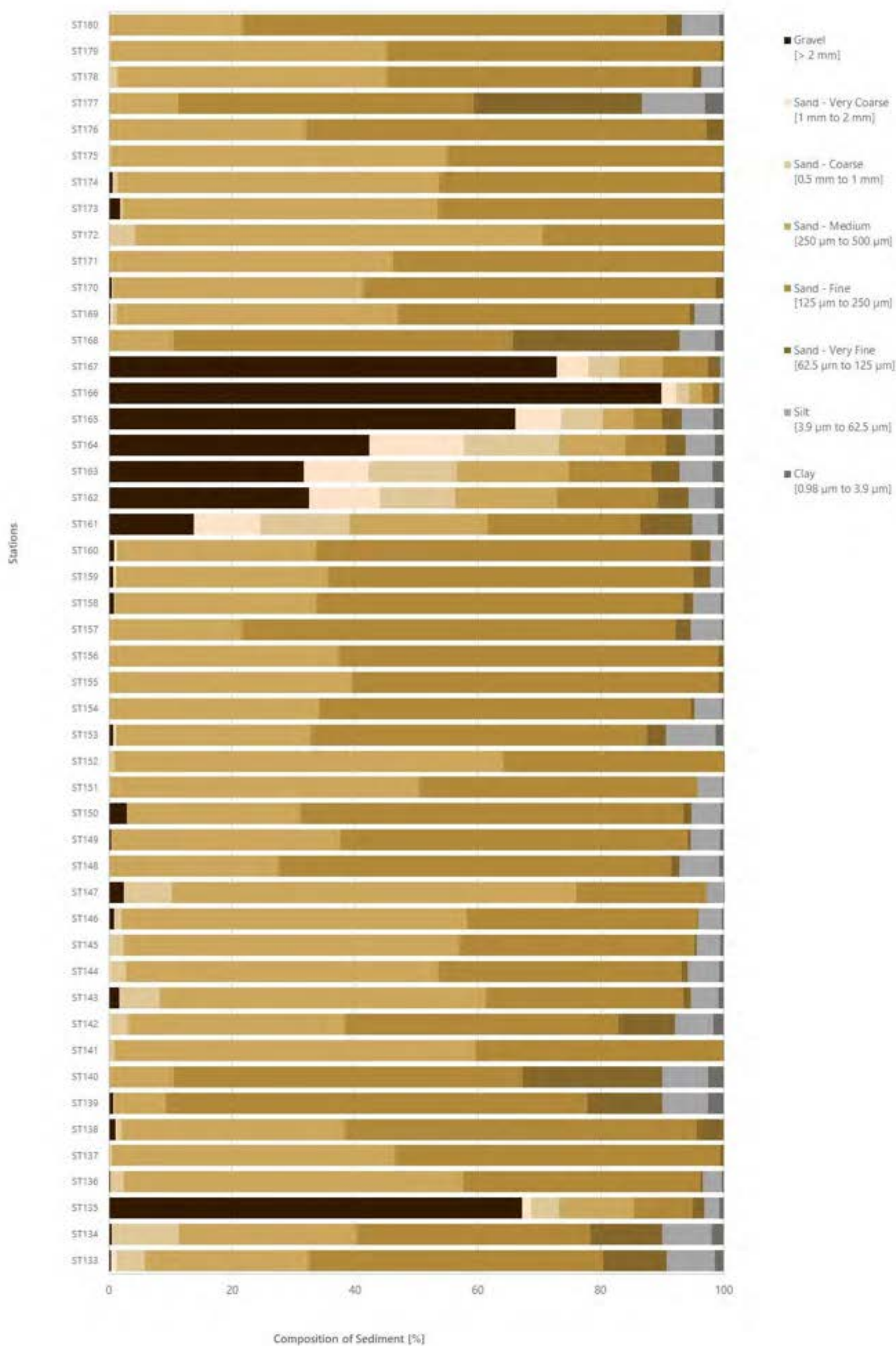


Figure 4.4: Sediment fractional composition, export cable route, Dogger Bank South Site Investigation

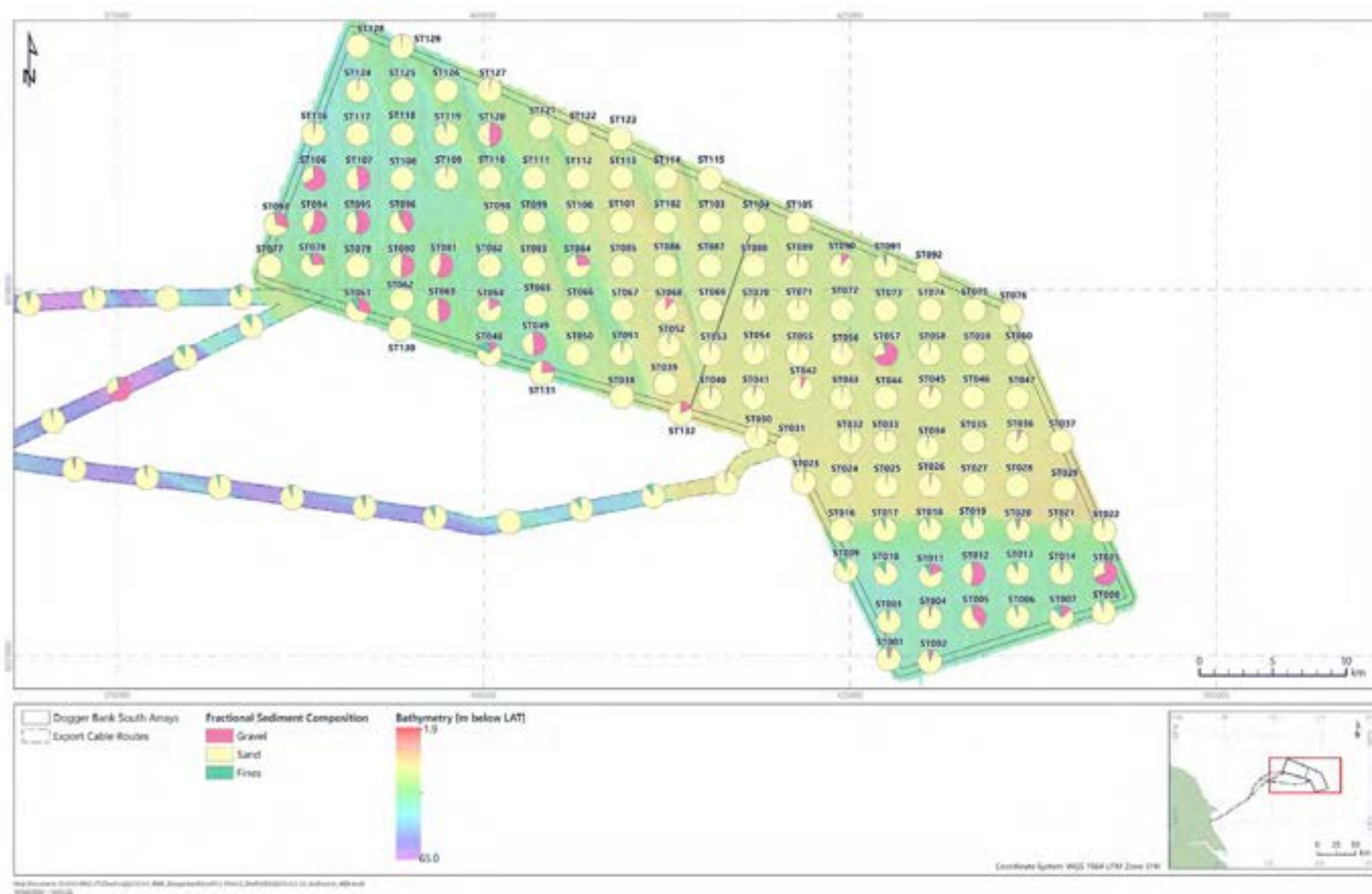
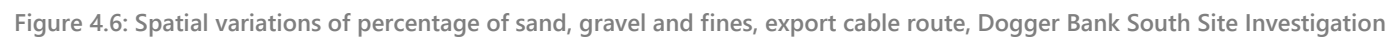


Figure 4.5: Spatial variations of percentage of sand, gravel and fines, array, Dogger Bank South Site Investigation



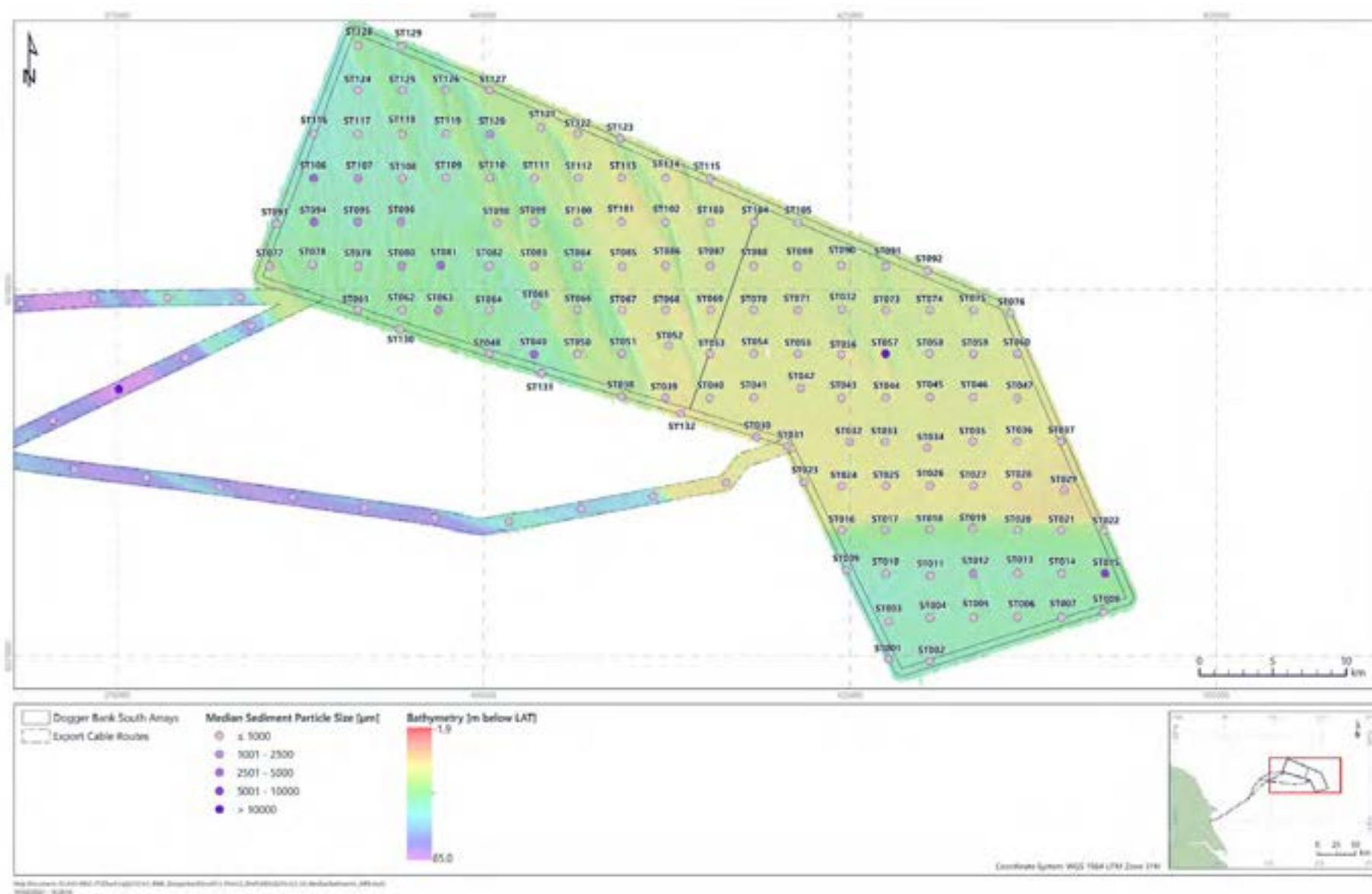


Figure 4.7: Spatial variations of the median [μm] sediment particle size, array, Dogger Bank South Site Investigation

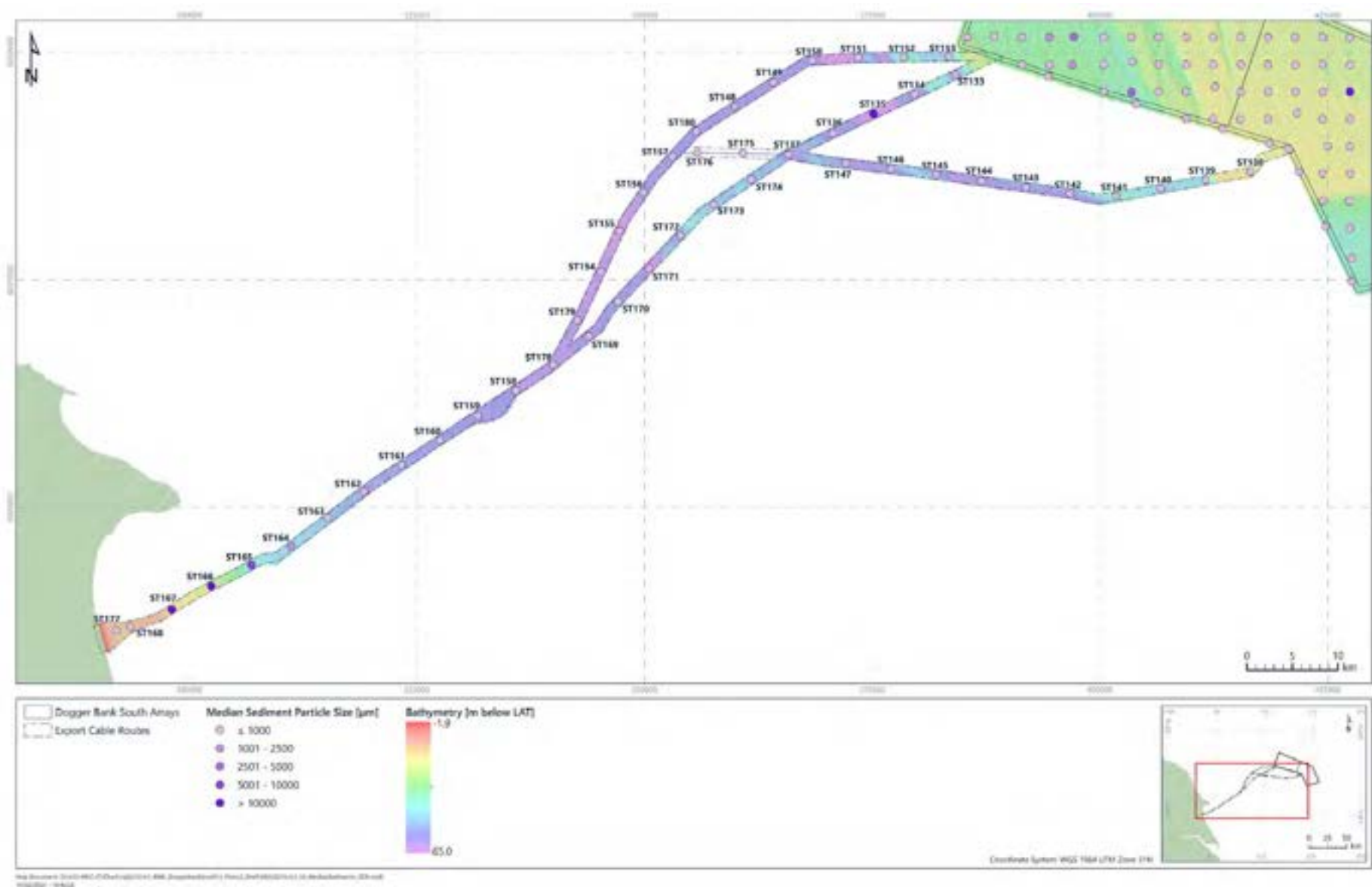
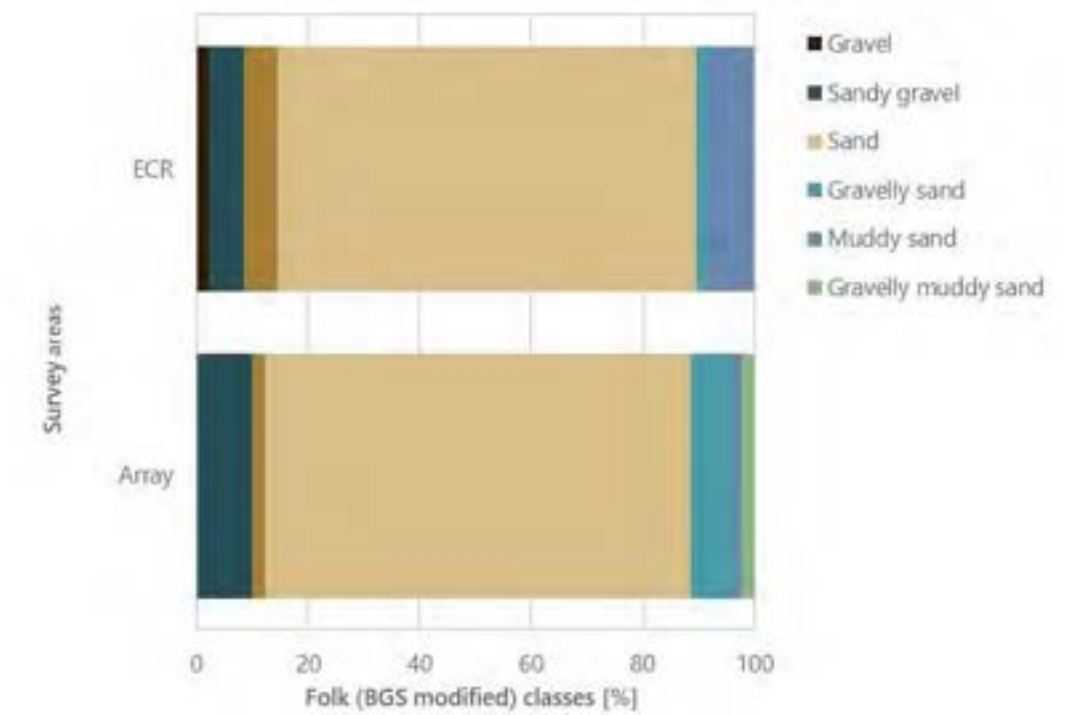
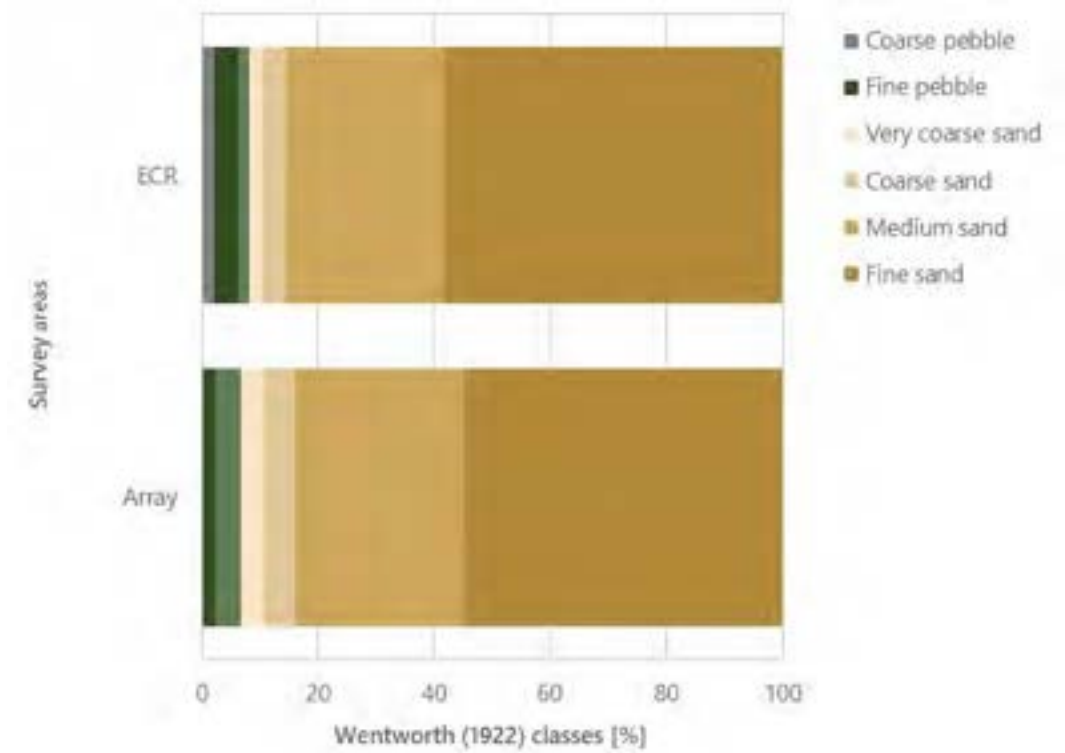


Figure 4.8: Spatial variations of the median [µm] sediment particle size, export cable route, Dogger Bank South Site Investigation



Notes
BGS = British Geological Survey
ECR = Export cable route

Figure 4.9: Folk (BGS modified) sediment description, Dogger Bank South Site Investigation



Notes
ECR = Export cable route

Figure 4.10: Wentworth (1922) sediment description, Dogger Bank South Site Investigation

4.2.2 Investigation of Granulometric Similarities

The cluster analysis, using Euclidean distance, was applied to the sediment PSD to investigate sedimentological characteristics. Data were fourth root transformed. The SIMPROF test, undertaken in conjunction with the cluster analysis, was interpreted in ecological terms and, where appropriate, coarser groups were created (see Section 3.3.5). Figures 4.11, and Figure 4.12 present the dendrogram and the nMDS of the Euclidean distance matrix of sediment particle size, respectively.

Four multivariate groups were identified at the Euclidean distance of 3.6, namely A, B, C, and D. Group D was further split in two groups, denoted D1 and D2 at the Euclidean distance of 3. Groups that separated below the 3 Euclidean distance were not deemed of ecological significance.

summarises the physical characteristics of the sediment groups identified through the multivariate analysis and further assessed by means of the SIMPER analysis:

- Group A comprised 6 stations, including 4 from the array and 2 along the ECR. Group A had the highest average Euclidean distance of 4.72 and was characterised by very poorly sorted 'sandy gravel' (Folk BGS modified), with median sediment particle size ranging from 1206 μm to 39 390 μm , mean of 12 676 μm (medium pebble). The water depth of stations in Group A ranged from 21.6 m to 67.7 m, with a mean of 35.2 (BSL);
- Group B comprised 11 stations, including 9 from the array and 2 along the ECR. Group B had an average Euclidean distance of 3.86 and was characterised by very poorly sorted 'sandy gravel' (Folk BGS modified), with median sediment particle size ranging from 560 μm to 17 016 μm , mean 4203 μm (fine pebble). The water depth of stations in Group B ranged from 20.5 m to 39.2 m, with a mean of 32.2 m (BSL)
- Group C comprised 19 stations, including 15 from the array and 4 along the ECR. Group C had an average Euclidean distance of 3.50 and was characterised very poorly sorted 'gravelly muddy sand' (Folk BGS modified), with median sediment particle size ranging from 188 μm to 2283 μm , mean of 666 μm (coarse sand). The water depth of stations in Group C ranged from 28.7 m to 55.7 m, with a mean of 37.6 m (BSL)
- Group D1 comprised 39 stations, including 13 from the array and 26 along the ECR. Group D1 had an average Euclidean distance of 2.59 and was characterised by moderately sorted 'muddy sand' (Folk BGS modified), with median sediment particle size ranging from 142 μm to 319 μm , mean of 208 μm (fine sand). The water depth of stations in Group D1 ranged from 15.0 m to 62.1 m, with a mean of 44.7 m (BSL).
- Group D2 was the largest, with 104 stations, including 90 from the array and 14 along the ECR. Group D2 had the lowest Euclidean distance of 2.59 and was characterised by moderately well sorted 'sand' (Folk BGS modified), with mean median sediment particle size ranging from 202 μm to 492 μm , mean 265 μm (medium sand). The water depth of stations in Group C ranged from 13.0 m to 62.8 m, with a mean of 25.8 m (BSL).

The sediment particle size primarily responsible for the separation of the multivariate groups included the 31 500 μm , the 22 400 μm , the 707 μm and the 22.1 μm (Figure 4.13).

Figures 4.14 and 4.15 illustrate the spatial distribution of the multivariate groups in the array and along the ECR, respectively

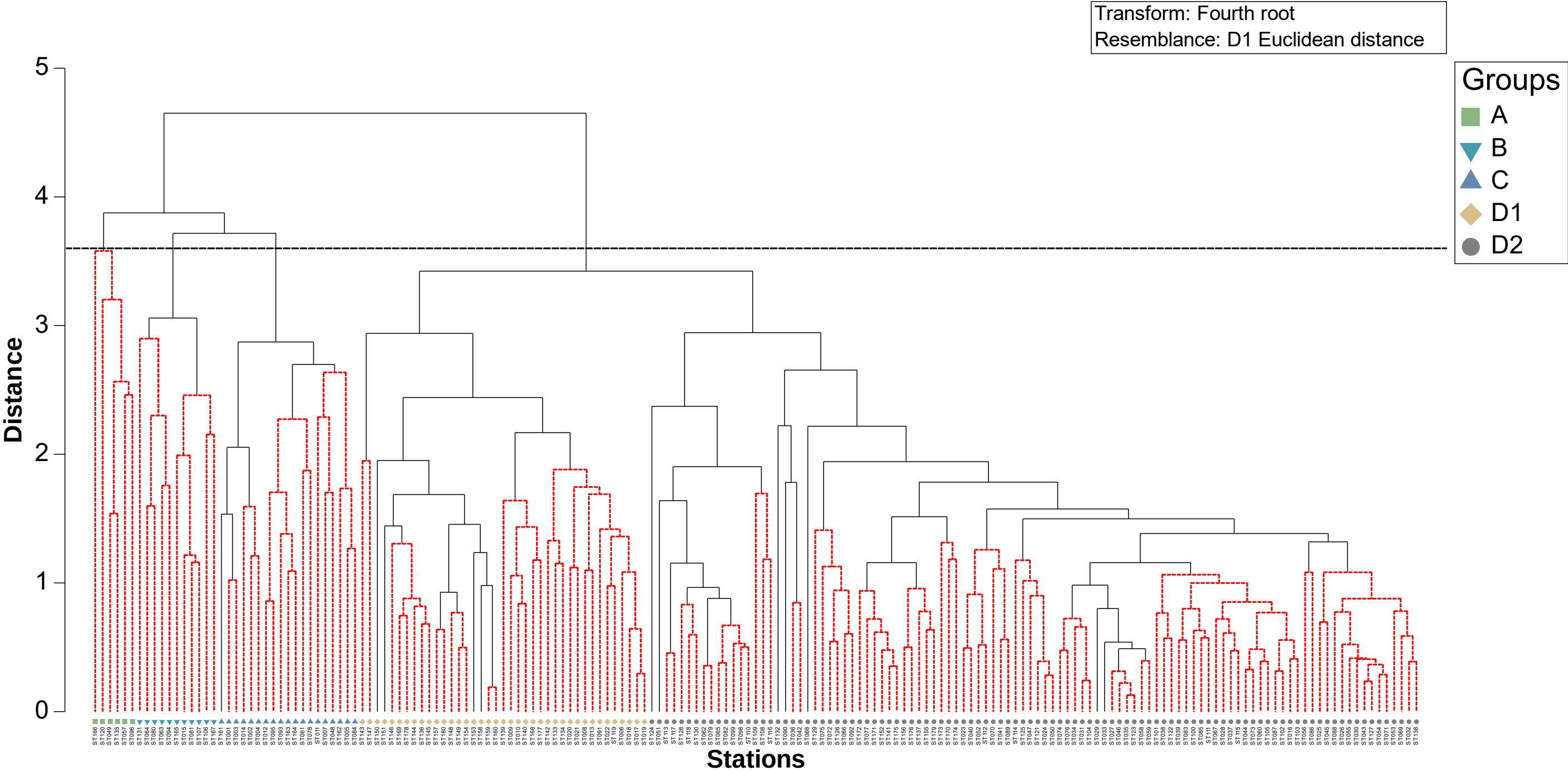


Figure 4.11: Dendrogram of hierarchical clustering of sediment characteristics data, Dogger Bank South Site Investigation

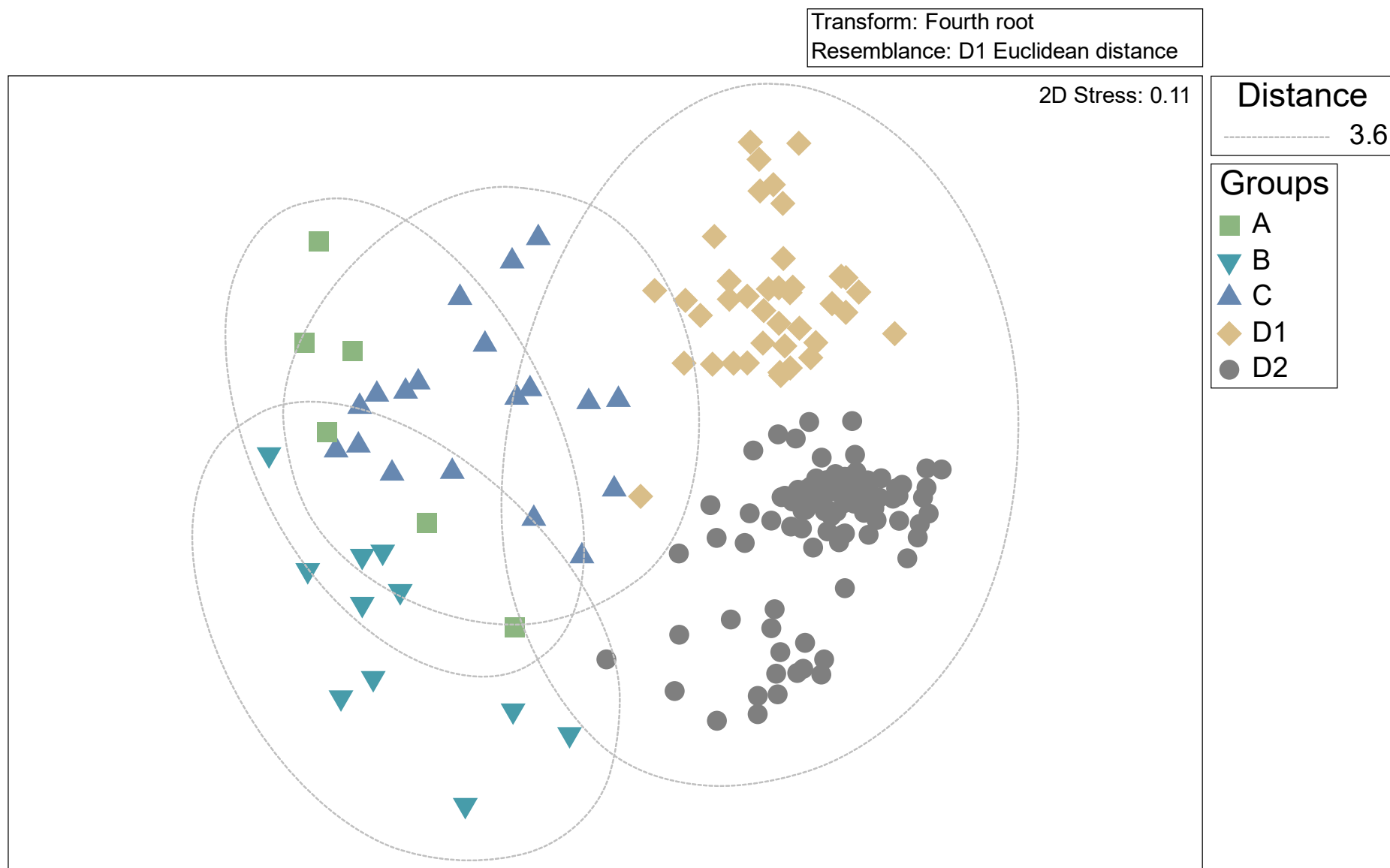
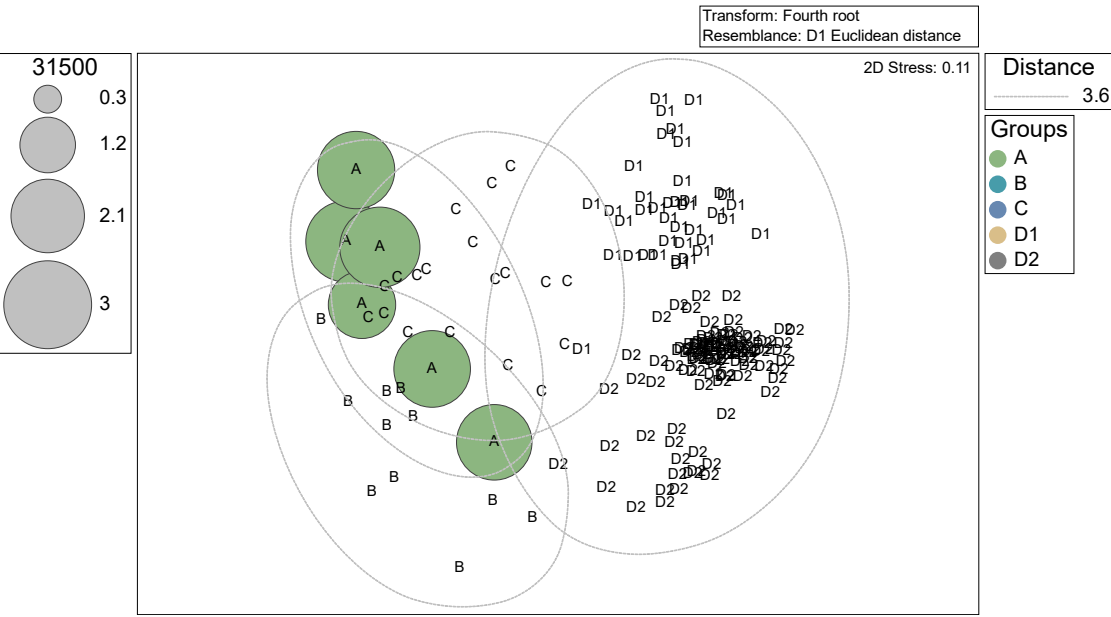


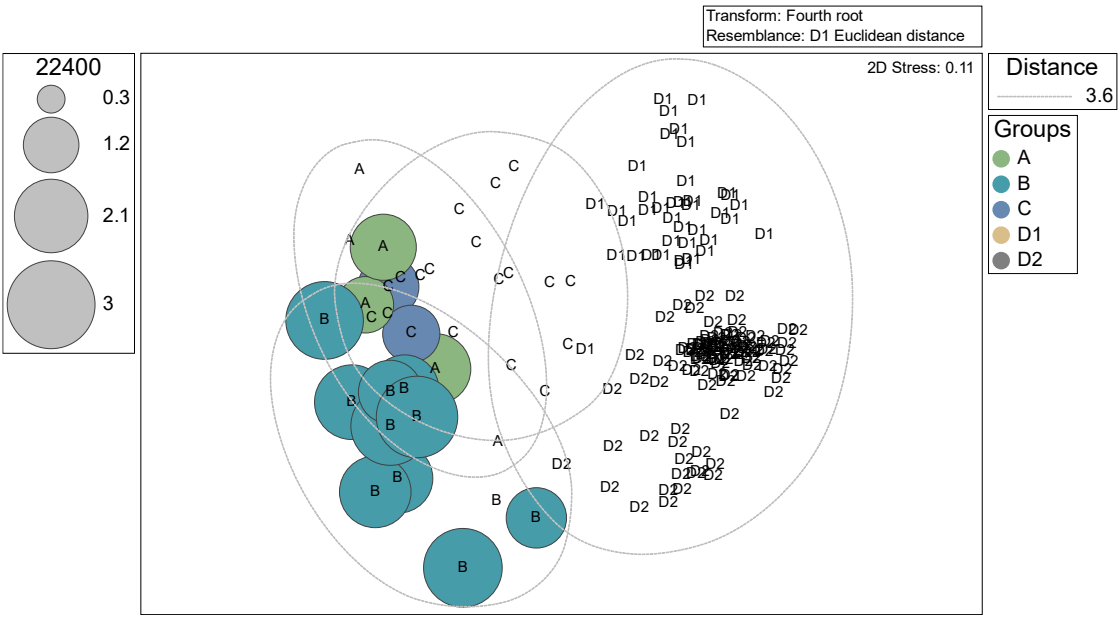
Figure 4.12: nMDS of hierarchical clustering analysis of sediment particle size, Dogger Bank South Site Investigation

Table 4.6: Summary of physical characteristics of sediment groups identified through the cluster analysis, Dogger Bank South Site Investigation

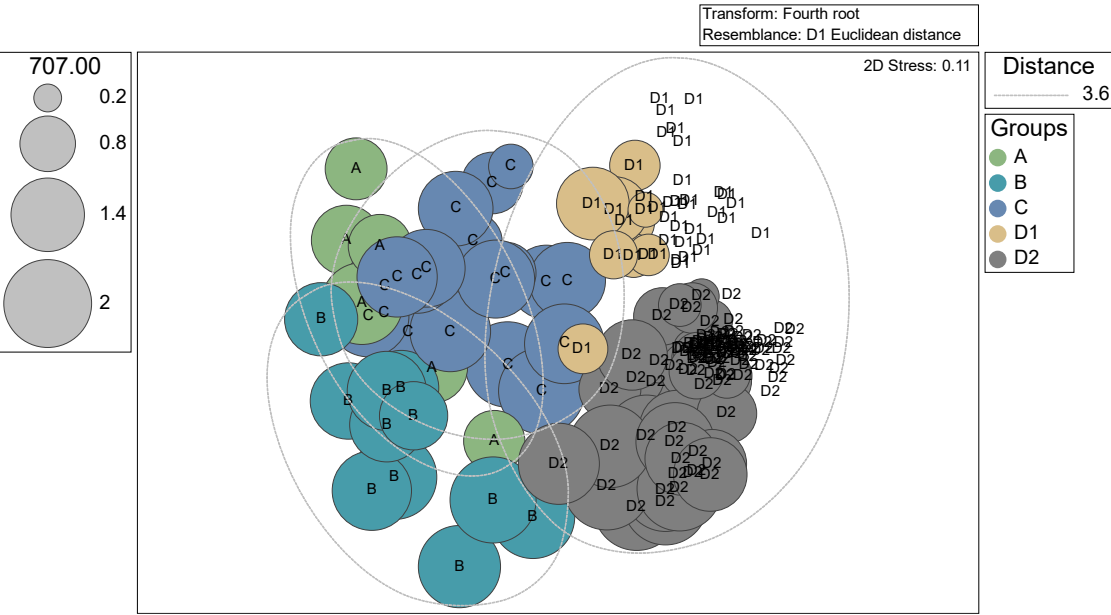
Multivariate Group	Location and stations	Depth [m BSL]	Median Particle Size [µm]	Fractional Composition [%]			Sorting	
				Gravel	Sand	Fines	[µm]	Description
A Average distance ² : 4.72	Array (ST049, ST057, ST096, ST120) ECR (ST135, ST166)	32.5	12676	61.41	36.05	2.55	7.38	Very poorly sorted
B Average distance ² : 3.86	Array (ST015, ST063, ST064, ST080, ST081, ST094, ST106, ST107, ST131) ECR (ST165, ST167)	32.2	4203	52.29	46.48	1.23	5.32	Very poorly sorted
C Average distance ² : 3.50	Array (ST001 to ST005, ST007, ST011, ST012, ST014, ST048, ST061, ST078, ST084, ST093, ST095) ECR (ST161 to ST164)	37.6	666	22.94	71.18	5.88	4.78	Very poorly sorted
D1 Average distance ² : 2.59	Array (ST006, ST008 to ST010, ST013, ST017-ST022, ST119) ECR (ST133, ST134, ST136, ST139, ST140, ST142 to ST151, ST153, ST154, ST157 to ST160, ST168, ST169, ST177, ST178, ST180)	44.7	208	0.64	93.28	6.07	1.80	Moderately sorted
D2 Average distance ² : 2.32	Array (ST016, ST023-ST047, ST050 to ST059, ST060, ST062, ST065-ST077, ST079, ST082, ST083, ST085 to ST090, ST092, ST098 to ST105, ST108- ST118, ST121 to ST130, ST132) ECR (ST137, ST138, ST141, ST152, ST155, ST156, ST170 to ST176, ST179)	25.8	265	1.19	98.74	0.07	1.56	Moderately well sorted
Notes Data refer to mean values in each multivariate group except for single stations; values are fourth root transformed BSL = Below sea level								



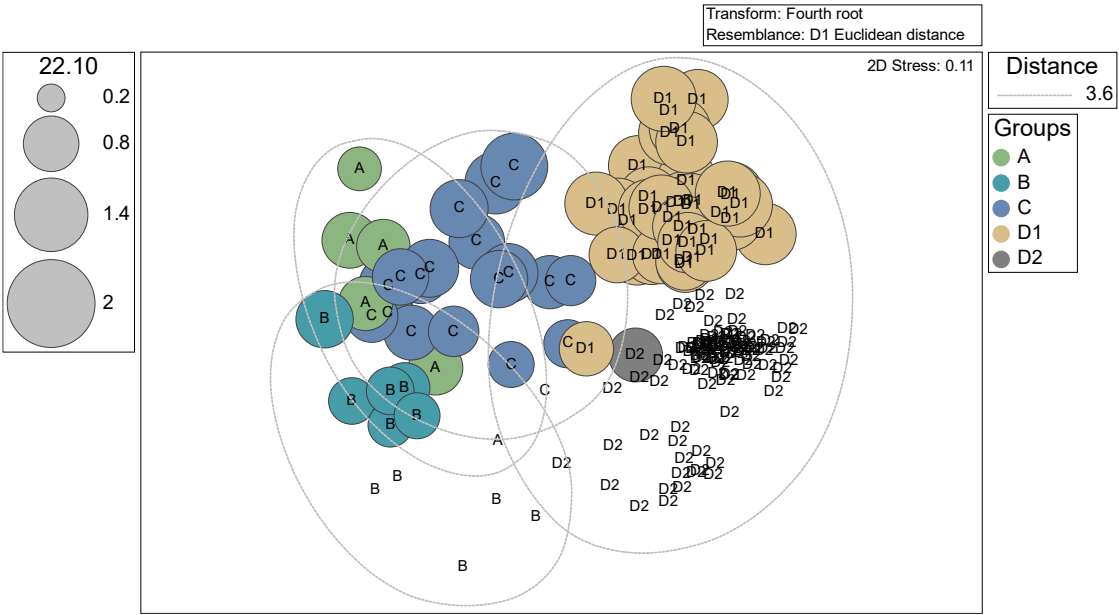
Notes
Circles proportional in diameter to the 31 500 µm sediment particle size (coarse pebble)



Notes
Circles proportional in diameter to the 22 400 µm sediment particle size (coarse pebble)



Notes
Circles proportional in diameter to the 707 µm sediment particle size (coarse sand)



Notes
Circles proportional in diameter to the 22.1 µm sediment particle size (coarse silt)

Figure 4.13: nMDS ordination of hierarchical clustering analysis of PSD with superimposed circles proportional in diameter to percentage of particles driving the separation of multivariate groups Dogger Bank South Site Investigation

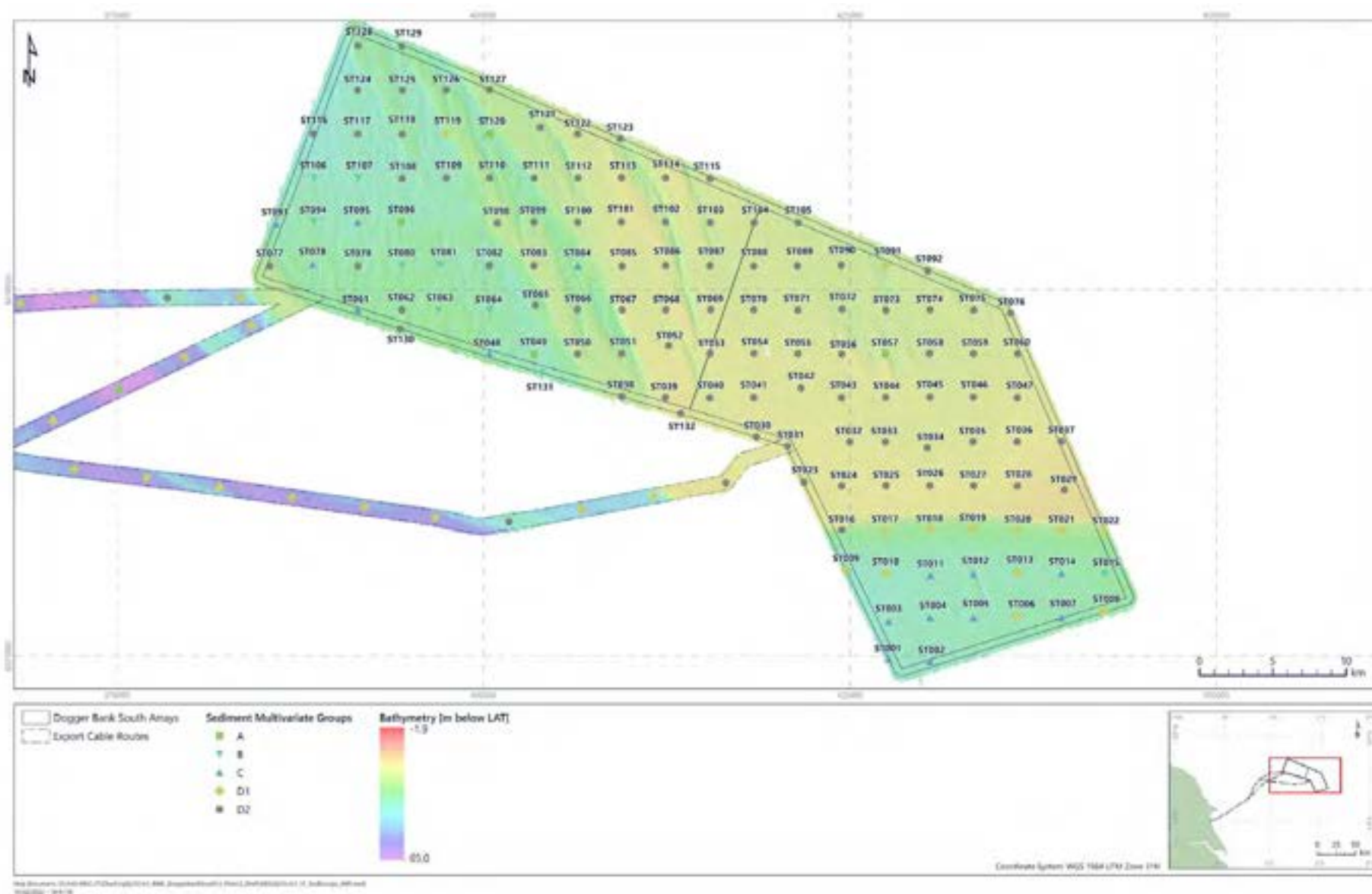


Figure 4.14: Spatial distribution of the sediment groups identified through the multivariate analysis, array, Dogger Bank South Site Investigation

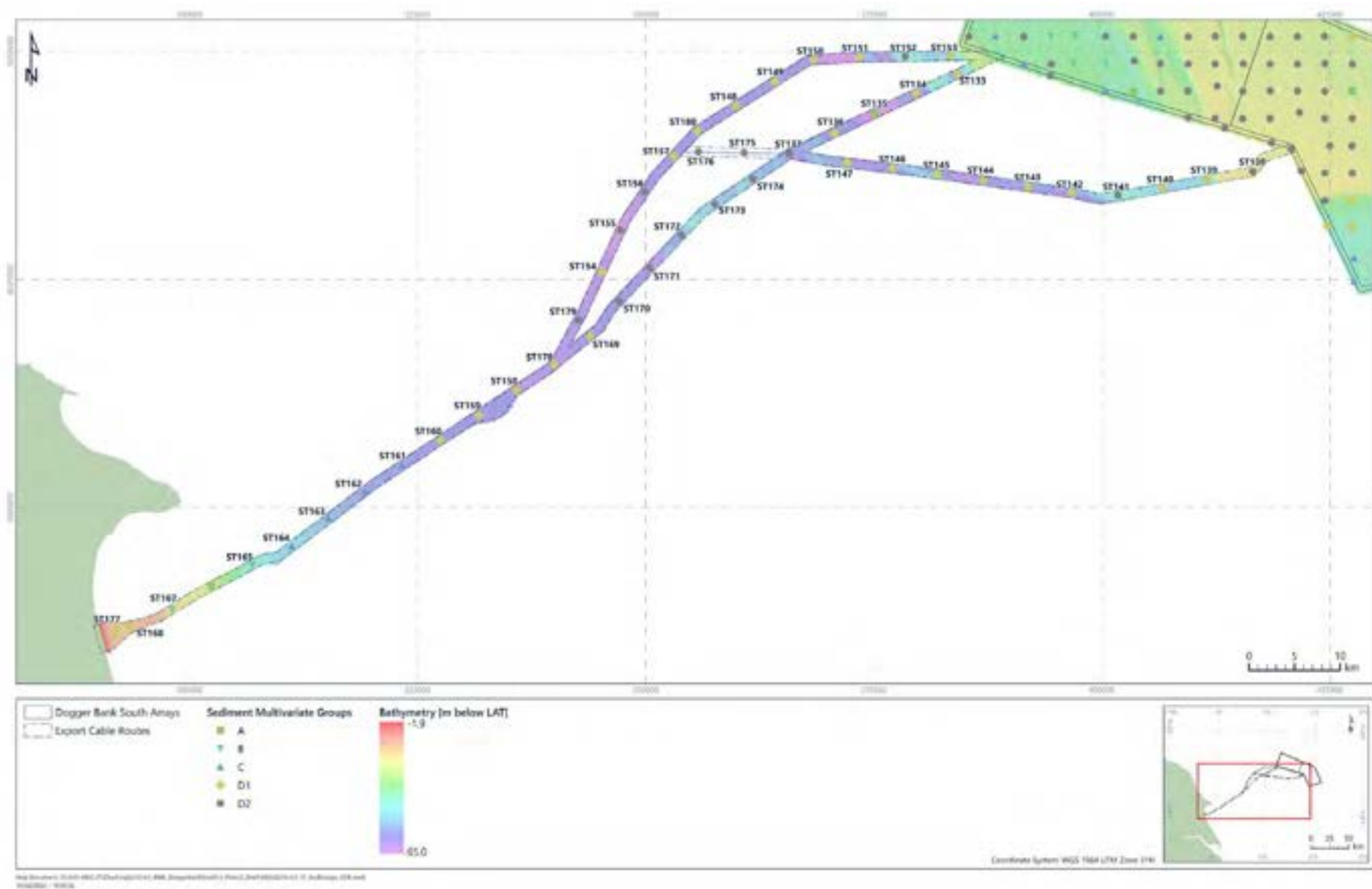


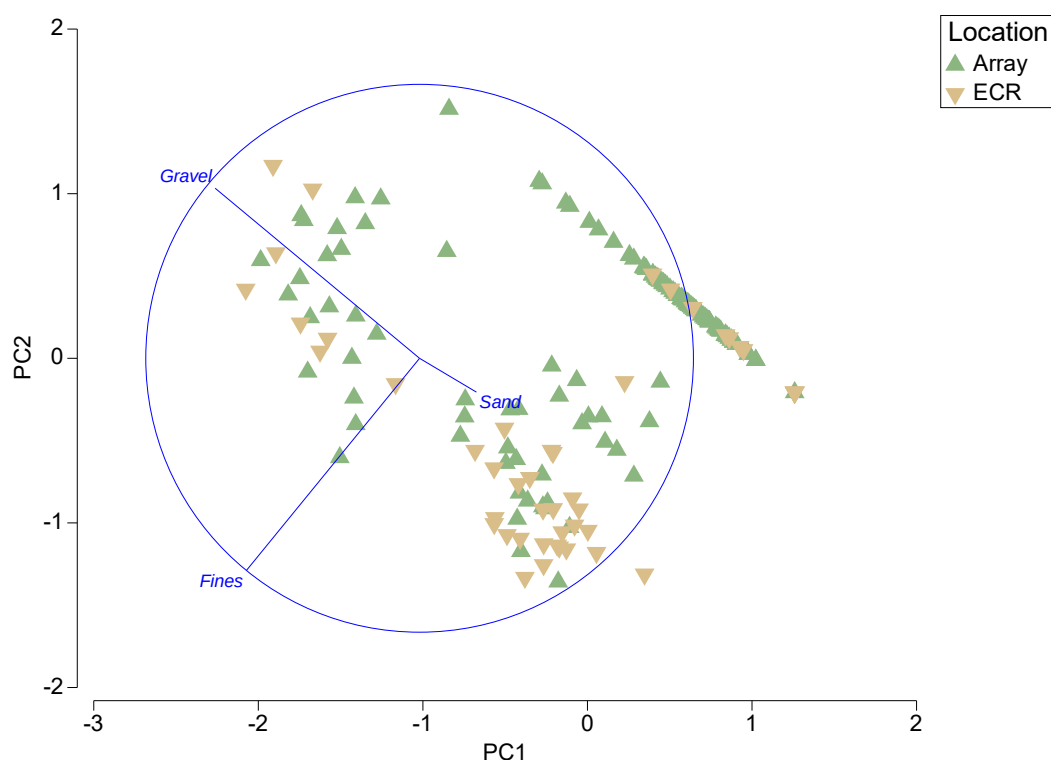
Figure 4.15: Spatial distribution of the sediment groups identified through the multivariate analysis, export cable route, Dogger Bank South Site Investigation

4.2.2.1 Principal Components Analysis

The principal component analysis (PCA) was used on the main sediment fractions, namely gravel, sand and fines (mud) to highlight the variables driving the variation of sediment composition across the survey area. The PCA also allowed visual representation of the association between sediment type and biological variables. Data were fourth root transformed. Data normalisation was not necessary as all data were in percentage.

Results of the PCA indicated that the first two principal components accounted for 98.8 % of the variation, with the percentage of gravel explaining most of the variation (65.3 %) along principal component one (PC1) and the percentage of fines explaining most of the variation (33.5 %) along principal component two (PC2). Sand explained 1.2 % of the variation along principal component three.

Figure 4.16 illustrates the results of the PCA with, superimposed survey areas (array and ECR), whereas Figure 4.17 and 4.18 illustrate the results of the PCA with superimposed the Folk (BGS modified) sediment classification and sorting, respectively. Together, the figures highlight how the increased diversity of the sediment was reflected in the sorting coefficient, which ranged from well sorted for the predominantly sandy stations, to very poorly sorted as the percentage of gravel and mud increased.

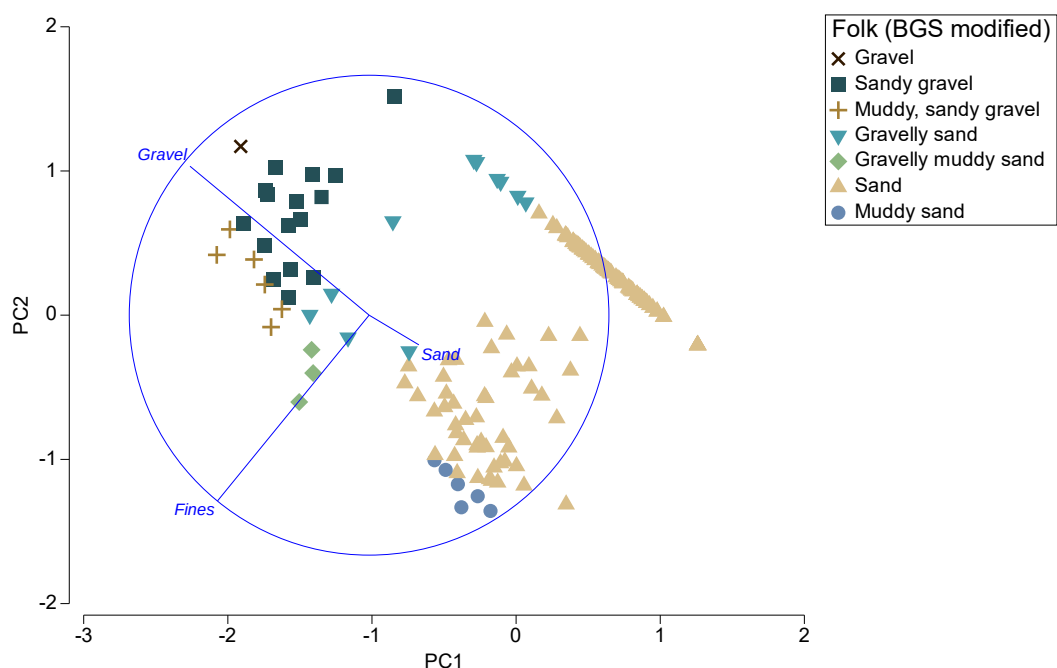


Notes

ECR = Export cable route

PC = principal component

Figure 4.16: 2D PCA of sediment composition with superimposed, survey areas and circles proportional in diameter to percentage of mud, Dogger Bank South Site Investigation

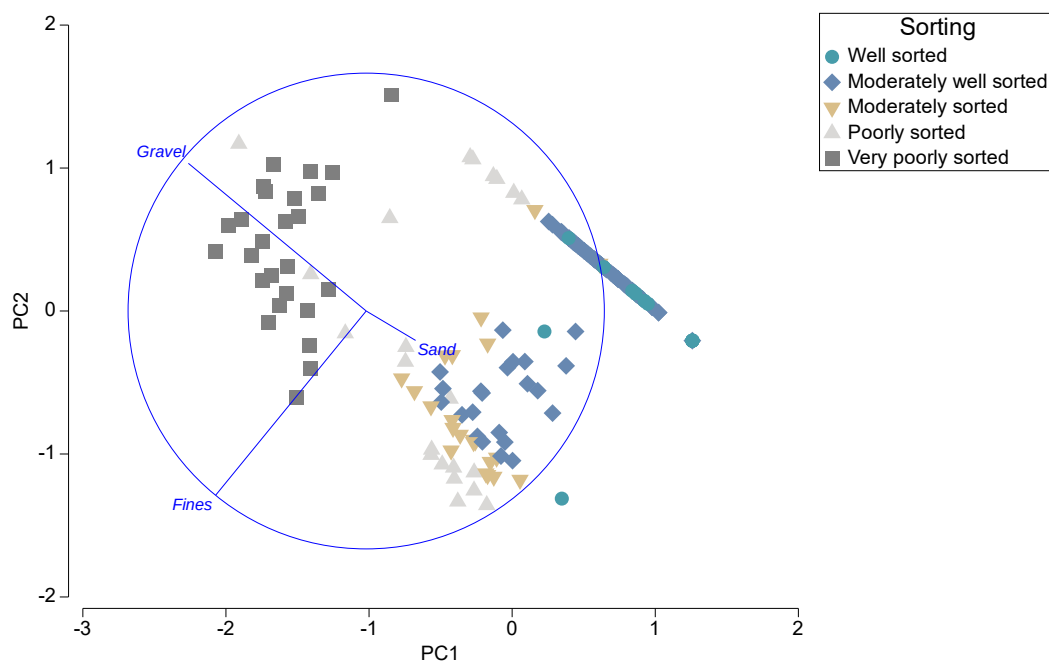


Notes

ECR = Export cable route

PC = principal component

Figure 4.17: 2D PCA of sediment composition with superimposed, survey areas and circles proportional in diameter to percentage of gravel, Dogger Bank South Site Investigation



Notes

ECR = Export cable route

PC = principal component

Figure 4.18: 2D PCA of sediment composition with superimposed, survey areas and circles proportional in diameter to percentage of fines, Dogger Bank South Site Investigation

4.3 Sediment Chemistry

4.3.1 Sediment Hydrocarbons

Results of the sediment chemistry were assessed in terms of descriptive statistics, including the relative standard deviation (RSD) to indicate the extent of variation in the dataset. The RSD is defined as the ratio of the standard deviation to the mean and is expressed as a percentage. For this report, RSD values of less than 30 % were considered low variation, 30 % to 70 % were considered moderate variation and more than 70% were considered high variation.

Appendix E presents the analysis certificates.

4.3.1.1 Total Hydrocarbon Content (THC)

Table 4.7 presents the concentrations of THC reported from the surface sediment across the DBS survey area. THC content ranged from < 1 mg/kg at 18 stations to 109 mg/kg at station ST161. The THC content at station ST161 was above the Cefas AL1 level of 100 mg/kg. The THC content in the array was generally lower than the THC content along the ECR (Table 4.7).

Table 4.7: Summary of sediment hydrocarbon analysis, Dogger Bank South Site Investigation

Station	THC
Array	
ST012	22.0
ST017	2.02
ST031	< 1
ST038	< 1
ST040	< 1
ST044	< 1
ST046	< 1
ST063	< 1
ST069	< 1
ST071	< 1
ST074	< 1
ST078	< 1
ST085	< 1
ST098	< 1
ST103	< 1
ST105	2.02
ST107	< 1
ST113	< 1

Station	THC
ST121	< 1
ST125	8.98
Export Cable Route	
ST134	39.4
ST141	< 1
ST146	< 1
ST151	4.08
ST156	2.92
ST161	109
ST164	45.6
ST168	70.2
ST172	2.00
ST178	4.40
Minimum	< 1
Maximum	109
Cefas Guideline Action Levels	
AL1	100
Notes Concentrations expressed in mg/kg Cefas = Centre for Environmental Fisheries & Aquaculture Science AL1 = Action Level 1 THC = Total hydrocarbon content	

4.3.1.2 Sediment Polycyclic Aromatic Hydrocarbons (PAHs)

Table 4.8 presents the results of the polycyclic aromatic hydrocarbons (PAHs) and the marine SQGs (details in Section 1.5). Station ST168 recorded a naphthalene concentration of 46.0 µg/kg which was higher than the Canadian SQG TEL of 34.6 µg/kg. All remaining stations had PAH concentrations below their respective SQGs. All PAH concentrations were below their limit of detection (LOD) at eight stations (ST031, ST038, ST040, ST069, ST074, ST085, and ST098) in the array, while all PAH concentrations were above the LOD at three stations (ST161, ST164 and ST168) along the ECR. In general, PAH concentrations were higher along the ECR than further offshore in the array.

The total PAH concentrations were calculated as the sum of individual PAH concentrations. Some of the individual PAH concentrations were less than the LOD, and as such are unlikely to significantly influence the total 2 to 6 ring PAH concentrations. For this report, PAH concentrations less than the LOD have been treated as being equal to their respective LODs. Consequently, the total PAH concentrations where one or more analytes were < LOD resulted in a less than value.

Table 4.8: Summary of sediment polycyclic aromatic hydrocarbons analysis, Dogger Bank South Site Investigation

Stations	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[e]pyrene	Benzo[k]fluoranthene	C1-naphthalenes	C1-phenanthrenes
Array											
ST012	< 1	< 1	< 1	< 1	1.49	2.63	2.82	2.06	1.65	3.74	3.22
ST017	< 1	< 1	1.08	2.19	2.50	2.66	3.23	2.66	2.04	4.76	10.5
ST031	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
ST038	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
ST040	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
ST044	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2.10
ST046	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
ST063	< 1	< 1	< 1	< 1	< 1	1.01	< 1	< 1	< 1	1.66	1.03
ST069	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
ST071	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.10	1.06
ST074	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
ST078	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
ST085	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
ST098	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
ST103	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2.17
ST105	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	5.04	2.90
ST107	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.18	1.59
ST113	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.75	1.88
ST121	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3.66	2.04
ST125	1.23	1.65	2.74	6.07	5.45	7.37	6.26	7.00	3.77	65.0	46.2
Export Cable Route											
ST134	< 1	< 1	1.11	4.32	4.08	5.66	5.80	5.23	4.65	21.7	13.9
ST141	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3.78	2.32
ST146	< 1	< 1	< 1	< 1	< 1	1.39	1.12	< 1	1.34	4.18	2.40
ST151	< 1	< 1	< 1	1.36	1.23	1.91	2.93	2.41	2.96	7.32	7.10
ST156	< 1	< 1	1.38	1.99	2.57	3.08	3.42	3.19	3.16	12.0	10.9
ST161	2.18	1.62	3.47	8.67	9.76	9.31	13.2	11.9	10.5	57.7	33.7
ST164	2.56	1.81	4.01	8.24	6.85	10.1	11.1	10.6	9.68	77.1	34.1
ST168	5.60	2.59	7.94	15.3	15.1	17.7	18.7	20.9	15.3	135	80.4
ST172	< 1	< 1	< 1	< 1	< 1	1.06	< 1	1.05	1.16	3.80	1.80
ST178	< 1	< 1	< 1	1.06	1.07	2.82	2.30	2.24	2.12	7.28	4.12
Minimum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Maximum	5.60	2.59	7.94	15.3	15.1	17.7	18.7	20.9	15.3	135	80.4
Mean	1.25	1.12	1.49	2.34	2.34	2.79	3.00	2.94	2.54	14.3	9.15
SD	0.893	0.349	1.43	3.22	3.16	3.76	4.21	4.39	3.38	30.2	17.6

RSD	71	31	96	138	135	135	141	149	133	211	192	
CEMP (OPAR, 2014)												
ERL	-	-	85	261	430	-	85	-	-	155	170	
NOAA (Long et al., 1995)												
ERM	500	640	1100	1600	1600	-	-	-	-	-	-	
Canadian SQGs (CCME, 2022)												
TEL	6.71	5.87	46.9	74.8	88.8	-	-	-	-	-	-	
PEL	88.9	128	245	693	763	-	-	-	-	-	-	
Stations	C2-naphthalenes	C3-naphthalenes	Chrysene	Dibenzo[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Perylene	Phenanthrene	Pyrene	Total
Array												
ST012	3.45	3.54	1.68	< 1	2.04	< 1	2.06	1.22	1.78	2.67	1.92	< 44.0
ST017	7.46	12.0	3.24	< 1	5.20	< 1	1.99	1.09	1.57	6.24	5.82	< 80.2
ST031	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 22
ST038	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 22
ST040	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 22
ST044	1.25	1.64	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 24.0
ST046	< 1	1.14	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 22.1
ST063	1.19	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 22.9
ST069	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 22
ST071	1.15	1.26	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 22.6
ST074	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 22
ST078	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 22
ST085	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 22
ST098	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 22
ST103	1.58	1.47	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.31	< 1	< 24.5
ST105	5.62	3.06	< 1	< 1	< 1	< 1	< 1	1.10	< 1	3.49	< 1	< 37.2
ST107	1.20	1.05	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.05	< 23.1
ST113	2.23	3.16	< 1	< 1	< 1	< 1	< 1	1.70	< 1	1.33	< 1	< 28.0
ST121	1.91	1.82	< 1	< 1	< 1	< 1	< 1	1.82	< 1	< 1	< 1	< 28.2
ST125	65.5	38.0	9.39	< 1	12.1	6.93	2.57	7.83	3.38	34.7	15.3	< 349
Export Cable Route												
ST134	21.2	17.9	6.16	< 1	9.75	< 1	4.04	5.45	1.88	8.33	10.5	< 156
ST141	2.32	2.69	< 1	< 1	< 1	< 1	< 1	2.27	< 1	1.01	< 1	< 30.4
ST146	3.22	2.63	1.15	< 1	1.27	< 1	1.10	2.35	< 1	1.57	1.29	< 34.0
ST151	9.53	6.47	2.04	< 1	2.69	< 1	1.71	2.44	1.27	3.82	3.37	< 65.6
ST156	16.4	15.2	3.19	< 1	4.51	1.01	2.59	3.03	< 1	7.42	4.00	< 103
ST161	46.1	40.4	14.5	1.59	18.7	3.65	7.15	18.8	2.32	24.6	18.1	358
ST164	68.7	51.0	12.9	1.53	17.4	4.36	5.72	26.8	1.68	26.8	18.0	411

ST168	117	122	26.0	2.56	34.5	8.50	8.19	46.0	3.65	58.5	34.0	795
ST172	2.85	2.00	< 1	< 1	1.01	< 1	< 1	1.68	< 1	1.12	1.23	< 29.8
ST178	4.77	4.25	2.12	< 1	3.69	< 1	1.45	3.09	< 1	2.58	3.07	< 54.0
Minimum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 22
Maximum	117	122	26.0	2.56	34.5	8.50	8.19	46.0	3.65	58.5	34.0	795
Mean	13.1	11.4	3.38	1.09	4.36	1.65	1.92	4.69	1.32	6.65	4.49	97.3
SD	26.7	24.6	5.54	0.312	7.44	1.83	1.89	9.62	0.686	12.9	7.53	169
RSD	203	216	164	29	171	111	98	205	52	194	168	174
CEMP (OSPAR, 2014)												
ERL	150	-	384	-	600	-	240	160	-	240	665	-
NOAA (Long et al., 1995)												
ERM	-	-	2800	260	5100	540	-	2100	-	1500	2600	-
Canadian SQGs (CCME, 2022)												
TEL	-	-	108	6.22	113	21.2	-	34.6	-	86.7	153	-
PEL	-	-	846	135	1494	144	-	391	-	544	1398	-
Notes Concentrations expressed in µg/kg dry sediment CEMP = Coordinated Environmental Monitoring Programme OSPAR = Oslo and Paris Commission ERL = Effects range low NOAA = National Oceanic and Atmospheric Administration ERM = Effects range median SQGs = Sediment quality guidelines CCME = Canadian Council of the Ministers of the Environment TEL = Threshold effects level PEL = Probable effects level SD = Standard deviation RSD = Relative standard deviation												



4.3.2 Sediment Metals

Table 4.9 summarises the concentrations of the extractable metals in the sediment samples from an aqua regia digest.

Metals concentrations were lower than the environmental quality standards (Cefas ALs, OSPAR ERLs, NOAA ERM and Canadian SQGs) for all metals except arsenic and lead.

Arsenic concentrations at 11 stations were above the Canadian SQG TEL (7.24 mg/kg), with one station (ST164) also above the Canadian SQG PEL (41.6 mg/kg). Arsenic concentrations at 3 stations (ST125, ST161 and ST164) exceeded the Cefas AL1 concentration of 20 mg/kg. The arsenic concentration at station ST164 (73.4 mg/kg) also exceeded the NOAA ERM of 70 mg/kg.

The lead concentration at station ST164 was 31.5 mg/kg which was above the Canadian SQG TEL (30.2 mg/kg). All other lead concentrations were below all other environmental quality standards.

All metals had a moderate to high variation with the highest variation for metal concentrations recorded for arsenic, which had an RSD of 138 %. Arsenic concentrations ranged from 2.2 mg/kg at station ST103 to 73.4 mg/kg at station ST164 with a mean of 10.1 mg/kg.

The lowest variation was recorded for copper, which had an RSD of 41 % and concentrations ranging from 2.8 mg/kg to 8.8 mg/kg with a mean of 4.7 mg/kg.

Figures 4.19 and 4.20 illustrate the spatial distribution of the arsenic concentrations in the array and along the ECR, respectively.

Table 4.9: Summary of sediment metals analysis, Dogger Bank South Site Investigation

Stations	As	Cd	Cr	Cu	Hg	Ni	Pb	Zn
Array								
ST012	14	0.24	12.7	8.8	0.02	12.6	9.4	39.1
ST017	3.0	< 0.04	5.8	4.7	< 0.01	4.7	2.8	14.4
ST031	3.1	0.13	5.8	3.9	< 0.01	3.6	2.5	13.6
ST038	3.0	< 0.04	4.4	3.3	< 0.01	3.3	2.0	9.8
ST040	2.5	0.07	4.5	3.8	< 0.01	3.0	1.9	9.0
ST044	2.5	< 0.04	4.5	3.6	< 0.01	3.0	1.9	8.1
ST046	2.7	< 0.04	5.2	4.1	0.02	3.2	2.3	8.3
ST063	16.4	0.13	11.5	8.3	0.01	15.0	4.5	32.9
ST069	2.6	< 0.04	4.7	3.2	< 0.01	3.3	2.2	9.2
ST071	3.2	< 0.04	5.8	3.5	< 0.01	3.8	2.4	12.1
ST074	2.9	< 0.04	5.0	3.0	< 0.01	2.5	2.1	9.6
ST078	10.0	< 0.04	6.1	4.1	< 0.01	4.7	3.2	12.3
ST085	2.8	< 0.04	3.6	3.0	< 0.01	2.3	1.4	15.0
ST098	9.9	< 0.04	5.2	4.2	0.02	4.0	2.5	12.2
ST103	2.2	< 0.04	3.4	3.3	< 0.01	2.1	1.4	10.1
ST105	2.7	< 0.04	5.2	3.3	< 0.01	2.4	2.2	13.9
ST107	8.5	< 0.04	5.4	3.7	< 0.01	3.6	3.2	14.8
ST113	3.7	< 0.04	4.3	3.2	< 0.01	2.5	1.6	14.5
ST121	3.2	< 0.04	4.3	3.8	< 0.01	2.7	1.7	10.2
ST125	24.4	0.14	15.2	7.4	0.02	14.9	5.9	35.0
Export Cable Route								
ST134	7.0	< 0.04	10.5	7.3	0.03	6.8	6.4	18.9
ST141	18.4	0.07	6.9	2.8	0.01	3.4	5.3	15.4
ST146	6.5	< 0.04	4.4	3.5	< 0.01	2.7	3.8	12.0
ST151	6.4	< 0.04	8.1	5.4	0.01	4.6	5.8	19.4
ST156	3.0	0.07	5.1	3.7	< 0.01	2.6	5.3	12.2
ST161	32.2	0.12	12.3	7.1	0.02	12.2	17.8	37.0
ST164	73.4	0.17	12.8	8.2	0.03	16.3	31.5	59.2

Stations	As	Cd	Cr	Cu	Hg	Ni	Pb	Zn
ST168	14.6	< 0.04	11.2	8.0	0.03	9.0	24.6	45.5
ST172	13.4	< 0.04	7.8	4.5	< 0.01	4.4	7.1	16.8
ST178	5.8	< 0.04	6.8	3.4	< 0.01	3.5	8.2	16.3
Minimum	2.2	< 0.04	3.4	2.8	< 0.01	2.1	1.4	8.1
Maximum	73.4	0.24	15.2	8.8	0.03	16.3	31.5	59.2
Mean	10.1	-	7.0	4.7	-	5.4	5.8	18.6
Standard Deviation	14.0	-	3.26	1.89	-	4.27	6.97	12.6
RSD	138	-	47	41	-	79	121	68
Cefas Guideline Action Levels								
AL1	20	0.4	40	40	0.3	20	50	130
AL2	100	5	400	400	3	200	500	800
CEMP Assessment Criteria (OSPAR, 2014)								
ERL	-	1.20	81.0	34.0	0.150	-	47.0	150
NOAA Effects Ranges (Long et al., 1995)								
ERM	70	9.6	370	270	0.71	51.6	218	410
Canadian SQGs (CCME, 2022)								
TEL	7.24	0.7	52.3	18.7	0.13	-	30.2	124
PEL	41.6	4.2	160	108	0.70	-	112	271
Notes Concentrations expressed in mg/kg dry sediment CEFAS actions levels available at https://www.gov.uk/guidance/marine-licensing-ediment-analysis-and-sample-plans As = Arsenic Cd = Cadmium Cr = Chromium Cu = Copper Hg = Mercury Ni = Nickel Pb = Lead Zn = Zinc AL1 = Action level 1 AL2 = Action level 2 ERL = Effects range low ERM = Effects range median TEL = Threshold effects level PEL = Probable effects level Cefas = Centre for Environment, Fisheries and Aquaculture Science CEMP = Coordinated Environmental Monitoring Programme OSPAR = Oslo and Paris Commission NOAA = National Oceanic and Atmospheric Administration SQGs = Sediment quality guidelines RSD = Relative Standard Deviation								
Key	Below Cefas AL1	Above Cefas AL1			Above Cefas AL2			

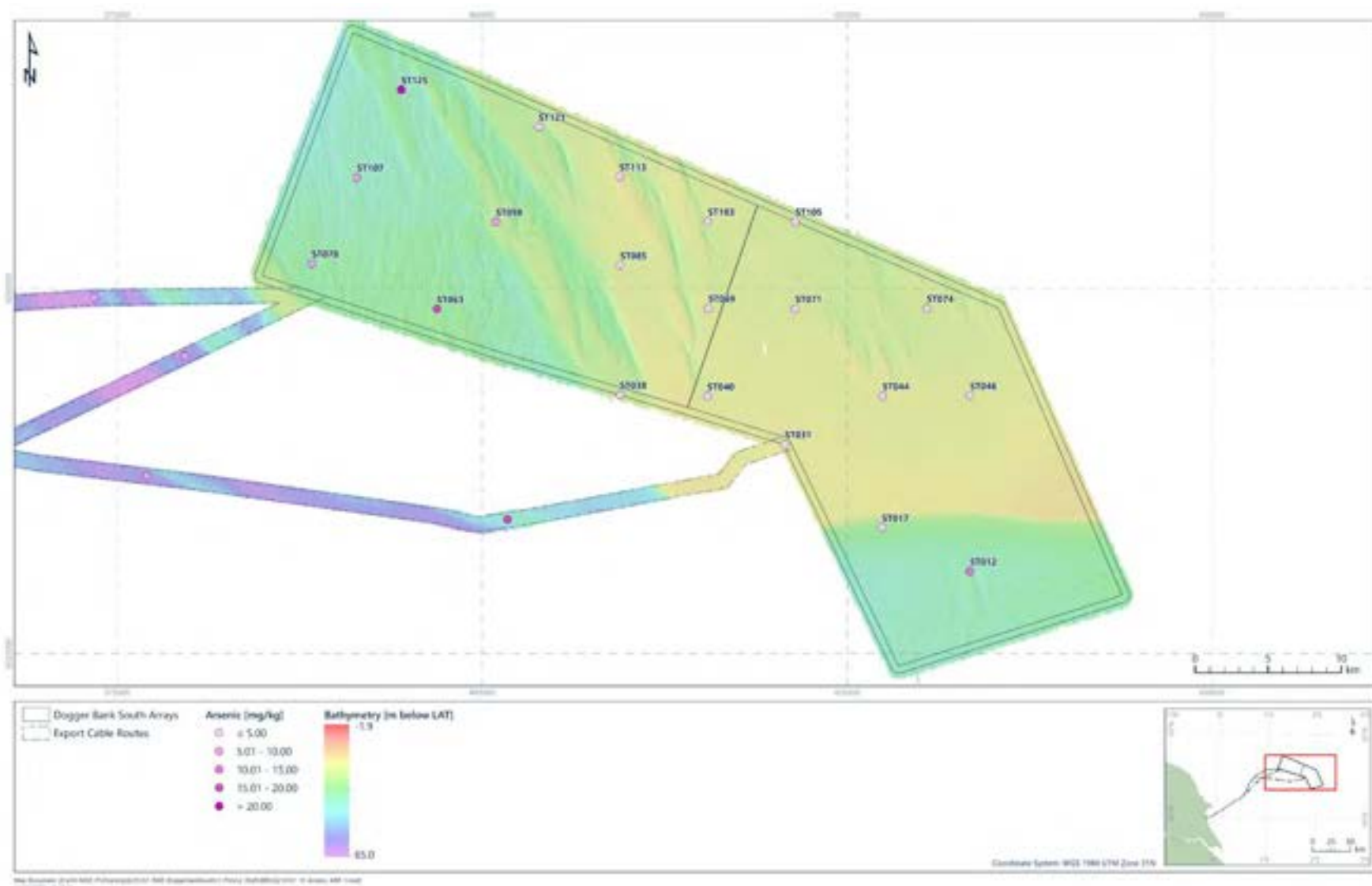


Figure 4.19: Spatial distribution of arsenic concentrations, array, Dogger Bank South Site Investigation

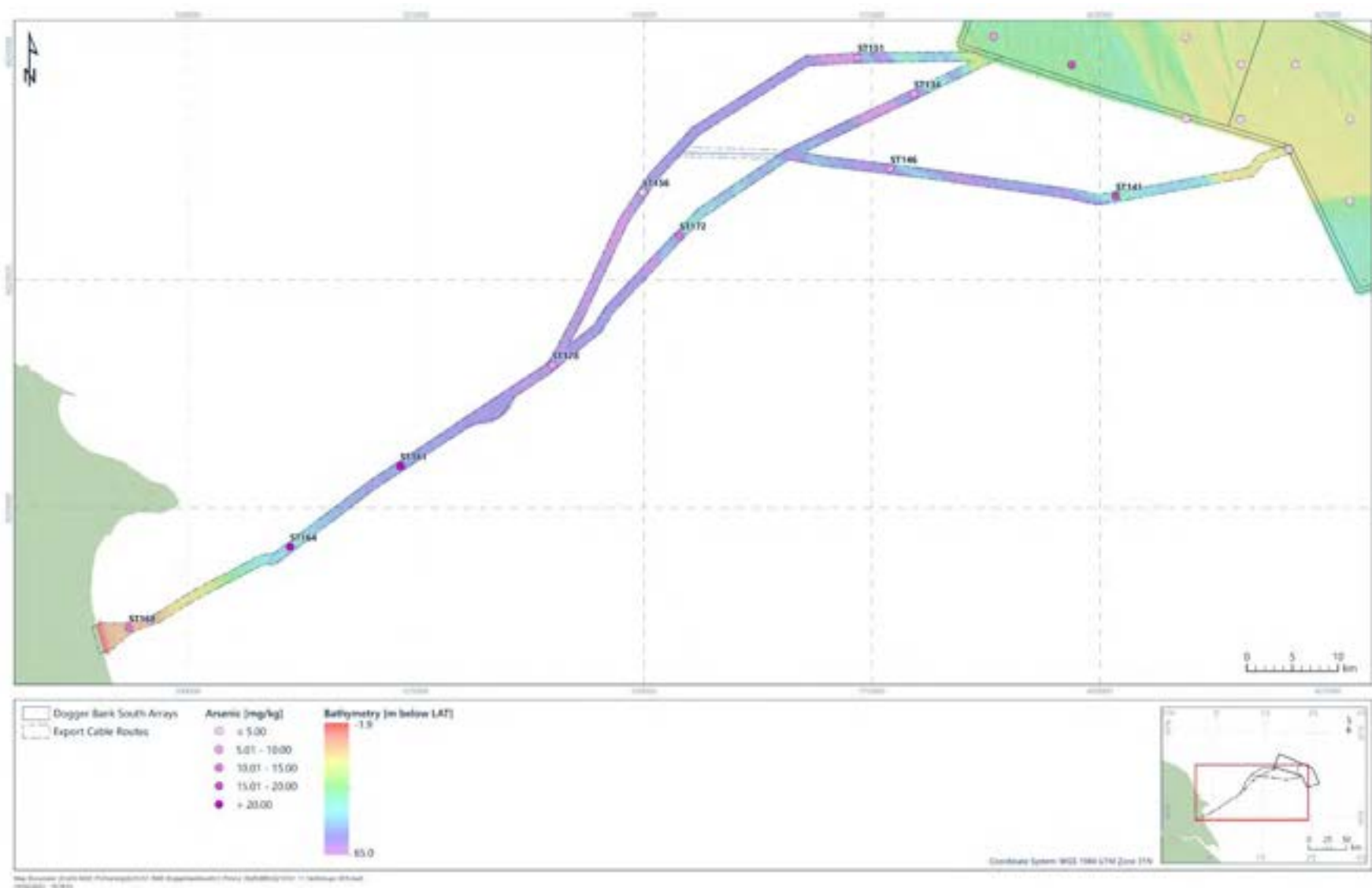


Figure 4.20: Spatial distribution of arsenic concentrations, export cable route, Dogger Bank South Site Investigation

4.3.3 Sediment Polychlorinated Biphenyls

Table 4.10 summarises the concentrations of PCBs in the sediment samples. The concentrations of the majority of individual PCB congeners analysed were below the LOD (< 0.00008 mg/kg). Values above the LOD were reported for selected congeners at stations ST078 and ST098 located in the west of the array. The sum of the 25 congeners ranged from < 0.00200 mg/kg to < 0.00202 mg/kg, with all values below the Cefas AL1 (0.02 mg/kg) and AL2 (0.2 mg/kg). For this report, PCB concentrations less than LOD have been treated as being equal to their respective LODs. Consequently, the total PCB concentrations where one or more analytes were $< \text{LOD}$ resulted in a less than value.

Table 4.10: Summary of polychlorinated biphenyls (PCBs) analysis, Dogger Bank South Site Investigation

[illegible]

[illegible]

Maximum	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008	0.00016	< 0.00008	< 0.00221
CEFAS Guidelines Action Levels													
AL1	-	-	-	-	-	-	-	-	-	-	-	-	0.02
AL2	-	-	-	-	-	-	-	-	-	-	-	-	0.2
Notes Concentrations expressed as mg/kg dry weight Cefas = Centre for Environment, Fisheries and Aquaculture Science AL1 = Action Level 1 AL2 = Action Level 2 Cefas action levels available at https://www.gov.uk/guidance/marine-licensing-sediment-analysis-and-sample-plans													



4.3.4 Sediment Organotins

Table 4.11 summarises the concentrations of organotins in the sediment samples. The organotins analysed were dibutyltin (DBT) and tributyltin (TBT), the concentrations of which were below their respective LODs at all stations and below the Cefas AL1 (0.1 mg/kg) and AL2 (1 mg/kg). The LOD for station ST017 was raised to 0.005 mg/kg as this sample was diluted due to matrix interference.

Table 4.11: Summary of organotins analysis, Dogger Bank South Site Investigation

Station	Dibutyltin (DBT)	Tributyltin (TBT)
Array		
ST012	< 0.001	< 0.001
ST017	< 0.005	< 0.005
ST031	< 0.001	< 0.001
ST038	< 0.001	< 0.001
ST040	< 0.001	< 0.001
ST044	< 0.001	< 0.001
ST046	< 0.001	< 0.001
ST063	< 0.001	< 0.001
ST069	< 0.001	< 0.001
ST071	< 0.001	< 0.001
ST074	< 0.001	< 0.001
ST078	< 0.001	< 0.001
ST085	< 0.001	< 0.001
ST098	< 0.001	< 0.001
ST103	< 0.001	< 0.001
ST105	< 0.001	< 0.001
ST107	< 0.001	< 0.001
ST113	< 0.001	< 0.001
ST121	< 0.001	< 0.001
ST125	< 0.001	< 0.001
Export Cable Route		
ST134	< 0.001	< 0.001
ST141	< 0.001	< 0.001
ST146	< 0.001	< 0.001
ST151	< 0.001	< 0.001
ST156	< 0.001	< 0.001
ST161	< 0.001	< 0.001
ST164	< 0.001	< 0.001
ST168	< 0.001	< 0.001

Station	Dibutyltin (DBT)	Tributyltin (TBT)
ST172	< 0.001	< 0.001
ST178	< 0.001	< 0.001
Minimum	< 0.001	< 0.001
Maximum	< 0.001	< 0.001
Cefas Guideline Action Levels		
AL1	0.1	0.1
AL2	1	1
Notes Concentrations expressed in mg/kg Cefas = Centre for Environmental Fisheries & Aquaculture Science AL1 = Action Level 1 AL2 = Action Level 2 Cefas action levels available at https://www.gov.uk/guidance/marine-licensing-sediment-analysis-and-sample-plans		

4.4 Sediment Macrofauna

The macrofauna from the grab samples included infauna and epifauna, the latter comprising solitary and colonial organisms. The infauna and solitary epifauna were enumerated and were analysed together in terms of phyletic composition, species diversity, abundance and distribution. The colonial epifauna, recorded as present (P), was removed from the enumerated dataset and assessed for taxa composition and distribution. Appendix F presents the full species list.

4.4.1 Infaunal and Solitary Epifauna from the Grab Samples

4.4.1.1 Phyletic Composition

Following rationalisation (details in Section 3.3.2), the enumerated macrofaunal dataset comprised 318 taxa and 19 152 individuals. The excluded taxa included meiofauna (Nematoda), fish (*Echiichthys vipera*, *Ammodytes tobianus*, and species of the genus *Callionymus* and the family Scophthalmidae), juveniles and pelagic (Chaetognatha and Hyperiidæ), parasitic (*Pseudione affinis*, *Pleurocrypta longibranchiata* and Copepoda) and damaged fauna. In addition, one species of *Leiochone*, one species of *Cheirocratus* and one species of *Gnathia* were aggregated to their respective genera, whereas *Aora gracilis* and *Leptocheirus hirsutimanus* were aggregated to family level (Aoridae). Animalia eggs were recorded at two stations.

Juveniles comprised 40 taxa and 3283 individuals, of which species of *Upogebia*, with 774 individuals and Amphiuroidæ, with 723 individuals, were numerically dominant.

Table 4.12 summarises the phyletic composition of the enumerated fauna from the grab samples. Figures 4.214.31 and 4.22 illustrate the phyletic composition of taxa and individuals of the enumerated macrofauna in the array and along the ECR, respectively.

Table 4.12: Taxonomic groups of enumerated fauna from the grab samples, Dogger Bank South

Taxonomic group	Number of Taxa	Composition of Taxa [%]	Abundance	Composition of Individuals [%]
Annelida	137	43.1	10515	54.9
Arthropoda	91	28.6	2838	14.8
Mollusca	65	20.4	3804	19.9
Echinodermata	15	4.7	1170	6.1
Other phyla	10	3.1	825	4.3
Total	318	100	19152	100
Notes Macrofaunal samples were processed through a 1 mm mesh sieve Other phyla included: Chordata, Cnidaria, Hemichordata, Nemertea, Phoronida and Platyhelminthes				

Annelida comprised most of the enumerated taxa composition (43.1 %), followed by Arthropoda (28.6 %) Mollusca (20.4 %), and Echinodermata (4.7 %). Other phyla comprised

3.1 % of the enumerated taxa and were represented by Chordata (*Dendrodoa grossularia*, species of *Molgula* and *Branchiostoma lanceolatum*), Cnidaria (*Cerianthus lloydii*, species of the order Actiniaria and the family Edwardsiidae), Hemichordata (Enteropneusta), Nemertea, Phoronida and Platyhelminthes.

When assessed on a station basis, Annelida were dominant in terms of taxa composition at most stations across the DBS survey area. Mollusca comprised most of the enumerated taxa at 20 stations and Arthropoda comprised most of the taxa at station ST025.

Annelida comprised also most of the enumerated macrofaunal abundance (54.9%), followed by Mollusca (19.9%), Arthropoda (14.8%), and Echinodermata (6.1 %), whereas other phyla comprised 4.3 % of the enumerated macrofaunal abundance.

When assessed on a station basis, Annelida were numerically dominant at most stations across the DBS survey area. Mollusca were numerically dominant at stations ST168 and ST177.

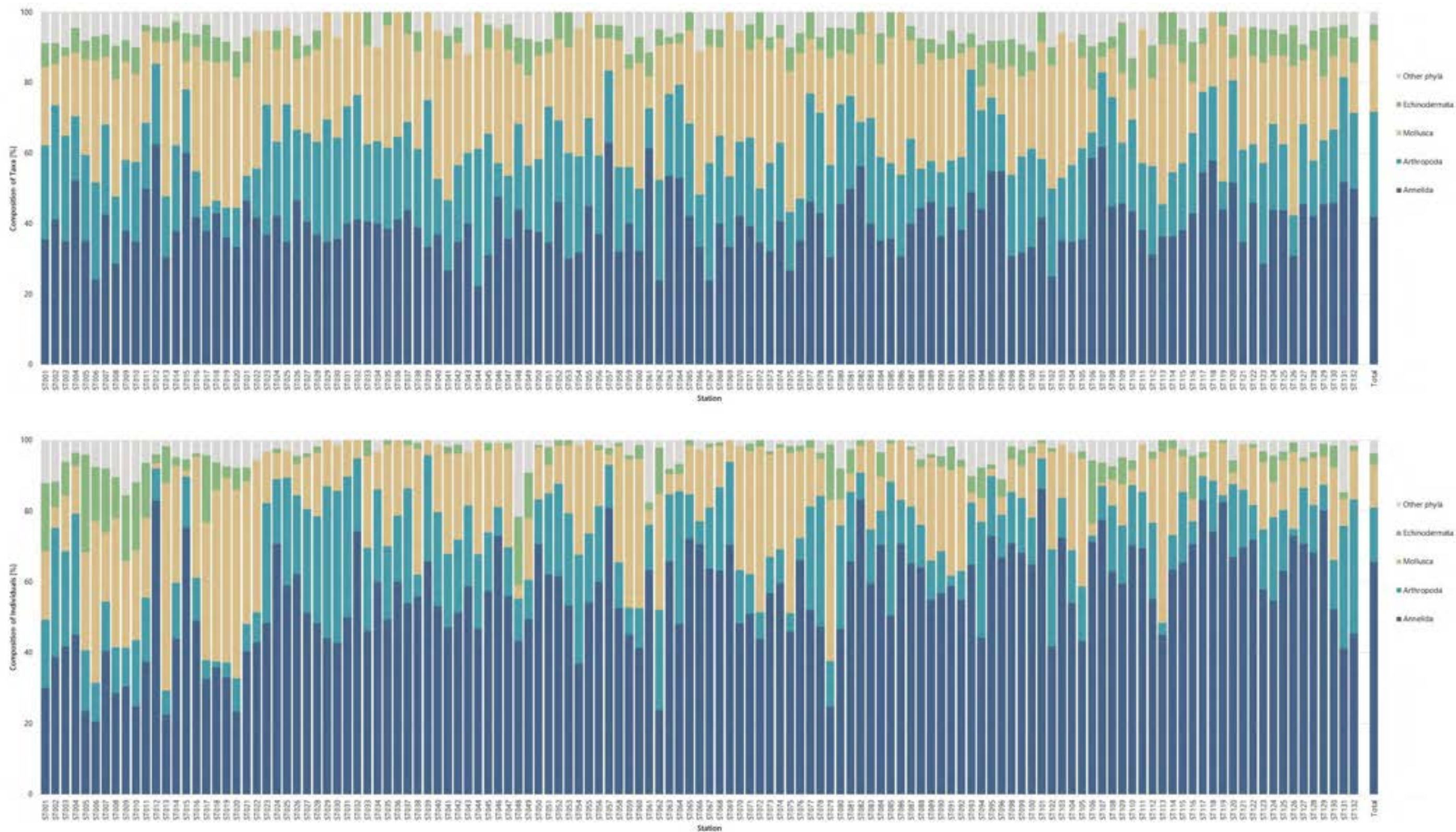


Figure 4.21: Phyletic composition of enumerated macrofaunal (A) taxa and (B) individuals from the grab samples, array, Dogger Bank South

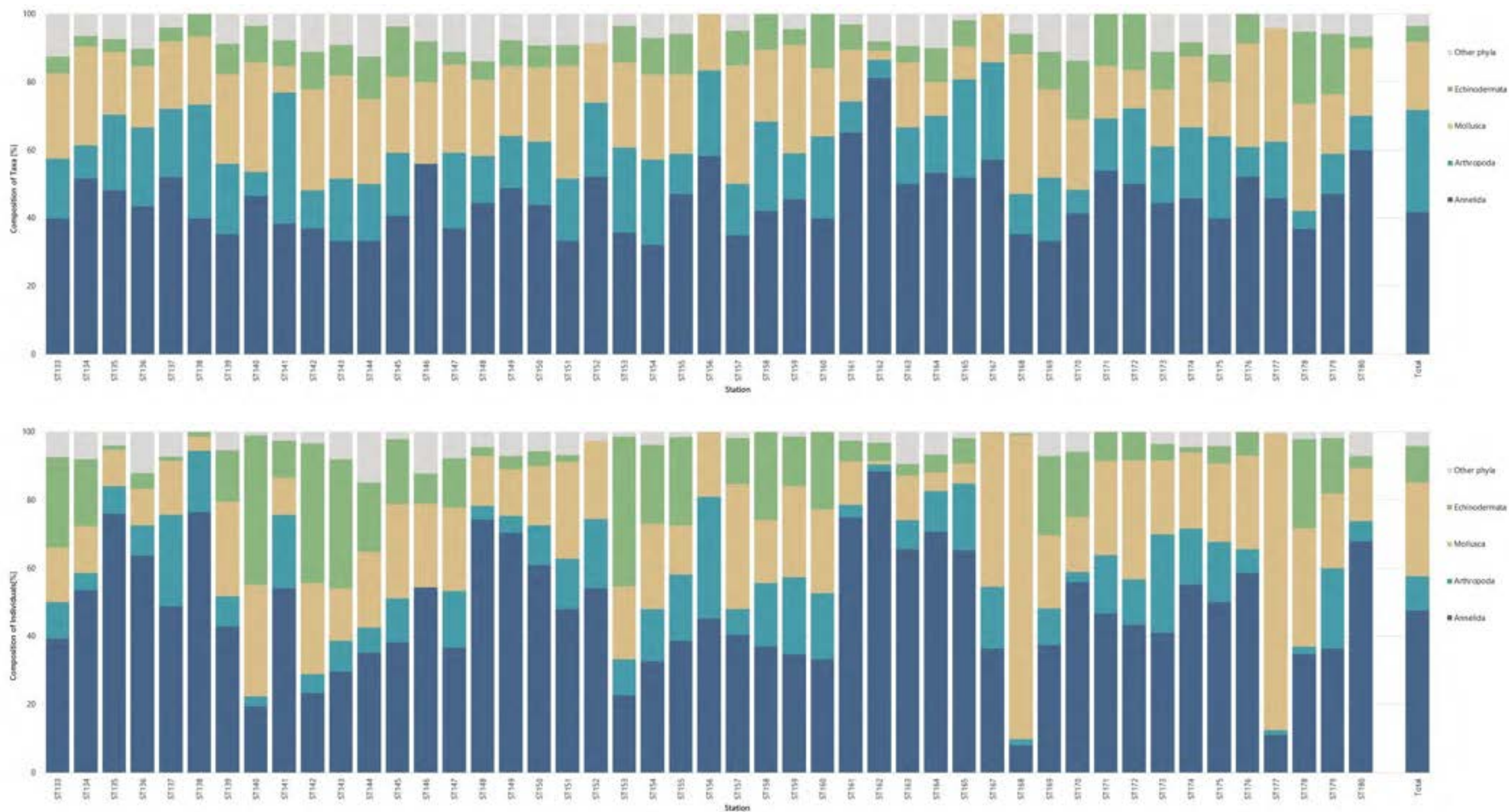


Figure 4.22: Phyletic composition of enumerated macrofaunal (A) taxa and (B) individuals from the grab samples, export cable route, Dogger Bank South

4.4.1.2 Community Statistics

Table 4.13 presents the results of the univariate analysis of the enumerated macrofaunal dataset, which provided information on faunal richness and diversity, and allow geographical contextualisation of the results. Univariate indices included faunal richness (Margalef's index d), diversity (Shannon-Wiener Index $H'Log_2$), evenness (Pielou's index J'), and dominance (Simpson's index λ).

Figures 4.23 and 4.24 illustrate the spatial distribution of the number of taxa in the array and along the ECR, respectively

Figures 4.25 and 4.26 illustrate the spatial distribution of the number individuals in the array and along the ECR, respectively.

The number of taxa ranged from 7 (station ST167) to 66 (station ST161), with a mean of 28 and a median of 26. The variation in the number of taxa in the array, with a range of 10 to 62, was similar to that along the ECR, with a range of 7 to 66.

The number of individuals ranged from 11 (station ST167) to 391 (station ST177), with a mean of 108 and a median of 94. The variation in the number of individuals in the array, with a range of 31 to 315 was lower than that along the ECR, with a range of 11 to 391

Values of richness reflected the number of individuals per taxa recorded, with values ranging from 2.10 (station ST053) to 11.6 (station ST161), with a mean of 5.72 and a median of 5.44.

The Shannon-Wiener Diversity, assessed in line with the Dauvin et al., (2012) criteria (details in Section 3.3.3), was:

- high ($H'Log_2 > 4.00$) at 65 stations;
- good ($H'Log_2$ of 3.00 to 4.00) at 74 stations;
- moderate ($H'Log_2$ of 2.00 to 3.00) at 34 stations;
- poor ($H'Log_2$ of 1.00 to 2.00) at 5 stations.

The mean diversity across the DBS survey area, with a value of 3.65 was good.

The evenness ranged from 0.368 (station ST101) to 0.942 (station ST018) with a mean of 0.776 and a median of 0.806. The value of evenness at station ST101 was associated with a numerical dominance of the polychaete *Spiophanes bombyx* agg., which comprised 94 individuals, representing 78 % of the faunal abundance at this station.

In general, values of dominance were inversely related to those of evenness, so that low values of evenness corresponded to high values of dominance and vice-versa, as would be expected.

Table 4.13: Community statistics of enumerated fauna from the grab samples (0.1 m²), Dogger Bank South Site Investigation

Station	Numbers		Richness	Diversity	Evenness	Dominance
	Taxa	Individuals	Margalef [d]	Shannon-Wiener [H'Log ₂]	Pielou [J']	Simpson [λ]
Array						
ST001	45	140	8.90	4.70	0.856	0.063
ST002	34	85	7.43	4.54	0.892	0.066
ST003	40	115	8.22	4.37	0.821	0.091
ST004	44	111	9.13	4.89	0.896	0.052
ST005	37	123	7.48	4.13	0.792	0.108
ST006	29	92	6.19	4.31	0.887	0.067
ST007	47	200	8.68	4.48	0.807	0.077
ST008	21	77	4.60	3.87	0.880	0.087
ST009	50	167	9.57	4.78	0.847	0.063
ST010	40	161	7.68	4.64	0.872	0.058
ST011	54	315	9.21	4.74	0.823	0.064
ST012	48	277	8.36	4.46	0.799	0.086
ST013	23	58	5.42	4.06	0.897	0.077
ST014	37	82	8.17	4.68	0.898	0.058
ST015	50	223	9.06	4.58	0.812	0.081
ST016	31	108	6.41	4.20	0.848	0.085
ST017	29	95	6.15	4.50	0.926	0.053
ST018	28	64	6.49	4.53	0.942	0.051
ST019	36	121	7.30	4.67	0.903	0.052
ST020	27	64	6.25	4.25	0.894	0.074
ST021	28	52	6.83	4.51	0.937	0.054
ST022	36	107	7.49	4.54	0.877	0.064
ST023	19	62	4.36	3.54	0.834	0.123
ST024	19	82	4.08	3.07	0.722	0.206
ST025	23	66	5.25	3.66	0.810	0.135
ST026	15	45	3.68	3.44	0.880	0.117
ST027	32	82	7.03	4.33	0.866	0.077
ST028	19	56	4.47	3.55	0.835	0.126
ST029	23	77	5.06	3.55	0.785	0.142
ST030	14	70	3.06	2.80	0.735	0.209
ST031	15	68	3.32	2.95	0.754	0.191
ST032	17	97	3.50	2.70	0.661	0.234
ST033	32	89	6.91	4.22	0.845	0.083
ST034	30	122	6.04	3.85	0.785	0.120
ST035	26	77	5.76	3.93	0.836	0.106
ST036	17	75	3.71	3.13	0.766	0.210
ST037	16	74	3.49	2.98	0.745	0.194
ST038	18	129	3.50	2.28	0.547	0.337
ST039	12	70	2.59	2.21	0.615	0.353
ST040	19	79	4.12	3.25	0.766	0.183
ST041	15	53	3.53	3.33	0.852	0.147
ST042	23	82	4.99	3.60	0.795	0.127
ST043	25	92	5.31	3.57	0.768	0.145
ST044	18	62	4.12	3.45	0.826	0.131
ST045	29	134	5.72	3.83	0.788	0.116
ST046	21	122	4.16	3.14	0.715	0.191
ST047	28	116	5.68	3.67	0.764	0.148
ST048	41	264	7.17	3.89	0.726	0.109
ST049	39	109	8.10	4.32	0.817	0.109
ST050	24	143	4.63	2.66	0.580	0.334
ST051	26	100	5.43	3.28	0.699	0.231
ST052	13	65	2.87	2.49	0.673	0.294



Station	Numbers		Richness	Diversity	Evenness	Dominance
	Taxa	Individuals	Margalef [d]	Shannon-Wiener [H'Log ₂]	Pielou [J']	Simpson [λ]
ST053	10	73	2.10	2.49	0.750	0.264
ST054	22	65	5.03	3.62	0.812	0.127
ST055	20	72	4.44	3.74	0.864	0.110
ST056	27	70	6.12	4.16	0.876	0.080
ST057	54	313	9.22	4.79	0.832	0.068
ST058	25	116	5.05	3.70	0.797	0.113
ST059	25	93	5.29	3.70	0.797	0.119
ST060	28	152	5.37	4.03	0.838	0.087
ST061	44	142	8.68	4.61	0.844	0.064
ST062	21	46	5.22	4.08	0.928	0.072
ST063	56	210	10.3	5.14	0.885	0.039
ST064	34	104	7.11	4.25	0.836	0.095
ST065	19	72	4.21	2.84	0.669	0.297
ST066	27	153	5.17	2.77	0.582	0.344
ST067	21	105	4.30	2.71	0.616	0.324
ST068	20	136	3.87	2.56	0.593	0.325
ST069	15	115	2.95	1.94	0.496	0.444
ST070	19	60	4.40	3.69	0.868	0.112
ST071	28	98	5.89	3.79	0.789	0.140
ST072	26	107	5.35	3.81	0.810	0.108
ST073	28	97	5.90	3.90	0.811	0.103
ST074	27	94	5.72	3.68	0.773	0.138
ST075	30	172	5.63	3.62	0.738	0.129
ST076	17	65	3.83	3.20	0.783	0.165
ST077	13	48	3.10	2.92	0.789	0.190
ST078	28	57	6.68	4.38	0.911	0.065
ST079	23	77	5.06	3.99	0.883	0.080
ST080	46	137	9.15	4.95	0.897	0.044
ST081	42	117	8.61	4.69	0.869	0.072
ST082	16	66	3.58	2.45	0.613	0.380
ST083	20	119	3.98	2.76	0.638	0.270
ST084	34	146	6.62	3.12	0.614	0.316
ST085	14	111	2.76	2.40	0.631	0.283
ST086	13	89	2.67	1.90	0.515	0.472
ST087	25	112	5.09	3.33	0.718	0.214
ST088	27	92	5.75	3.81	0.802	0.139
ST089	26	100	5.43	3.74	0.796	0.136
ST090	22	67	4.99	3.64	0.817	0.123
ST091	38	214	6.90	3.86	0.736	0.148
ST092	34	146	6.62	3.86	0.758	0.134
ST093	49	148	9.61	4.33	0.771	0.108
ST094	43	104	9.04	4.96	0.914	0.047
ST095	62	295	10.7	4.94	0.830	0.053
ST096	62	218	11.3	5.19	0.872	0.045
ST098	13	55	2.99	2.39	0.645	0.358
ST099	22	110	4.47	3.18	0.712	0.230
ST100	18	114	3.59	2.34	0.561	0.381
ST101	12	117	2.31	1.32	0.368	0.651
ST102	20	91	4.21	3.23	0.747	0.176
ST103	17	80	3.65	2.24	0.547	0.434
ST104	23	87	4.93	3.65	0.807	0.139
ST105	31	97	6.56	4.19	0.846	0.086
ST106	41	178	7.72	4.44	0.829	0.077
ST107	47	209	8.61	4.67	0.841	0.063



Station	Numbers		Richness	Diversity	Evenness	Dominance
	Taxa	Individuals	Margalef [d]	Shannon-Wiener [H'Log ₂]	Pielou [J']	Simpson [λ]
ST108	29	108	5.98	3.41	0.701	0.224
ST109	35	104	7.32	4.37	0.852	0.073
ST110	23	71	5.16	3.14	0.695	0.259
ST111	21	82	4.54	2.71	0.616	0.342
ST112	32	154	6.15	3.27	0.653	0.240
ST113	11	31	2.91	3.01	0.871	0.149
ST114	11	41	2.69	2.39	0.691	0.322
ST115	21	110	4.25	2.90	0.661	0.281
ST116	35	157	6.72	3.28	0.640	0.245
ST117	22	119	4.39	2.34	0.524	0.430
ST118	19	35	5.06	3.70	0.871	0.128
ST119	25	115	5.06	2.42	0.521	0.443
ST120	31	88	6.70	3.80	0.767	0.130
ST121	23	172	4.27	2.53	0.560	0.379
ST122	24	185	4.41	2.44	0.533	0.395
ST123	21	95	4.39	3.06	0.697	0.248
ST124	41	161	7.87	4.11	0.768	0.120
ST125	32	157	6.13	3.22	0.645	0.264
ST126	26	148	5.00	2.44	0.518	0.422
ST127	22	82	4.77	2.95	0.662	0.274
ST128	19	60	4.40	3.06	0.721	0.242
ST129	22	111	4.46	2.34	0.526	0.431
ST130	24	65	5.51	4.15	0.906	0.075
ST131	54	211	9.90	4.87	0.847	0.057
ST132	14	66	3.10	2.84	0.745	0.202
Export Cable Route						
ST133	40	94	8.58	4.22	0.792	0.113
ST134	31	123	6.23	3.95	0.797	0.099
ST135	27	75	6.02	3.83	0.806	0.112
ST136	39	149	7.59	4.10	0.775	0.129
ST137	25	82	5.45	3.95	0.851	0.098
ST138	15	72	3.27	2.48	0.635	0.345
ST139	34	112	6.99	4.29	0.844	0.075
ST140	28	98	5.89	3.48	0.724	0.178
ST141	13	37	3.32	3.24	0.875	0.135
ST142	27	90	5.78	3.62	0.762	0.175
ST143	33	111	6.79	4.11	0.815	0.111
ST144	24	54	5.77	4.08	0.890	0.082
ST145	27	47	6.75	4.45	0.937	0.057
ST146	25	57	5.94	4.33	0.932	0.061
ST147	27	90	5.78	4.07	0.855	0.083
ST148	36	198	6.62	3.87	0.748	0.154
ST149	39	182	7.30	3.83	0.725	0.169
ST150	32	69	7.32	4.21	0.841	0.113
ST151	33	102	6.92	4.29	0.851	0.086
ST152	23	74	5.11	3.64	0.804	0.126
ST153	28	75	6.25	3.75	0.780	0.156
ST154	28	52	6.83	4.39	0.914	0.066
ST155	17	62	3.88	3.35	0.820	0.133
ST156	12	42	2.94	2.94	0.820	0.173
ST157	20	52	4.81	3.79	0.878	0.100
ST158	19	54	4.51	3.75	0.882	0.096
ST159	22	75	4.86	3.78	0.847	0.099
ST160	25	57	5.94	4.25	0.916	0.066



Station	Numbers		Richness	Diversity	Evenness	Dominance
	Taxa	Individuals	Margalef [d]	Shannon-Wiener [H'Log ₂]	Pielou [J']	Simpson [λ]
ST161	66	266	11.6	4.86	0.804	0.082
ST162	37	94	7.92	4.08	0.784	0.142
ST163	42	116	8.63	4.73	0.878	0.061
ST164	30	75	6.72	4.00	0.815	0.127
ST165	52	224	9.42	4.66	0.818	0.081
ST167	7	11	2.50	2.40	0.856	0.256
ST168	17	212	2.99	1.67	0.408	0.525
ST169	27	56	6.46	4.31	0.906	0.071
ST170	29	68	6.64	4.11	0.846	0.106
ST171	13	47	3.12	3.13	0.845	0.151
ST172	18	60	4.15	3.28	0.786	0.163
ST173	18	83	3.85	3.25	0.780	0.150
ST174	24	67	5.47	3.82	0.832	0.116
ST175	25	96	5.26	3.82	0.823	0.108
ST176	23	58	5.42	4.10	0.906	0.076
ST177	24	391	3.85	1.70	0.371	0.539
ST178	19	46	4.70	3.79	0.892	0.095
ST179	17	55	3.99	3.56	0.872	0.109
ST180	30	84	6.55	4.37	0.891	0.075
Minimum	7	11	2.10	1.32	0.368	0.039
Maximum	66	391	11.6	5.19	0.942	0.651
Median	26	94	5.44	3.76	0.806	0.126
Mean	28	108	5.72	3.65	0.776	0.165
Standard Deviation	11	59	1.97	0.79	0.117	0.116



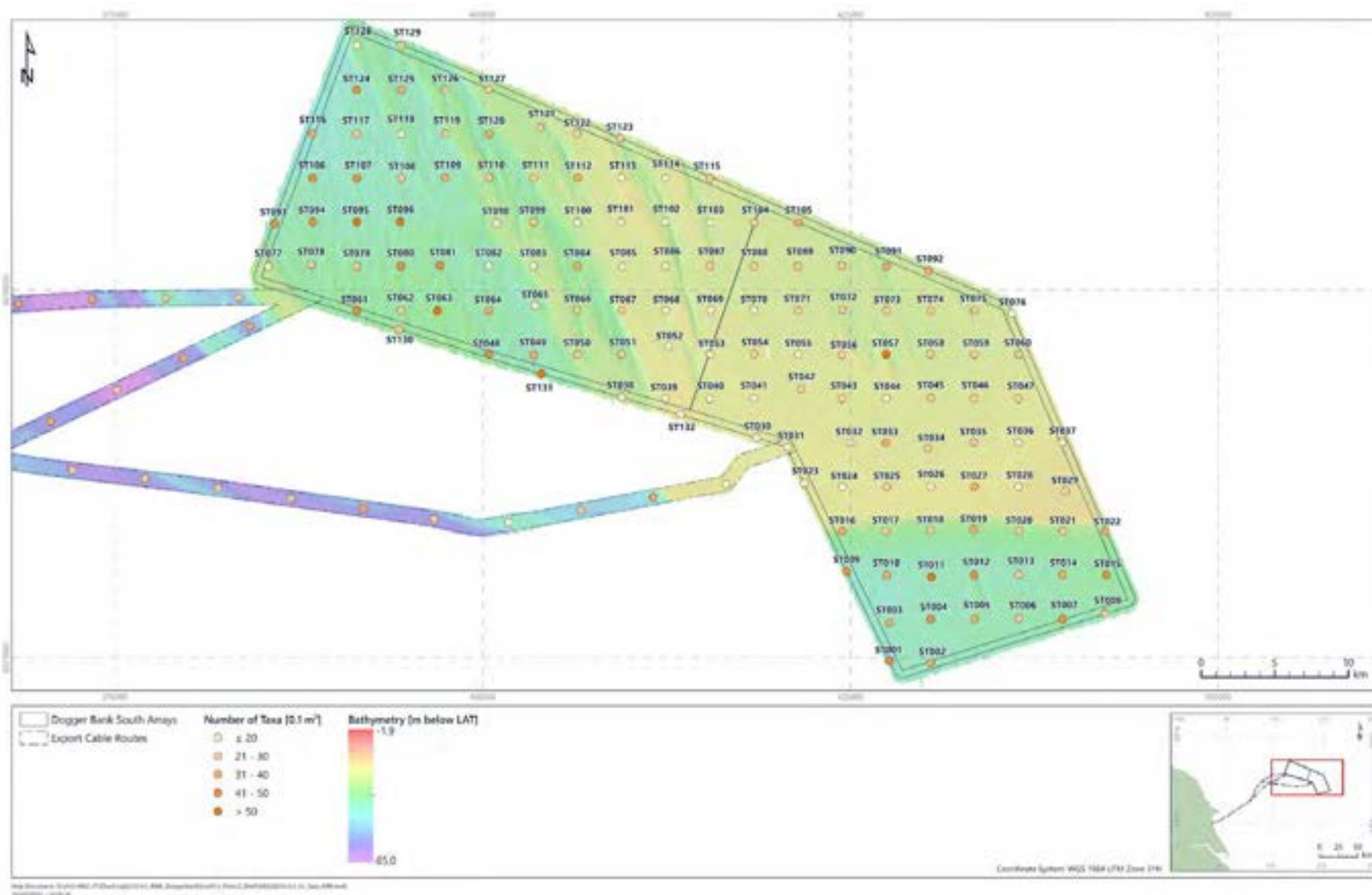


Figure 4.23: Spatial variations of the number of taxa (0.1m²), array, Dogger Bank South Site Investigation

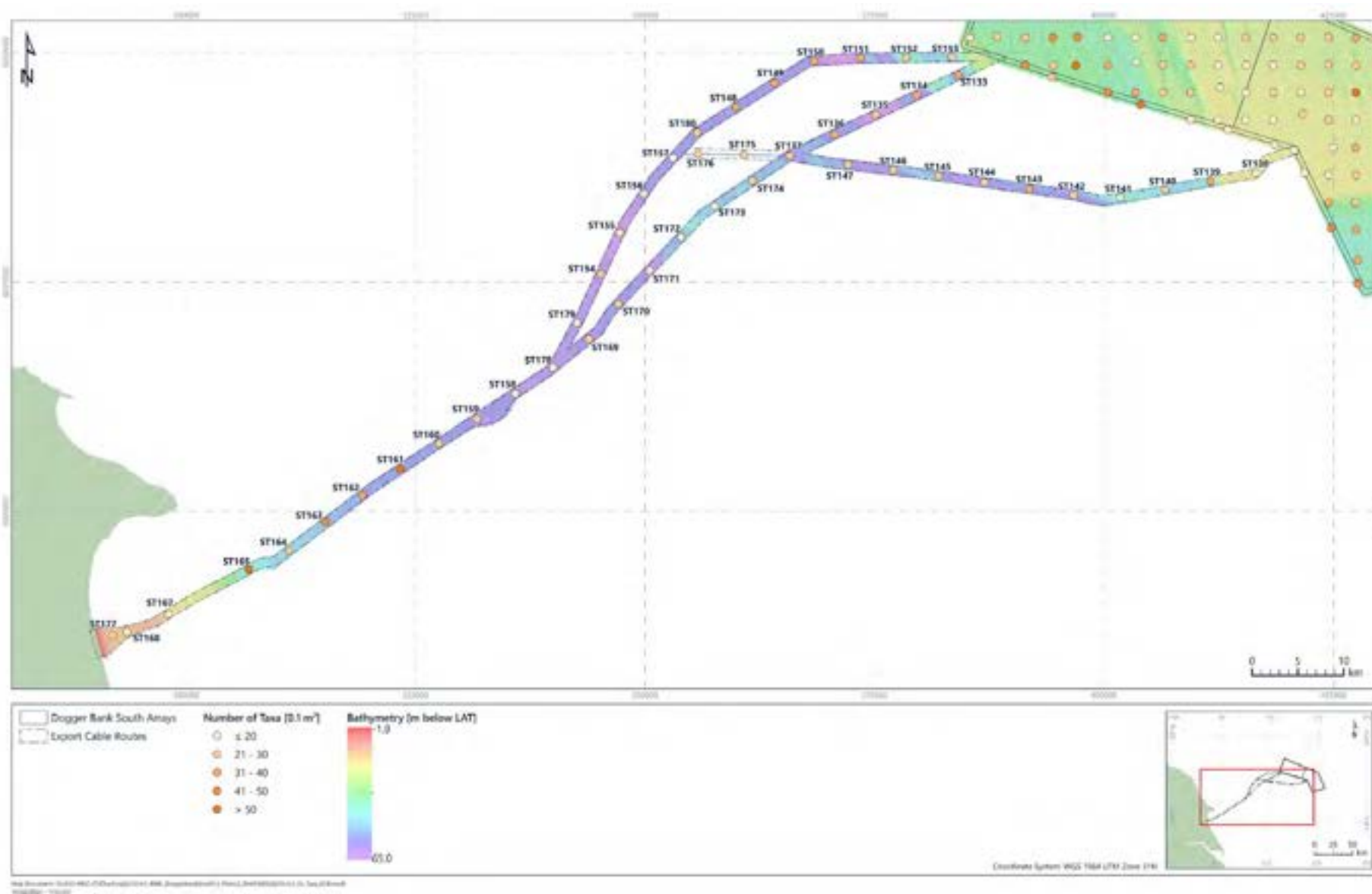


Figure 4.24: Spatial variations of the number of taxa (0.1m²), export cable route, Dogger Bank South Site Investigation

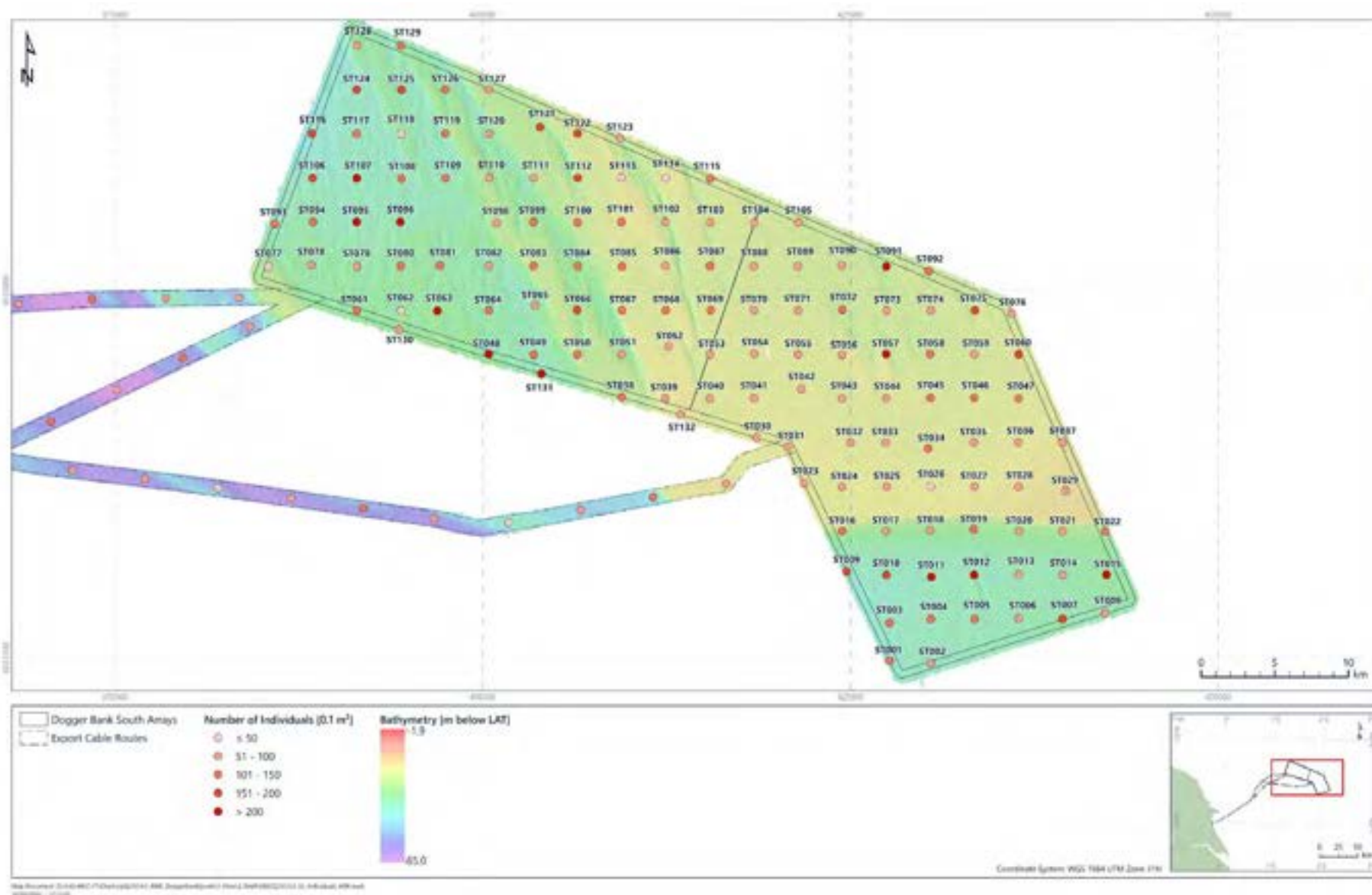


Figure 4.25: Spatial variations of the number of individuals (0.1m²), array, Dogger Bank South Site Investigation

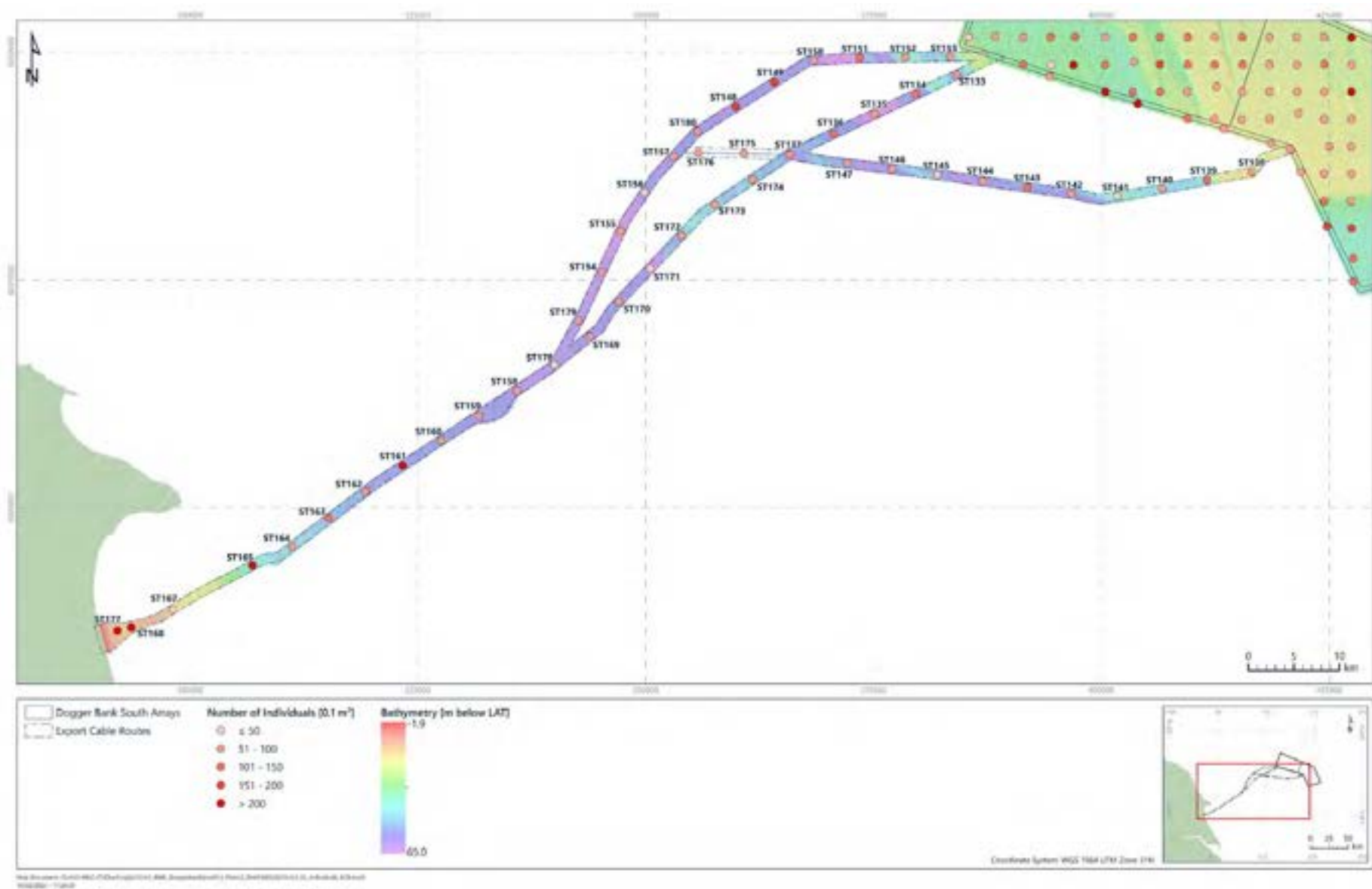


Figure 4.26: Spatial variations of the number of individuals (0.1m²), array, Dogger Bank South Site Investigation

4.4.1.3 Investigation of Faunal Similarities

The enumerated macrofaunal dataset was transformed prior to multivariate analysis. A fourth root transformation provided the best assessment, down weighting the numerically dominant species and allowing more detailed interrogation of less abundant taxa and the underlying community.

Faunal similarities were investigated using the hierarchical clustering analysis, results of which are in Figure 4.27. The SIMPROF test, undertaken in conjunction with the cluster analysis, was interpreted in ecological terms and, where appropriate, coarser groups were created (see Section 3.3.5).

Owing to a stress coefficient of 0.19, the nMDS was deemed not representative of the stations' two-dimensional ordination.

Eight groups of stations were identified at a similarity of 35 %, A to H, and three stations which were different enough to separate, namely stations ST113, ST135 and ST167.

The groups identified through the multivariate analysis were further assessed by means of the SIMPER analysis. Table 4.14 presents the top ten characterising taxa identified through the SIMPER analysis along with a summary of the physical variables characterising each multivariate group; the average abundance of the characterising taxa refers to untransformed data.

Group A comprised 11 stations from the array and had an average similarity of 47.9 %. Group A was characterised by very poorly sorted 'sandy gravel' (Folk BGS modified), with mean median sediment particle size of 3484 μm (granule), in mean water depth of 32.2 m (BSL). Group A had mean numbers of 51 taxa and 210 individuals, of which the polychaetes *Glycera lapidum*, *Aonides paucibranchiata*, *S. bombyx* agg., *Syllis garciai*, and species of the genera *Notomastus*, *Polycirrus* and *Terebellides* were amongst the characterising taxa, along with Nemertea, the echinoderm *Echinocyamus pusillus*, and the lancelet *Branchiostoma lanceolatum*. In addition, analysis of the species list indicated that two individuals of *Ammodytes tobianus* were recorded at stations ST080 and ST107, and one individual of *Callionymus* was recorded at station ST015.

Group B comprised five stations along the ECR and had an average similarity of 40.0 %. Group B was characterised by very poorly sorted 'muddy sandy gravel' (Folk BGS modified), with mean median sediment particle size of 1811 μm (very coarse sand), in mean water depth of 49.6 m (BSL). Group B had mean numbers of 46 taxa and 155 individuals, of which the polychaetes *Lumbrineris* cf. *cingulata*, *Mediomastus fragilis*, *Spiophanes kroyeri* agg., *Sabellaria spinulosa*, *G. lapidum*, *Glycinde nordmanni*, and species of *Polycirrus* were amongst the characterising taxa, along with amphipod *Ampelisca spinipes*, Nemertea, and *E. pusillus*.

Group C comprised two stations along the nearshore section of the ECR and had an average similarity of 48.2 %. Group C was characterised by poorly sorted 'muddy sand' (Folk BGS modified), with mean median sediment particle size of 145 μm (fine sand), in mean water

depth of 15.2 m (BSL). Group C had mean numbers of 21 taxa and 302 individuals, of which the bivalves *A. alba*, *N. nitidosa*, *Spisula subtruncata* and *Phaxas pellucidus* were the characterising taxa along with the amphipod *Harpinia antennaria* and the polychaetes *Lanice conchilega*, *Galathowenia oculata*, and species of *Leiochone*.

Group D comprised 29 stations, including 21 in the array and 8 along the ECR. Group D had an average similarity of 42.9 % and was characterised by poorly sorted 'muddy sand' (Folk BGS modified), with mean median sediment particle size of 317 µm (medium sand) in mean water depth of 37.2 m (BSL). Group D had mean numbers of 34 taxa and 119 individuals, of which the polychaetes *S. bombyx* agg., *Amphictene auricoma*, and *Pholoe baltica* were amongst the characterising taxa, along with the bivalves *A. alba*, *P. pellucidus*, *Kurtiella bidentata*, and *N. nitidosa*, the brittlestar *Amphiura filiformis*, and species of Nemertea and *Phoronis*.

Group E comprised 74 stations, including 72 from the array and 2 along the ECR. Group E had an average similarity of 47.2 % and was characterised by moderately well sorted 'sand' (Folk BGS modified), with mean median sediment particle size of 236 µm (fine sand), in mean water depth of 20.1 m (BSL). Group E had mean numbers of 22 taxa and 95 individuals, of which the polychaetes *S. bombyx* agg., *Nephtys cirrosa*, *Sigalion mathildae*, and species of *Owenia* were amongst the characterising taxa along with the amphipods *Bathyporeia guilliamsoniana* and *Bathyporeia elegans*, and the bivalves *Chamelea striatula*, *Fabulina fabula*, *Ensis ensis*, and *Macrura stultorum*. In addition, analysis of the species list indicated that 11 individuals of *A. tobianus* were recorded across 8 stations, one individual of *E. vipera* was recorded at station ST066 and one individual of *Callionymus* was recorded at station ST091.

Group F comprised 17 stations from the array and had an average similarity of 47.6 %. Group F was characterised by moderately sorted 'sand' (Folk BGS modified), with mean median sediment particle size of 411 µm (medium sand), in mean water depth of 31.2 % (BSL). Group F had mean numbers of 24 taxa and 93 individuals, of which the polychaetes *S. bombyx* agg., *N. cirrosa*, *Ophelia borealis*, and *Phyllodoce rosea* were amongst the characterising taxa, along with the amphipods *B. guilliamsoniana* and *B. elegans*, the cumacean *Diastylis rugosa*, the bivalve *A. prismatica*, the echinoderm *E. pusillus*, and Nemertea.

Group G comprised eight stations from the array and had an average similarity of 43.0 %. Group G was characterised by poorly sorted 'gravelly sand' (Folk BGS modified), with mean median sediment particle size of 944 µm (coarse sand), in mean water depth of 33.7 m (BSL). Group G had mean numbers of 41 taxa and 128 individuals, of which the polychaetes *S. bombyx* agg., *O. borealis*, *Scoloplos armiger*, *N. cirrosa*, and species of *Notomastus* were amongst the characterising taxa, along with Nemertea, the echinoderms *A. filiformis* and *E. pusillus*, the cumacean *D. rugosa*, and the bivalve *A. prismatica*.

Group H comprised 29 stations, including 1 from the array and 28 along the ECR. Group H had an average similarity of 41.9 % and was characterised by moderately well sorted 'sand' (Folk BGS modified), with mean median sediment particle size of 241 µm (fine sand) in mean

water of 54.4 m (BSL). Group H had mean numbers of 25 taxa and 77 individuals, of which the polychaetes *S. armiger*, *Sthenelais limicola*, and *O. borealis* were amongst the characterising taxa along with the bivalves *A. prismatica* and *F. fabula*, the gastropod *Hermania scabra/indistincta*, the amphipod *B. elegans*, and the echinoderms *A. filiformis* and *E. pusillus*.

Station ST113, in the array, was characterised by moderately sorted 'sand' (Folk BGS modified), with median sediment particle size of 348 µm (medium sand) in water depth of 14.8 m (BSL). Station ST113 had 11 taxa and 31 individuals, of which the polychaete *S. bombyx* agg., and the bivalves *S. elliptica* and *Macomangulus tenuis*, each with six individuals, were the most abundant.

Station ST135, along the ECR, was characterised by very poorly sorted 'sandy gravel' (Folk BGS modified) with median sediment particle size of 17 553 µm (coarse pebble), in water depth of 67.7 m (BSL). Station ST135 had 27 taxa and 75 individuals, of which the polychaetes *Paramphinome jeffreysii*, *S. armiger*, and *S. bombyx* agg., with abundances of 11 to 16 individuals, were the most abundant.

Station ST167, along the ECR, was characterised by very poorly sorted 'sandy gravel' (Folk BGS modified), with median sediment particle size of 17 016 µm (coarse pebble), in water depth of 20.5 m (BSL). Station ST135 had 7 taxa and 11 individuals, of which the bivalve *A. prismatica*, with 5 individuals was the most abundant.

Figures 4.28 and 4.29 illustrate the spatial distribution of the enumerated macrofaunal groups identified through the multivariate analysis.

4.4.1.4 Relationships Between Physical and Biological Variables

The combination of physical variables (percentages of sediment fractions and depth) that best explained the observed pattern of macrofaunal distribution included depth and percentages of coarse gravel, medium sand, fine sand, and very fine sand, as identified through the BIOENV analysis, which returned the highest value of rho of 0.700 at a significance level of 1 % for this combination of variables.

Figure 4.30 illustrates the relationships between sediment type and the macrofaunal groups identified through the multivariate analysis, highlighting an increase in enumerated faunal diversity ($H'Log_2$) with increased sediment coarseness and heterogeneity.

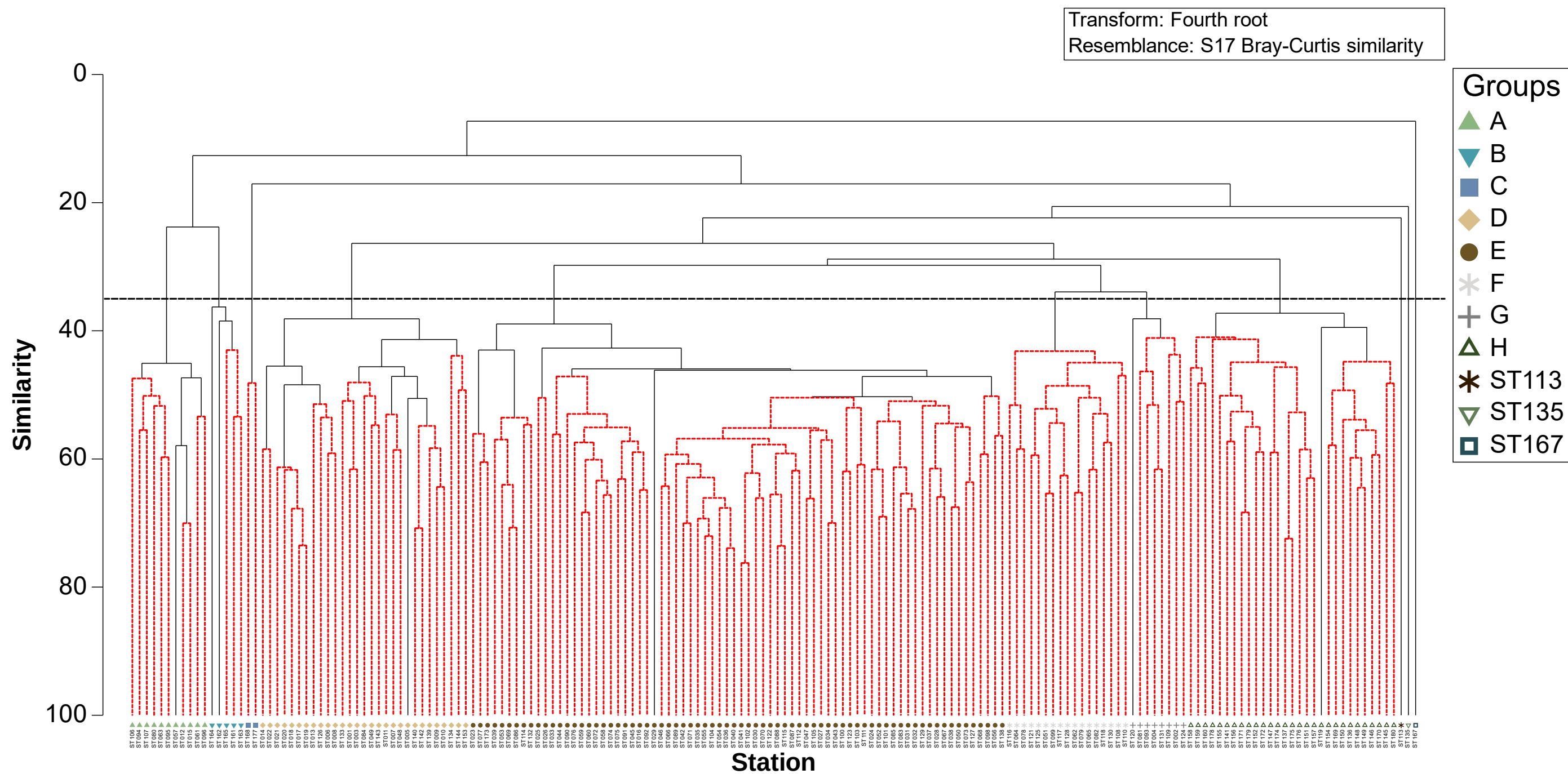


Figure 4.27: Dendrogram of hierarchical clustering analysis of enumerated fauna from the grab samples, Dogger Bank South Site Investigation

Table 4.14: Summary of attributes of multivariate groups of enumerated macrofauna from the grab samples, Dogger Bank South Site Investigation

Group	Location and Station	Characterising Features	Characterising Taxa	Abundance [N]	Frequency [%]	Contribution to Similarity [%]
A  Average similarity: 47.9 %	Array (ST012, ST015, ST057, ST061, ST063, ST080, ST094 to ST096, ST106, ST107)	Taxa: 51 Individuals: 210 Depth [m BSL]: 32.2 Gravel [%]: 53.52 Sand [%]: 43.51 Fines [%]: 2.98 Median [µm]: 3484 Sorting [µm]: 5.55	<i>Notomastus</i>	23	100	5.5
			<i>Glycera lapidum</i>	14	100	5.2
			Nemertea	70	100	4.8
			<i>Aonides paucibranchiata</i>	5.1	100	4.2
			<i>Polycirrus</i>	5.5	100	4.1
			<i>Branchiostoma lanceolatum</i>	3.5	100	3.8
			<i>Terebellides</i>	8.9	90.9	3.6
			<i>Spiophanes bombyx</i> agg.	9.4	90.9	3.5
			<i>Syllis garciai</i>	5.8	90.9	3.5
			<i>Echinocyamus pusillus</i>	5.7	90.9	3.3
B  Average similarity: 40.0 %	ECR (ST161 to ST165)	Taxa: 46 Individuals: 155 Depth [m BSL]: 49.9 Gravel [%]: 37.31 Sand [%]: 56.44 Fines [%]: 6.25 Median [µm]: 1811 Sorting [µm]: 6.12	<i>Lumbrineris cf. cingulata</i>	40	100	10.6
			<i>Mediomastus fragilis</i>	5.0	100	6.3
			<i>Spiophanes kroyeri</i> agg.	4.2	100	6.2
			Nemertea	3.6	100	5.7
			<i>Sabellaria spinulosa</i>	7.2	100	5.3
			<i>Polycirrus</i>	3.4	100	5.2
			<i>Ampelisca spinipes</i>	3.2	100	5.1
			<i>Echinocyamus pusillus</i>	2.8	80.0	3.8
			<i>Glycera lapidum</i>	3.0	80.0	3.5
			<i>Glycinde nordmanni</i>	2.2	80.0	3.1
C  Average similarity: 48.2 %	ECR (ST168, ST177)	Taxa: 21 Individuals: 302 Depth [m BSL]: 15.2 Gravel [%]: 0.08 Sand [%]: 89.68 Fines [%]: 10.25 Median [µm]: 145 Sorting [µm]: 2.16	<i>Abra alba</i>	216	100	26.2
			<i>Nucula nitidosa</i>	41	100	17.6
			<i>Lanice conchilega</i>	11	100	12.9
			<i>Galathowenia oculata</i>	7.0	100	10.6
			<i>Harpinia antennaria</i>	2.5	100	8.9
			<i>Spisula subtruncata</i>	2.0	100	8.9
			<i>Leiochone</i>	2.0	100	7.5
			<i>Phaxas pellucidus</i>	1.5	100	7.5
			<i>Abra alba</i>	216	100	26.2
			<i>Nucula nitidosa</i>	41	100	17.6
D  Average similarity: 42.9 %	Array (ST001, ST003, ST005 to ST011, ST013, ST014, ST017 to ST022, ST048, ST049, ST084, ST126) ECR (ST133, ST134, ST139, ST140, ST142 to ST144, ST153)	Taxa: 34 Individuals: 119 Depth [m BSL]: 37.2 Gravel [%]: 6.24 Sand [%]: 87.09 Fines [%]: 6.67 Median [µm]: 317 Sorting [µm]: 3.03	<i>Spiophanes bombyx</i> agg.	17	96.6	8.2
			<i>Amphiura filiformis</i>	17	86.2	7.2
			<i>Abra alba</i>	4.2	82.8	5.0
			<i>Phaxas pellucidus</i>	2.1	85.2	4.6
			Nemertea	2.4	82.8	4.3
			<i>Phoronis</i>	5.7	75.9	3.9
			<i>Amphictene auricoma</i>	4.3	75.9	3.6
			<i>Kurtiella bidentata</i>	3.9	72.4	3.6
			<i>Nucula nitidosa</i>	3.2	72.4	3.5
			<i>Pholoe baltica</i>	2.5	72.4	3.2
E  Average similarity: 47.2 %	Array (ST016, ST023 to ST047, ST050, ST052 to ST056, ST058 to ST060, ST066 to ST077, ST083, ST085 to ST092, ST098, ST100 to ST105, ST111, ST112, ST114, ST115, ST122, ST123, ST127, ST129, ST132) ECR (ST138, ST173)	Taxa: 22 Individuals: 95 Depth [m BSL]: 20.1 Gravel [%]: 1.50 Sand [%]: 98.39 Fines [%]: 0.11 Median [µm]: 236 Sorting [µm]: 1.58	<i>Spiophanes bombyx</i> agg.	35	100	17.5
			<i>Bathyporeia guilliamsoniana</i>	7.3	98.6	11.3
			<i>Bathyporeia elegans</i>	4.5	87.8	8.2
			<i>Owenia</i>	8.2	83.8	7.4
			<i>Chamelea striatula</i>	5.8	83.8	6.8
			<i>Nephtys cirrosa</i>	1.9	73.0	5.1
			<i>Fabulina fabula</i>	3.9	71.6	4.6
			<i>Ensis</i>	1.7	66.2	3.7
			<i>Sigalion mathildae</i>	1.1	63.5	3.1
			<i>Mactra stultorum</i>	1.5	56.8	2.8

Group	Location and Station	Characterising Features	Characterising Taxa	Abundance [N]	Frequency [%]	Contribution to Similarity [%]
F  Average similarity: 47.6 %	Array (ST051, ST062, ST064, ST065, ST079, ST079, ST082, ST099, ST108, ST110, ST116, ST117, ST118, ST121, ST125, ST128, ST130)	Taxa: 24 Individuals: 93 Depth [m BSL]: 31.2 Gravel [%]: 2.89 Sand [%]: 96.71 Fines [%]: 0.40 Median [µm]: 411 Sorting [µm]: 1.87	<i>Spiophanes bombyx</i> agg.	40	100	14.7
			<i>Nephtys cirrosa</i>	2.8	100	8.4
			<i>Bathyporeia guilliamsoniana</i>	4.4	94.1	8.0
			<i>Ophelia borealis</i>	3.9	94.1	7.9
			<i>Diastylis rugosa</i>	3.1	94.1	6.7
			<i>Phyllodoce rosea</i>	1.7	94.1	6.6
			<i>Abra prismatica</i>	2.4	88.2	6.3
			<i>Bathyporeia elegans</i>	2.7	82.4	5.4
			<i>Echinocyamus pusillus</i>	3.4	76.5	4.6
			Nemertea	2.0	76.5	4.2
G  Average similarity: 43.0 %	Array (ST002, ST004, ST081, ST093, ST109, ST120, ST124, ST131)	Taxa: 41 Individuals: 128 Depth [m BSL]: 33.7 Gravel [%]: 21.26 Sand [%]: 77.41 Fines [%]: 1.33 Median [µm]: 994 Sorting [µm]: 3.75	<i>Spiophanes bombyx</i> agg.	22	100	8.8
			<i>Ophelia borealis</i>	8.6	100	6.6
			Nemertea	5.0	100	6.5
			<i>Amphiura filiformis</i>	1.6	100	5.0
			<i>Scoloplos armiger</i>	2.3	100	5.0
			<i>Notomastus</i>	5.6	87.5	4.6
			<i>Diastylis rugosa</i>	12	75.0	4.5
			<i>Nephtys cirrosa</i>	1.1	87.5	3.7
			<i>Echinocyamus pusillus</i>	3.0	75.0	3.1
			<i>Abra prismatica</i>	1.9	75.0	2.8
H  Average similarity: 41.9 %	Array (ST119) ECR (ST136, ST137, ST141, ST145 to ST152, ST154 to ST160, ST169 to ST172, ST174 to ST176, ST178 to ST180)	Taxa: 25 Individuals: 77 Depth [m BSL]: 54.4 Gravel [%]: 0.39 Sand [%]: 96.98 Fines [%]: 2.64 Median [µm]: 241 Sorting [µm]: 1.48	<i>Spiophanes bombyx</i> agg.	19	100	14.0
			<i>Abra prismatica</i>	7.0	100	11.5
			<i>Scoloplos armiger</i>	3.9	93.1	8.4
			<i>Sthenelais limicola</i>	2.5	86.2	7.1
			<i>Bathyporeia elegans</i>	4.5	72.4	6.2
			<i>Amphiura filiformis</i>	3.1	69.0	4.8
			<i>Fabulina fabula</i>	1.8	69.0	3.9
			<i>Echinocyamus pusillus</i>	2.4	62.1	3.8
			<i>Hermania scabra/indistincta</i>	1.6	65.5	3.5
			<i>Ophelia borealis</i>	2.2	48.3	2.9
ST113 	Array (ST113)	Taxa: 11 Individuals: 31 Depth [m BSL]: 14.8 Gravel [%]: 0.56 Sand [%]: 99.4 Fines [%]: 0.00 Median [µm]: 348 Sorting [µm]: 1.64	<i>Spiophanes bombyx</i> agg.	6	-	-
			<i>Spisula elliptica</i>	6		
			<i>Macomangulus tenuis</i>	6		
			<i>Nephtys cirrosa</i>	5		
			<i>Paraonis fulgens</i>	2		
			<i>Ophelia borealis</i>	1		
			<i>Bathyporeia guilliamsoniana</i>	1		
			<i>Ensis magnus</i>	1		
			<i>Fabulina fabula</i>	1		
			<i>Chamelea striatula</i>	1		
ST135 	ECR (ST135)	Taxa: 27 Individuals: 75 Depth [m BSL]: 67.7 Gravel [%]: 67.16 Sand [%]: 29.68 Fines [%]: 3.17 Median [µm]: 17553 Sorting [µm]: 8.39	<i>Paramphinome jeffreysii</i>	16	-	-
			<i>Scoloplos armiger</i>	13		
			<i>Spiophanes bombyx</i> agg.	11		
			<i>Goniada maculata</i>	6		
			<i>Abra alba</i>	4		
			<i>Galathowenia oculata</i>	2		
			<i>Lagis koreni</i>	2		
			<i>Cerianthus lloydii</i>	2		
			<i>Pholoe baltica</i>	1		
			<i>Phyllodoce rosea</i>	1		

Group	Location and Station	Characterising Features	Characterising Taxa	Abundance [N]	Frequency [%]	Contribution to Similarity [%]
ST167 	ECR (ST167)	Taxa: 7	<i>Abra prismatica</i>	5	-	-
		Individuals: 11	<i>Scoelepis (Scoelepis) foliosa</i>	1		
		Depth [m BSL]: 20.5	<i>Chaetozone christiei</i>	1		
		Gravel [%]: 72.78	<i>Travisia forbesii</i>	1		
		Sand [%]: 26.58	<i>Sabellaria spinulosa</i>	1		
		Fines [%]: 0.63	<i>Centraloecetes kroyeranus</i>	1		
		Median [µm]: 17016	<i>Diastylis rugosa</i>	1		
		Sorting [µm]: 6.20				
Notes Values refer to mean of untransformed data within each multivariate group, except for single stations ST113, ST135 and ST167, which refers to total abundance Frequency refers to number of stations within each multivariate group Taxa listed are the top ten identified by the SIMPER analysis (70 % percentage contribution, except Group C where contribution is 100 %) Taxa listed in decreasing order of percentage contribution to similarity BSL = Mean Sea Level						

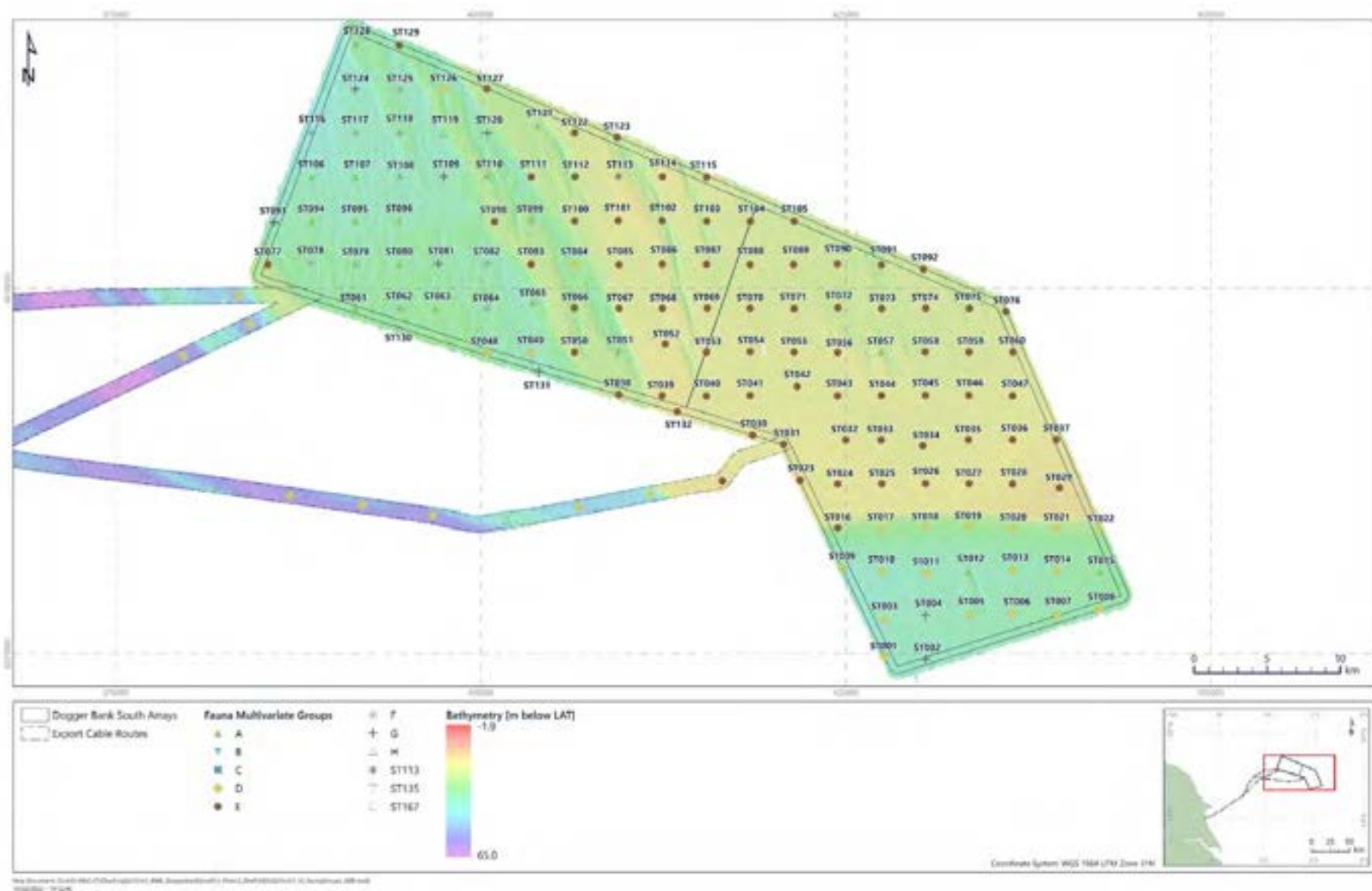


Figure 4.28: Spatial distribution of macrofaunal groups identified through the multivariate analysis, array, Dogger Bank South Site Investigation

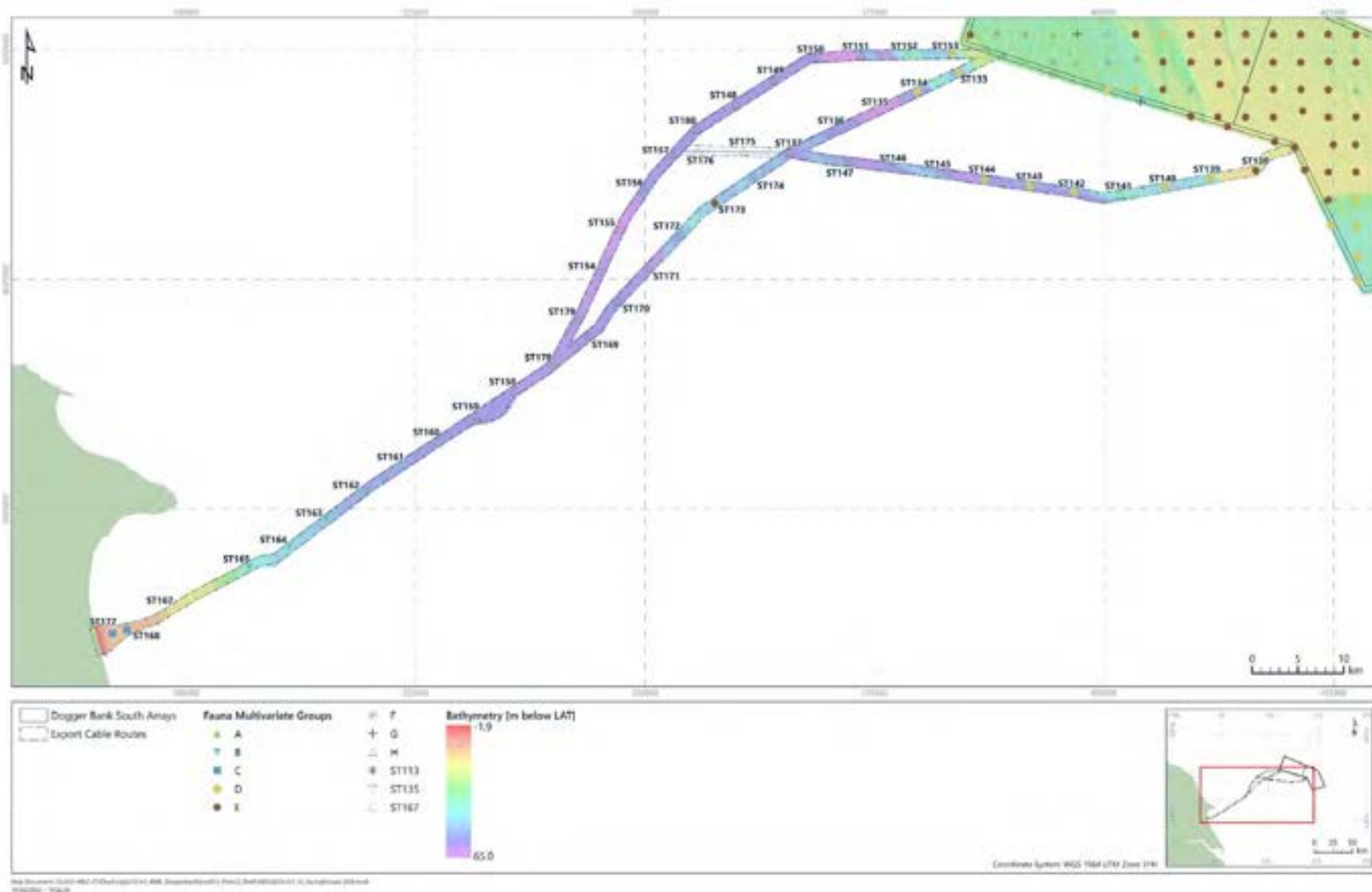
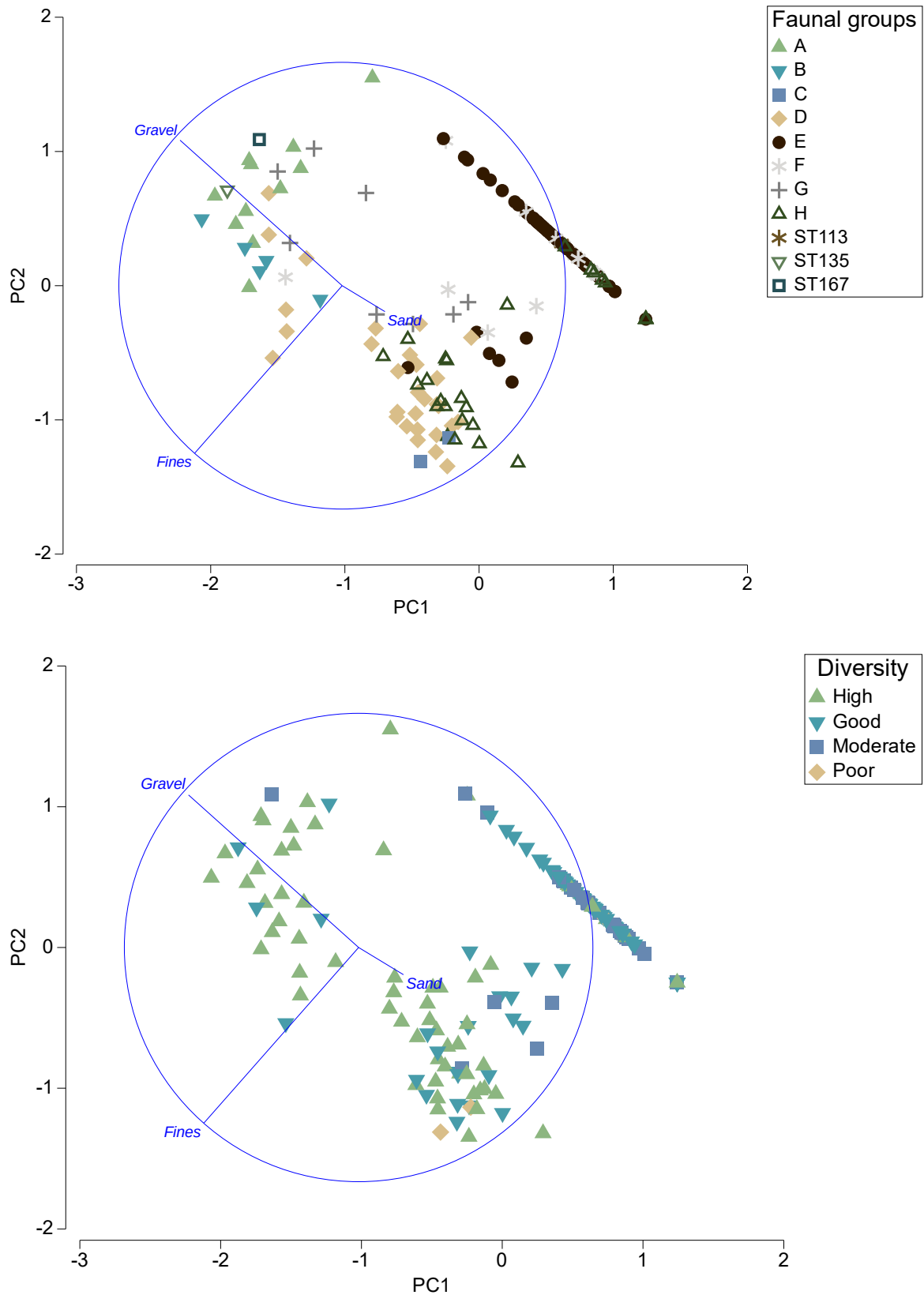


Figure 4.29: Spatial distribution of macrofaunal groups identified through the multivariate analysis, export cable route, Dogger Bank South Site Investigation



Notes

PC = Principal component

Figure 4.30: 2D PCA of sediment composition with superimposed macrofaunal (A) multivariate groups and (B) Shannon-Wiener [H'Log₂] index of diversity of enumerated macrofauna from the grab samples, Dogger Bank South Site Investigation

4.4.1.5 Biomass

Table 4.15 presents the percentage contribution of phyla to biomass across the DBS survey area. It is worth noting that the biomass of Arthropoda comprises only invertebrates of the subphylum Crustacea. The biomass of the Arthropoda subphylum Chelicerata is reported within the biomass of other phyla. Table 4.16 presents the biomass of major taxonomic groups at each station. Figures 4.31 and 4.32 illustrates the phyletic composition of the biomass at each station within the array and the ECR, respectively. Figures 4.33 and 4.34 illustrate the spatial variations of infaunal biomass across the DBS survey area and Figure 4.35 illustrates the association of the major faunal groups with sediment type. In general, echinoderms attained higher biomass in sandy sediments whereas molluscs attained higher biomass in more diverse and compact sediment.

Table 4.15: Taxonomic groups of macrofaunal biomass from the grab samples, Dogger Bank South Site Investigation

Phylum	Biomass [AFDW g/0.1 m ²]	Biomass [%]
Array		
Annelida	18.009	17.9
Arthropoda	10.341	10.3
Mollusca	28.736	28.6
Echinodermata	41.900	41.6
Other phyla	1.6191	1.6
Total	100.61	100
Notes Macrofaunal samples were processed through a 1 mm mesh sieve Other phyla included: Chelicerata, Chordata, Cnidaria, Hemichordata, Nemertea, Phoronida and Platyhelminthes Arthropoda comprises only invertebrates of the subphylum Crustacea		

Echinodermata comprised most of the macrofaunal abundance (41.6 %), followed by Mollusca (28.6 %), Annelida (17.9 %), and Arthropoda (10.3 %). Other phyla comprised 1.6 % of the macrofaunal biomass.

The total biomass ranged from 0.0296 AFDW g/0.1m² (station ST156 along the ECR) to 6.1339 AFDW g/0.1 m² (station ST011 in the array), with a mean of 0.5652 AFDW g/0.1m² and a median of 0.2506 AFDW g/0.1m².

The high value of biomass at station ST011 was associated with molluscs owing to their abundance as well as size of selected taxa. The biomass at station ST033 in the array, with the second highest value of 5.0459 AFDW g/0.1 m² was associated with annelids owing to their abundance (details in Section 4.4.1.1).

Table 4.16: Phyletic composition of macrofaunal biomass from the grab samples (0.1 m²), Dogger Bank South Site Investigation

Station	Biomass					
	Annelida	Arthropoda	Mollusca	Echinodermata	Other Phyla	Total
Array						
ST001	0.1114	0.0312	0.2990	0.0955	0.0019	0.5390
ST002	0.0291	0.0284	0.1815	0.0092	0.0051	0.2533
ST003	0.1196	0.0221	0.1749	0.0156	0.0030	0.3352
ST004	0.0747	0.0242	0.2393	0.6072	0.0222	0.9675
ST005	0.0607	0.0154	0.0967	0.0854	0.0030	0.2612
ST006	0.0676	0.0045	0.1265	0.0344	0.0022	0.2352
ST007	0.2518	0.1583	0.0418	0.0865	0.0132	0.5516
ST008	0.0281	0.0565	0.0638	0.2377	0.0054	0.3915
ST009	0.0467	0.0153	0.1599	0.6653	0.0185	0.9058
ST010	0.0361	0.0232	0.0733	1.5811	0.0177	1.7314
ST011	0.1770	0.0590	5.8112	0.0555	0.0311	6.1339
ST012	0.4197	0.0263	0.0008	0.0545	0.0209	0.5222
ST013	0.0078	0.0233	0.0930	0.0367	0.0002	0.1612
ST014	0.0464	0.0102	0.0320	0.0019	0.0002	0.0906
ST015	0.2232	0.0263	1.7603	0.0454	0.0176	2.0728
ST016	0.0675	0.0050	0.0275	1.5509	0.0034	1.6544
ST017	0.0840	0.0016	0.0574	0.7668	0.0029	0.9127
ST018	0.0497	0.0006	0.0578	0.0075	0.0020	0.1176
ST019	0.0825	0.0035	0.5079	1.0493	0.0047	1.6478
ST020	0.0731	0.0053	0.0260	0.8778	0.0011	0.9832
ST021	0.0343	0.0031	0.0403	0.3586	0.0034	0.4398
ST022	0.0831	0.0040	0.0817	0.0040	0.0011	0.1740
ST023	0.0371	0.0151	0.0077	0.0021	-	0.0619
ST024	0.0574	0.0057	0.0077	0.3378	-	0.4085
ST025	0.0632	0.0077	0.0822	0.0021	0.0002	0.1554
ST026	0.0461	0.0056	0.0101	0.1362	0.0018	0.1997
ST027	0.0804	0.0198	0.1403	0.3415	0.0001	0.5822
ST028	0.0518	0.0031	0.0069	0.0003	0.0005	0.0626
ST029	0.1011	0.0172	0.0449	0.0650	-	0.2281
ST030	0.0224	0.0170	0.0148	0.0373	0.0010	0.0926
ST031	0.0438	0.0109	0.0823	0.1698	-	0.3068
ST032	0.0794	0.0051	0.0043	0.0016	-	0.0903
ST033	4.1471	0.0076	0.1177	0.7735	-	5.0459
ST034	0.1136	0.0543	0.0358	0.0003	0.0035	0.2076
ST035	0.0486	0.9928	0.2018	0.0127	-	1.2559
ST036	0.0272	0.0045	0.1797	0.0000	-	0.2114
ST037	0.0208	0.0073	0.0141	0.2094	-	0.2514
ST038	0.0828	0.0027	0.0120	0.7727	-	0.8702
ST039	0.0802	0.0161	0.2841	0.0490	-	0.4293
ST040	0.0455	0.0864	0.0556	-	0.0001	0.1876
ST041	0.0148	0.0054	0.3755	1.3274	0.0002	1.7232
ST042	0.0484	0.0048	0.0120	0.5011	0.0002	0.5665
ST043	0.0512	1.4729	0.2323	0.0003	0.0004	1.7571
ST044	0.0380	0.0096	-	-	-	0.0476
ST045	0.0996	0.0064	0.0302	0.0751	0.0015	0.2128
ST046	0.0651	0.0043	0.0909	-	0.0010	0.1614
ST047	0.0683	0.0045	0.0444	0.2285	-	0.3456
ST048	0.1148	2.0216	0.0510	0.1208	0.0556	2.3639
ST049	0.1519	0.0073	0.0555	0.0192	0.0656	0.2995
ST050	0.0754	0.0100	0.0218	0.0037	0.0032	0.1140
ST051	0.0901	0.0115	0.3113	0.0105	0.0272	0.4506
ST052	0.0682	0.0072	0.0213	1.7952	-	1.8919
ST053	0.0395	0.0097	0.0378	0.0070	-	0.0941
ST054	0.0597	0.0074	0.0207	0.0000	-	0.0878



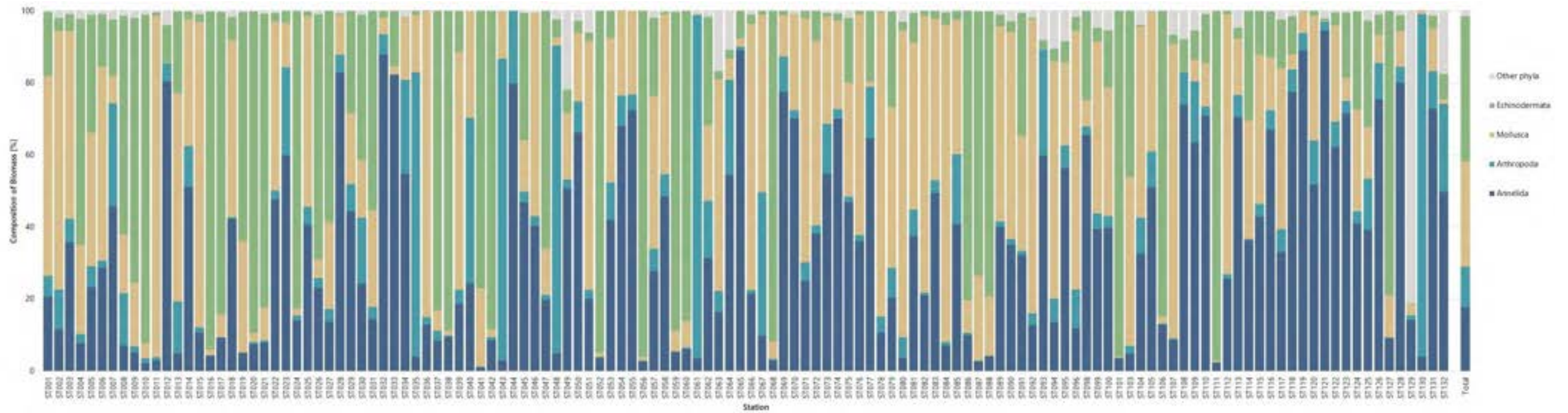
Station	Biomass					
	Annelida	Arthropoda	Mollusca	Echinodermata	Other Phyla	Total
ST055	0.0727	0.0043	0.0234	-	-	0.1004
ST056	0.0528	0.0051	0.0227	1.9613	0.0011	2.0429
ST057	0.1653	0.0369	0.2520	0.1299	0.0116	0.5957
ST058	0.0665	0.0086	0.0612	0.0007	0.0005	0.1375
ST059	0.0760	0.0025	0.0821	1.2624	0.0046	1.4275
ST060	0.2034	0.0162	0.2507	2.9016	0.0020	3.3738
ST061	0.0708	1.9771	0.0028	0.0015	0.0202	2.0725
ST062	0.0144	0.0072	0.0096	0.0138	0.0007	0.0457
ST063	0.0950	0.0349	0.3447	0.0124	0.0985	0.5855
ST064	0.0384	0.0186	0.0042	0.0016	0.0077	0.0705
ST065	0.2945	0.0036	0.0075	0.0253	-	0.3309
ST066	0.0517	0.0027	0.1788	0.0059	0.0027	0.2418
ST067	0.0542	0.2194	0.2725	0.0054	0.0001	0.5516
ST068	0.0699	0.0119	0.1225	2.2814	0.0006	2.4863
ST069	0.0831	0.0106	0.0124	0.0013	-	0.1073
ST070	0.0662	0.0022	0.0253	0.0000	0.0007	0.0945
ST071	0.0665	0.0134	0.1793	0.0055	0.0002	0.2649
ST072	0.0425	0.0026	0.0570	0.0094	-	0.1115
ST073	0.0791	0.0202	0.0430	0.0014	0.0009	0.1445
ST074	0.0639	0.0026	0.0224	0.0017	0.0007	0.0914
ST075	0.1209	0.0039	0.0815	0.0464	0.0051	0.2579
ST076	0.0604	0.0029	0.1026	0.0014	0.0001	0.1674
ST077	0.0337	0.0074	0.0008	0.0102	-	0.0520
ST078	0.0583	0.0248	0.4653	0.0024	0.0005	0.5514
ST079	0.0186	0.0075	0.0406	0.0242	0.0001	0.0910
ST080	0.0817	0.1300	1.9210	0.0552	0.0681	2.2560
ST081	0.0952	0.0189	0.1183	0.0211	0.0014	0.2548
ST082	0.0600	0.0023	0.2208	0.0039	-	0.2870
ST083	0.0777	0.0054	0.0706	0.0034	-	0.1571
ST084	0.0552	0.0064	0.6833	0.0273	0.0033	0.7756
ST085	0.0341	0.0163	0.0314	0.0020	-	0.0838
ST086	0.0596	0.0051	0.0546	0.4887	-	0.6080
ST087	0.0456	0.0058	0.4310	1.3280	0.0033	1.8137
ST088	0.0856	0.0047	0.3452	1.6732	0.0047	2.1134
ST089	0.1036	0.0040	0.1407	0.0086	0.0026	0.2595
ST090	0.0404	0.0020	0.0665	0.0034	0.0034	0.1156
ST091	0.1356	0.0050	0.1352	0.1435	0.0026	0.4219
ST092	0.0771	0.0207	0.4971	0.0028	0.0122	0.6099
ST093	0.1525	0.0746	0.0006	0.0060	0.0208	0.2545
ST094	0.0529	0.0248	0.2555	0.0135	0.0408	0.3874
ST095	0.3992	0.0445	0.1649	0.0400	0.0604	0.7089
ST096	0.1492	0.1346	0.9045	0.0480	0.0209	1.2571
ST098	0.0793	0.0029	0.0090	0.0299	0.0001	0.1211
ST099	0.1541	0.0174	0.1869	0.0149	0.0183	0.3917
ST100	0.0387	0.0032	0.0349	0.0153	0.0054	0.0975
ST101	0.0842	0.0023	0.0070	2.3199	-	2.4135
ST102	0.0392	0.0165	0.3743	0.3676	0.0002	0.7979
ST103	0.0141	0.0043	0.0230	0.0002	0.0017	0.0434
ST104	0.0369	0.0071	0.0281	0.0001	0.0002	0.0723
ST105	0.2504	0.0041	0.0382	1.6528	0.0002	1.9457
ST106	0.2581	0.0143	2.4540	0.0786	0.1993	3.0043
ST107	0.1852	0.0227	0.0003	0.0229	0.0195	0.2506
ST108	0.0860	0.0227	0.0082	0.0110	0.0075	0.1354
ST109	0.1877	0.0067	0.0320	0.0360	0.0024	0.2648
ST110	0.0466	0.0040	0.0079	2.0099	0.0008	2.0692
ST111	0.1115	0.0056	0.3146	0.0039	-	0.4357



Station	Biomass					
	Annelida	Arthropoda	Mollusca	Echinodermata	Other Phyla	Total
ST112	0.1261	0.0111	0.0282	0.0052	0.0085	0.1791
ST113	0.0503	0.0007	0.0457	0.0422	-	0.1389
ST114	0.0471	0.0039	0.0456	0.0134	-	0.1100
ST115	0.0874	0.0072	0.0192	0.0168	0.0002	0.1307
ST116	0.0657	0.0129	0.0888	0.0270	0.0047	0.1991
ST117	0.0762	0.0060	0.0042	0.0104	0.0014	0.0983
ST118	0.0702	0.0038	0.0048	0.0001	-	0.0789
ST119	0.1061	0.0251	0.0713	0.0027	-	0.2052
ST120	0.2537	0.0064	0.0009	0.0014	0.0058	0.2683
ST121	0.1028	0.0117	0.0443	0.0058	0.0008	0.1655
ST122	0.1142	0.0055	0.0103	0.0288	0.0008	0.1596
ST123	0.0614	0.0052	0.0422	0.0407	0.0004	0.1498
ST124	0.0903	0.0326	0.0330	0.0679	0.0064	0.2302
ST125	0.0821	0.0110	0.0087	0.0060	0.0012	0.1089
ST126	0.0428	0.0020	0.0550	0.3754	0.0002	0.4754
ST127	0.0775	0.0042	0.0097	0.0042	0.0012	0.0969
ST128	0.0492	0.0043	0.0108	0.0012	0.2830	0.3484
ST129	0.0515	1.2367	0.0111	0.0010	-	1.3002
ST130	0.0649	0.0093	0.0105	0.0031	0.0013	0.0891
ST131	0.0812	0.0402	0.0019	0.0116	0.0286	0.1636
ST132	0.0741	0.0058	0.0355	0.0154	0.0009	0.1317
Export Cable Route						
ST133	0.0572	0.0095	0.3489	0.3113	0.0055	0.7325
ST134	0.0500	0.0258	0.0092	0.0111	0.0111	0.1073
ST135	0.1104	0.0367	0.2087	0.0014	-	0.3572
ST136	0.1080	0.0070	0.0241	0.0075	0.0117	0.1584
ST137	0.0962	0.0095	0.0511	0.0003	0.0031	0.1602
ST138	0.0540	0.0106	0.0923	1.1086	-	1.2655
ST139	0.0483	0.0113	0.0159	0.2726	0.0128	0.3608
ST140	0.0271	0.0023	0.2459	2.0298	0.0021	2.3071
ST141	0.0252	0.0060	0.0006	0.0014	-	0.0331
ST142	0.0398	0.0029	0.0829	0.7388	0.0006	0.8649
ST143	0.0294	0.0167	0.2546	0.0494	0.0248	0.3750
ST144	0.0188	0.0031	0.0326	0.0106	0.0043	0.0694
ST145	0.0740	0.0058	0.1092	0.6495	-	0.8385
ST146	0.0205	0.0045	0.0139	0.0645	0.0016	0.1050
ST147	0.0681	0.0097	0.0212	0.0027	0.0020	0.1036
ST148	0.1354	0.0044	0.0340	0.0690	0.0080	0.2507
ST149	0.1850	0.0076	0.0124	0.0332	0.0291	0.2672
ST150	0.0301	0.0070	0.0181	0.0059	0.0021	0.0633
ST151	0.0432	0.0128	0.3023	0.0254	0.0020	0.3856
ST152	0.0462	0.0072	0.0093	0.0025	0.0002	0.0654
ST153	0.0576	0.0199	0.0471	0.0296	-	0.1543
ST154	0.0335	0.0078	0.0272	0.2502	0.0027	0.3214
ST155	0.0228	0.0035	0.0037	0.0048	0.0018	0.0366
ST156	0.0100	0.0057	0.0060	0.0012	0.0067	0.0296
ST157	0.0337	0.0012	0.0236	0.0098	0.0009	0.0692
ST158	0.0359	0.0023	0.0021	0.0192	-	0.0594
ST159	0.0317	0.0085	0.0099	0.0166	< 0.0001	0.0666
ST160	0.0844	0.0106	0.0052	0.0020	-	0.1021
ST161	0.1626	0.0105	0.0693	0.0059	0.0061	0.2545
ST162	0.0573	0.0003	0.0032	0.0016	0.0932	0.1557
ST163	0.0642	0.0064	0.0247	0.0008	0.0031	0.0992
ST164	0.0388	0.0190	0.0168	0.0012	0.0011	0.0769
ST165	0.0965	0.0318	0.0127	0.0157	0.0049	0.1615
ST167	0.0263	0.0005	0.0035	-	-	0.0303



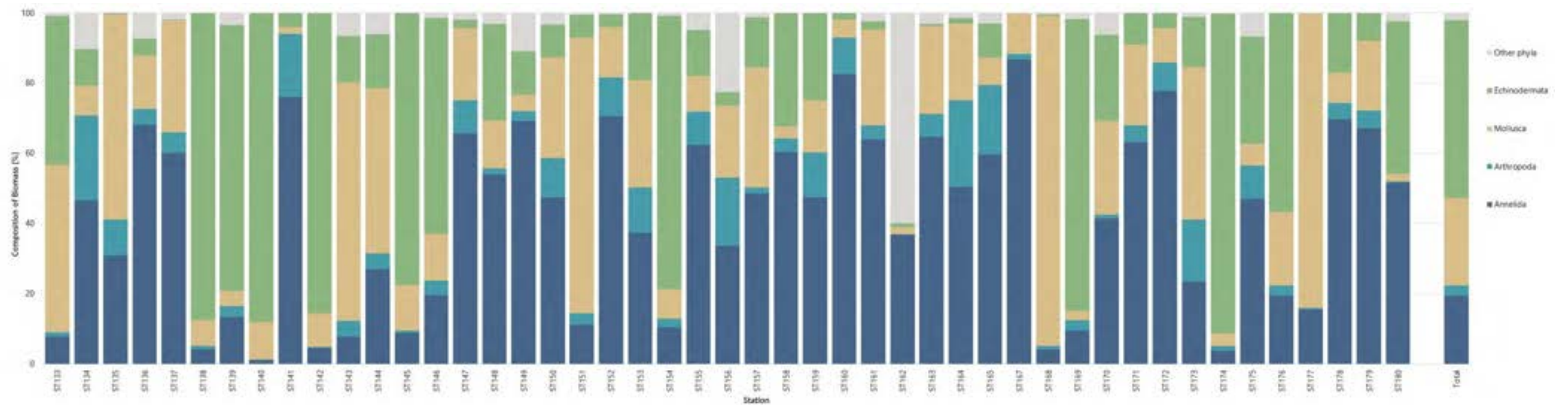
Station	Biomass					
	Annelida	Arthropoda	Mollusca	Echinodermata	Other Phyla	Total
ST168	0.0200	0.0058	0.4632	0.0021	0.0018	0.4929
ST169	0.0308	0.0096	0.0083	0.2684	0.0059	0.3231
ST170	0.0502	0.0013	0.0323	0.0295	0.0075	0.1208
ST171	0.0248	0.0019	0.0090	0.0036	-	0.0393
ST172	0.0521	0.0054	0.0065	0.0030	-	0.0669
ST173	0.0236	0.0177	0.0434	0.0144	0.0011	0.1002
ST174	0.0213	0.0070	0.0205	0.5041	0.0007	0.5536
ST175	0.0432	0.0086	0.0057	0.0280	0.0062	0.0917
ST176	0.0424	0.0067	0.0459	0.1239	-	0.2188
ST177	0.1062	0.0032	0.5757	-	0.0006	0.6856
ST178	0.0248	0.0016	0.0031	0.0060	-	0.0356
ST179	0.0352	0.0026	0.0104	0.0042	-	0.0524
ST180	0.1343	0.0010	0.0055	0.1126	0.0063	0.2597
Minimum	0.0078	0.0003	0.0003	0.0000	0.0000	0.0229
Maximum	4.1471	2.0216	5.8112	2.9016	0.2830	6.1027
Median	0.0641	0.0073	0.0406	0.0167	0.0027	0.2333
Mean	0.1012	0.0581	0.1624	0.2436	0.0122	0.5561
Standard deviation	0.3112	0.2630	0.5166	0.5315	0.0332	0.8464
Notes						
Biomass expressed as ash free dry weight [AFDW] g/0.1 m ² grab sample						



Notes

Biomass expressed as ash free dry weight in g/0.1 m² grab sample

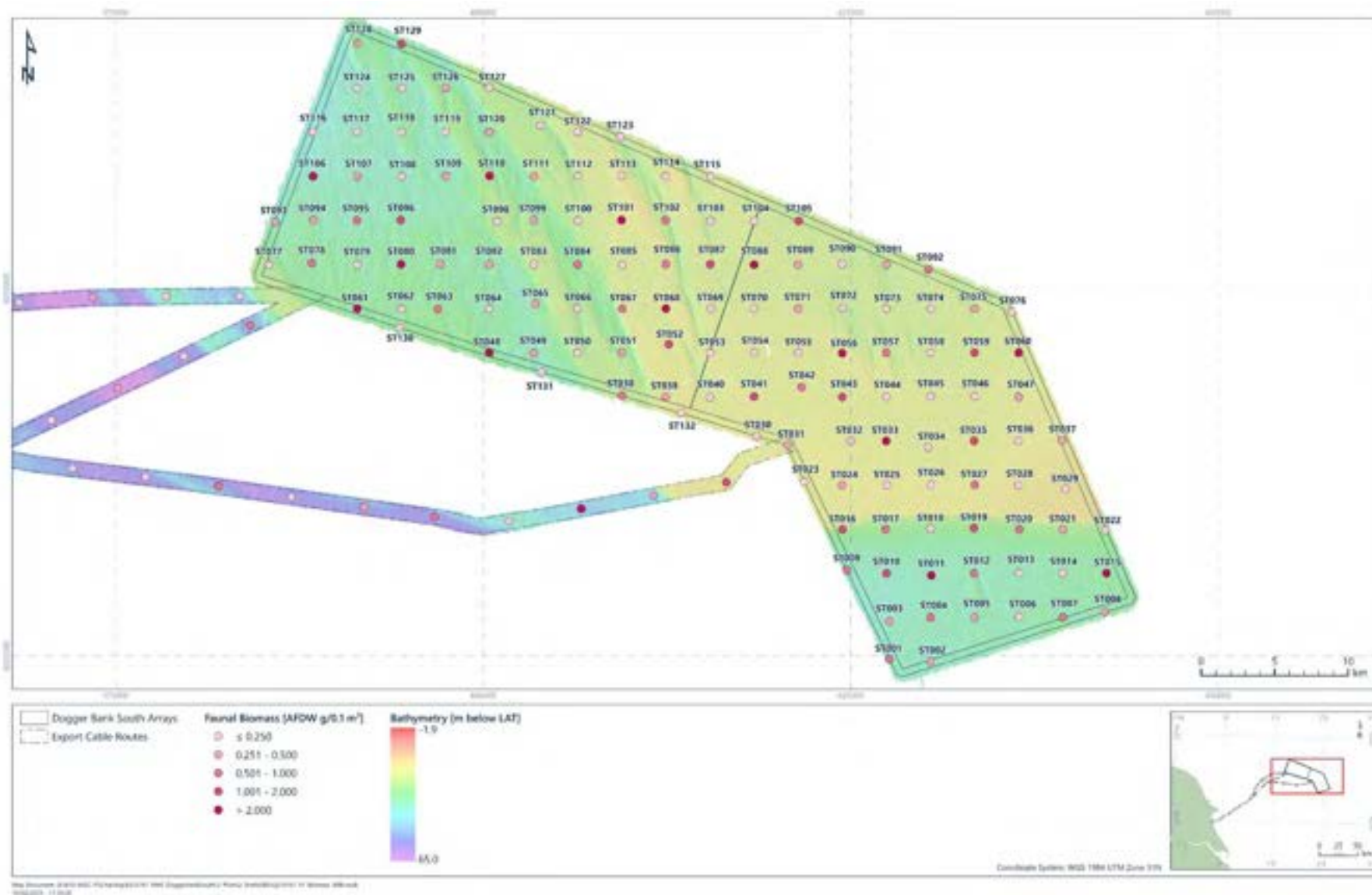
Figure 4.31: Phyletic composition of macrofaunal biomass from the grab samples, main array, Dogger Bank South Site Investigation



Notes

Biomass expressed as ash free dry weight in g/0.1 m² grab sample

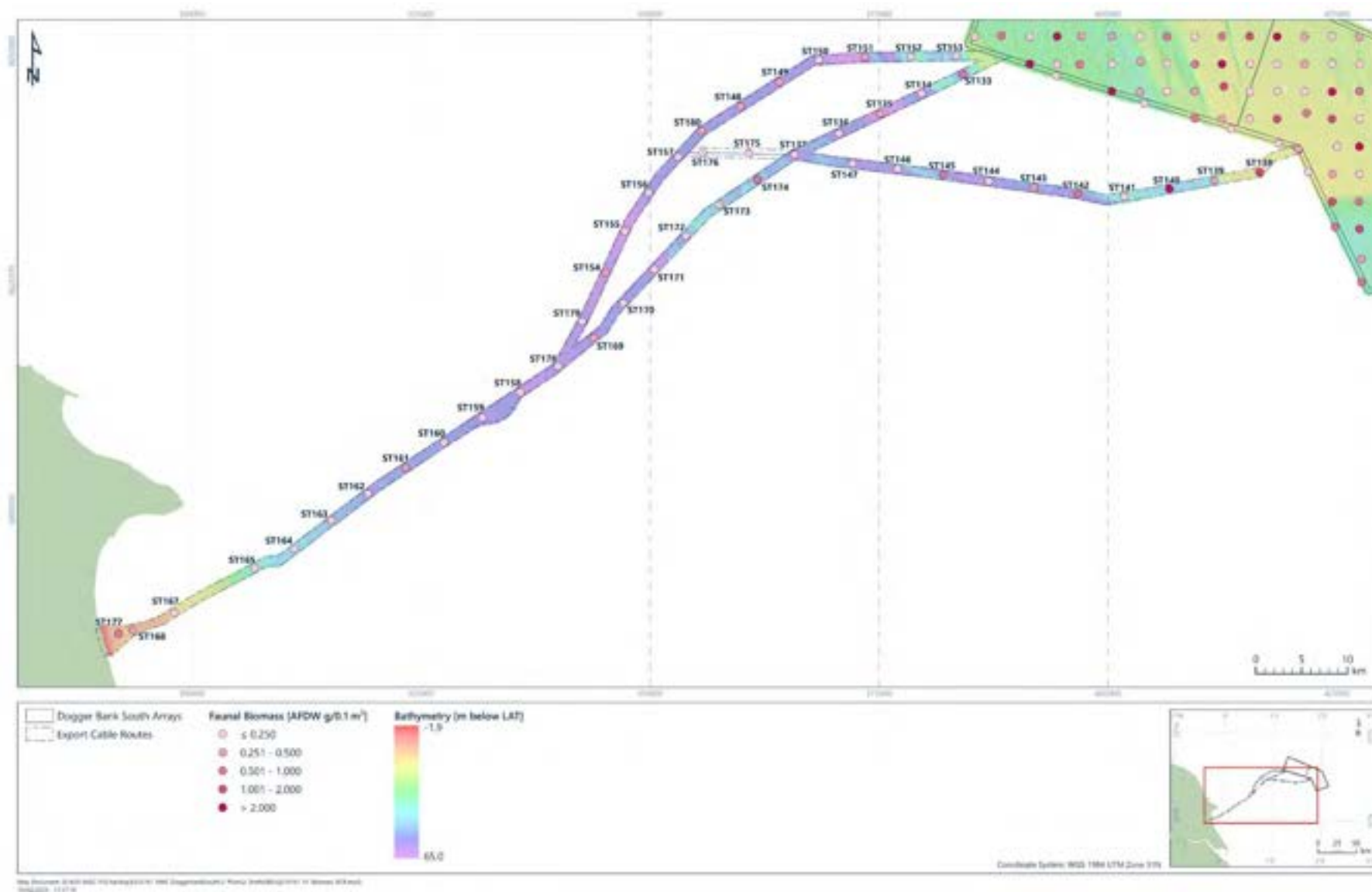
Figure 4.32: Phyletic composition of macrofaunal biomass from the grab samples, export cable route, Dogger Bank South Site Investigation



Notes

Biomass expressed as ash free dry weight [AFDW] in g/0.1 m² grab sample

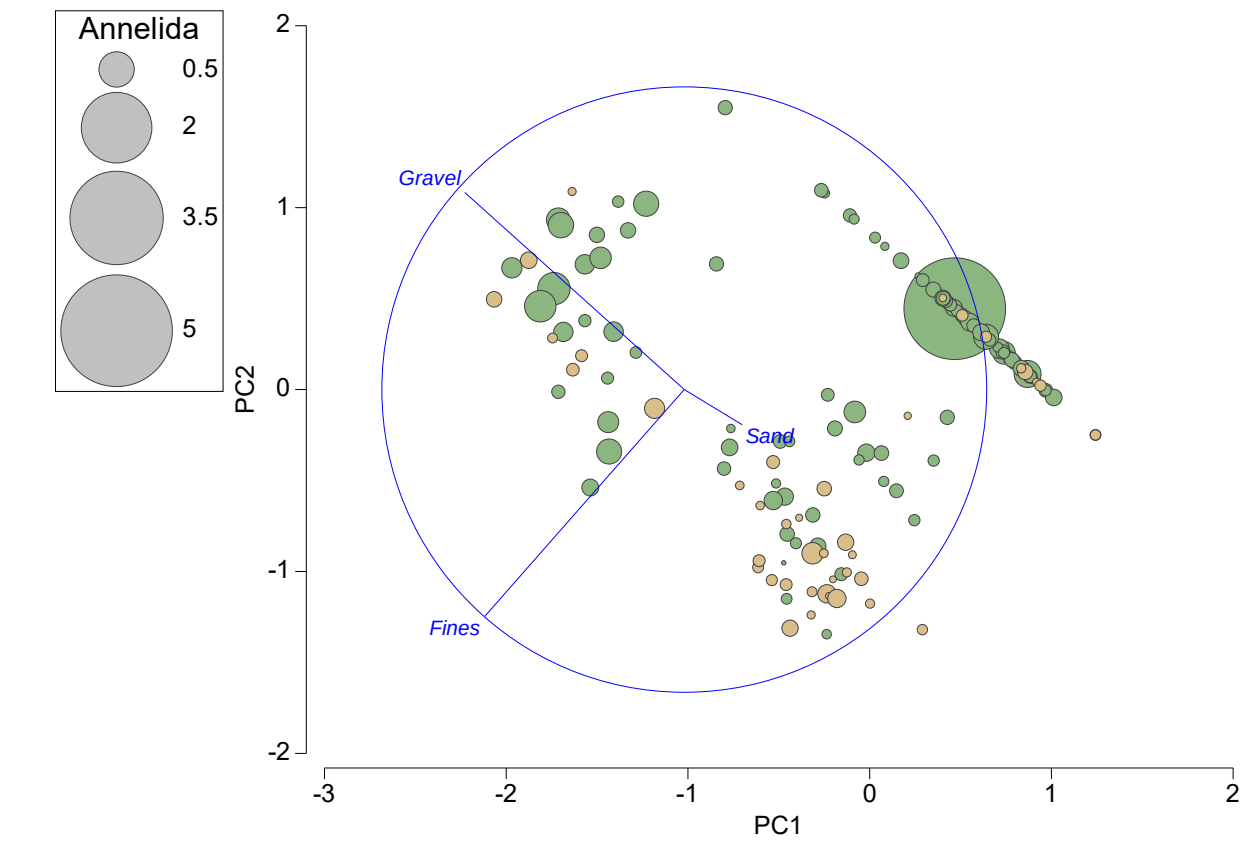
Figure 4.33: Spatial variations of total macrofaunal biomass from the grab samples, array, Dogger Bank South Site Investigation



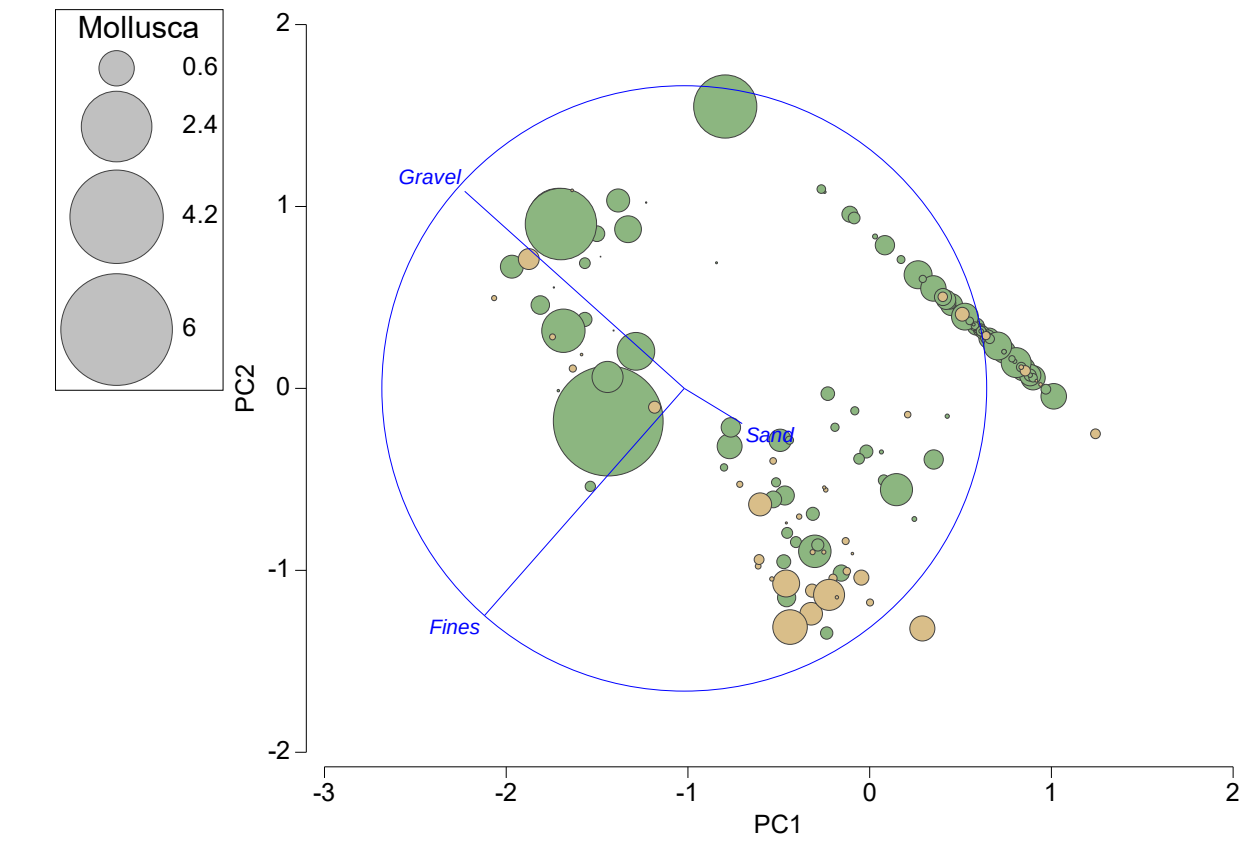
Notes

Biomass expressed as ash free dry weight [AFDW] in g/0.1 m² grab sample

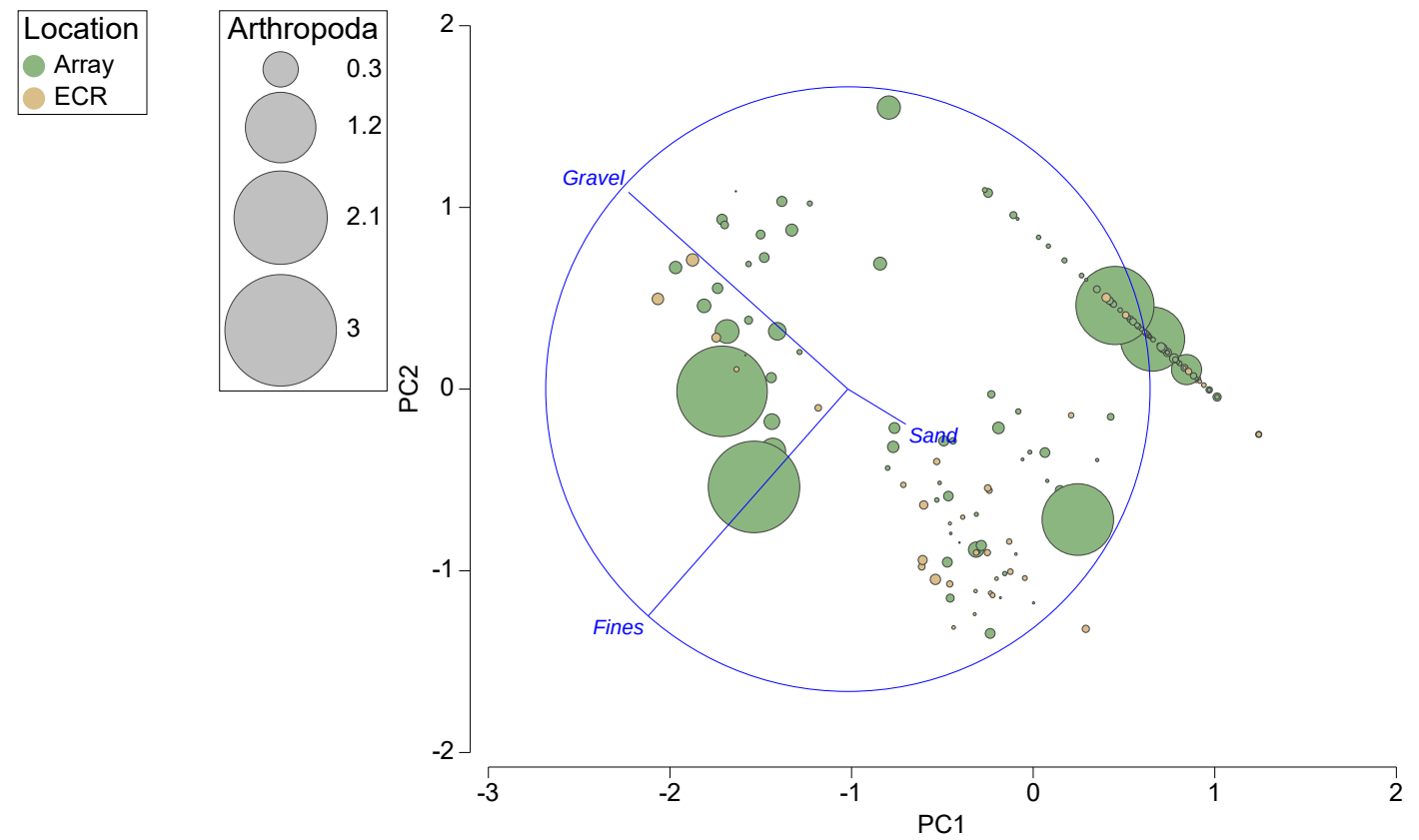
Figure 4.34: Spatial variations of total macrofaunal biomass from the grab samples, export cable route, Dogger Bank South Site Investigation



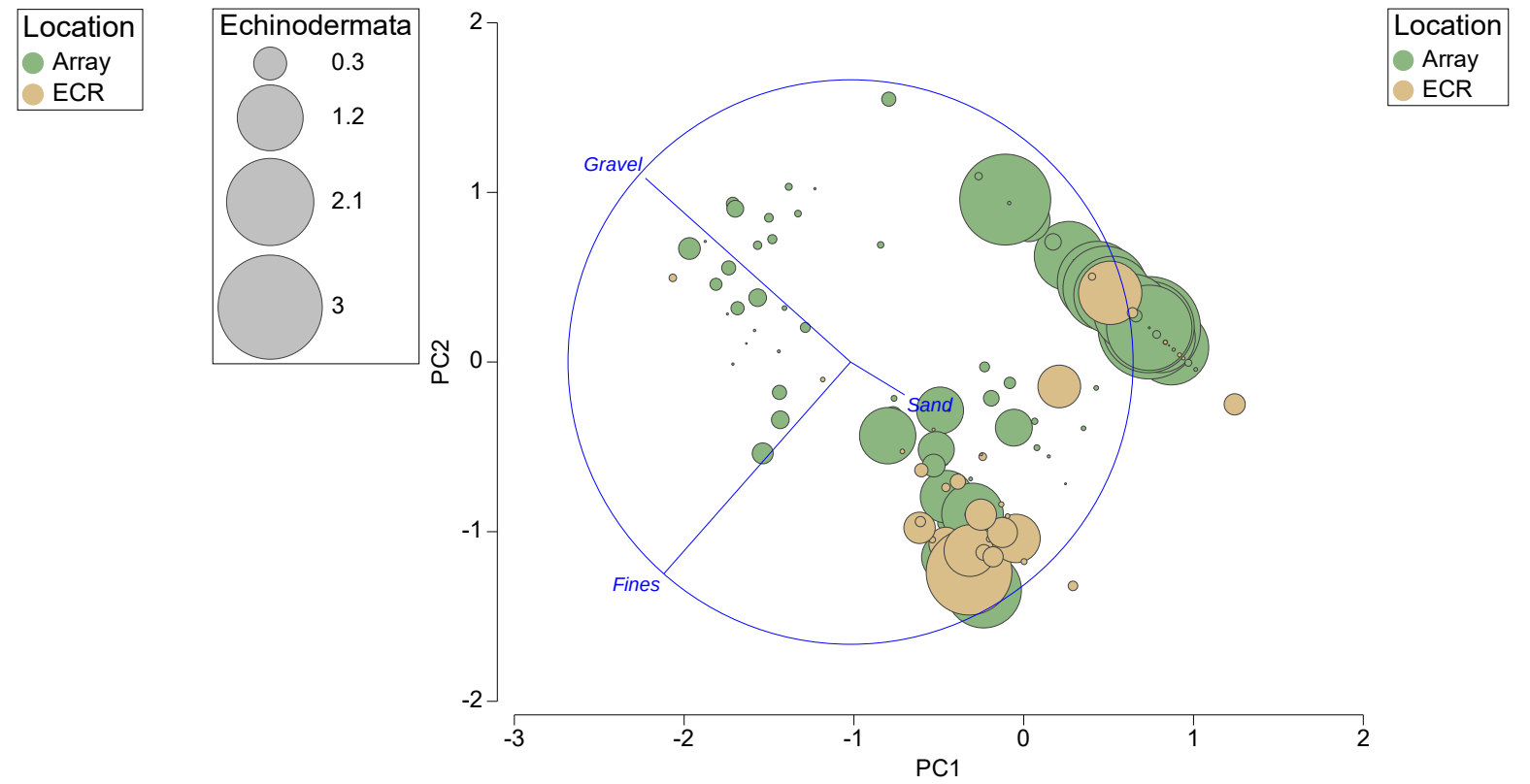
Notes
Circles proportional in diameter to the biomass ash free dry weight [AFDW] g/0.1 m² of Annelida ECR = Export cable route



Notes
Circles proportional in diameter to the biomass ash free dry weight [AFDW] g/0.1 m² of Mollusca ECR = Export cable route



Notes
Circles proportional in diameter to the biomass ash free dry weight [AFDW] g/0.1 m² of Arthropoda ECR = Export cable route



Notes
Circles proportional in diameter to the biomass ash free dry weight [AFDW] g/0.1 m² of Echinodermata ECR = Export cable route

Figure 4.35: 2D PCA of sediment composition with superimposed location and circles proportional in diameter to the abundance of major taxonomic groups of enumerated fauna from the grab samples, Dogger Bank South Site Investigation

4.4.2 Colonial Epifauna

Colonial epifauna was recorded at 116 of the 178 stations sampled by grab sampling.

4.4.2.1 Phyletic Composition

Table 4.17 presents the community structure of sessile colonial epifauna and Table 4.18 presents the top ten most frequently occurring colonial epifaunal taxa from the grab samples. Figure 4.36 illustrates the relationships between sediment type and the occurrence of colonial epifauna, highlighting generally higher number of colonial epifauna at stations with coarse and diverse sediment. Figures 4.37 and 4.38 illustrate the colonial epifaunal community structure at single stations in the array and along the ECR, respectively. Figures 4.39 and 4.40 illustrate the spatial variations of the number of epifaunal taxa in the array and along the ECR, respectively.

Table 4.17: Taxonomic groups of colonial epifauna from the grab samples, Dogger Bank South Site Investigation

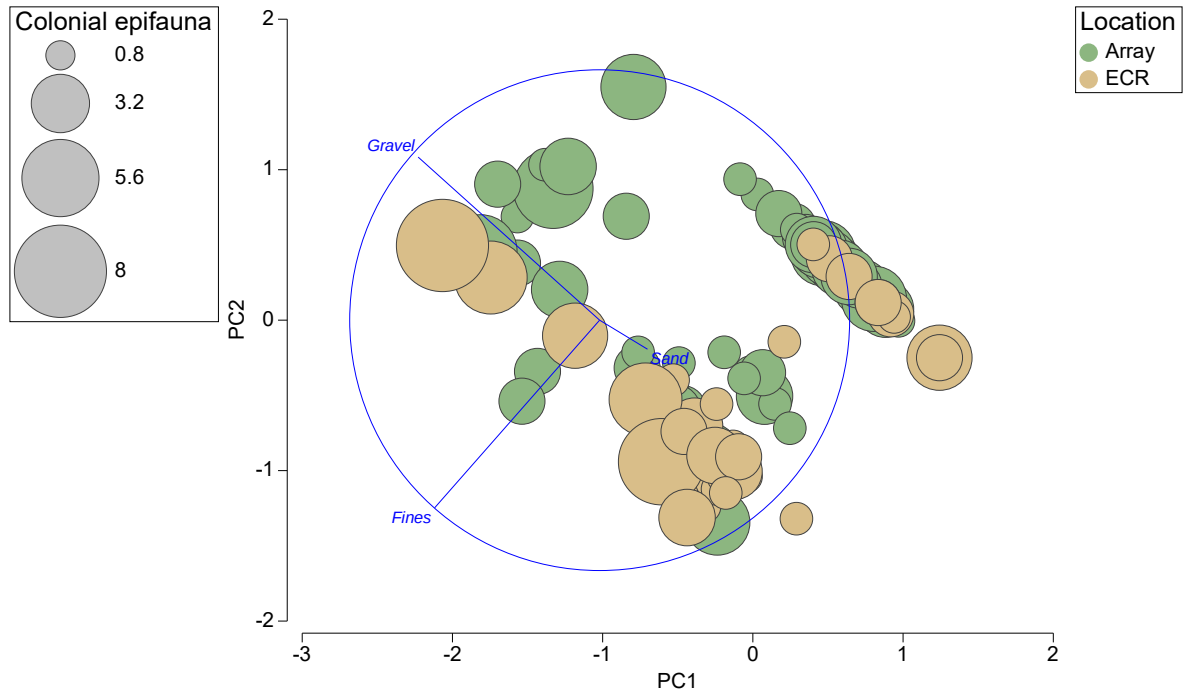
Taxonomic Group	Number of Taxa	Composition of Taxa [%]
Bryozoa	17	51.5
Cnidaria	12	36.4
Other phyla	4	12.1
Total	33	100
Notes Macrofaunal samples were processed through a 1 mm mesh sieve Other phyla include: Ciliophora, Entoprocta and Foraminifera		

Three main phyla of colonial epifauna were recorded across the DBS survey area; of these, Bryozoa comprised most of the taxa composition (54.5 %), followed by Cnidaria (36.4 %) and other phyla (12.1 %), the latter being represented by ciliates of the family Folliculinidae, Foraminifera (*Astrorhiza limicola*) and Entoprocta of the genera *Pedicellina* and *Barentsia*.

Table 4.18: Top ten most frequently occurring colonial epifaunal taxa from the grab samples, Dogger Bank South Site Investigation

Taxon	Frequency [%]
<i>Lovenella clausa</i>	39.9
Folliculinidae	33.1
<i>Clytia hemisphaerica</i>	29.2
Tubulariidae	19.7
<i>Electra pilosa</i>	9.6
Anthoathecata	9.0
<i>Alcyonidium parasiticum</i>	3.9
Scyphozoa	3.4
<i>Leuckartiara octona</i>	3.4
<i>Astrorhiza limicola</i>	2.8

The hydroid *Lovenella clausa* was the most frequently occurring, along with *Clytia hemisphaerica*, *Leuckartiara octona*, and species of the family Tubulariidae, and the order Anthoathecata, and the class Scyphozoa. Folliculinidae and the bryozoans *Electra pilosa* and *Alcyonidium parasiticum* were amongst the top ten most frequently occurring colonial epifauna.



Notes

PC = Principal component

Figure 4.36: 2D PCA of sediment composition with superimposed location and circles proportional in diameter to the number of colonial epifauna from the grab samples, Dogger Bank South Site Investigation

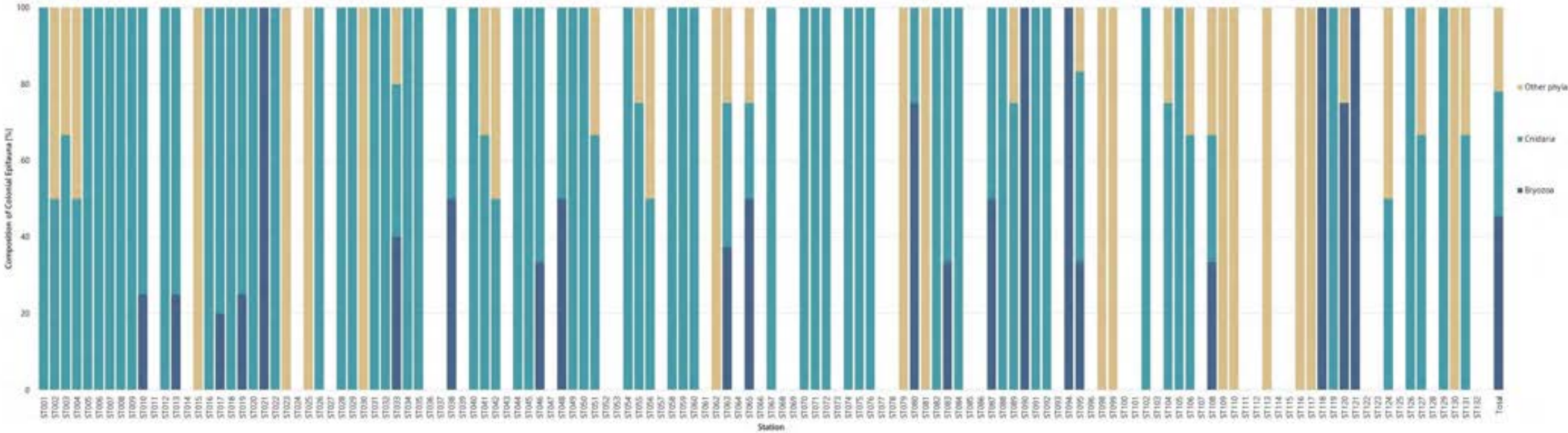


Figure 4.37: Phyletic composition of epifaunal taxa from the grab samples, array, Dogger Bank South Site Investigation

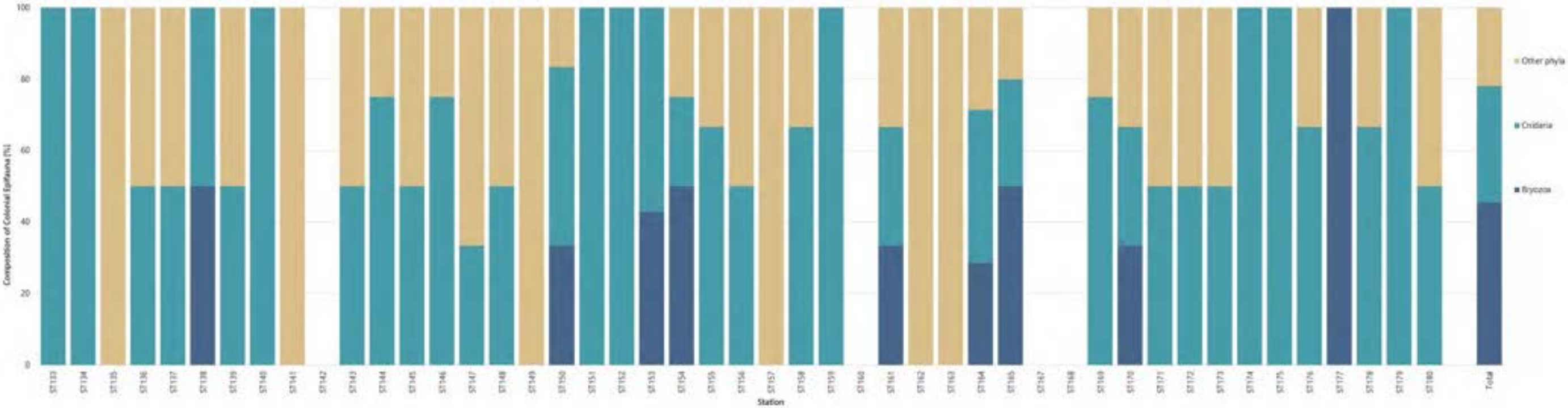


Figure 4.38: Phyletic composition of epifaunal taxa from the grab samples, export cable route, Dogger Bank South Site Investigation

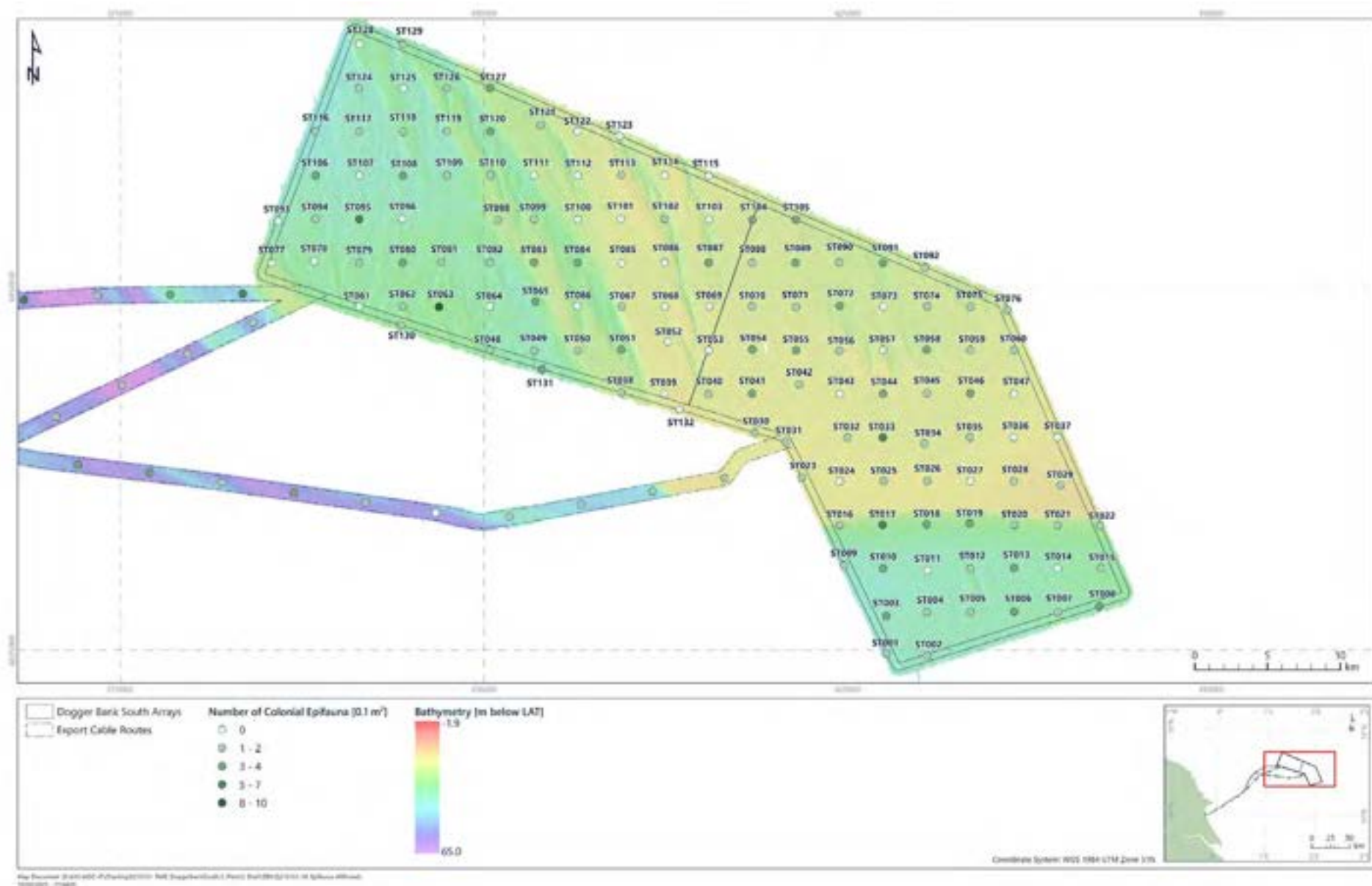


Figure 4.39: Spatial variations of colonial epifauna from the grab samples, array, Dogger Bank South Site Investigation

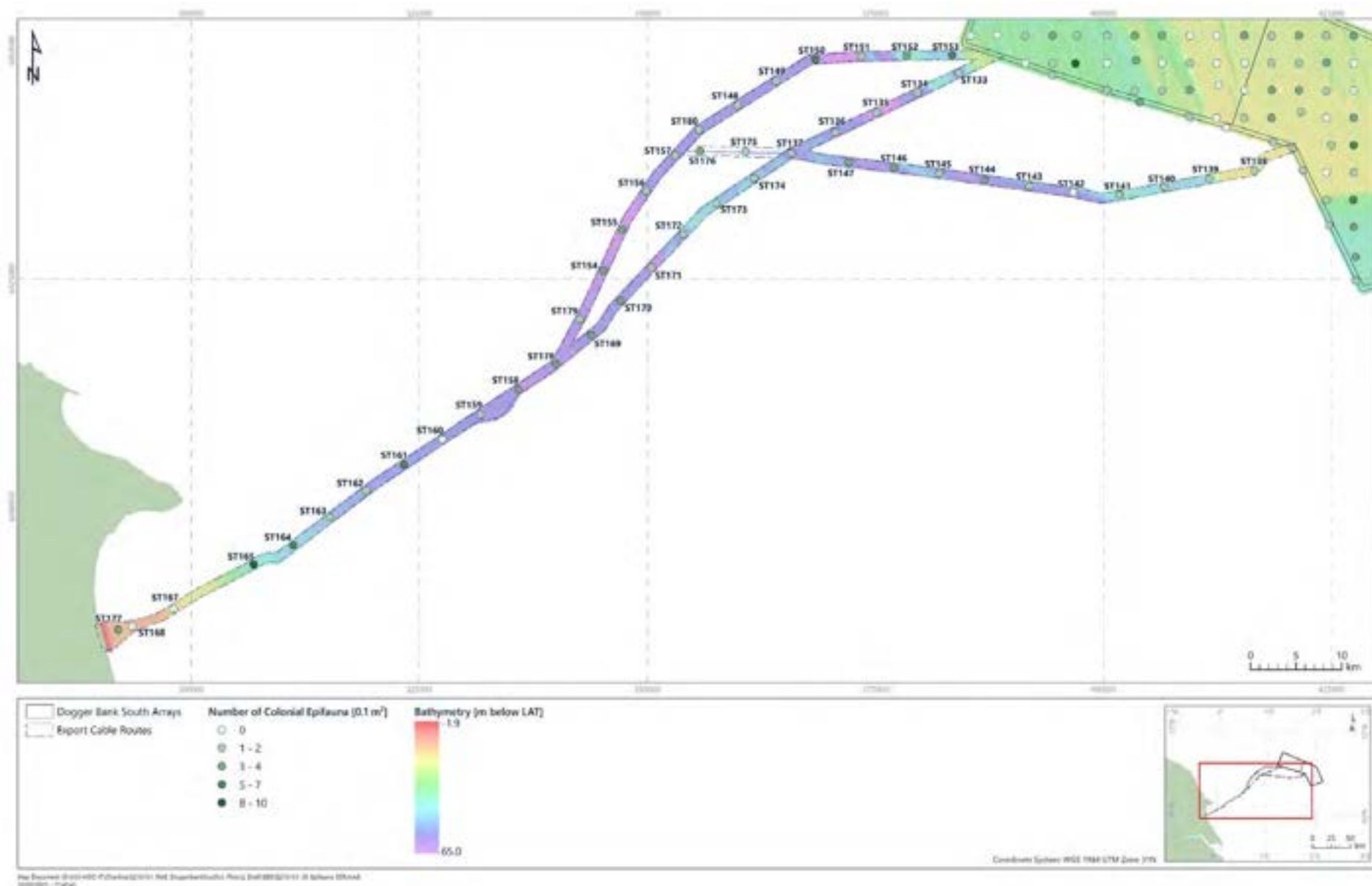


Figure 4.40: Spatial variations of colonial epifauna from the grab samples, export cable route, Dogger Bank South Site Investigation

4.4.3 Macrofaunal Communities from the 2 m Beam Trawl Samples

Macrofauna from the 2 m beam trawl samples was assessed in relation to the larger mobile epibenthic species, including fish and shellfish, as well as sessile solitary and colonial epifauna, the latter recorded as P and analysed separately from the enumerated fauna.

4.4.3.1 Phyletic Composition of Enumerated Macrofauna

Prior to analyses being undertaken, the dataset from the trawl samples was rationalised in the same way as that of the macrofauna from the grab samples. Specifically, infaunal species normally sampled through grab sampling were removed, whereas some of taxa were aggregated to a higher taxonomic level to avoid spurious enhancement of the species list. Juveniles were also removed from the analysis. Juveniles comprised 9 taxa and 46 individuals, of which fish of the genus *Dicentrarchus* and the family Triglidae, with 17 and 14 individuals, respectively, were the most abundant. Other juvenile fish included species of the genus *Callionymus* and the family Bothidae, each comprising one individual. The remaining juveniles included 4 molluscs of the genus *Sepiolo* and two of the family Anomiidae, three crabs of the genus *Liocarcinus* and four echinoderms. A full species list is presented in Appendix F.

Following rationalisation, the enumerated macrofaunal dataset from the trawl samples comprised 104 taxa and 20 350 individuals.

Table 4.19 summarises the phyletic composition of the enumerated macrofauna from the trawl samples. Figure 4.41 illustrates the phyletic composition of taxa and individuals of the enumerated fauna from the trawl samples.

Table 4.19: Taxonomic groups of enumerated fauna from the trawl samples, Dogger Bank South Site Investigation

Taxonomic group	Number of Taxa	Composition of Taxa [%]	Abundance	Composition of Individuals [%]
Arthropoda	41	39.4	9426	46.3
Mollusca	15	14.4	111	0.5
Echinodermata	15	14.4	6411	31.5
Chordata	30	28.8	4381	21.5
Other Phyla	3	2.9	21	0.1
Total	104	100	20350	100
Notes Other phyla included: Cnidaria and Foraminifera				

Arthropoda comprised most of the taxa composition from the trawl samples (39.4 %), followed by Chordata (28.8 %), whereas Mollusca and Echinodermata each comprised 14.4 % of the taxa composition. Other phyla comprised 2.9 % of the taxa composition and were represented by Foraminifera (*Astrorhiza limicola*) and Cnidaria (Scyphozoa and Actiniaria).

Arthropoda comprised also most of the enumerated macrofaunal abundance (46.3 %) followed by Echinodermata (31.5 %), Chordata (21.5 %) and Mollusca (0.5 %), whereas other phyla comprised 0.1 % of the abundance.

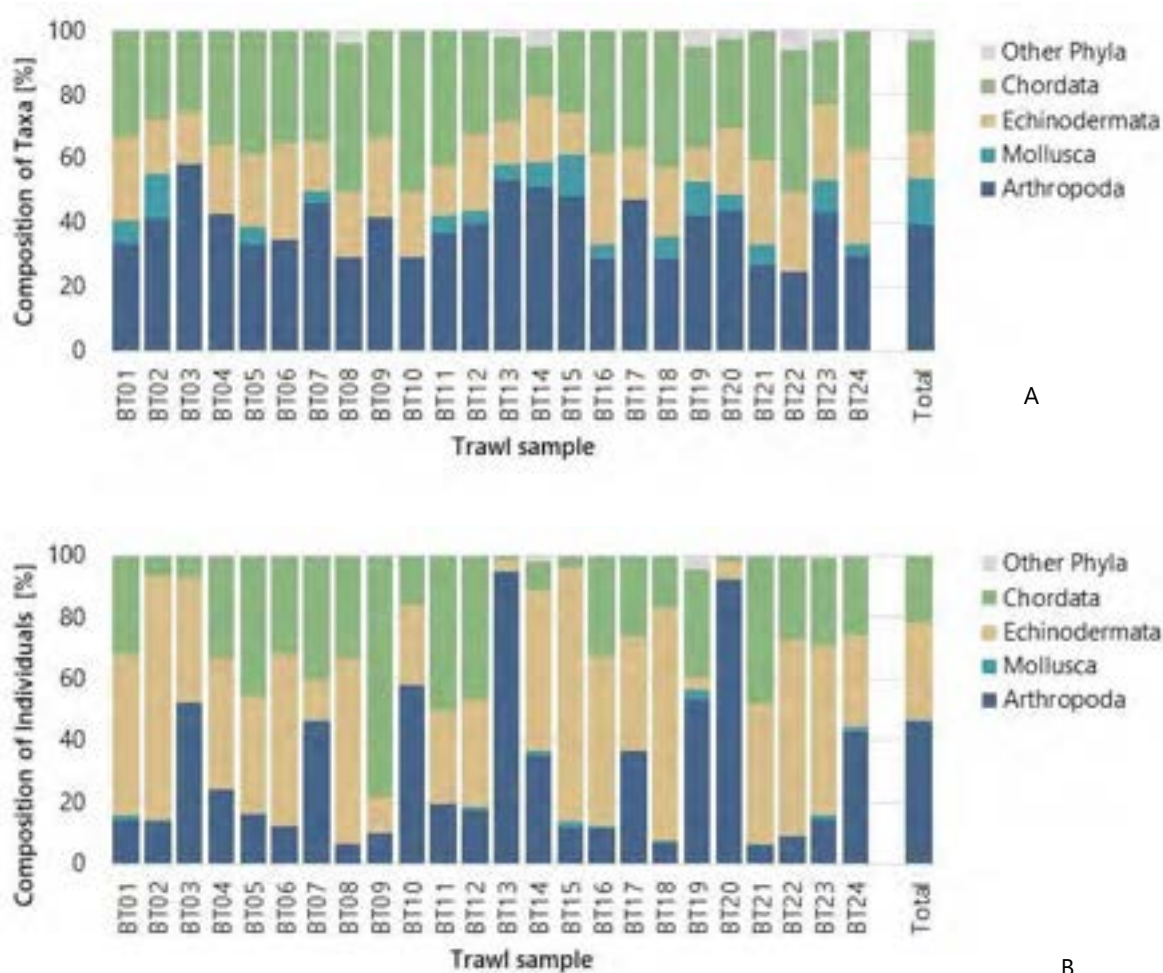


Figure 4.41: Phyletic composition of enumerated macrofaunal (A) taxa and (B) individuals from the trawl samples, Dogger Bank South Site Investigation

4.4.3.2 Community Statistics

Table 4.13 presents the results of the univariate analysis of the enumerated macrofaunal dataset from the trawl samples.

Figures 4.42 and 4.43 illustrate the spatial distribution of the taxa from the 2 m beam trawl samples in the array and along the ECR, respectively.

Figures 4.44 and 4.45 illustrate the spatial distribution of the individuals from the 2 m beam trawl samples in the array and along the ECR, respectively.

The number of taxa ranged from 12 (trawl BT03) to 43 (trawl BT13), with a mean of 25 and a median of 24. Trawl BT03 also had the lowest abundance with 42 individuals, whereas trawl BT13 had the highest with 3745.

The richness reflected the number of individuals per taxa recorded and ranged from 2.39 (trawls BT21) to 6.25 (trawl BT14) with a mean of 3.75 and a median of 3.54.

The diversity ranged from 1.34 (trawl BT20) to 3.76 (trawl BT14) with a mean of 2.80 and a median of 2.78.

The evenness ranged from 0.253 (trawl BT20) to 0.844 (trawl BT19) with a mean of 0.625 and a median 0.642. The value of evenness at trawl BT20 was associated with a numerical dominance of *Crangon allmanni*, which comprised 2284 individuals. Similarly, the evenness of trawl BT13, with a value of 0.355 was associated with *Pandalus montagui* which comprised 2498 individuals. Low evenness at trawl BT15, with a value of 0.430, was associated with *P. miliaris*, which comprised 1060 individuals.

Values of evenness were inversely correlated to those of dominance.

Table 4.20: Community statistics of enumerated fauna from the trawl samples, Dogger Bank South Site Investigation

Station	Numbers		Richness	Diversity	Evenness	Dominance
	Taxa	Individuals	Margalef's [d]	Shannon-Wiener [H'Log ₂]	Pielou [J']	Simpson [λ]
Array						
BT01	27	313	4.52	3.60	0.757	0.126
BT02	29	744	4.23	2.41	0.496	0.316
BT03	12	42	2.94	2.91	0.813	0.181
BT04	14	70	3.06	2.99	0.784	0.177
BT05	18	183	3.26	3.19	0.764	0.151
BT06	20	474	3.08	2.69	0.622	0.265
BT07	26	612	3.90	3.68	0.783	0.118
BT08	24	751	3.47	2.78	0.607	0.208
BT09	24	1118	3.28	2.14	0.467	0.433
BT10	24	1374	3.18	2.48	0.542	0.305
BT11	19	1763	2.41	2.37	0.558	0.286
Export Cable Route						
BT12	25	733	3.64	3.07	0.661	0.190
BT13	43	3745	5.10	1.93	0.355	0.472
BT14	39	437	6.25	3.76	0.712	0.136
BT15	31	1708	4.03	2.13	0.430	0.427
BT16	21	318	3.47	2.65	0.604	0.287
BT17	19	298	3.16	3.00	0.705	0.166
BT18	28	507	4.33	2.46	0.511	0.332
BT19	19	92	3.98	3.58	0.844	0.119

Station	Numbers		Richness	Diversity	Evenness	Dominance
	Taxa	Individuals	Margalef's [d]	Shannon- Wiener [H'Log ₂]	Pielou [J']	Simpson [λ]
BT20	39	2870	4.77	1.34	0.253	0.644
BT21	15	346	2.39	2.77	0.708	0.219
BT22	16	221	2.78	2.00	0.501	0.405
BT23	30	297	5.09	3.64	0.741	0.126
BT24	27	1334	3.61	3.73	0.784	0.123
Minimum	12	42	2.39	1.34	0.253	0.118
Maximum	43	3745	6.25	3.76	0.844	0.644
Median	24	491	3.54	2.78	0.642	0.213
Mean	25	848	3.75	2.80	0.625	0.259
Standard Deviation	8	915	0.93	0.65	0.156	0.138

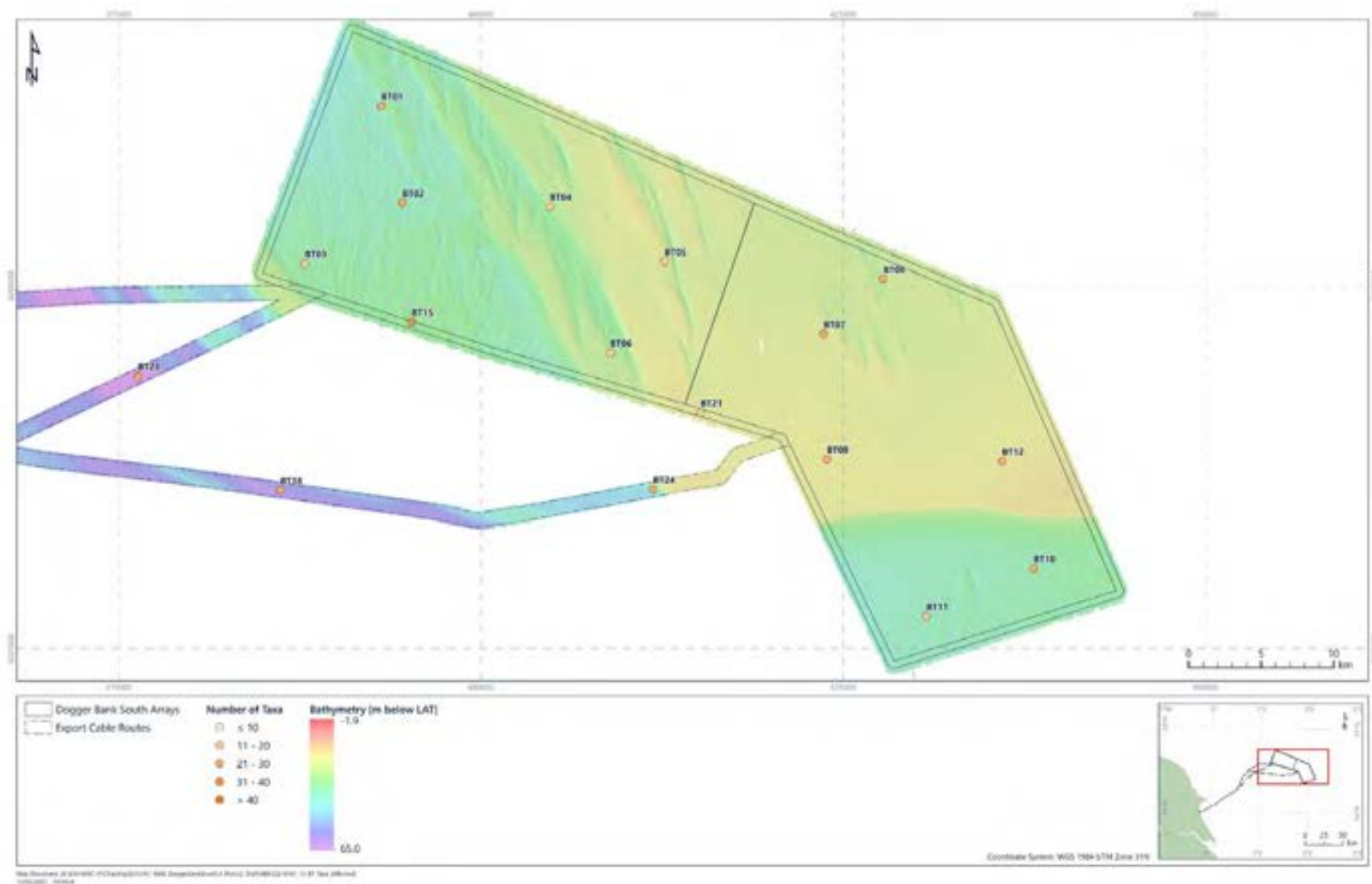


Figure 4.42: Spatial variations of the number of taxa from the 2 m beam trawl samples, array, Dogger Bank South Site Investigation

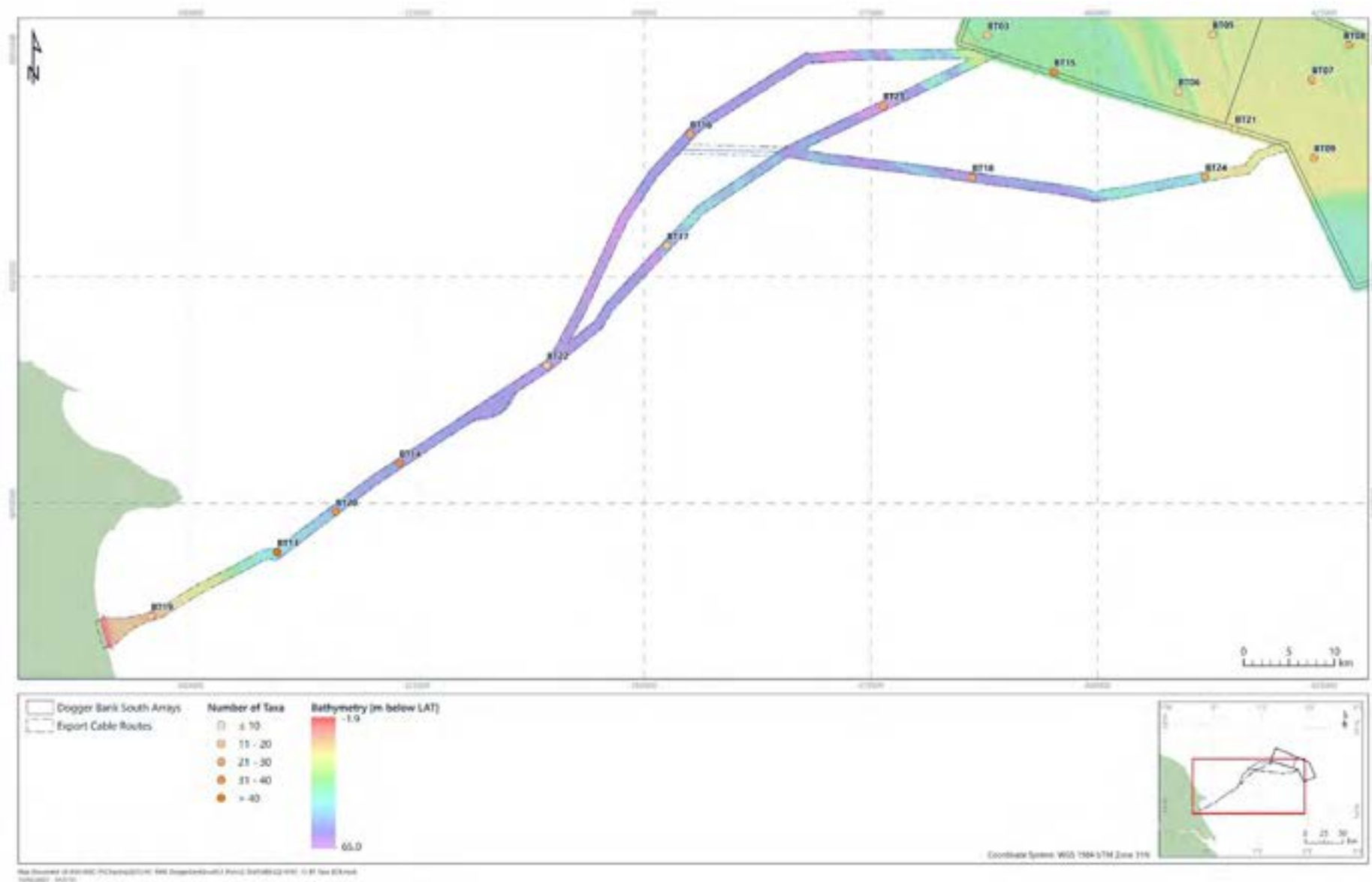


Figure 4.43: Spatial variations of the number of taxa from the 2 m beam trawl samples, export cable route, Dogger Bank South Site Investigation

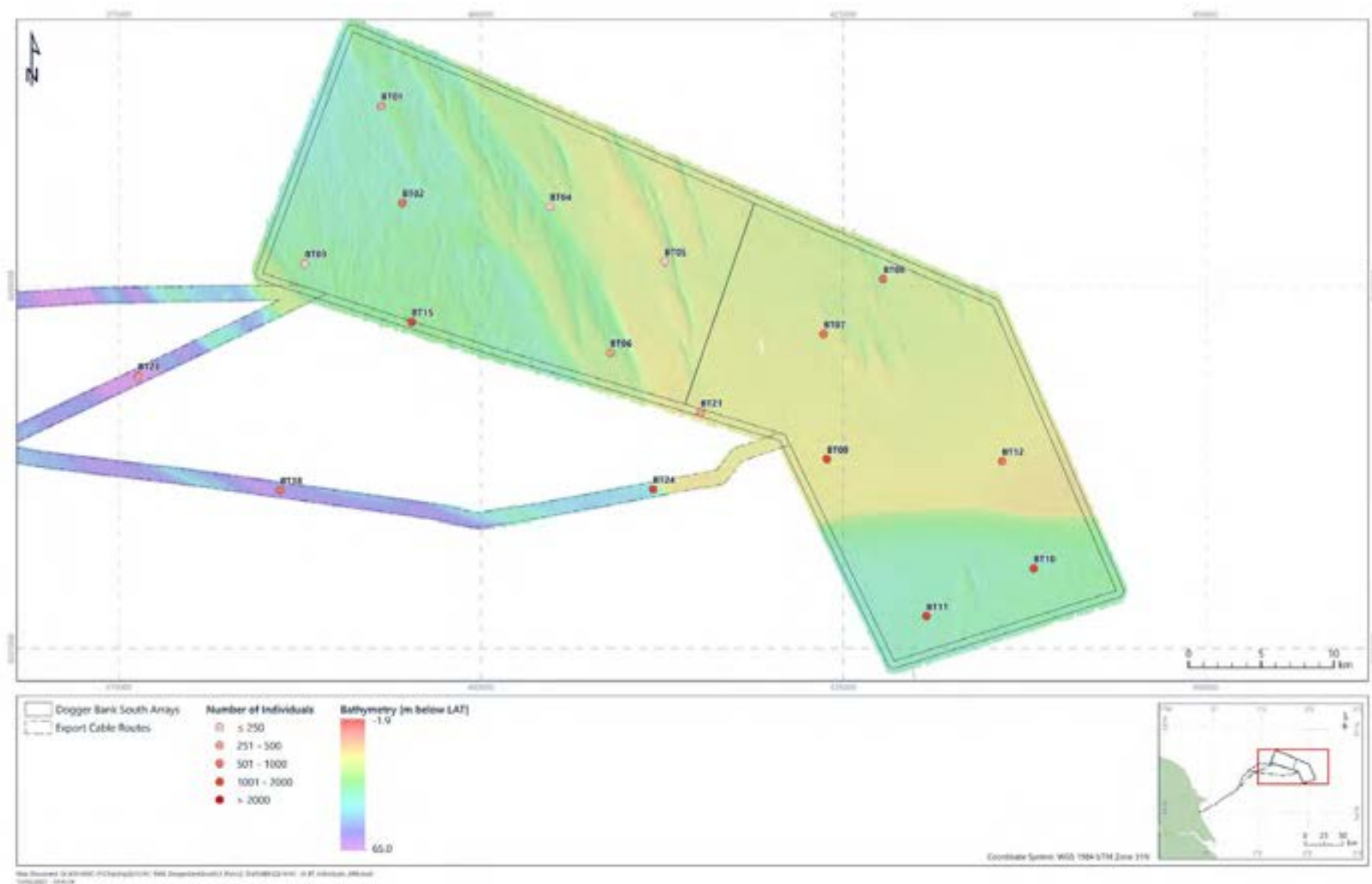


Figure 4.44: Spatial variations of the number of individuals from the 2 m beam trawl samples, array, Dogger Bank South Site Investigation

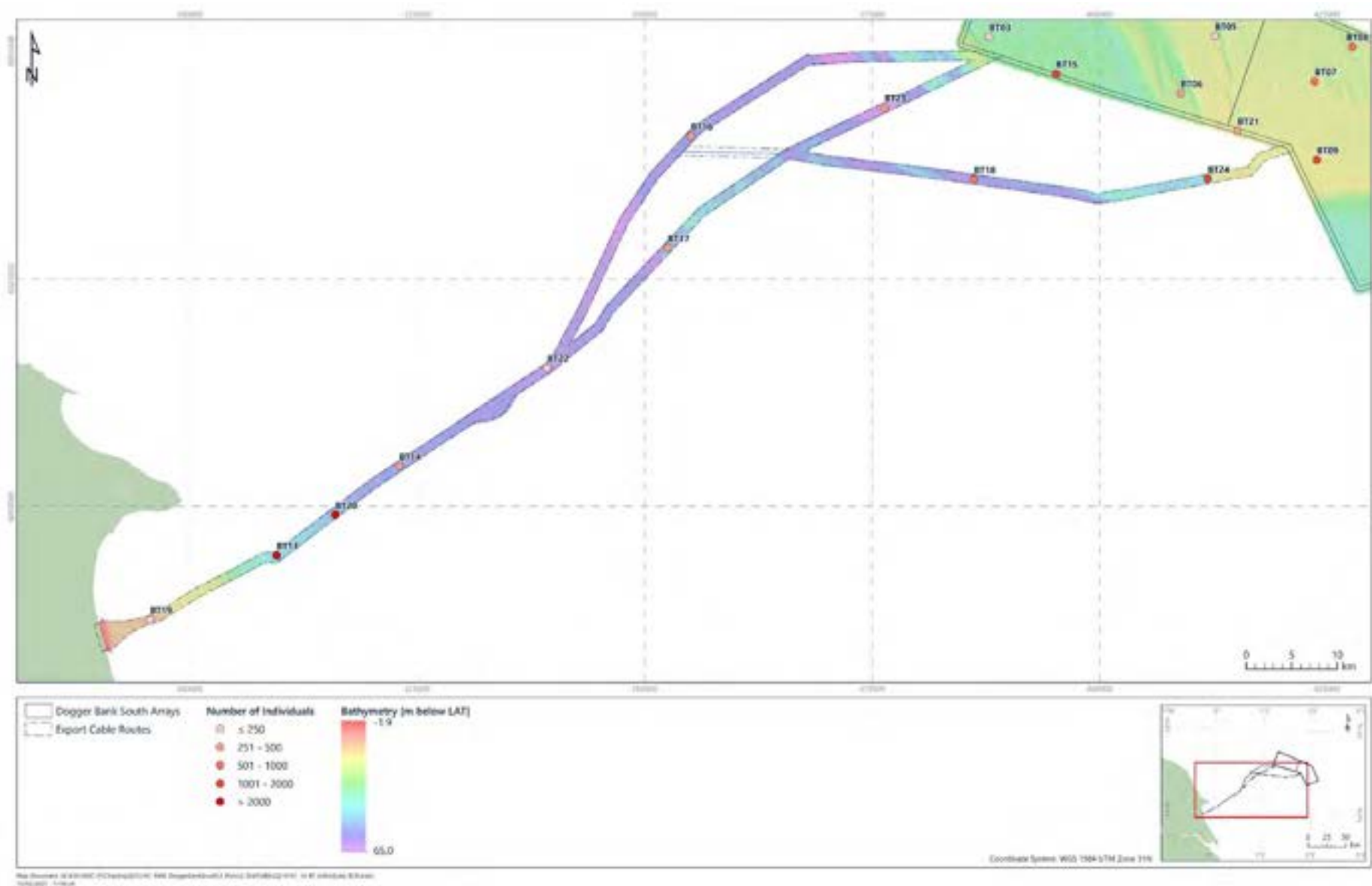


Figure 4.45: Spatial variations of the number of individuals from the 2 m beam trawl samples, array, Dogger Bank South Site Investigation

4.4.3.3 Fish species

Table 4.21 presents the fish recorded and details of the individual fish abundance and frequency of occurrence across the DBS survey area.

The dab *Limanda limanda* was the most frequently occurring fish, recorded in all trawl samples, whereas the solenette *Buglossidium luteum* was the most abundant fish although it occurred in 15 trawl samples.

The plaice *Pleuronectes platessa* was the second most frequently occurring fish, followed by the scaldfish *Arnoglossus laterna*, dragonets of the genus *Callionymus*, including *Callionymus lyra*, the solenette *Buglossidium luteum*, the lemon sole *Microstomus kitt*, and gobies of the genus *Pomatoschistus*.

Sandeels of the family Ammodytidae, including species of the genus *Ammodytes* were also recorded, along with the Dover sole *Solea solea*, the red gurnard *Chelidonichthys cuculus*, the whiting *Merlangius merlangus*, the Atlantic cod *Gadus morhua*, and the thick back sole *Microchirus variegatus*.

Nine fish species had the lowest frequency of occurrence, each recorded in one trawl sample, and included the lesser spotted catshark *Scyliorhinus canicula*, the long rough dab *Hippoglossoides platessoides*, the haddock *Melanogrammus aeglefinus*, and the monkfish *Lophius piscatorius*.

Table 4.21: Fish recorded in the 2 m beam trawl samples, Dogger Bank South Site Investigation

Taxon	No of individuals per trawl sample			Frequency [% samples]
	Total	Min	Max	
<i>Limanda limanda</i>	474	1	52	100.0
<i>Pleuronectes platessa</i>	193	1	26	91.7
<i>Arnoglossus laterna</i>	313	1	45	75.0
<i>Callionymus</i> *	94	1	11	70.8
<i>Buglossidium luteum</i>	951	1	183	62.5
<i>Pomatoschistus</i>	130	1	55	58.3
<i>Microstomus kitt</i>	82	1	22	58.3
Ammodytidae [†]	65	1	26	41.7
<i>Agonus cataphractus</i>	39	1	12	29.2
<i>Solea solea</i>	26	1	20	25.0
<i>Chelidonichthys cuculus</i>	9	1	4	20.8
<i>Echiichthys vipera</i>	15	1	11	16.7
<i>Merlangius merlangus</i>	6	1	4	12.5
<i>Gadus morhua</i>	3	1	1	12.5
<i>Microchirus variegatus</i>	3	1	1	12.5
Gymnammodytes	20	1	19	8.3

Taxon	No of individuals per trawl sample			Frequency [% samples]
	Total	Min	Max	
<i>Trachinus draco</i>	11	1	10	8.3
<i>Syngnathus acus</i>	5	2	3	8.3
<i>Eutrigla gurnardus</i>	2	1	1	8.3
<i>Liparis liparis</i>	2	1	1	8.3
<i>Pholis gunnellus</i>	5	5	5	4.2
<i>Ciliata septentrionalis</i>	3	3	3	4.2
<i>Trisopterus minutus</i>	2	2	2	4.2
<i>Zeugopterus regius</i>	2	2	2	4.2
<i>Scyliorhinus canicula</i>	1	1	1	4.2
<i>Diplecogaster bimaculata</i>	1	1	1	4.2
<i>Lophius piscatorius</i>	1	1	1	4.2
<i>Melanogrammus aeglefinus</i>	1	1	1	4.2
<i>Hippoglossoides platessoides</i>	1	1	1	4.2
Notes * = Of the genus <i>Callionymus</i> , 53 individuals were identified as <i>Callionymus lyra</i> † = Of the family Ammodytidae, 50 individuals were identified as species of the genus <i>Ammodytes</i> Taxa listed in decreasing frequency of occurrence				

4.4.3.4 Commercial species

Commercial species were measured to gauge information on the age of the fish and shellfish communities.

Tables 4.22 and 4.23 present a summary of the statistics from the measurements of the commercially important fish and shellfish, respectively, and Figure 4.46 illustrates the mean length distribution of selected fish and shellfish across the DBS survey area.

Table 4.22: Summary statistics of fish population from 2 m beam trawl samples, Dogger Bank South Site Investigation

Taxon	No of measurements	Length [mm]				
		Min	Max	Mean	Median	Mode
<i>Limanda limanda</i>	439	1	24	14	16	16
<i>Arnoglossus laterna</i>	221	3	14	10	10	10
<i>Pleuronectes platessa</i>	193	11	36	21	21	21
<i>Microstomus kitt</i>	82	11	23	17	17	17
<i>Chelidonichthys cuculus</i>	9	5	17	11	8	7
<i>Solea solea</i>	7	20	50	28	25	20

Taxon	No of measurements	Length [mm]				
		Min	Max	Mean	Median	Mode
<i>Scyliorhinus canicula</i>	1	30	30	-	-	-
<i>Lophius piscatorius</i>	1	24	24	-	-	-
<i>Microchirus variegatus</i>	1	17	17	-	-	-
<i>Hippoglossoides platessoides</i>	1	19	19	-	-	-
<i>Merlangius merlangus</i>	1	28	28	-	-	-

Table 4.23: Summary statistics of shellfish population from 2 m beam trawl samples, Dogger Bank South Site Investigation

Taxon	Sex	No of measurements	Length [cm]			
			Min	Max	Mean	Median
<i>Cancer pagurus</i>	Indeterminate	3	22	82	47	38
	Female	9	62	173	111	111
	Male	1	93	93	-	-
<i>Necora puber</i>	Female	1	65	65	-	-
	Male	2	54	65	60	-
<i>Aequipecten opercularis</i>	-	5	6	76	55	69
<i>Buccinum undatum</i>	-	5	91	112	99	98
<i>Pecten maximus</i>	-	1	85	85	-	-



Figure 4.46: Mean length distribution of commercially important fish and shellfish from the 2 m beam trawl samples, Dogger Bank South Site Investigation

4.4.3.5 Investigation of faunal similarities

Figure 4.47 presents the results of the hierarchical clustering analysis undertaken on the enumerated fauna from the trawl samples, following a fourth root transformation. Multivariate analysis was undertaken to assess the spatial distribution of the mobile epibenthic fauna, which in turn may allow gauging the taxa habitat preference.

Four groups of samples were identified at a similarity of 45 %, namely A, B, C, and D. Group D was further divided in three groups at a similarity of 55 %. The average similarity of the multivariate groups ranged from 45.7 % (group B) to 68.3 % (group D1).

The groups identified through the multivariate analysis were further assessed by means of the SIMPER analysis. Table 4.24 presents the top five characterising taxa identified through the SIMPER analysis with details of their abundance, frequency of occurrence, and contribution to the similarity of their respective multivariate group.

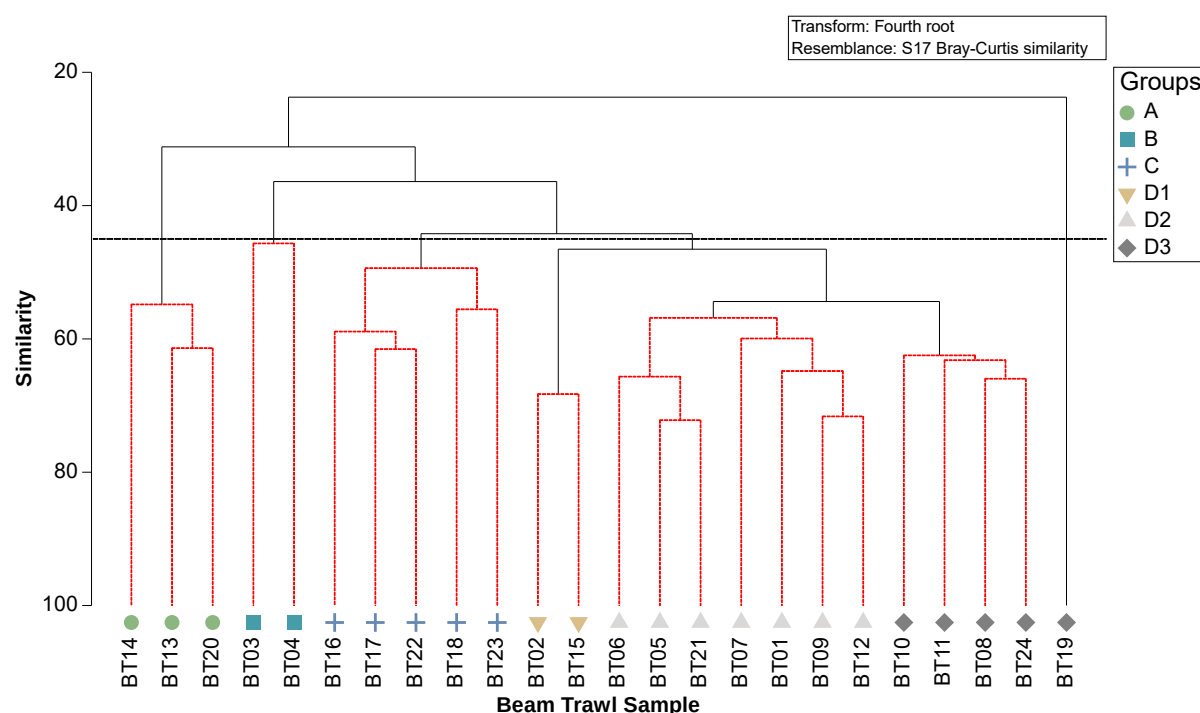


Figure 4.47: Dendrogram of hierarchical clustering analysis of enumerated fauna from the trawl samples, Dogger Bank South Site Investigation

Table 4.24: Characterising taxa of multivariate groups of enumerated macrofauna from the trawl samples, Dogger Bank South Site Investigation

Group	Location	Characterising Taxa	Abundance [N]	Frequency [%]	Contribution to Similarity [%]
A  Average similarity: 57.0 %	ECR BT13, BT14 BT20	<i>Crangon allmanni</i>	955	100	8.2
		<i>Asterias rubens</i>	115	100	8.2
		<i>Pandalus montagui</i>	928	100	7.7
		<i>Callionymus</i>	8	100	4.4
		<i>Liocarcinus holsatus</i>	13	100	4.3
B  Average similarity: 45.7 %	Array BT03, BT04	<i>Asterias rubens</i>	8	100	17.1
		<i>Pagurus bernhardus</i>	5	100	15.5
		<i>Liocarcinus marmoreus</i>	3	100	15.5
		<i>Pisidia longicornis</i>	6	100	13.0
		<i>Liocarcinus holsatus</i>	3	100	13.0
C  Average similarity: 53.1 %	ECR BT16-BT18 BT22, BT23	<i>Limanda limanda</i>	46	100	14.1
		<i>Astropecten irregularis</i>	115	100	12.7
		<i>Asterias rubens</i>	45	100	11.4
		<i>Pleuronectes platessa</i>	14	100	8.6
		<i>Liocarcinus holsatus</i>	10	100	7.9
D1  Average similarity: 68.3 %	Array BT02	<i>Asterias rubens</i>	340	100	11.9
		<i>Psammechinus miliaris</i>	650	100	10.9
	ECR BT15	<i>Liocarcinus depurator</i>	36	100	6.4
		<i>Liocarcinus holsatus</i>	13	100	5.1
		<i>Liocarcinus pusillus</i>	21	100	5.1
D2  Average similarity: 60.3 %	Array BT01, BT05-BT07 BT09	<i>Astropecten irregularis</i>	105	100	11.3
		<i>Buglossidium luteum</i>	76	100	11.3
		<i>Arnoglossus laterna</i>	26	100	8.9
		<i>Liocarcinus holsatus</i>	29	100	8.2
	ECR BT12, BT21	<i>Asterias rubens</i>	27	100	8.2
D3  Average similarity: 49.0 %	Array BT08, BT10, BT11	<i>Liocarcinus holsatus</i>	365	100	10.3
		<i>Limanda limanda</i>	18	100	9.4
	ECR BT19, BT24	<i>Liocarcinus depurator</i>	265	100	9.3
		<i>Pleuronectes platessa</i>	15	100	7.9
		<i>Asterias rubens</i>	173	100	7.8
Notes Values refer to mean of untransformed data within each multivariate group Frequency refers to number of trawl samples within each multivariate group Taxa listed are the top ten identified by the SIMPER analysis (70 % percentage contribution) Taxa listed in decreasing order of percentage contribution to similarity					

4.4.3.6 Colonial epifauna

Colonial epifauna was recorded in all trawl samples and comprised Bryozoa, Cnidaria and Porifera.

Table 4.25 presents the community structure of sessile colonial epifauna and Table 4.26 presents the top ten most frequently occurring colonial epifaunal taxa from the trawl samples. Figure 4.48 illustrates the colonial epifaunal community structure from each beam trawl sample.

Table 4.25: Taxonomic groups of colonial epifauna from the 2 m beam trawl samples, Dogger Bank South Site Investigation

Taxonomic Group	Number of Taxa	Composition of Taxa [%]
Bryozoa	15	48.4
Cnidaria	12	38.7
Porifera	4	12.9
Total	31	100

Table 4.26: Top ten most frequently occurring colonial epifaunal taxa from the 2 m beam trawl samples, Dogger Bank South Site Investigation

Taxon	Frequency [%]
<i>Flustra foliacea</i>	95.8
<i>Alcyonidium</i> *	62.5
<i>Alcyonium</i> †	58.3
<i>Crisularia plumosa</i>	58.3
<i>Scrupocellaria scruposa</i>	50.0
<i>Bugulina flabellata</i>	45.8
<i>Electra pilosa</i>	41.7
Porifera	29.2
<i>Abietinaria abietina</i>	20.8
<i>Vesicularia spinosa</i>	16.7
Notes	
* = <i>Alcyonidium</i> was represented mainly by <i>Alcyonidium parasiticum</i>	
† = <i>Alcyonium</i> was represented mainly by <i>Alcyonium digitatum</i>	

Bryozoa comprised most of the taxa composition (48.4%) followed by Cnidaria (38.7 %) and Porifera (12.9 %).

Bryozoans were represented mainly by *Flustra foliacea*, species of *Alcyonidium*, including *Alcyonidium parasiticum*, *Crisularia plumosa*, *Scrupocellaria scruposa*, *Bugulina flabellata*, and

Electra pilosa, which were the most frequently occurring taxa, with frequency of occurrence between 10 (*E. pilosa*) and 23 (*F. foliacea*) trawl samples.

Cnidarians were represented mainly by species of *Alcyonium*, including *Alcyonium digitatum*, and *Abietinaria abietina*, which were recorded in 14 and 5 trawls samples, respectively.

Poriferans included *Suberites ficus*, *Dysidea fragilis*, and species of *Cliona*, with the remaining taxa being at phylum level.

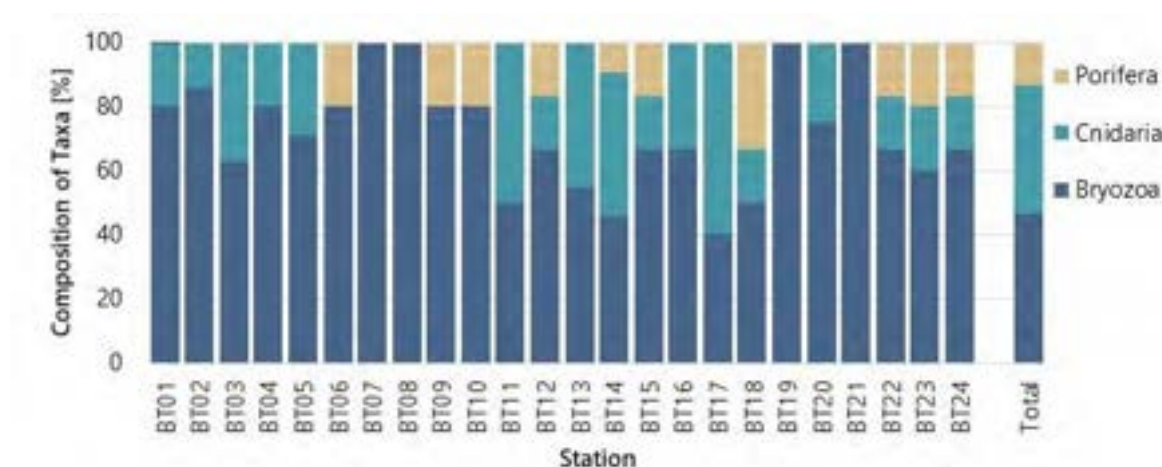


Figure 4.48: Phyletic composition of epifaunal taxa from the trawl samples, Dogger Bank South Site Investigation

4.5 Seabed Habitats and Biotopes

The physical and biological characteristics of the multivariate groups identified through the multivariate analysis (Section 4.4.1.3) were evaluated in conjunction with the results of the video and photographic analysis, detailed in the Environmental Features Report (Fugro 2022a), to provide a comprehensive habitat assessment. The seabed video provides an overview of the seabed over a wider area and can identify isolated features such as cobbles and/or boulders and associated epibiota. By comparison, grab sampling provides detailed information of the sediment composition and associated fauna at a single point source and is essential for the biotope classification of sedimentary habitats.

The average similarity of the multivariate groups ranged from 40.0 % to 48.2 %. Therefore, the communities were deemed representative of the stations within each multivariate group.

Results of the seabed video and photographic analysis indicated the presence of the following habitats and biotopes:

- 'Faunal communities of full salinity Atlantic infralittoral sand (MB523)'. This habitat was assigned to 23 stations mainly in the central, shallower area of the proposed array in water depth < 20 m (BSL).
- 'Piddocks with a sparse associated fauna in Atlantic circalittoral very soft chalk or clay' (MC1251). This biotope was assigned to areas of firm clay, with burrows of piddocks (Imparidentia), recorded at stations ST001, ST003, ST048, ST061, ST124, around the edges of the proposed arrays and station ST181 along the nearshore section of the ECR.
- 'Faunal communities of Atlantic circalittoral coarse sediment (MC321). This habitat was assigned to 22 stations, mostly in the western array.
- 'Faunal communities of Atlantic offshore coarse sediment' (MD321). This habitat was assigned to stations ST183 and ST185 along the ECR.
- 'Faunal communities of Atlantic circalittoral mixed sediment' (MC421). This habitat was assigned to areas of mixed sediments at stations ST061, ST117, ST124, ST125, and ST181 in the array and station ST181 along the nearshore section of the ECR. At stations ST061 and ST181 this habitat occurred in combination with the biotope 'Piddocks with a sparse associated fauna in Atlantic circalittoral very soft chalk or clay' (MC1251).
- 'Faunal communities of Atlantic circalittoral sand' (MC521) This habitat was assigned to 58 stations, including stations ST001 and ST003 where it occurred in combination with the biotope 'Piddocks with a sparse associated fauna in Atlantic circalittoral very soft chalk or clay' (MC1251).
- 'Faunal communities in Atlantic offshore circalittoral sand' (MD521). This habitat was assigned to stations ST161, ST182, ST184, and ST186.
- 'Faunal communities of Atlantic circalittoral mud' (MC621). This habitat type was assigned to eight stations in the western array featuring muddy sediments.

Owing to the presence of cobbles and occasional boulders, 16 stations were assessed in relation to the presence of the Annex I habitat 'Reef' (geogenic).

The results of the assessment, detailed in the Environmental Feature Report (Fugro, 2022a), indicated the presence of two areas with 'low resemblance' to a stony reef, one along transect ST167 and one along transect ST181. These areas had percentage cover of cobbles and boulders between 10 % and 40 % with an elevation of 64 mm to 5 m (Fugro, 2022a).

4.5.1 Biotope Classifications

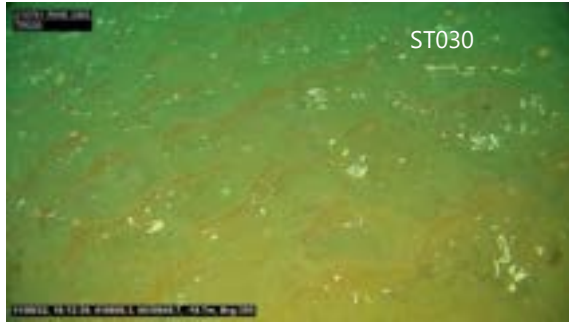
Table 4.27 presents the EUNIS hierarchical structure of the habitats and biotopes identified across the DBS survey area, by integration of the grab samples with the video and photographic data. Reference was also made to the European Marine Observation Data Network (EMODnet) seabed habitat distribution map (EMODnet, 2022) to verify alignment and/or highlight difference with the available data.

Table 4.28 presents the biotopes identified for each of the multivariate groups (detailed in Section 4.4.1.3).

Table 4.27: Habitat classification, Dogger Bank South Site Investigation

EUNIS Habitat Classification (EEA, 2022)					Equivalent JNCC (2022a) Classification
Environment Level 1	Biological Zone and Substrate Level 2	Biogeographical Marine Region Level 3	Biotope Complex Level 4	Biotope Level 5	
M Marine benthic habitats	MB52 Atlantic infralittoral sand		MB523 Faunal communities of full salinity Atlantic infralittoral sand	MB5233 <i>Nephtys cirrosa</i> and <i>Bathyporeia</i> spp. in Atlantic infralittoral sand	SS.SSa.IFiSa.NcirBat <i>Nephtys cirrosa</i> and <i>Bathyporeia</i> spp. in infralittoral sand
	MC3 Circalittoral coarse sediment	MC32 Atlantic circalittoral coarse sediment	MC321 Faunal communities of Atlantic circalittoral coarse sediment	MC3215 <i>Branchiostoma lanceolatum</i> in Atlantic circalittoral coarse sand with shell gravel	SS.SCS.CCS.Blan <i>Branchiostoma lanceolatum</i> in circalittoral coarse sand with shell gravel
				MC3212 <i>Mediomastus fragilis</i> , <i>Lumbrineris</i> spp. and venerid bivalves in Atlantic circalittoral coarse sand or gravel	SS.SCS.CCS.MedLumVen <i>Mediomastus fragilis</i> , <i>Lumbrineris</i> spp. and venerid bivalves in circalittoral coarse sand or gravel
	MC5 Circalittoral sand	MC52 Atlantic circalittoral sand	MC521 Faunal communities of Atlantic circalittoral sand	MC5212 <i>Abra prismatica</i> , <i>Bathyporeia elegans</i> and polychaetes in circalittoral fine sand	SS.SSa.CFiSa.ApriBatPo <i>Abra prismatica</i> , <i>Bathyporeia elegans</i> and polychaetes in circalittoral fine sand
				MC5214 <i>Abra alba</i> and <i>Nucula nitidosa</i> in circalittoral muddy sand or slightly mixed sediment	SS.SSa.CMuSa.AalbNuc <i>Abra alba</i> and <i>Nucula nitidosa</i> in circalittoral muddy sand or slightly mixed sediment
	Notes EUNIS = European Nature Information System EEA = European Environment Agency JNCC = Joint Nature Conservation Committee				

Table 4.28: Summary of EUNIS habitat classifications, Dogger Bank South Site Investigation

EUNIS Habitat Classification (EEA, 2019)	Multivariate Faunal Group	Physical characteristics	Epibiota (from video and photographs)	Characterising Taxa (from grab samples)		Representative photograph from video analysis	
				Infaunal	Epifaunal		
MB5233 <i>Nephtys cirrosa</i> and <i>Bathyporeia</i> spp. in Atlantic infralittoral sand	Group E  74 stations	Moderately well sorted (fine) sand Depth range: 13.0 m to 47.6 m	<i>Astropecten irregularis</i>	<i>Spiophanes bombyx</i> agg.	<i>Phialella quadrata</i>	 ST030	
			<i>Asterias rubens</i>	<i>Bathyporeia guilliamsoniana</i>	<i>Clytia hemisphaerica</i>		
			<i>Pagurus bernhardus</i>	<i>Bathyporeia elegans</i>	Folliculinidae		
			<i>Flustra foliacea</i>	<i>Chamelea striatula</i>	Tubulariidae		
			Ammodytidae	<i>Nephtys cirrosa</i>	<i>Electra pilosa</i>		
	Station ST113 	Moderately sorted (medium) sand Depth: 14.8 m	-	<i>Spiophanes bombyx</i> agg.	Folliculinidae		
				<i>Spisula elliptica</i>			
				<i>Macomangulus tenuis</i>			
				<i>Nephtys cirrosa</i>			
				<i>Paraonis fulgens</i>			
MC3215 <i>Branchiostoma lanceolatum</i> in Atlantic circalittoral coarse sand with shell gravel	Group A  11 stations	Very poorly sorted sandy gravel Depth range: 21.6 m to 69.7 m	Paguridae	<i>Notomastus</i>	Tubulariidae	 ST095	
			<i>Asterias rubens</i>	<i>Glycera lapidum</i>	<i>Clytia hemisphaerica</i>		
			<i>Flustra foliacea</i>	Nemertea	Folliculinidae		
			<i>Alcyonium digitatum</i>	<i>Aonides paucibranchiata</i>	<i>Pedicellina</i>		
			<i>Astropecten irregularis</i>	<i>Polycirrus</i>	<i>Electra pilosa</i>		
MC3212 <i>Mediomastus fragilis</i> , <i>Lumbrineris</i> spp. and venerid bivalves in Atlantic circalittoral coarse sand or gravel	Group B  5 stations	Very poorly sorted muddy sandy gravel Depth range: 39.2 to 55.7 m	<i>Alcyonium digitatum</i>	<i>Lumbrineris</i> cf. <i>cingulata</i>	<i>Astrorhiza limicola</i>	 ST161	
			<i>Atelecyclus rotundatus</i>	<i>Mediomastus fragilis</i>	<i>Clytia hemisphaerica</i>		
			<i>Ebalia</i>	<i>Spiophanes kroyeri</i> agg.	<i>Eudendrium</i>		
			Paguridae	Nemertea	<i>Pedicellina</i>		
			<i>Pectinidae</i>	<i>Sabellaria spinulosa</i>	<i>Scrupocellaria scruposa</i>		
MC5212 <i>Abra prismatica</i> , <i>Bathyporeia elegans</i> and polychaetes in circalittoral fine sand	Group F  17 stations	Moderately sorted (medium) sand Depth range: 22.0 to 39.0 m	<i>Astropecten irregularis</i>	<i>Spiophanes bombyx</i> agg.	Folliculinidae	 ST078	
			<i>Flustra foliacea</i>	<i>Nephtys cirrosa</i>	<i>Phialella quadrata</i>		
			Ammodytidae	<i>Bathyporeia guilliamsoniana</i>	<i>Clytia hemisphaerica</i>		
			<i>Luidia ciliaris</i>	<i>Ophelia borealis</i>	<i>Electra pilosa</i>		
			<i>Alcyonium digitatum</i>	<i>Diastylis rugosa</i>	<i>Flustra foliacea</i>		
	Group H  29 stations	Moderately well sorted (fine) sand Depth range: 33.0 to 62. m	-	<i>Asterias rubens</i>	<i>Abra prismatica</i>		<i>Barentsia</i>
				Paguridae	<i>Scoloplos armiger</i>		Tubulariidae
				Pleuronectiformes	<i>Sthenelais limicola</i>		<i>Leuckartiara octona</i>
				<i>Bathyporeia elegans</i>	<i>Alcyonidium parasiticum</i>		
				<i>Amphiura filiformis</i>	Sertulariidae		
MC5214 <i>Abra alba</i> and <i>Nucula nitidosa</i> in circalittoral muddy sand or slightly mixed sediment	Group C  2 stations	Poorly sorted muddy sand Depth range: 15.0 to 15.4 m	-	<i>Abra alba</i>	<i>Crisia</i>		
				<i>Nucula nitidosa</i>	<i>Walkeria uva</i>		
				<i>Lanice conchilega</i>	<i>Amathia</i>		
				<i>Galathowenia oculata</i>			
				<i>Harpinia antennaria</i>			

EUNIS Habitat Classification (EEA, 2019)	Multivariate Faunal Group	Physical characteristics	Epibiota (from video and photographs)	Characterising Taxa (from grab samples)		Representative photograph from video analysis	
				Infaunal	Epifaunal		
MC5214 <i>Abra alba</i> and <i>Nucula nitidosa</i> in circalittoral muddy sand or slightly mixed sediment	Group D 29 stations	Poorly sorted muddy sand Depth range: 27.1 to 60.8 m	<i>Actiniaria</i>	<i>Spiophanes bombyx</i> agg.	Tubulariidae	 ST049	
			<i>Asterias rubens</i>	<i>Amphiura filiformis</i>	<i>Phialella quadrata</i>		
			<i>Alcyonium digitatum</i>	<i>Abra alba</i>	<i>Clytia hemisphaerica</i>		
			Pleuronectiformes	<i>Phaxas pellucidus</i>	Anthoathecata		
			Paguridae	Nemertea	<i>Electra pilosa</i>		
MC3 Circalittoral coarse sediment	Group G 8 stations	Poorly sorted gravelly sand Depth range: 28.0 to 36.9 m	<i>Alcyonium digitatum</i>	<i>Spiophanes bombyx</i> agg.	Folliculinidae	 ST120	
			<i>Cancer pagurus</i>	<i>Ophelia borealis</i>	<i>Clytia hemisphaerica</i>		
			<i>Necora puber</i>	<i>Amphiura filiformis</i>	Anthoathecata		
			<i>Asterias rubens</i>	<i>Scoloplos armiger</i>	<i>Phialella quadrata</i>		
			Callionymidae	<i>Branchiostoma lanceolatum</i>	<i>Pedicellina</i>		
	Station ST135	Very poorly sorted sandy gravel Depth: 67.7	-	<i>Abra prismatica</i>	Folliculinidae		
				<i>Scolelepis foliosa</i>			
				<i>Chaetozone christiei</i>			
				<i>Travisia forbesii</i>			
				<i>Sabellaria spinulosa</i>			
	Station ST167	Very poorly sorted sandy gravel Depth: 20.5	-	<i>Abra prismatica</i>	-		
				<i>Scolelepis foliosa</i>			
				<i>Chaetozone christiei</i>			
				<i>Travisia forbesii</i>			
				<i>Sabellaria spinulosa</i>			
Notes Multivariate groups identified by hierarchical clustering analysis of enumerated fauna Sediment classification based on Folk (British Geological Survey (BGS) modified) Description based on Wentworth (1922) scale Characterising taxa from grab samples are from the top ten identified through the similarity percentage analysis (SIMPER) with a 70 % cut off for percentage contribution to similarity Epifauna from the grab samples lists the most frequently occurring taxa Depth is below sea level (BSL) EEA = European Environment Agency EUNIS = European Nature Information System							

4.5.1.1 'Nephtys cirrosa and Bathyporeia spp. in Atlantic infralittoral sand' (MB5233)

The biotope 'Nephtys cirrosa and Bathyporeia spp. in Atlantic infralittoral sand' (MB5233), is described as well sorted medium and fine sands characterised by polychaetes such as *Nephtys cirrosa* and amphipods of the genus *Bathyporeia*, which occur in the shallow sublittoral. Sandeels of the genus *Ammodytes* may be present (EEA, 2022).

This biotope was assigned to stations in multivariate group E, characterised by moderately well sorted sand. Fauna comprised amphipods such as *B. guilliamsoniana* and *B. elegans* and polychaetes such as *S. bombyx* agg., *N. cirrosa*, and species of *Owenia*, and, to a lesser extent, bivalves such as *C. striatula*, *F. fabula*, and *M. stultorum*.

Colonial epifauna from the grab samples was represented mainly by hydroids such as *P. quadrata*, *C. hemisphaerica*, and species of Tubulariidae, as well as bryozoans, such as *E. pilosa* and Ciliophora of the family Folliculinidae.

The seabed video and photographic analysis of stations in group E (Appendix C.3) indicated a seabed comprising rippled sand and/or muddy sands with shell fragments and pebbles. Epibiota included starfish, such as *Luidia sarsi*, *A. irregularis*, and *A. rubens*, hermit crabs including *P. bernhardus* and associated hydroids of the genus *Hydractinia*, the bryozoan *F. foliacea*, sandeels of the family Ammodytidae, the soft coral *A. digitatum*, and the urchin *E. cordatum*. Faunal burrows were recorded at stations ST069, ST070, ST071, ST101, ST103 to ST105, ST112, ST122, and ST123, while anthropogenic debris were recorded at station ST030.

An impoverished version of this biotope was assigned to station ST113, characterised by moderately sorted sand. This station had low species richness and abundance, represented mainly by the polychaetes *S. bombyx* agg., *N. cirrosa*, and *P. fulgens*, and the bivalves *S. elliptica* and *M. tenuis*.

4.5.1.2 'Circalittoral coarse sediment' (MC3)

The habitat 'Circalittoral coarse sediment' (MC3) is described as coarse sediments in the circalittoral zone on the open coasts and in areas with strong hydrodynamics. This habitat is characterised by robust fauna including venerid bivalves (EEA, 2022).

This habitat was assigned to stations in multivariate group G characterised by gravelly sand. Fauna comprised polychaetes such as *S. bombyx* agg., *O. borealis*, *S. armiger*, and *N. cirrosa*, bivalves, notably *A. prismatica*, the cumacean *D. rugosa*, and the echinoderms *A. filiformis* and *E. pusillus*.

Colonial epifauna from the grab samples was represented mainly by Folliculinidae and *C. hemisphaerica*.

The seabed video and photographic analysis of stations in group G (Appendix C.3) indicated a seabed which ranged from rippled sand to gravelly sand and sandy gravel with shell fragments, pebbles, and occasional cobbles and boulders. Epibiota included *A. digitatum*,

A. rubens, *C. pagurus*, *N. puber*, *A. irregularis*, and species of Actiniaria, Pleuronectiformes, Serpulidae, Gadidae, Paguridae and Callionymidae. Piddocks (Imparidentia) were recorded at station ST124.

This habitat was assigned also to stations ST135 and ST167, both characterised by very poorly sorted sandy gravel. The infaunal community of station ST135, in water depth of 67.7 m (BSL) was typified by the polychaetes *Paramphinome jeffreysii*, *S. armiger*, *S. bombyx* agg. *Goniada maculata*, and the bivalve *A. alba*. Station ST135, in water depth of 20.5 m (BSL), had the lowest species richness and abundance of which *A. prismatica*, with five individuals was the most abundant. Each of the remaining six taxa, comprised one individual.

4.5.1.3 'Branchiostoma lanceolatum in Atlantic circalittoral coarse sand with shell gravel' (MC3215)

The biotope 'Branchiostoma lanceolatum in Atlantic circalittoral coarse sand with shell gravel' (MC3215) is described as gravel and coarse sand sediments with shell gravel. Faunal communities are typified by significant population of *B. lanceolatum*. Other conspicuous infauna may include *E. pusillus*, and *G. lapidum*, while sessile epifauna are a minor component of this community (EEA, 2022).

This biotope was assigned to stations in multivariate group A, characterised by very poorly sandy gravel. Fauna comprised *B. lanceolatum* which was amongst the top ten characterising taxa, along with *G. lapidum*, *E. pusillus*, *S. bombyx* agg. and species of *Notomastus* and *Polycirrus*.

Colonial epifauna from the grab samples was represented mainly by hydroids such as *C. hemisphaerica* and species of Tubulariidae, the bryozoan *E. pilosa*, Ciliophora of the family Folliculinidae, and Entoprocta of the genus *Pedicellina*.

The seabed video and photographic analysis of stations in group A (Appendix C.3) indicated a seabed comprising gravelly sand or muddy sand with patches of pebbles and shell fragments. Epibiota included Paguridae, *F. foliacea* and *Securiflustra securifrons*, *A. digitatum*, *A. irregularis*, and *A. rubens*. Areas of clay with piddocks (Imparidentia) were recorded at station ST061.

4.5.1.4 'Mediomastus fragilis, Lumbrineris spp. and venerid bivalves in Atlantic circalittoral coarse sand or gravel' (MC3212)

The biotope 'Mediomastus fragilis, Lumbrineris spp. and venerid bivalves in Atlantic circalittoral coarse sand or gravel' (MC3212) is described as gravels, coarse to medium sands, and shell gravels with small percentage of silt in the circalittoral zones. Faunal communities are characterised by polychaetes such as *M. fragilis*, species of *Lumbrineris*, *G. lapidum*, and *E. pusillus*. Other taxa may include Nemertea, *S. bombyx*, *Ampelisca spinipes*, and venerid bivalves, although the latter are often under-sampled in benthic grab surveys (EEA, 2022).

This biotope was assigned to stations in multivariate group B, characterised by very poorly sorted muddy sandy gravel. Fauna comprised polychaetes such as *L. cf. cingulata*, *M. fragilis*, *S. kroyeri* agg., and *G. lapidum*, the amphipod *A. spinipes*, and bivalves such as *Nuculana minuta*, *Phaxas pellucidus*, *Timoclea ovata*, and species of *Abra*.

Colonial epifauna from the grab samples was represented by *A. limicola*, *C. hemisphaerica*, *Scrupocellaria scruposa*, and species of *Eudendrium* and *Pedicellina*.

Of the stations in multivariate group B, seabed video and photography were undertaken at station ST161, and the results indicated a seabed comprising muddy sandy gravel with shell fragments and pebbles (Appendix C.3). Epibiota was represented by the coral *A. digitatum*, the starfish *A. rubens*, crustaceans such as *Atelecyclus rotundatus* species of *Ebalia* and Paguridae, as well as bivalves of the family Pectinidae and fish of the families Callionymidae and Gadidae.

4.5.1.5 'Abra prismatica, Bathyporeia elegans and polychaetes in circalittoral fine sand' (MC5212)

The biotope 'Abra prismatica, Bathyporeia elegans and polychaetes in circalittoral fine sand' (MC5212) is described as circalittoral and offshore medium to fine sands characterised by the bivalve *A. prismatica*, the amphipod *B. elegans* and polychaetes such as *S. armiger*, *S. bombyx* and *O. borealis*. The brittlestar *A. filiformis* may also be common at some sites (EEA, 2022).

This biotope was assigned to stations in multivariate groups F and H characterised by moderately sorted and moderately well sorted sand, respectively. Results of the SIMPER analysis indicated that differences between multivariate groups F and H were associated mainly with the abundance of taxa such as *N. cirrosa*, *Sthenelais limicola*, *A. filiformis*, *B. guilliamsoniana*, *O. borealis*, *F. fabula*, and *E. pusillus*. Differences in taxa composition were associated with taxa such as *Diastylis rugosa* and *Hermania scabra/indistincta*.

Colonial epifauna from the grab samples included *P. quadrata*, *C. hemisphaerica*, *E. pilosa*, *F. foliacea*, *Leuckartiara octona*, *Alcyonidium parasiticum*, and species of *Barentsia*, Folliculinidae, Tubulariidae, and Sertulariidae.

The seabed video and photographic analysis of stations in groups E and H (Appendix C.3) indicated a seabed comprising rippled sand or muddy sand with fragments. Epibiota was sparse and included *A. irregularis*, *A. rubens*, *F. foliacea*, *L. ciliaris*, *A. digitatum*, and species of Paguridae, Ammodytidae, and Pleuronectiformes. Anemones potentially of the genus *Metridium* were recorded at station ST125. Anthropogenic debris were recorded at station ST128.

4.5.1.6 'Abra alba and Nucula nitidosa in circalittoral muddy sand or slightly mixed sediment' (MC5214)

The biotope 'Abra alba and Nucula nitidosa in circalittoral muddy sand or slightly mixed sediment' (MC5214) is described as non-cohesive muddy sands or slightly shelly/gravelly muddy sand characterised by the bivalves *A. alba* and *N. nitidosa*. Other important taxa

include *S. bombyx* and *F. fabula*, whereas the echinoderm *A. rubens* may be present (EEA, 2022).

This biotope was assigned to stations in multivariate groups C and D, characterised by poorly sorted muddy sand. Results of the SIMPER analysis indicated that differences between multivariate groups C and D were associated mainly with the abundance of taxa such *Galathowenia oculata*, *Lanice conchilega*, *S. bombyx* agg., *Harpinia antennaria*, and *Spisula subtruncata*. Differences in taxa composition were associated with taxa such as *A. filiformis* and polychaetes of the genus *Leiochone*.

Colonial epifauna from the grab samples included *P. quadrata*, *C. hemisphaerica*, *E. Pilosa*, and species of Tubulariidae and Anthoathecata.

The seabed video and photographic analysis of stations in groups C and D (Appendix C.3) indicated a seabed comprising rippled sand and muddy sand with shell fragments and pebbles. Epibiota included *A. digitatum*, *A. rubens*, *A. irregularis*, and crabs of the family Paguridae with associated hydroids of the genus *Hydractinia*, anemones of the order Actiniaria, and fish of the infraorder Pleuronectiformes and the families Triglidae and Gadidae. Faunal burrows and mounds were recorded at stations ST009 and ST010, whereas piddocks (Imparidentia) were recorded at stations ST001 and ST003.

Figures 4.49 and 4.50 illustrate the EUNIS habitats and biotopes distribution in the DBS array and along the ECR, respectively.

Figures Figure 4.51 and Figure 4.52 illustrate the EUNIS habitats and biotopes in the DBS array and along the ECR, respectively, following extrapolation of grab samples and seabed video and photographic data over areas with similar geophysical signature.

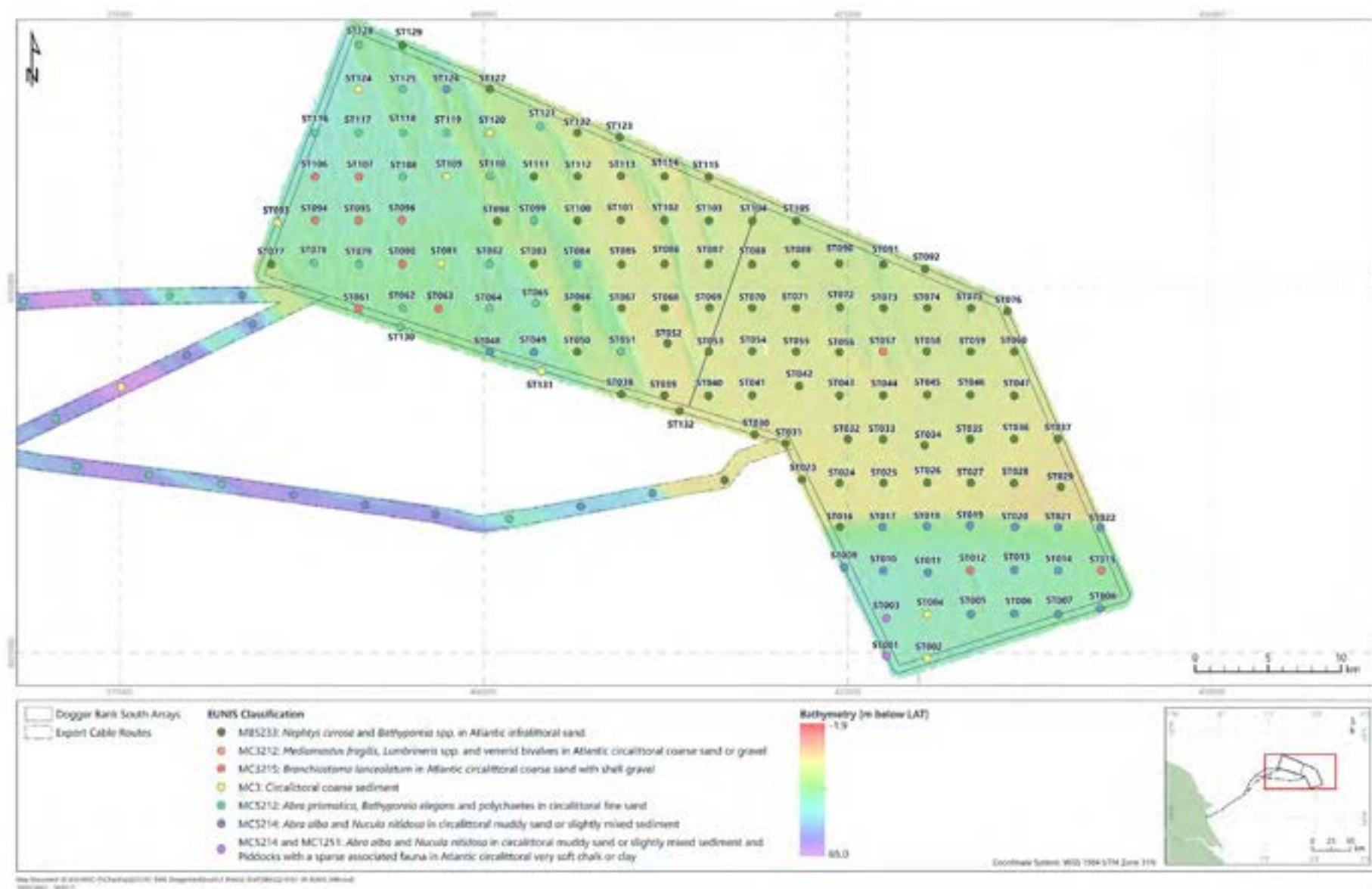


Figure 4.49: Spatial distribution of EUNIS habitats and biotopes, array, Dogger Bank South Site Investigation

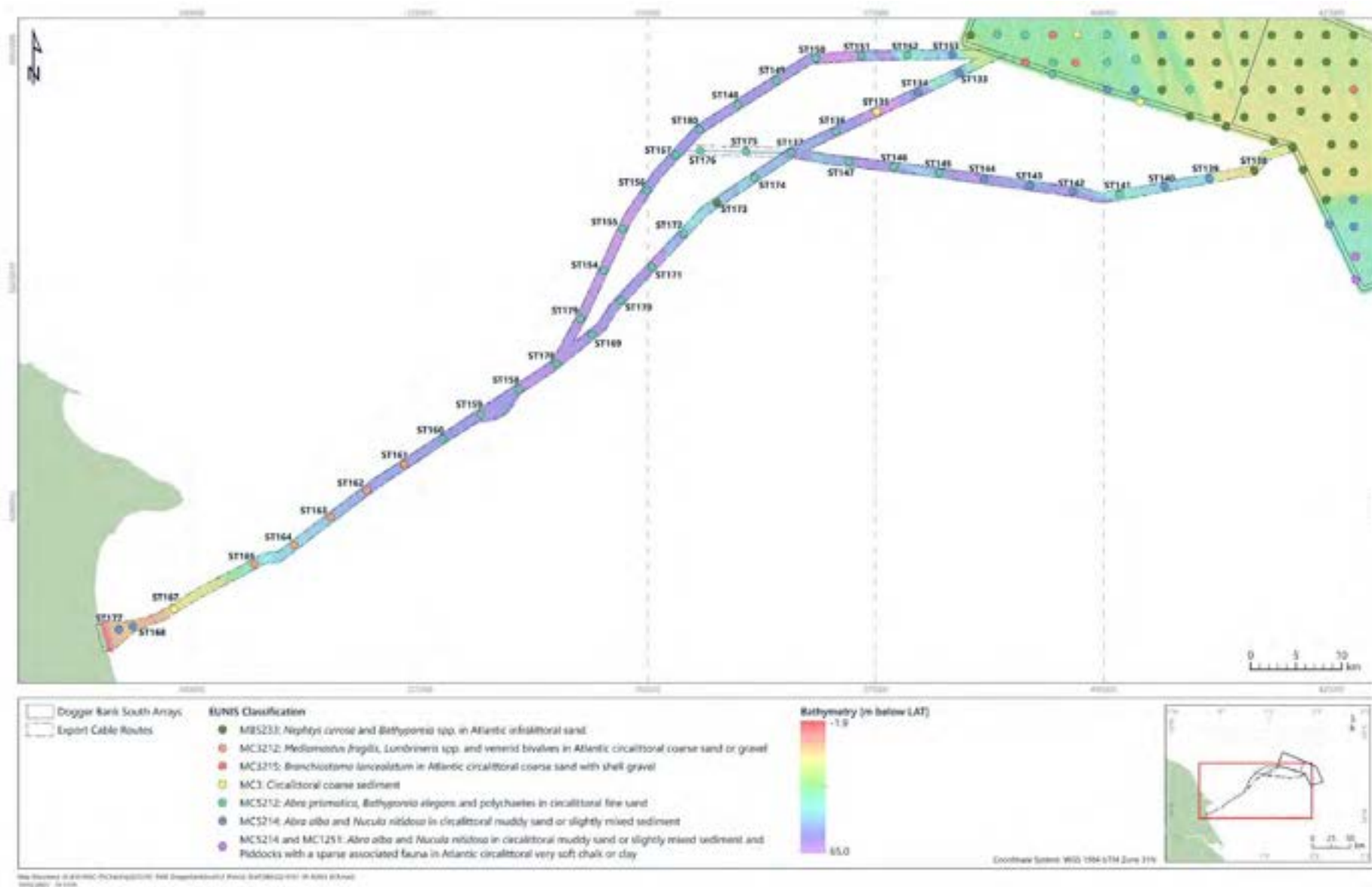


Figure 4.50: Spatial distribution of EUNIS habitats and biotopes, export cable route, Dogger Bank South Site Investigation

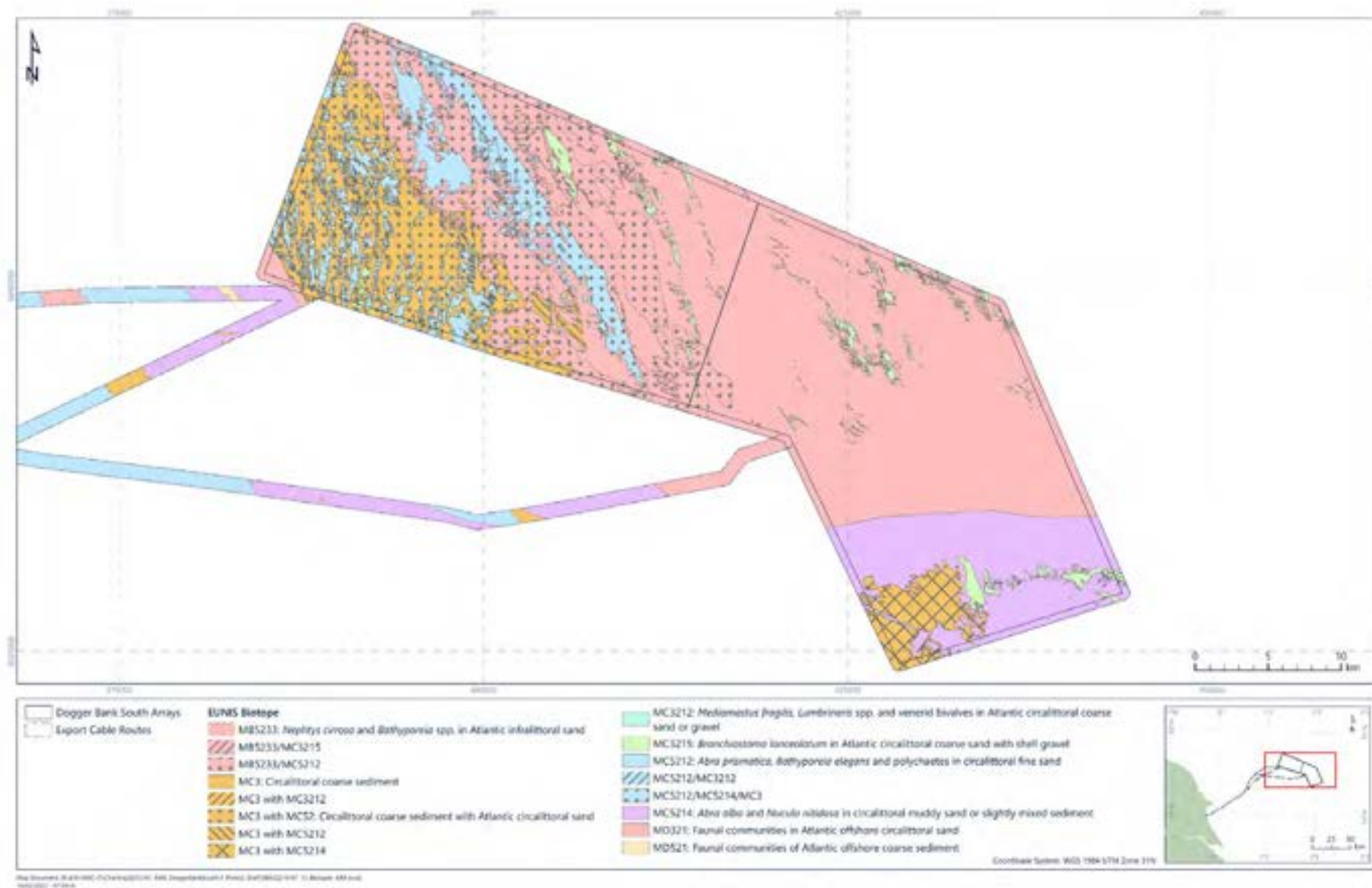


Figure 4.51: EUNIS habitats and biotopes following extrapolation of grab samples data over areas with similar geophysical signature, array, Dogger Bank South Site Investigation

004267914-03 | DBS WPM1 WPM2 WPM3 – Benthic Ecology Monitoring Report
Page 151 of 175

5. Discussion

Physico-chemical and biological analysis of sediment samples provided information for sediment, contaminants and biological communities characterisation across the DBS survey area. Data gathered are important components of environmental studies to support engineering design and/or EIA.

5.1 Sediment Characterisation

Results of the sediment PSD analysis of the grab samples indicated a predominantly sandy sediment, the mean sand content being 89 % and the median 98 %. Gravel content had the highest variation, with 7 stations being devoid of gravel, 98 stations with a gravel content < 1 %, 40 stations with a gravel content < 10 % and 13 stations with a gravel content > 50 %. The gravel content at the remaining 21 stations was between 10 % and 50 %. In general, the variation of gravel content was higher at stations along the ECR than that at stations in the array. The fines content was generally low, with 94 stations being devoid of fines, 76 stations with fines content < 10 % and 9 stations with fines content between 10 % and 18 %. In general, the variation of fines content was higher at stations in the array than that at stations along the ECR.

The coarseness of the sediment was assessed by means the Wentworth (1922) scale, through which seven sediment descriptions were identified. Of these, 'fine sand' described most stations in the array and along the ECR, followed by 'medium sand', 'coarse sand', 'granule', 'very coarse sand', and 'fine pebble'. In addition, 'coarse pebble' described one station along the ECR.

Seven sediment classes were identified through the Folk (BGS modified) classification. Of these, 'sand' typified most stations in the array and along the ECR, followed by 'sandy gravel', 'gravelly sand', 'muddy, sandy gravel' and 'muddy sand'. In addition, 'gravelly muddy sand' typified three stations in the array, whereas 'gravel' typified one station along the ECR.

The sorting coefficient reflected the diversity of the sediment and ranged from well sorted to very poorly sorted. In the array, most stations had moderately well sorted sediments whereas along the ECR most stations had well sorted sediment.

The sediment across the DBS array is typical of the Dogger Bank which is reported to range from shallow fine sands with shell fragments, to muddy sand at greater depth (Eggerton et al., 2016). In this study, shell fragments were recorded through in situ observation of the grab samples. This is of relevance as the PSD analysis does not discern between shells and gravel and may result in slightly gravelly sand being identified in areas which may actually represent shelly sand and which is also reported to be typical of the Dogger Bank (Diesing et al., 2009).

Patches of gravelly sediment are reported to occur in topographic depressions in water depth of less than 40 m (Diesing et al., 2009), whereas above the 30 m depth contour the sand

fraction is reported to be greater than 94 % (Van Moorsel, 2011). In this study, the water depth in the array ranged from 13.0 m BSL to 39.0 m BSL, with 89 of the 131 stations sampled in the array, being in water depth ≤ 30.0 m BSL. Gravelly sediments are reported as 'gravel', 'sandy gravel', 'gravelly sand', 'gravelly muddy sand', and 'muddy sandy gravel' based on the Folk (1954) classification (Diesing et al., 2009).

Muddy sediments are reported to include only 'muddy sand' which occurs sporadically below the 50 m contour (Diesing et al., 2009). In this study, 81 of the 131 stations sampled in the array were devoid of mud and, where present, the mud content was ≤ 18 % resulting in two stations being classified as 'muddy sand' and three stations as 'muddy sandy gravel' (Folk BGS modified).

The sediment recorded at stations along the ECR is typical of this region of the North Sea, where the offshore seabed is reported to comprise predominantly 'sand', with 'gravelly sand' and 'muddy sand' patches, whereas closer inshore, the proportion of mud increases, resulting in areas of 'muddy sand', 'gravelly muddy sand', and 'muddy sandy gravel' (Jones et al., 2004). The nearshore seabed is reported to feature mixed sediments, including 'muddy gravel' and 'sandy gravel' (Jones et al., 2004), resulting in patchy distributions of sediment assemblages (Jones et al., 2004). In this study, the nearshore stations ST166 to ST168, in water depths ≤ 23.4 m (BSL) were characterised by 'gravel', 'sandy gravel' and 'sand', respectively, whereas nearshore station ST177, in water depth of 15.4 (BSL), was characterised by 'muddy sand' (Folk BGS modified). Patches of 'muddy sand' and 'sandy gravel', were recorded at offshore stations ST134 and ST135, in water depth of 60.7 and 67.7 m (BSL), respectively, whereas 'muddy sandy gravel' was recorded at stations ST163 to ST165 in water depth of 39.2 m to 53.6 m (BSL).

Most stations had unimodal distributions, peaking in the medium and fine sand regions. Bimodal and polymodal distributions were recorded at 22 stations in the array and 6 stations along the ECR, indicating different sediment sources (Hein 2007). These are likely to be represented by physical disturbance associated with the tidal and storm-induced currents on the Dogger Bank, as well as fluvial sediment input.

5.2 Sediment Chemistry

5.2.1 Sediment Hydrocarbons

5.2.1.1 Total Hydrocarbons

Across the DBS survey area THC ranged from < 1 mg/kg to 109 mg/kg with one station (ST161) above the Cefas AL1 (100 mg/kg). THC concentrations were generally higher at the stations closer to the shore along the ECR than the stations in the array offshore. It is worth noting that the Cefas AL1 for THC is currently used as a guideline in the absence of full data for PAHs to assess whether dredged material can be disposed of to sea by the regulators and their scientific advisors (Mason et al., 2022). The use of THC is limited in that it provides no indication of toxicity and may be conservative as indicated by most sediment failing this

threshold; in addition, there is large inter-laboratory method variability (Mason et al., 2022). Overall, results from this study are indicative of some anthropogenic input, as in general, marine sediments are considered unpolluted if THC is below 10 mg/kg (Farrington & Tripp, 1977; Volkman et al., 1992; Readman et al., 2002) and THC concentrations were above 10 mg/kg at one station in the array and four stations along the ECR.

5.2.1.2 Aromatic Hydrocarbons

Monitoring of aromatic hydrocarbon type and content is important due to the particularly toxic nature (mutagenic/carcinogenic) of several PAHs, particularly the heavier weight PAHs. The US EPA has identified 16 priority PAHs to be monitored (Keith, 2014) and the CEMP specifies 9 PAHs of specific concern (OSPAR, 2014), which primarily reflect inputs from man-made combustion sources.

The PAH concentrations were below all marine SQGs at all stations with the exception of naphthalene at one station (ST168; 46.0 µg/kg) which was above the Canadian SQG TEL of 34.6 µg/kg.

The total concentrations of the 22 PAHs analysed were generally lower than or within the range of 360 mg/kg to 549 mg/kg reported for CSEMP station 345 (Cefas, 2012) located near the current survey area, with the exception of station ST168. Station ST168 was the closest to the shore, with a higher likelihood of the sediment here being influenced by terrestrial run-off. PAH concentrations in stations offshore in the array were generally lower than PAH concentrations closer to the shore along the ECR.

5.2.2 Sediment Metals

Metals concentrations across the DBS survey area were below the marine SQGs for all metals analysed, with the exception of arsenic and lead at some stations.

Arsenic concentrations were above the Canadian SQG TEL at 11 stations, with station ST164 also above the Canadian SQG PEL. Arsenic concentrations at 3 stations (ST125, ST161, and ST164) were above the Cefas AL1 with the arsenic concentration at station ST164 also above the NOAA ERM. It is worth noting that the value of the Canadian TEL for arsenic (7.24 mg/kg) is lower than that of the NOAA ERM (8.2 mg/kg), which has been considered too low (de Mora et al., 2004) particularly as uncontaminated coastal sediments are generally reported to have arsenic concentrations between 5 mg/kg and 15 mg/kg (Neff, 1997). Importantly, the NOAA ERMs for arsenic have not been adopted for the assessment of contamination status in the OSPAR maritime area, as they are below the BAC (OSPAR, 2009).

Natural sources of arsenic in the marine environment include mineral erosion, (Neff, 1997), whereas anthropogenic sources include mining, burning of fossil fuels and surface run-off (Neff, 1997; Nriagu, 1990). The arsenic concentrations recorded in this study (2.2 mg/kg to 73.4 mg/kg) were within the range of < 0.15 mg/kg to 135 mg/kg reported for the wider Southern North Sea area (Whalley et al., 1999). Stations ST164 and ST161 are located along the ECR, close to the shore with the potential for terrestrial run-off while the sediment

characterisation results show there is a small amount of fines at both stations, which can bind to contaminants such as metals. These factors may account for the elevated arsenic concentrations at these stations. Station ST125 is located further offshore within the array and the sediment here contains no fines, so it is not possible to attribute a reason for the higher arsenic concentration here. It is worth noting that Whalley et al. (1999) reported a high variation in arsenic concentrations throughout the greater Southern North Sea, with unexpectedly high concentrations of arsenic (> 70 mg/kg) at some offshore locations.

Lead concentrations were below all environment quality standards at all stations except for the lead concentration at station ST164 which was above the Canadian SQG TEL. Terrestrial activities such as mining and industrial discharges represent two significant sources of lead input into the marine environment (Rowlatt & Lovell, 1994; Botté et al., 2022). Station ST164 is located close to the shore with terrestrial sources potentially accounting for the elevated lead concentrations (Davies, 1993; Rowlatt & Lovell, 1994; Espejo et al., 2019; Botté et al., 2022).

5.2.3 Sediment Polychlorinated Biphenyls

PCBs are a group of industrial chemicals used in electrical equipment. Although the use of PCBs has been banned for many years, they can persist in marine sediments owing to their resistance to degradation (Geyer et al., 1984).

The PCBs analysed in this study had concentrations below their respective LODs except for selected congeners at two stations found in the west of the array. However, all total PCB concentrations were below the Cefas marine ALs.

5.2.4 Sediment Organotins

Organotin compounds have historically been used in marine antifouling products; however, their use is now prohibited, following evidence of their toxicity to selected marine organisms. However, TBT, one of the most toxic contaminants, may still enter the marine environment through sources such as wastewater, as TBT is used as a biocide in preserving wood, textile, papers, and stonework (Díez et al., 2005). Amongst the toxic effect of TBT is imposex, that is the imposition of male characteristics on the female gastropod *Nucella lapillus*, following exposure to concentration levels as low as 1 ng/L, with severe cases resulting in sterilisation of the organisms (Bryan et al., 1987).

The TBT degradation results in the production of DBT and monobutyl tin. These are used as stabilisers in polyvinyl chloride (PVC) production (Díez et al., 2005) and, although found to be less toxic than their parent compound, cause toxicity to some aquatic organisms (Huang et al., 2004).

The organotin compounds analysed in this study, specifically DBT and TBT, had concentrations below their respective LODs and below the Cefas ALs across both the array and the ECR.

5.3 Macrofaunal Communities

5.3.1 Grab samples

Macrofaunal communities recorded across the DBS survey area were represented mainly by Annelida which dominated in terms of taxa composition and abundance and comprised polychaetes, such as *S. bombyx* agg., *S. armiger*, *O. borealis*, and species of *Notomastus* and *Owenia*, which were amongst the top five most abundant annelids. Of these, *S. bombyx* agg., *Owenia*, and *S. armiger* were also the most frequently occurring taxa along with *N. cirrosa* and *L. koreni*. The polychaete *S. spinulosa* was recorded at seven stations with the highest abundance of 19 individuals recorded at station ST161 along the ECR. This is of relevance in relation to the habitat reef that this polychaete can build under a given set of environmental conditions (Limpenny et al. 2010). In the North Sea, *S. spinulosa* occurs mostly as solitary or in small groups encrusting pebbles, shells and bedrock (Biodiversity Reporting and Information Group [BRIG], 2011), in line with the results of this study.

Arthropoda were the second most represented phylum in terms of taxa composition and the third most abundant across the DBS survey area. Arthropoda comprised amphipods such as *B. elegans*, *B. guilliamsoniana*, *P. marina*, and *U. marina*, and the cumacean *D. rugosa*, which were amongst the top five most abundant arthropods. All, except *U. marina*, were also the most frequently occurring arthropods, along with *Perioculodes longimanus*. Of these amphipods, *U. marina*, is reported in association with the urchin *E. cordatum* (Hill, 2008), which was amongst the most abundant and frequently occurring echinoderms recorded in this study.

Mollusca were the third most represented phylum in terms of taxa composition and the second in terms of abundance. Molluscs comprised bivalves such as *A. alba*, *C. striatula*, *F. fabula*, *A. prismatica*, and *Thracia phaseolina*, which were amongst the top five most abundant molluscs. All but *A. alba* were also the most frequently occurring molluscs along with *E. ensis*. The bivalves *K. bidentata* and *N. nitidosa* were recorded at notable abundance at selected stations across the DBS survey area. Some of these molluscs are opportunistic species; for example, bivalves of the genus *Abra* are reported to be capable of exploiting newly disturbed substratum through larval recruitment, secondary settlement of post metamorphosis juveniles, and/or redistribution of adults (De-Bastos, 2016). Similarly, *K. bidentata* is reported to occur in association with burrows of brittlestars of the order Ophiuroidea (Gofas & Salas, 2008) which were also recorded in this study. High density populations of species of *Nucula* have been reported to occur in muddy sandy habitats exposed to a degree of wave action (Sabatini & Ballerstedt, 2008), as well as on sandbanks (Roche et al., 2007; Walker & Rees, 1980).

Echinodermata contributed the least to the taxa composition and abundance and comprised urchins such as *E. pusillus* and *E. cordatum* and brittlestars such as *A. filiformis*, *Acrocnida brachiata*, and *Ophiura albida*, which were amongst the top five most abundant and frequently occurring echinoderms. These taxa are reported to be typical of habitats with

mixed coarse sediments exposed to strong tidal currents (Jackson, 2008), with species such as *E. pusillus* inhabiting the interstices of gravelly substrata (Rees et al., 2007) and *A. brachiata* being generally associated with *E. cordatum* (Barnes, 2008),

Other phyla were represented mainly by species of Nemertea and *Phoronis*, the lancelet *B. lanceolatum*, and anemones such as *Cerianthus lloydii*, and species of the family Edwardsiidae.

The macrobenthic communities recorded in this study are in line with those reported to be typical of this region of the North Sea (Reiss et al., 2010), including the Dogger Bank (Diesing et al., 2009), characterised by habitats subject to a degree of surface sediment disturbance, as indicated by the widespread occurrence of *S. bombyx* (Ager, 2005) and crustacean amphipods (Tillin et al., 2019). The presence of coarse sediment, including shells, may provide a greater number of microhabitats including suitable substrate for the attachment of solitary (e.g. ascidians) and colonial epifaunal taxa (e.g. bryozoans), increasing the structural complexity of the habitat by providing important microhabitats (Biodiversity Reporting and Information Group [BRIG], 2011).

In general, the faunal diversity, calculated through the Shannon-Wiener ($H'Log_2$) and assessed in line with the criteria of Dauvin et al. (2012), was good across the DBS survey area, with faunal abundances fairly evenly distributed across the taxa recorded, as indicated by the Pielou's index of evenness.

Eight macrofaunal assemblages were identified through the multivariate analysis, each group having an average similarity $\leq 48.2\%$ and reflecting the diversity of the sediment. This was further confirmed by the correlation between the observed pattern of macrofaunal distribution and the sediment particle sizes and depth, in line with the literature which report granulometry and depth as the main physical variables influencing the macrofaunal distribution in the North Sea (Künitz et al., 1992; Reiss et al., 2010; Callaway et al., 2002; International Council for the Exploration of the Sea [ICES], 2008), including that of the Dogger Bank (Diesing et al., 2009). Thus, coarse sediments featured invertebrates such as *G. lapidum*, *M. fragilis*, and *L. cf. cingulata*, which are reported to prefer coarse substrate (Tillin, 2022), and the lancelet *B. lanceolatum*, which is reported to prefer sandy habitats mixed with shells (Barnes, 2015). More compact and finer sediments had a prevalence of opportunist bivalves, including *F. fabula* which is capable of withstanding physical disturbance owing to its flexible feeding method (Rayment, 2008).

The infaunal biomass was represented mainly by echinoderms and molluscs, the former owing to the abundance as well as the size of urchins, namely *E. pusillus*, which can reach 1 cm in diameter (Lumbis, 2008), and *E. cordatum*, which can grow up to 9 cm (Hill, 2008), but also the brittlestar *A. brachiata*, the arms of which can reach up to 18 cm (Barnes, 2008). The biomass of molluscs was associated with the abundance as well as the size of selected bivalves, namely *C. striatula*, *P. pellucidus*, and *M. stultorum*, which can reach 4.0 cm, 4.5 cm, and 5.1 cm respectively (Oliver et al., 2016).

Colonial epifauna was recorded across most of the survey area and was represented mainly by low-lying bryozoans and hydroids capable of colonising small irregular patches on stones and shells (Tyler-Walters, 2005) and Ciliophora of the family Folliculinidae.

5.3.2 Epibiota from Beam Trawl Samples and Seabed Video

Results of the beam trawl samples indicated a prevalence of arthropods in terms of taxa composition and abundance. Fish were the second most represented taxonomic group in terms of taxa composition while echinoderms were the second most represented taxonomic group in terms of abundance.

Arthropods were represented mostly by crustaceans such as *Crangon allmanni*, *Pandalus montagui*, *Liocarcinus holsatus*, *Liocarcinus depurator*, and *Pandalina brevirostris*, which were the top five most abundant taxa. Of these, *L. holsatus* and *L. depurator* were also amongst the most frequently occurring taxa along with *Pagurus bernhardus*, *Pisidia longicornis*, and *Macropodia rostrata*. The seaspider *Nymphon brevirostre* was also recorded.

Echinodermata were represented mainly by *Asterias rubens*, *Psammechinus miliaris*, *Astropecten irregularis*, *Luidia sarsii*, and *Ophiothrix fragilis*, which were the top five most abundant and frequently occurring species.

Mollusca were represented mainly by the gastropods *Buccinum undatum*, *Steromphala tumida*, and *Aporrhais pespelecani*, the bivalve *Aequipecten opercularis*, and the cephalopod *Sepiella atlantica*.

Twenty-nine fish were recorded through the trawl samples, including *Limanda limanda*, *Pleuronectes platessa*, *Arnoglossus laterna*, *Buglossidium luteum*, and species of *Callionymus*, including *Callionymus lyra*, which were the top five most abundant and frequently occurring taxa. It is noteworthy that the list of fish species found in this study cannot be exhaustive due to the seasonality of many fish and shellfish and the natural sporadic recruitment of juveniles into the system on an annual basis. In addition, owing to the mobile nature of fish and larger mobile epibenthic fauna a patchy distribution is to be expected when sampling, particularly when compared to the sessile epibenthic fauna which colonise all available suitable substrate within the range of their mobile larval stage.

The measurement of the commercial fish was compared to the average size attained by each species to gauge information on the age.

The dab *L. limanda* can reach 42 cm in length, but it is usually 25 cm (Maitland and Herdson, 2010), compared to a maximum length of 24 cm and a median of 16 cm, the most frequently occurring measurement being 16 cm in this study. This species lives at depths of 20 m to 40 m, and small specimens are found as shallow as 2 m (Maitland and Herdson, 2010).

The sculdfish *A. laterna* can reach 19 cm in length (Maitland and Herdson, 2010) compared to a maximum length of 14 cm and a median of 10 cm, the most frequently occurring

measurement being 10 cm in this study. This species occurs on sandy bottoms at depths of 10 m to 60 m (Maitland and Herdson, 2010).

The plaice *P. platessa* can reach 91 cm in length, though it is usually 50 cm (Maitland and Herdson, 2010), compared to a maximum length of 36 cm and a median of 21 cm, the most frequently occurring measurements being 10 cm in this study. This species occurs at depths of 10 m to 50 m, and young occur in the shoreline to 10 m depth (Maitland and Herdson, 2010).

The lemon sole *M. kitt* can reach 66 cm in length (Maitland and Herdson, 2010), compared to a maximum length of 23 cm and a median of 17 cm, the most frequently occurring measurement being 17 cm in this study. This species occurs on sandy and gravelly sediments, including rocky grounds, and infrequently mud at depths of 40 m to 200 m particularly on offshore banks (Maitland and Herdson, 2010).

The red gurnard *C. cuculus* can reach 70 cm in length, though it is usually 27.6 cm (Froese et al., 2022), compared to a maximum length of 17 cm and a median of 8 cm, the most frequently occurring measurement being 7 cm in this study. This species occurs at depths of 15 m to 400 m, but more usually at 30 m to 250 m (Froese et al., 2022).

The Dover sole *S. solea* can reach 70 cm in length though it is usually between 30 cm and 40 cm (Maitland and Herdson, 2010), compared to a maximum length of 50 cm and a median of 25 cm, the most frequently occurring measurement being 20 cm in this study. This species is common on sandy and muddy grounds, from 10 m to 100 m, occasionally occurring as deep as 160 m, while young specimens can be found in intertidal pools on sandy shores (Maitland and Herdson, 2010).

The lesser spotted catshark *S. canicula* can reach 100 cm in length though more usually is 60 cm to 70 cm long (Maitland and Herdson, 2010), compared to the one specimen 30 cm long in this study. This species occurs on sandy bottoms at depths of 3 m to 110 m, with the young and newly-hatched fish occurring at shallower depths (Maitland and Herdson, 2010).

The monkfish *L. piscatorius* can reach 200 cm in length though more usually are less than 120 cm (Maitland and Herdson, 2010), compared to the one specimen 24 cm long in this study. This species occurs on sandy, shell or gravel bottoms, less abundantly on muddy or rough grounds, at depths of 2 m to 3 m below the tide mark down to 550 m, although it is most commonly found at depths of 18 m (Maitland and Herdson, 2010).

The thick backed sole *M. variegatus* can reach 33 cm in length (Maitland and Herdson, 2010), compared to the one specimen 17 cm long in this study. This species occurs on sand and sand and gravel bottoms at depths of 40 m to 90 m (Maitland and Herdson, 2010).

The long rough dab *H. platessoides* can reach 50 cm in length, though it is usually 30 cm (Maitland and Herdson, 2010), compared to the one specimen 19 cm long in this study. This species occurs on fine sand or muddy bottoms at depths of 4 m to 400 m, though more abundantly at depths of 40 m to 180 m (Maitland and Herdson, 2010).

The whiting *M. merlangus* can reach 70 cm in length, but it is usually between 30 cm and 40 cm (Maitland and Herdson, 2010), compared to a length of 28 cm in this study. The species occurs in shallow waters and small specimens occur inshore (Maitland and Herdson, 2010).

Several of the taxa recorded in the trawl samples were recorded also in the seabed video, in addition to bryozoans of the families Flustridae and the genus *Bugula* and cnidarians of the family Tubulariidae and the genera *Halecium* and *Nemertesia*, as well as crustaceans such as *Homarus gammarus* and species of the infraorder Caridea.

The epibenthic communities recorded by the beam trawl and seabed video are comparable to those reported for the shallower sediment areas of the southern North Sea (Callaway et al., (2002); Jennings et al., (1999)) and the sandbanks (Ellis, et al., 2011)

5.4 Seabed Habitats and Biotopes

One habitat and five biotopes were identified in the DBS survey area.

The habitat 'Circalittoral coarse sediment' (MC3) was assigned to 10 stations, including 8 in the array and 2 along the ECR. These stations featured coarse and/or mixed sediments with relatively low species richness and abundance represented by polychaetes and bivalves.

The biotope '*Nephtys cirrosa* and *Bathyporeia* spp. in Atlantic infralittoral sand' (MB5233) was assigned to 75 stations including 73 in the array and 2 along the ECR. These stations featured sandy sediment populated by robust polychaetes and fast-swimming amphipods. This biotope occurs in sediments subject to physical disturbance owing to hydrodynamics, consequently the faunal diversity is reduced compared to that of less disturbed biotopes. Stochastic recruitment events in the *N. cirrosa* populations may create a degree of variation in community composition (EEA, 2022).

The biotope '*Branchiostoma lanceolatum*' in Atlantic circalittoral coarse sand with shell gravel (MC3215) was assigned to 11 stations in the array. These stations featured coarse sediment and notable abundance of the lancelet *B. lanceolatum*. This biotope is related to the 'Boreal Offshore Gravel Association' and 'Deep Venus Community' and may be an epibiotic overlay of the biotope '*Mediomastus fragilis*, *Lumbrineris* spp. and venerid bivalves in Atlantic circalittoral coarse sand or gravel' MC3212 (EEA, 2022).

The biotope '*Mediomastus fragilis*, *Lumbrineris* spp. and venerid bivalves in Atlantic circalittoral coarse sand or gravel' (MC3212) was assigned to five stations along the ECR. These stations featured coarse sediment with a mud content of between 5.14 % and 7.23 % and the fauna was typified by polychaetes and bivalves. This biotope, previously described as the 'Deep Venus Community' and the 'Boreal Off-Shore Gravel Association', may be part of the in the 'infralittoral etage' described by Glemarec (1973, cited in EEA, 2022). This biotope may be variable over time (EEA, 2022).

The biotope '*Abra prismatica*, *Bathyporeia elegans* and polychaetes in circalittoral fine sand' (MC5212) was assigned to 46 stations, including 18 in the array and 28 along the ECR. These stations featured sandy sediments with a mud content of up to 7.16 % and the fauna was typified by bivalves, amphipods and polychaetes. This biotope has been reported in the central and northern North Sea (EEA, 2022).

The biotope '*Abra alba* and *Nucula nitidosa* in circalittoral muddy sand or slightly mixed sediment' (MC5214) was assigned to 31 stations, including 21 in the array and 10 along the ECR. These stations featured poorly sorted muddy sand and the fauna was typified by bivalves and polychaetes. This biotope is part of the *Abra* community defined by Thorson (1957, cited in EEA, 2022) and the 'infralittoral etage' described by Glemarec (1973, cited in EEA, 2022).

5.4.1 Potentially Sensitive Habitats and Species

Most of the biotopes recorded across the DBS survey area are part of the BSH 'Subtidal sands and gravel', which is a UK BAP priority habitat (BRIG, 2011) and a habitat of conservation importance (HOCl) in MCZs (JNCC, 2016).

'Piddocks with a sparse associated fauna in Atlantic circalittoral very soft chalk or clay' (MC1251), recorded through the seabed video and photographic data (detailed in Fugro 2022a), is a UK BAP priority habitat for being fragile and irreplaceable (BRIG, 2011) and may occur in the habitat 'Peat and clay exposure', which is a HOCl in MCZ (JNCC, 2018).

Aggregation of cobbles, along transects at 16 stations, were assessed for the potential of these aggregations to constitute Annex I habitat 'Reef', in line with the criteria detailed in Irving (2009) for geogenic reefs (detailed in Fugro 2022a). The overall assessment indicated 'no resemblance' to a stony reef at most stations. One area along the transect at station ST167, and one area along the transect at station ST181 had 'low resemblance' to a stony reef. These areas are a component part of the mixed sediment seabed type that characterises this region of the North Sea and unlikely to be considered to represent Annex I habitats, in line with Irving (2009) guidelines whereby if a 'low' is scored in composition, elevation, extent, or biota, then a strong justification would be required for this area to qualify as Annex I habitat 'Reefs' under the current marine nature conservation legislation.

Several of the habitats and associated fauna recorded through the grab sampling and/or the seabed video and photography, are considered characteristic of the Annex I habitat 'Sandbanks which are slightly covered by sea water all the time' for which the Dogger Bank SAC is designated (JNCC, 2022b). Typical taxa include polychaete worms, crustaceans, anthozoans, burrowing bivalves, and echinoderms, as well as fish, notably, species of the genus *Callionymus* and *Ammodytes* (EC Interpretation Manual, 2013). Many of the fish and benthic species observed on the sandbanks are widely distributed in other sandy habitats on the continental shelf, therefore the fauna of sandbank communities may simply be based on a specialized niche of the sand-associated fauna of the region, rather than being obligate sandbank species, and, as such, occur on other sandy habitats in other regions. It is the local

abundance of selected species, such as *E. vipera*, which are potentially indicative of such habitats (Ellis et al., 2011).

In this study, fifteen individuals of *E. vipera* were recorded in four trawl samples, including trawl samples BT01, BT06, and BT07 in the array and BT22 along the ECR. Of these, trawl sample BT06, comprised 11 individuals of *E. vipera* and BT01 comprised 2 individuals, whereas BT07 and BT22 each comprised 1 individual. In addition, one individual of *E. vipera* was recorded in the grab sample at station ST066. Results of the multivariate analysis of the trawl samples indicated that *E. vipera* was not a characterising taxa of the multivariate groups.

Other species reported as indicators of sandbanks are *Philocheras trispinosus* and *P. bernhardus* (Kaiser et al., 2004). In this study *P. trispinosus* was not recorded, however, invertebrates of the infraorder Caridea were recorded through the video at station ST128, in the array. With regard to *P. bernhardus*, 116 individuals were recorded in 16 trawl samples, including trawl samples BT09, BT12, and BT24, which comprised 30, 26, and 28 individuals, respectively. Results of the multivariate analysis indicated that *P. bernhardus* was amongst the top five characterising taxa of multivariate group B, which comprised trawl samples BT03 and BT04.

Of the fish recorded, *P. platessa*, *S. solea*, and *Gadus morhua* are UK BAP priority species (JNCC, 2019). In addition, *G. morhua* is also on the OSPAR list of threatened and/or declining habitats and species for regions II and III (OSPAR, 2022), the Dogger Bank being part of OSPAR region II. This species is also on the IUCN red list of threatened species as 'vulnerable' (IUCN, 2022).

Of the family Ammodytidae, *Ammodytes marinus* is a UK BAP priority species (JNCC, 2019). In this study, species of Ammodytidae and *Ammodytes* were recorded in the trawl samples and through the video, whereas 20 individuals of *Ammodytes tobianus* were recorded in the grab samples from 12 stations.

Anemones of the family Edwardsiidae were recorded from the grab samples and may include the UK BAP species *Edwardsia timida* (JNCC, 2019).

5.5 Cryptogenic and Non-native Species (NNS)

Non-native species (NNS) are those that have reached the UK by accidental human transport, deliberate human introduction, or which have arrived by natural dispersion from a non-native population in Europe (Government Digital Service [GDS], 2021). Once introduced, some NNS can become established (grow and reproduce successfully) and their subsequent dispersal from the point of introduction can result in environmental and economic impact (Cottier-Cook et al., 2017). The NNS that have a negative impact on biodiversity, through the spread of disease, competition for resources, or by direct consumption, parasitism, or hybridisation, are termed 'invasive' (GDS, 2021).

Cryptogenic species are those of unknown origin, as such they are not demonstrably native nor introduced (Eno et al., 1997).

The NNS recorded in the grab samples included the polychaete *Goniadella gracilis*. This species was first recorded in 1970 in Liverpool Bay and had been previously reported from South Africa and North America, from where it was originally described. Although the method of introductions is unknown, this species is likely to have been introduced from the United States east coast through trans-Atlantic shipping. In the British Isles, this species is common in Liverpool Bay in sandy gravel at depth greater than 15 m and widespread in the southern Irish Sea (Eno et al., 1997) and in Europe it has been recorded in bay of Douarnenez in France (Ifremer, 2004). In this study, 15 individuals of *G. gracilis* were recorded, including 6 individuals at station ST131, 3 individuals at station ST012, 2 individuals at station ST063 and 1 individual at stations ST015, ST080, ST107, and ST133.

The cryptogenic species recorded in the grab samples included the polychaetes *Polydora cornuta* and ascidians of the genus *Molgula*, the latter potentially including the cryptogenic species *Molgula manhattensis*.

The polychaete *P. cornuta* is reported to be widely distributed from the Atlantic to the Pacific and reported for the first time in the Mediterranean in 2008 in organically enriched and polluted environments (Simboura et al., 2008). In this study, one individual of *P. cornuta* was recorded in the grab sample from station ST001. Two individuals of the genus *Molgula* were recorded, including one from station ST106 and one from station ST164.

The NNS recorded are not included in the invasive species England Biodiversity Indicator for 2021 (Harrower et al., 2021).

6. Conclusions

The benthic environment across the DBS survey area was characterised through a subtidal survey which comprised acquisition of seabed video and photographic data and grab samples, which were analysed to identify habitats and to evaluate the physico-chemical and biological conditions of the seabed. The results were used to derive biotopes, in line with the EUNIS habitat classification, which were assessed for conservation importance and contextualised within the geographical setting of the survey area. Epibenthic survey trawls allowed evaluation of epibenthos and fish and shellfish species.

The sediment across the DBS survey area featured mainly sand and to a lesser extent gravel, with small percentage of fines. The varying percentages of the main sediment fractions resulted in seven sediment classes being identified under the Folk (BGS modified) classification, including 'sand' which typified most stations, followed by 'sandy gravel' and 'gravelly sand', 'muddy sand', and 'muddy sandy gravel', 'gravelly muddy sand' and 'gravel'. The coarseness of the sediment resulted in seven sediment descriptions using the Wentworth (1922) scale including 'fine sand' and 'medium sand', which described most stations, followed by 'medium sand', 'coarse sand', 'granule', 'very coarse sand', 'fine pebble', and 'gravel', the latter describing one station. The sorting coefficient reflected the diversity of the sediments and ranged from well sorted to very poorly sorted with most stations having moderately well sorted sediments. The sediment disturbance, likely due to regional hydrodynamics and fluvial inputs, was reflected in the bimodal and multimodal distribution of sediment particle size recorded at selected stations. The sediments across the survey area are typical of the Dogger Bank and the marine habitats offshore and nearshore north-east England.

THC values were below marine SQGs for all stations except for station ST161 where the THC was above the Cefas AL1. The THC content in the array was generally lower than the THC content along the ECR.

Concentrations of all PAHs analysed were below the marine SQGs at all stations apart from naphthalene at station ST168 which exceeded the Canadian TEL.

Arsenic concentrations were above the Canadian SQG TEL at 11 stations with station ST164 also above the Canadian SQG PEL. Three stations (ST125, ST161, and ST164) were above the Cefas AL1 concentration with station ST164 also above the NOAA ERM. However, the arsenic concentrations in the current survey were within the range reported previously from the region.

The lead concentration at station ST164 was above the Canadian SQG TEL.

All other metals concentrations were lower than all environmental quality standards.

The concentrations of the sum of the 25 PCB congeners analysed and the organotins (DBT and TBT) were below the Cefas ALs at all stations.

Macrofauna from the grab samples comprised infaunal and epifaunal taxa, the latter being represented by solitary and colonial organisms. Annelida represented most of the community structure and composition of the enumerated fauna, which comprised infauna and solitary epifauna. The faunal community structure and composition reflected the sediment diversity and associated hydrodynamics, as typically reported for this region the North Sea. Macrofaunal richness and diversity were generally higher at stations with coarse and diverse sediment, which had also higher number of colonial epifaunal taxa, represented mainly by bryozoans, hydroids, and sponges.

The biomass of invertebrates from the grab samples was dominated by echinoderms and molluscs, the former owing to the presence of large species such as urchins and the latter owing to numerical abundance and to a lesser extent the size of selected bivalves.

Macrofauna from the trawl samples and seabed video comprised large mobile taxa such as crustaceans and fish as well as colonial epifauna, notably bryozoans, which are reported to be typical of the shallow areas of the southern North Sea.

One habitat and five biotopes were identified following integration of data from the grab samples and the seabed video and photography, namely '*Nephtys cirrosa* and *Bathyporeia* spp. in Atlantic infralittoral sand' (MB5233), which typified most stations, followed by '*Abra prismatica*, *Bathyporeia elegans* and polychaetes in circalittoral fine sand' (MC5212); '*Abra alba* and *Nucula nitidosa* in circalittoral muddy sand or slightly mixed sediment' (MC5214); '*Branchiostoma lanceolatum* in Atlantic circalittoral coarse sand with shell gravel' (MC3215); 'Circalittoral coarse sediment' (MC3) and '*Mediomastus fragilis*, *Lumbrineris* spp. and venerid bivalves in Atlantic circalittoral coarse sand or gravel' (MC3212).

Aggregations of cobbles at 16 stations were evaluated for the potential of Annex I habitat 'Reef' (geogenic). The overall assessment for the aggregations of cobbles was of 'no resemblance' or 'low resemblance' to a stony reef and as such, unlikely to represent Annex I habitat under the current marine nature conservation legislation.

Some of the habitats and biotopes recorded are, or are representative of, UK BAP priority habitats and include 'Subtidal sands and gravel' and 'Piddocks with Sparse Associated Fauna in Sublittoral Very Soft Chalk or Clay'.

Species of conservation importance recorded in this study included the fish *P. platessa*, *S. solea* and *G. morhua*, which are UK BAP priority species. *Gadus morhua* is also on the OSPAR list of threatened and/or declining habitats and species for regions II and III and on the IUCN red list of threatened species as 'vulnerable'. Sandeel of the family Ammodytidae and anemones of the family Edwardsiidae were recorded, therefore there is the potential for the UK BAP species *A. marinus* and *E. timida* to occur in the DBS survey area.

One NNS was recorded in the grab samples, namely *G. gracilis* and one cryptogenic species, namely *P. cornuta*. In addition, species of the genus *Molgula* were recorded therefore there is the potential for the cryptogenic species *M. manhattensis* to occur in the DBS survey area.

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Appendices

Appendix A Guidelines on Use of Report

Appendix B Methodologies

B.1 Survey Methods

Appendix C Logs

C.1 Survey Log

C.2 Grab Log

C.3 Video and Photographic Log

Appendix D Sediment Particle Size and Grab Sample Photographs

D.1 Sediment Particle Size Certificates

D.2 Sediment Particle Size Data

D.3 Grab Sample Photographs

Appendix E Chemistry Analysis Certificates

Appendix F Macrofaunal Analysis

F.1 Subtidal Grabs Macrofaunal Abundance

F.2 Subtidal Grabs Macrofaunal Biomass

F.3 2 m Beam Trawls Macrofaunal Abundance

Appendix A

Guidelines on Use of Report

This report (the "Report") was prepared as part of the services (the "Services") provided by Fugro GB Marine Limited ("Fugro") for its client (the "Client") under terms of the relevant contract between the two parties (the "Contract"). The Services were performed by Fugro based on requirements of the Client set out in the Contract or otherwise made known by the Client to Fugro at the time.

Fugro's obligations and liabilities to the Client or any other party in respect of the Services and this Report are limited in time and value as defined in Contract (or in the absence of any express provision in the Contract as implied by the law of the Contract) and Fugro provides no other representation or warranty whether express or implied, in relation to the Services or for the use of this Report for any other purpose. Furthermore, Fugro has no obligation to update or revise this Report based on changes in conditions or information which emerge following issue of this Report unless expressly required by the Contract.

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Appendix B

Methodologies

B.1 Survey Methods

B.1.1 Sediment Grab Sampling

Faunal and particle size distribution (PSD) samples were acquired using a 0.1 m² Hamon grab. Chemistry samples were acquired using a 0.1 m² Day grab.

Operational procedures for grab sampling were as follows:

- The 0.1 m² Hamon grab or day grab were prepared for operations prior to arrival on station. A USBL beacon was attached to the grab frame. The Bridge communicated to the deck via a VHF radio when the vessel was steady and on location, and the grab was deployed from the port crane;
- When the engineer operating the winch observed that the grab had reached the seabed (evidenced through a distinct slackening of the wire rope and snatch block), the online surveyor was informed (via VHF radio) and a fix was taken;
- On recovery to the deck, the sample was inspected and judged acceptable or otherwise (see below for rejection criteria);
- One accepted Hamon grab sample was retained for faunal analysis and particle size distribution and one Day grab sample was retained and subsampled for chemical analysis;
- Deck logs were completed for each sample acquired (including no samples) with date, time, sample number, fix number, sediment type, depth and colour of strata in the sediment (if any) using Munsell colour codes, odour (i.e. H₂S), bioturbation or debris.

Samples were considered unacceptable in the following instances:

- Evidence of sediment washout caused through improperly closed grab jaws or inspection hatch;
- Sediment sample taken on an angle; where the grab jaws have not been parallel to the seabed when the grab fired;
- Disruption of the sample through striking the side of the vessel;
- Sample too small for requirements. Sample represented less than approximately 5 cm bite depth of the dual van Veen grab or Day grab, minimum sample size for 0.1 m² Hamon grab;
- Deemed unacceptable by the client representative for any other reason.

B.1.2 Chemical Sample Processing

- Chemical analysis (CA) samples were collected using a metal scoop to a nominal depth of 2 cm. Samples collected were CA1 and CA2. The samples were preserved in 1 L glass jars at approximately –20 °C.

B.1.3 Macrofauna and Sediment Particle Size Distribution Sample Processing:

Macrofauna and particle size distribution samples were processed as follows:

- Particle size distribution (PSD) samples were collected using a plastic scoop and subsampled from the faunal sample obtained by the Hamon grab;
- Macrofauna samples were processed in their entirety, by opening the spades to drop the grab into a container. All supernatant water was processed along with the sediment;
- The sample was transferred to a 0.5 mm mesh sieve and sediment washed out;
- Once sieved, samples were transferred to containers labelled with the job number, station code and fauna code (e.g., FA) and fixed in 10 % buffered formal saline. The sample containers were then sealed, hazard labelled and stored securely on deck.

B.1.4 2 m Beam Trawl Sampling

Seabed samples were acquired using a scientific 2 m beam trawl fitted with a 5 mm cod end. A concession was put in place prior to the survey commencing, with respect to a change in the cod end mesh size from 3 mm to 5 mm.

Operational procedures for grab sampling were as follows:

- The Bridge communicated to the deck via a VHF radio when the vessel was steady and on location, and the 2 m beam trawl was deployed;
- Once the trawl was in the water, the bridge was informed that the trawl was in the water;
- The cod end was allowed to stream out behind the vessel before the beam trawl was lowered to the required depth, the warp:water depth ratio was between 2:1 and 3:1, depending on water depth;
- When the trawl was on the seabed, a manual positional fix was taken;
- The beam trawl was towed along the seabed for approximately 800 m at a speed of 1.5 knots to 2 knots over the ground;
- When trawl sampling was completed, the bridge and deck were informed that retrieval of the trawl should commence, and a positional fix taken once the trawl had left the seabed;
- On recovery to the deck, the sample was inspected and judged acceptable or otherwise (see below for rejection criteria).

Samples were considered unacceptable in the following instances:

- Evidence of the trawl not fishing, such as non 'shiny' shoes on the underside of the beam trawl or the trawl has flipped over during deployment. Other damage to the trawl may result in it not fishing properly and result in a non-acceptable sample;
- Cod end became untied during deployment;
- Evidence that the trawl has dug into the seabed. This is normally evident through and abnormally large sample often containing substrate and infaunal species;
- A large hole being ripped in the cod end allowing sample to escape;
- The total trawl volume is < 5 L;
- Sample is more than the accepted range from the target location, trawl fished for insufficient period of time, or the trawl speed was outside acceptable limits.

B.1.4.1 Beam Trawl Sample Processing

Beam trawl samples were processed as follows:

- All fish species were identified to species level and enumerated, and commercial species were measured to the nearest cm, rounded down and returned to the sea;
- The remaining taxa were identified to species level and enumerated;
- Colonial epifauna were recorded as 'present';
- Any problematic taxa were returned to the laboratory for confirmation of identification.

B.1.5 Seabed Photography

Operational procedures for seabed photography were as follows:

- The camera was setup on deck prior to deployment and a test photograph taken;
- The camera was deployed into the water just below the sea surface, at which point the system was switched on;
- The camera was lowered to the seabed using the deck winch and recording started when the seabed was visible;
- The vessel was moved along the line with the winch adjusted to keep the seabed visible on the live feed;
- Still photography were taken when the environmental scientist manually triggered the camera while the camera moved over the seabed. Whenever a photograph was taken the surveyor captured a positional fix;
- The camera system switched off just beneath the surface and then recovered to the deck;
- On completion, photographs were downloaded and backed up onto the ship's system and an external hard drive.

The aim was to procure a minimum of three good still photographs per station to inform the habitat assessment. To achieve this, transects of approximately 100 m in length were proposed for all stations.

Appendix C

Logs

C.1 Survey Log

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
06/08/2022	21:15:59	ST181	Video	SOL	00003	291 294.1	5 986 494.6	291 354.6	5 986 480.1	12.6	62.2	-
06/08/2022	21:16:17	ST181	Still	210761_ST181_01	00004	291 294.1	5 986 494.6	291 341.5	5 986 478.1	12.8	50.1	-
06/08/2022	21:16:33	ST181	Still	210761_ST181_02	00005	291 294.1	5 986 494.6	291 329.6	5 986 479.4	12.9	38.6	-
06/08/2022	21:16:39	ST181	Still	210761_ST181_03	00006	291 294.1	5 986 494.6	291 325.7	5 986 478.8	13.0	35.3	-
06/08/2022	21:16:47	ST181	Still	210761_ST181_04	00007	291 294.1	5 986 494.6	291 319.7	5 986 480.6	13.1	29.2	-
06/08/2022	21:16:55	ST181	Still	210761_ST181_05	00008	291 294.1	5 986 494.6	291 313.3	5 986 480.7	13.3	23.7	-
06/08/2022	21:17:02	ST181	Still	210761_ST181_06	00009	291 294.1	5 986 494.6	291 309.2	5 986 481.0	12.6	20.3	-
06/08/2022	21:17:12	ST181	Still	210761_ST181_07	00010	291 294.1	5 986 494.6	291 301.1	5 986 482.8	13.0	13.7	-
06/08/2022	21:17:19	ST181	Still	210761_ST181_08	00011	291 294.1	5 986 494.6	291 296.3	5 986 485.4	13.1	9.5	-
06/08/2022	21:17:31	ST181	Still	210761_ST181_09	00012	291 294.1	5 986 494.6	291 288.6	5 986 488.4	13.4	8.3	-
06/08/2022	21:17:37	ST181	Still	210761_ST181_10	00013	291 294.1	5 986 494.6	291 285.1	5 986 490.8	13.2	9.8	-
06/08/2022	21:17:47	ST181	Still	210761_ST181_11	00014	291 294.1	5 986 494.6	291 280.9	5 986 495.2	13.4	13.2	-
06/08/2022	21:17:53	ST181	Still	210761_ST181_12	00015	291 294.1	5 986 494.6	291 277.8	5 986 498.1	13.3	16.7	-
06/08/2022	21:17:59	ST181	Still	210761_ST181_13	00016	291 294.1	5 986 494.6	291 274.4	5 986 500.1	13.6	20.4	-
06/08/2022	21:18:07	ST181	Still	210761_ST181_14	00017	291 294.1	5 986 494.6	291 271.3	5 986 504.1	13.1	24.7	-
06/08/2022	21:18:12	ST181	Still	210761_ST181_15	00018	291 294.1	5 986 494.6	291 269.1	5 986 506.3	13.1	27.6	-
06/08/2022	21:18:20	ST181	Still	210761_ST181_16	00019	291 294.1	5 986 494.6	291 264.9	5 986 509.8	13.1	33.0	-
06/08/2022	21:18:30	ST181	Still	210761_ST181_17	00020	291 294.1	5 986 494.6	291 261.3	5 986 514.5	13.2	38.4	-
06/08/2022	21:18:39	ST181	Still	210761_ST181_18	00021	291 294.1	5 986 494.6	291 257.9	5 986 519.1	13.3	43.7	-
06/08/2022	21:18:44	ST181	Still	210761_ST181_19	00022	291 294.1	5 986 494.6	291 256.0	5 986 521.0	13.5	46.4	-
06/08/2022	21:18:51	ST181	Still	210761_ST181_20	00023	291 294.1	5 986 494.6	291 253.7	5 986 524.1	13.7	50.0	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
06/08/2022	21:18:58	ST181	Still	210761_ST181_21	00024	291 294.1	5 986 494.6	291 251.5	5 986 526.3	13.1	53.1	-
06/08/2022	21:19:02	ST181	Video	EOL	00025	291 294.1	5 986 494.6	291 249.9	5 986 528.5	13.3	55.7	-
06/08/2022	21:51:33	ST177	HG	FA/PSDA	00026	292 012.8	5 986 474.7	292 004.2	5 986 478.0	15.4	9.2	-
06/08/2022	22:23:59	ST168	HG	NS	00027	293 533.5	5 986 827.3	293 528.8	5 986 836.2	14.3	10.0	-
06/08/2022	22:30:39	ST168	HG	FA/PSDA	00028	293 533.5	5 986 827.3	293 535.4	5 986 824.7	15.0	3.3	-
06/08/2022	22:36:01	ST168	HG	NS	00029	293 533.5	5 986 827.3	293 539.4	5 986 807.9	14.2	20.3	-
06/08/2022	22:43:37	ST168	HG	NS	00030	293 533.5	5 986 827.3	293 635.5	5 986 882.0	13.6	115.7	Relocated due to three no samples
06/08/2022	23:37:48	ST167	Video	SOL	00031	298 045.1	5 988 652.5	298 108.6	5 988 631.2	18.0	66.9	-
06/08/2022	23:38:12	ST167	Still	210761_ST167_01	00032	298 045.1	5 988 652.5	298 092.6	5 988 633.1	18.1	51.3	-
06/08/2022	23:38:26	ST167	Still	210761_ST167_02	00033	298 045.1	5 988 652.5	298 085.5	5 988 634.9	18.0	44.0	-
06/08/2022	23:38:43	ST167	Still	210761_ST167_03	00034	298 045.1	5 988 652.5	298 076.6	5 988 639.6	18.2	33.9	-
06/08/2022	23:38:52	ST167	Still	210761_ST167_04	00035	298 045.1	5 988 652.5	298 071.6	5 988 642.7	17.9	28.2	-
06/08/2022	23:39:03	ST167	Still	210761_ST167_05	00036	298 045.1	5 988 652.5	298 066.9	5 988 645.5	17.9	22.8	-
06/08/2022	23:39:16	ST167	Still	210761_ST167_06	00037	298 045.1	5 988 652.5	298 059.4	5 988 648.7	17.3	14.7	-
06/08/2022	23:39:29	ST167	Still	210761_ST167_07	00038	298 045.1	5 988 652.5	298 054.1	5 988 654.5	17.9	9.2	-
06/08/2022	23:39:49	ST167	Still	210761_ST167_08	00039	298 045.1	5 988 652.5	298 047.1	5 988 661.0	17.9	8.7	-
06/08/2022	23:40:35	ST167	Still	210761_ST167_09	00040	298 045.1	5 988 652.5	298 040.2	5 988 680.2	18.6	28.2	-
06/08/2022	23:40:41	ST167	Still	210761_ST167_10	00041	298 045.1	5 988 652.5	298 039.4	5 988 682.7	18.3	30.8	-
06/08/2022	23:40:51	ST167	Still	210761_ST167_11	00042	298 045.1	5 988 652.5	298 039.7	5 988 687.9	18.4	35.8	-
06/08/2022	23:41:05	ST167	Still	210761_ST167_12	00043	298 045.1	5 988 652.5	298 036.5	5 988 693.9	18.7	42.3	-
06/08/2022	23:41:17	ST167	Still	210761_ST167_13	00044	298 045.1	5 988 652.5	298 035.7	5 988 699.0	18.3	47.5	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
06/08/2022	23:41:33	ST167	Still	210761_ST167_14	00045	298 045.1	5 988 652.5	298 035.0	5 988 705.6	18.5	54.1	-
06/08/2022	23:41:46	ST167	Still	210761_ST167_15	00046	298 045.1	5 988 652.5	298 034.3	5 988 711.1	18.3	59.6	-
06/08/2022	23:41:55	ST167	Video	EOL	00047	298 045.1	5 988 652.5	298 035.2	5 988 714.9	18.4	63.3	-
06/08/2022	23:53:25	ST167	HG	NS	00048	298 045.1	5 988 652.5	298 041.5	5 988 653.5	18.7	3.8	-
06/08/2022	23:57:41	ST167	HG	NS	00049	298 045.1	5 988 652.5	298 064.5	5 988 642.3	18.3	21.9	-
07/08/2022	00:03:31	ST167	HG	NS	00050	298 045.1	5 988 652.5	298 019.6	5 988 665.8	18.4	28.8	-
07/08/2022	00:11:46	ST167	HG	FA/PSDA	00051	298 045.1	5 988 652.5	298 087.5	5 988 761.9	20.5	117.4	Relocated due to three no samples
07/08/2022	01:07:17	ST166	Video	SOL	00052	302 408.2	5 991 333.0	302 466.8	5 991 396.0	22.7	86.1	-
07/08/2022	01:07:37	ST166	Still	210761_ST166_01	00053	302 408.2	5 991 333.0	302 450.3	5 991 396.9	23.1	76.5	-
07/08/2022	01:07:59	ST166	Still	210761_ST166_02	00054	302 408.2	5 991 333.0	302 436.6	5 991 391.9	23.3	65.4	-
07/08/2022	01:08:26	ST166	Still	210761_ST166_03	00055	302 408.2	5 991 333.0	302 428.4	5 991 377.0	22.5	48.4	-
07/08/2022	01:08:41	ST166	Still	210761_ST166_04	00056	302 408.2	5 991 333.0	302 427.8	5 991 367.7	22.9	39.9	-
07/08/2022	01:08:49	ST166	Still	210761_ST166_05	00057	302 408.2	5 991 333.0	302 424.6	5 991 361.9	23.3	33.3	-
07/08/2022	01:08:59	ST166	Still	210761_ST166_06	00058	302 408.2	5 991 333.0	302 422.1	5 991 358.2	23.1	28.8	-
07/08/2022	01:09:10	ST166	Still	210761_ST166_07	00059	302 408.2	5 991 333.0	302 421.1	5 991 350.1	23.7	21.4	-
07/08/2022	01:09:24	ST166	Still	210761_ST166_08	00060	302 408.2	5 991 333.0	302 418.4	5 991 343.6	23.5	14.7	-
07/08/2022	01:09:38	ST166	Still	210761_ST166_09	00061	302 408.2	5 991 333.0	302 415.1	5 991 337.7	23.5	8.4	-
07/08/2022	01:09:55	ST166	Still	210761_ST166_10	00062	302 408.2	5 991 333.0	302 411.1	5 991 331.5	23.0	3.2	-
07/08/2022	01:10:13	ST166	Still	210761_ST166_11	00063	302 408.2	5 991 333.0	302 408.5	5 991 323.3	22.7	9.7	-
07/08/2022	01:10:37	ST166	Still	210761_ST166_12	00064	302 408.2	5 991 333.0	302 408.1	5 991 313.8	22.8	19.2	-
07/08/2022	01:10:51	ST166	Still	210761_ST166_13	00065	302 408.2	5 991 333.0	302 407.4	5 991 306.8	22.8	26.2	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
07/08/2022	01:11:08	ST166	Still	210761_ST166_14	00066	302 408.2	5 991 333.0	302 407.4	5 991 299.8	23.0	33.2	-
07/08/2022	01:11:29	ST166	Still	210761_ST166_15	00067	302 408.2	5 991 333.0	302 406.4	5 991 291.0	22.7	42.0	-
07/08/2022	01:11:35	ST166	Still	210761_ST166_16	00068	302 408.2	5 991 333.0	302 406.6	5 991 288.1	22.7	44.9	-
07/08/2022	01:11:51	ST166	Still	210761_ST166_17	00069	302 408.2	5 991 333.0	302 405.9	5 991 282.4	23.1	50.7	-
07/08/2022	01:12:10	ST166	Still	210761_ST166_18	00070	302 408.2	5 991 333.0	302 405.7	5 991 275.6	23.0	57.4	-
07/08/2022	01:12:28	ST166	Still	210761_ST166_19	00071	302 408.2	5 991 333.0	302 405.3	5 991 268.6	23.0	64.5	-
07/08/2022	01:12:37	ST166	Video	EOL	00072	302 408.2	5 991 333.0	302 404.4	5 991 267.3	23.0	65.8	-
07/08/2022	01:23:27	ST166	HG	NS	00073	302 408.2	5 991 333.0	302 432.6	5 991 330.6	23.1	24.5	-
07/08/2022	01:28:20	ST166	HG	NS	00074	302 408.2	5 991 333.0	302 401.7	5 991 341.6	23.6	10.8	-
07/08/2022	01:32:29	ST166	HG	PSDA	00075	302 408.2	5 991 333.0	302 402.3	5 991 327.9	23.4	7.8	-
07/08/2022	01:40:21	ST166	HG	NS	00076	302 408.2	5 991 333.0	302 518.9	5 991 351.3	22.6	112.2	-
07/08/2022	02:31:09	ST165	HG	FA/PSDA	00077	306 835.5	5 993 655.3	306 859.8	5 993 639.6	39.2	28.9	-
07/08/2022	03:33:33	ST164	HG	FA/PSDA	00078	311 224.4	5 995 715.1	311 217.6	5 995 731.4	46.4	17.7	-
07/08/2022	04:12:47	ST163	HG	NS	00079	315 206.2	5 998 739.2	315 212.1	5 998 736.4	48.7	6.5	-
07/08/2022	04:20:29	ST163	HG	NS	00080	315 206.2	5 998 739.2	315 196.9	5 998 719.8	49.5	21.5	-
07/08/2022	04:26:10	ST163	HG	NS	00081	315 206.2	5 998 739.2	315 209.4	5 998 739.7	49.8	3.2	-
07/08/2022	04:37:18	ST163	HG	FA/PSDA	00082	315 206.2	5 998 739.2	315 200.0	5 998 829.8	49.8	90.8	Relocated due to three no samples
07/08/2022	05:27:26	ST182	Video	SOL	00083	315 890.0	5 999 023.2	315 924.1	5 999 088.0	51.2	73.3	-
07/08/2022	05:27:50	ST182	Still	210761_ST182_01	00084	315 890.0	5 999 023.2	315 917.9	5 999 079.3	49.8	62.6	-
07/08/2022	05:27:56	ST182	Still	210761_ST182_02	00085	315 890.0	5 999 023.2	315 917.2	5 999 075.4	49.8	58.9	-
07/08/2022	05:28:04	ST182	Still	210761_ST182_03	00086	315 890.0	5 999 023.2	315 909.0	5 999 069.4	51.6	49.9	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
07/08/2022	05:28:16	ST182	Still	210761_ST182_04	00087	315 890.0	5 999 023.2	315 905.6	5 999 063.0	51.1	42.7	-
07/08/2022	05:28:27	ST182	Still	210761_ST182_05	00088	315 890.0	5 999 023.2	315 904.0	5 999 057.4	50.4	36.9	-
07/08/2022	05:28:37	ST182	Still	210761_ST182_06	00089	315 890.0	5 999 023.2	315 903.2	5 999 052.9	49.9	32.5	-
07/08/2022	05:28:45	ST182	Still	210761_ST182_07	00090	315 890.0	5 999 023.2	315 904.5	5 999 049.4	50.0	29.9	-
07/08/2022	05:28:57	ST182	Still	210761_ST182_08	00091	315 890.0	5 999 023.2	315 898.2	5 999 039.1	-	17.9	-
07/08/2022	05:29:10	ST182	Still	210761_ST182_09	00092	315 890.0	5 999 023.2	315 898.5	5 999 034.4	50.2	14.0	-
07/08/2022	05:29:18	ST182	Still	210761_ST182_10	00093	315 890.0	5 999 023.2	315 907.2	5 999 032.6	50.5	19.6	-
07/08/2022	05:29:55	ST182	Still	210761_ST182_11	00094	315 890.0	5 999 023.2	315 909.5	5 999 010.1	50.5	23.5	-
07/08/2022	05:30:04	ST182	Still	210761_ST182_12	00095	315 890.0	5 999 023.2	315 911.2	5 999 006.5	50.5	27.0	-
07/08/2022	05:30:07	ST182	Still	210761_ST182_13	00096	315 890.0	5 999 023.2	315 912.2	5 999 004.9	50.7	28.7	-
07/08/2022	05:30:25	ST182	Still	210761_ST182_14	00097	315 890.0	5 999 023.2	315 915.9	5 998 993.8	51.0	39.2	-
07/08/2022	05:30:46	ST182	Still	210761_ST182_15	00098	315 890.0	5 999 023.2	315 923.5	5 998 986.0	49.1	50.1	-
07/08/2022	05:30:58	ST182	Video	EOL	00099	315 890.0	5 999 023.2	315 929.3	5 998 982.3	49.0	56.7	-
07/08/2022	06:55:53	ST162	HG	FA/PSDA	00100	319 188.0	6 001 763.2	319 205.9	6 001 753.7	52.9	20.3	-
07/08/2022	07:27:12	ST183	Video	SOL	00101	320 787.3	6 002 785.4	320 827.6	6 002 817.0	51.7	51.2	-
07/08/2022	07:27:30	ST183	Still	210761_ST183_01	00102	320 787.3	6 002 785.4	320 812.2	6 002 819.5	52.6	42.2	-
07/08/2022	07:27:36	ST183	Still	210761_ST183_02	00103	320 787.3	6 002 785.4	320 813.7	6 002 811.1	52.4	36.8	-
07/08/2022	07:27:42	ST183	Still	210761_ST183_03	00104	320 787.3	6 002 785.4	320 808.5	6 002 810.1	52.4	32.6	-
07/08/2022	07:27:50	ST183	Still	210761_ST183_04	00105	320 787.3	6 002 785.4	320 802.9	6 002 810.6	52.6	29.6	-
07/08/2022	07:27:55	ST183	Still	210761_ST183_05	00106	320 787.3	6 002 785.4	320 800.8	6 002 810.3	52.1	28.3	-
07/08/2022	07:28:02	ST183	Still	210761_ST183_06	00107	320 787.3	6 002 785.4	320 798.2	6 002 804.8	52.4	22.3	-
07/08/2022	07:28:08	ST183	Still	210761_ST183_07	00108	320 787.3	6 002 785.4	320 796.3	6 002 801.0	52.6	18.0	-
07/08/2022	07:28:16	ST183	Still	210761_ST183_08	00109	320 787.3	6 002 785.4	320 794.0	6 002 796.2	52.5	12.7	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
07/08/2022	07:28:23	ST183	Still	210761_ST183_09	00110	320 787.3	6 002 785.4	320 790.4	6 002 795.2	52.4	10.2	-
07/08/2022	07:28:32	ST183	Still	210761_ST183_10	00111	320 787.3	6 002 785.4	320 783.5	6 002 794.4	52.6	9.7	-
07/08/2022	07:28:39	ST183	Still	210761_ST183_11	00112	320 787.3	6 002 785.4	320 783.2	6 002 790.6	52.7	6.6	-
07/08/2022	07:28:51	ST183	Still	210761_ST183_12	00113	320 787.3	6 002 785.4	320 772.4	6 002 791.9	52.2	16.2	-
07/08/2022	07:29:02	ST183	Still	210761_ST183_13	00114	320 787.3	6 002 785.4	320 772.7	6 002 780.1	52.4	15.6	-
07/08/2022	07:29:12	ST183	Still	210761_ST183_14	00115	320 787.3	6 002 785.4	320 760.2	6 002 785.7	52.7	27.1	-
07/08/2022	07:29:23	ST183	Still	210761_ST183_15	00116	320 787.3	6 002 785.4	320 763.7	6 002 776.6	52.5	25.1	-
07/08/2022	07:29:35	ST183	Still	210761_ST183_16	00117	320 787.3	6 002 785.4	320 757.8	6 002 777.0	52.3	30.7	-
07/08/2022	07:29:47	ST183	Still	210761_ST183_17	00118	320 787.3	6 002 785.4	320 756.4	6 002 773.0	52.5	33.3	-
07/08/2022	07:30:07	ST183	Still	210761_ST183_18	00119	320 787.3	6 002 785.4	320 755.3	6 002 766.7	52.2	37.1	-
07/08/2022	07:30:37	ST183	Video	EOL	00120	320 787.3	6 002 785.4	320 745.7	6 002 753.0	51.9	52.7	-
07/08/2022	08:12:57	ST161	Video	SOL	00121	323 312.2	6 004 586.6	323 354.2	6 004 617.8	55.0	52.4	-
07/08/2022	08:13:13	ST161	Still	210761_ST161_01	00122	323 312.2	6 004 586.6	323 345.3	6 004 623.1	54.8	49.3	-
07/08/2022	08:13:32	ST161	Still	210761_ST161_02	00123	323 312.2	6 004 586.6	323 339.6	6 004 609.8	55.7	35.9	-
07/08/2022	08:13:40	ST161	Still	210761_ST161_03	00124	323 312.2	6 004 586.6	323 338.8	6 004 603.1	55.6	31.3	-
07/08/2022	08:13:48	ST161	Still	210761_ST161_04	00125	323 312.2	6 004 586.6	323 336.2	6 004 602.1	55.2	28.6	-
07/08/2022	08:13:55	ST161	Still	210761_ST161_05	00126	323 312.2	6 004 586.6	323 330.7	6 004 600.5	55.8	23.2	-
07/08/2022	08:14:11	ST161	Still	210761_ST161_06	00127	323 312.2	6 004 586.6	323 323.8	6 004 603.8	55.6	20.7	-
07/08/2022	08:14:24	ST161	Still	210761_ST161_07	00128	323 312.2	6 004 586.6	323 319.3	6 004 596.3	55.0	12.0	-
07/08/2022	08:14:30	ST161	Still	210761_ST161_08	00129	323 312.2	6 004 586.6	323 318.8	6 004 594.4	54.6	10.2	-
07/08/2022	08:14:39	ST161	Still	210761_ST161_09	00130	323 312.2	6 004 586.6	323 313.0	6 004 601.4	55.2	14.8	-
07/08/2022	08:15:02	ST161	Still	210761_ST161_10	00131	323 312.2	6 004 586.6	323 302.6	6 004 598.8	54.9	15.5	-
07/08/2022	08:15:10	ST161	Still	210761_ST161_11	00132	323 312.2	6 004 586.6	323 300.7	6 004 595.1	54.6	14.3	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
07/08/2022	08:15:21	ST161	Still	210761_ST161_12	00133	323 312.2	6 004 586.6	323 292.5	6 004 599.6	54.7	23.6	-
07/08/2022	08:15:31	ST161	Still	210761_ST161_13	00134	323 312.2	6 004 586.6	323 288.3	6 004 593.5	54.7	24.9	-
07/08/2022	08:15:45	ST161	Still	210761_ST161_14	00135	323 312.2	6 004 586.6	323 280.3	6 004 588.1	54.6	31.9	-
07/08/2022	08:15:59	ST161	Still	210761_ST161_15	00136	323 312.2	6 004 586.6	323 271.2	6 004 583.8	55.5	41.0	-
07/08/2022	08:16:06	ST161	Still	210761_ST161_16	00137	323 312.2	6 004 586.6	323 265.3	6 004 589.9	55.4	47.0	-
07/08/2022	08:16:18	ST161	Still	210761_ST161_17	00138	323 312.2	6 004 586.6	323 260.1	6 004 581.0	55.1	52.4	-
07/08/2022	08:16:30	ST161	Video	EOL	00139	323 312.2	6 004 586.6	323 252.9	6 004 583.6	55.9	59.4	-
07/08/2022	08:29:43	ST161	HG	NS	00140	323 312.2	6 004 586.6	323 325.4	6 004 579.7	55.9	15.0	-
07/08/2022	08:38:39	ST161	HG	FA/PSDA	00141	323 312.2	6 004 586.6	323 310.3	6 004 590.8	55.7	4.6	-
07/08/2022	09:20:44	ST160	HG	FA/PSDA	00142	327 487.0	6 007 338.1	327 515.4	6 007 350.3	54.0	30.9	-
07/08/2022	09:51:54	ST159	HG	FA/PSDA	00143	331 661.9	6 010 089.5	331 679.2	6 010 069.7	58.0	26.3	-
07/08/2022	10:22:24	ST158	HG	FA/PSDA	00144	335 836.7	6 012 841.0	335 843.0	6 012 824.4	60.2	17.8	-
07/08/2022	11:41:29	ST178	HG	FA/PSDA	00145	339 958.9	6 015 658.8	339 967.4	6 015 645.3	61.3	16.0	-
07/08/2022	12:12:39	ST169	HG	NS	00146	343 856.9	6 018 790.3	343 844.5	6 018 788.3	62.0	12.5	-
07/08/2022	12:22:59	ST169	HG	FA/PSDA	00147	343 856.9	6 018 790.3	343 868.4	6 018 781.7	62.1	14.4	-
07/08/2022	13:34:59	ST178	DG	CA	00148	339 958.9	6 015 658.8	339 982.3	6 015 675.5	61.7	28.7	-
07/08/2022	15:06:43	ST161	DG	CA	00149	323 312.2	6 004 586.6	323 291.9	6 004 608.7	55.7	30.0	-
07/08/2022	15:16:27	ST161	DG	NS	00150	323 312.2	6 004 586.6	323 309.6	6 004 595.1	55.1	8.9	-
07/08/2022	16:27:17	ST164	DG	CA	00151	311 224.4	5 995 715.1	311 211.7	5 995 742.3	46.1	30.0	-
07/08/2022	17:52:28	ST168	DG	CA	00152	293 533.5	5 986 827.3	293 526.9	5 986 851.0	12.3	24.6	-
07/08/2022	19:10:52	BT19	BT	SOL	00153	295 555.3	5 987 542.4	295 199.9	5 987 482.9	6.0	360.4	-
07/08/2022	19:20:33	BT19	BT	EOL	00154	295 555.3	5 987 542.4	296 075.1	5 987 593.8	6.0	522.3	-
07/08/2022	22:04:36	BT13	BT	SOL	NO FIX	309 577.2	5 994 464.2	309 427.0	5 994 212.2	45.0	293.4	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
07/08/2022	22:23:11	BT13	BT	EOL	00155	309 577.2	5 994 464.2	309 608.4	5 994 972.3	45.0	509.0	-
08/08/2022	03:33:47	BT20	BT	SOL	00156	315 893.8	5 999 023.4	316 100.7	5 998 702.7	48.4	381.7	-
08/08/2022	03:50:56	BT20	BT	EOL	00157	315 893.8	5 999 023.4	315 876.0	5 999 458.8	47.9	435.7	-
08/08/2022	06:47:12	BT14	BT	SOL	00158	323 078.7	6 004 432.7	322 642.3	6 004 598.7	51.3	466.9	-
08/08/2022	06:57:33	BT14	BT	EOL	00159	323 078.7	6 004 432.7	323 413.2	6 004 231.6	51.5	390.3	-
08/08/2022	09:51:21	BT22	BT	SOL	00160	339 267.7	6 015 103.2	339 074.7	6 014 826.7	58.0	337.2	-
08/08/2022	10:03:12	BT22	BT	EOL	00161	339 267.7	6 015 103.2	339 487.5	6 015 545.1	58.0	493.6	-
08/08/2022	12:38:05	ST154	HG	FA/PSDA	00162	345 150.4	6 025 839.6	345 176.1	6 025 852.3	61.8	28.6	-
08/08/2022	13:13:49	ST179	HG	FA/PSDA	00163	342 599.2	6 020 518.8	342 608.0	6 020 531.7	60.6	15.6	-
08/08/2022	13:44:59	ST170	HG	FA/PSDA	00164	347 053.7	6 022 569.1	347 067.0	6 022 563.8	59.2	14.2	-
08/08/2022	14:15:20	ST171	HG	FA/PSDA	00165	350 478.8	6 026 211.8	350 481.8	6 026 212.1	62.3	3.0	-
08/08/2022	14:46:10	ST172	HG	FA/PSDA	00166	353 903.8	6 029 854.4	353 913.8	6 029 849.1	50.3	11.3	-
08/08/2022	15:24:27	ST155	HG	FA/PSDA	00167	347 259.9	6 030 372.8	347 243.8	6 030 370.9	62.8	16.3	-
08/08/2022	16:14:45	ST184	Video	SOL	00168	349 369.5	6 034 713.9	349 368.2	6 034 767.0	57.0	53.1	-
08/08/2022	16:15:01	ST184	Still	210761_ST184_01	00169	349 369.5	6 034 713.9	349 368.5	6 034 764.3	56.1	50.4	-
08/08/2022	16:15:07	ST184	Still	210761_ST184_02	00170	349 369.5	6 034 713.9	349 366.8	6 034 760.8	56.6	47.1	-
08/08/2022	16:15:16	ST184	Still	210761_ST184_03	00171	349 369.5	6 034 713.9	349 366.8	6 034 755.9	56.7	42.2	-
08/08/2022	16:15:25	ST184	Still	210761_ST184_04	00172	349 369.5	6 034 713.9	349 369.1	6 034 753.9	56.3	40.1	-
08/08/2022	16:15:34	ST184	Still	210761_ST184_05	00173	349 369.5	6 034 713.9	349 366.2	6 034 748.6	56.6	34.9	-
08/08/2022	16:15:43	ST184	Still	210761_ST184_06	00174	349 369.5	6 034 713.9	349 365.5	6 034 748.8	56.3	35.2	-
08/08/2022	16:15:59	ST184	Still	210761_ST184_07	00175	349 369.5	6 034 713.9	349 366.1	6 034 745.0	56.4	31.4	-
08/08/2022	16:16:19	ST184	Still	210761_ST184_08	00176	349 369.5	6 034 713.9	349 364.1	6 034 743.7	55.8	30.3	-
08/08/2022	16:16:36	ST184	Still	210761_ST184_09	00177	349 369.5	6 034 713.9	349 366.8	6 034 742.6	56.0	28.8	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
08/08/2022	16:16:54	ST184	Still	210761_ST184_10	00178	349 369.5	6 034 713.9	349 365.4	6 034 735.5	56.4	22.0	-
08/08/2022	16:17:13	ST184	Still	210761_ST184_11	00179	349 369.5	6 034 713.9	349 362.2	6 034 730.1	56.9	17.8	-
08/08/2022	16:17:35	ST184	Still	210761_ST184_12	00180	349 369.5	6 034 713.9	349 361.5	6 034 720.7	56.9	10.5	-
08/08/2022	16:17:50	ST184	Still	210761_ST184_13	00181	349 369.5	6 034 713.9	349 364.7	6 034 719.8	-	7.6	-
08/08/2022	16:18:05	ST184	Still	210761_ST184_14	00182	349 369.5	6 034 713.9	349 362.3	6 034 710.7	56.5	7.9	-
08/08/2022	16:18:12	ST184	Still	210761_ST184_15	00183	349 369.5	6 034 713.9	349 365.1	6 034 707.9	57.2	7.4	-
08/08/2022	16:18:28	ST184	Still	210761_ST184_16	00184	349 369.5	6 034 713.9	349 363.1	6 034 702.1	56.2	13.4	-
08/08/2022	16:18:55	ST184	Still	210761_ST184_17	00185	349 369.5	6 034 713.9	349 360.1	6 034 693.3	56.2	22.6	-
08/08/2022	16:19:13	ST184	Still	210761_ST184_18	00186	349 369.5	6 034 713.9	349 362.7	6 034 688.9	56.5	25.9	-
08/08/2022	16:19:58	ST184	Still	210761_ST184_19	00187	349 369.5	6 034 713.9	349 362.5	6 034 686.0	56.5	28.7	-
08/08/2022	16:21:39	ST184	Still	210761_ST184_20	00188	349 369.5	6 034 713.9	349 358.9	6 034 680.7	56.5	34.8	-
08/08/2022	16:21:59	ST184	Still	210761_ST184_21	00189	349 369.5	6 034 713.9	349 360.0	6 034 674.6	56.7	40.4	-
08/08/2022	16:22:17	ST184	Still	210761_ST184_22	00190	349 369.5	6 034 713.9	349 359.2	6 034 672.7	-	42.4	-
08/08/2022	16:22:26	ST184	Video	EOL	00191	349 369.5	6 034 713.9	349 362.0	6 034 664.6	56.9	49.9	-
08/08/2022	16:36:32	ST156	HG	FA/PSDA	00192	349 890.2	6 034 612.0	349 883.3	6 034 614.8	57.0	7.4	-
08/08/2022	17:46:48	ST173	HG	FA/PSDA	00193	357 556.9	6 033 228.6	357 569.3	6 033 243.8	47.6	19.6	-
08/08/2022	18:18:30	ST174	HG	FA/PSDA	00194	361 706.2	6 036 018.4	361 704.6	6 036 003.0	51.0	15.5	-
08/08/2022	18:47:33	ST137	HG	NS	00195	365 770.3	6 038 750.8	365 736.8	6 038 785.6	51.2	48.3	-
08/08/2022	18:56:28	ST137	HG	FA/PSDA	00196	365 770.3	6 038 750.8	365 785.4	6 038 758.1	55.9	16.7	-
08/08/2022	19:29:59	ST175	HG	FA/PSDA	00197	360 768.4	6 038 891.3	360 763.2	6 038 880.6	49.8	11.9	-
08/08/2022	20:04:31	ST176	HG	FA/PSDA	00198	355 769.3	6 038 984.0	355 756.5	6 038 962.3	53.7	25.2	-
08/08/2022	20:30:34	ST157	HG	NS	00199	353 041.0	6 038 474.8	353 036.1	6 038 453.3	55.9	22.0	-
08/08/2022	20:39:46	ST157	HG	FA/PSDA	00200	353 041.0	6 038 474.8	353 051.5	6 038 475.3	56.2	10.5	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
08/08/2022	21:16:07	ST180	HG	FA/PSDA	00201	355 679.3	6 041 304.7	355 651.0	6 041 313.8	57.2	29.7	-
08/08/2022	22:03:35	BT16	BT	SOL	00202	354 978.9	6 040 553.4	355 225.3	6 041 062.5	54.0	565.6	-
08/08/2022	22:20:49	BT16	BT	EOL	00203	354 978.9	6 040 553.4	354 884.6	6 040 278.0	54.0	291.1	-
09/08/2022	01:15:39	ST156	DG	CA	00205	349 890.2	6 034 612.0	349 877.0	6 034 622.1	57.6	16.6	-
09/08/2022	02:03:19	ST172	DG	CA	00206	353 903.8	6 029 854.4	353 893.5	6 029 859.3	50.8	11.4	-
09/08/2022	02:44:57	BT17	BT	SOL	00207	352 471.6	6 028 331.2	352 753.4	6 028 063.8	48.0	388.4	-
09/08/2022	03:00:10	BT17	BT	EOL	00208	352 471.6	6 028 331.2	352 292.0	6 028 711.3	51.0	420.4	-
09/08/2022	05:31:37	ST147	HG	FA/PSDA	00209	372 094.1	6 037 742.2	372 084.6	6 037 752.8	56.2	14.2	-
09/08/2022	06:13:39	ST146	HG	FA/PSDA	00210	377 058.2	6 037 144.5	377 031.2	6 037 163.6	54.0	33.0	-
09/08/2022	06:44:45	ST145	HG	FA/PSDA	00211	382 017.6	6 036 510.1	382 003.9	6 036 521.7	48.0	17.9	-
09/08/2022	07:14:10	ST144	HG	FA/PSDA	00212	386 968.9	6 035 814.3	386 956.1	6 035 826.6	54.0	17.8	-
09/08/2022	07:45:37	ST143	HG	FA/PSDA	00213	391 920.3	6 035 118.4	391 884.4	6 035 140.6	49.0	42.1	-
09/08/2022	08:14:33	ST142	HG	FA/PSDA	00214	396 710.1	6 034 445.3	396 682.7	6 034 447.3	53.0	27.5	-
09/08/2022	08:44:09	ST141	HG	FA/PSDA	00215	401 774.3	6 034 148.5	401 749.5	6 034 171.2	34.0	33.6	-
09/08/2022	09:13:29	ST140	HG	FA/PSDA	00216	406 700.0	6 035 003.4	406 676.1	6 035 020.2	45.0	29.2	-
09/08/2022	09:42:53	ST139	HG	NS	00217	411 614.5	6 035 923.6	411 588.9	6 035 934.1	40.0	27.7	-
09/08/2022	09:50:31	ST139	HG	FA/PSDA	00218	411 614.5	6 035 923.6	411 587.9	6 035 926.7	42.2	26.8	-
09/08/2022	10:34:19	BT24	BT	SOL	00219	411 874.8	6 035 982.9	411 631.7	6 036 307.4	39.0	405.5	-
09/08/2022	10:45:28	BT24	BT	EOL	00220	411 874.8	6 035 982.9	412 126.5	6 035 647.1	39.5	419.6	-
09/08/2022	13:51:56	ST138	HG	FA/PSDA	00221	416 529.1	6 036 843.9	416 539.7	6 036 817.2	17.3	28.8	-
09/08/2022	15:11:18	ST002	HG	FA/PSDA	00222	430 441.6	6 024 628.4	430 450.8	6 024 621.0	36.9	11.8	-
09/08/2022	15:35:18	ST004	HG	FA/PSDA	00223	430 441.6	6 027 628.4	430 455.8	6 027 622.6	35.7	15.3	-
09/08/2022	16:07:10	ST005	HG	FA/PSDA	00224	433 441.6	6 027 628.4	433 443.9	6 027 627.5	34.1	2.5	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
09/08/2022	17:24:01	BT11	BT	SOL	00225	430 604.0	6 027 203.0	431 168.9	6 027 226.4	33.0	565.4	-
09/08/2022	17:40:41	BT11	BT	EOL	00226	430 604.0	6 027 203.0	430 311.3	6 027 219.4	32.0	293.2	-
09/08/2022	18:55:52	ST006	HG	NS1	00227	436 441.6	6 027 628.4	436 433.5	6 027 621.0	32.8	10.9	-
09/08/2022	19:00:32	ST006	HG	FA/PSDA	00228	436 441.6	6 027 628.4	436 443.4	6 027 659.6	33.2	31.3	-
09/08/2022	19:27:35	ST007	HG	FA/PSDA	00229	439 441.6	6 027 628.4	439 433.8	6 027 633.5	33.0	9.4	-
09/08/2022	19:54:11	ST008	HG	FA/PSDA	00230	442 324.4	6 027 995.2	442 298.0	6 028 006.3	31.1	28.6	-
09/08/2022	20:23:46	ST014	HG	FA/PSDA	00231	439 441.6	6 030 628.4	439 424.8	6 030 631.8	31.3	17.1	-
09/08/2022	20:54:40	BT10	BT	SOL	00232	438 155.6	6 030 526.6	437 722.4	6 030 519.7	30.0	433.3	-
09/08/2022	21:10:51	BT10	BT	EOL	00233	438 155.6	6 030 526.6	438 553.6	6 030 508.9	31.0	398.4	-
09/08/2022	22:39:25	ST013	HG	NS1	00234	436 441.6	6 030 628.4	436 430.8	6 030 620.3	34.0	13.4	-
09/08/2022	22:45:29	ST013	HG	FA/PSDA	00235	436 441.6	6 030 628.4	436 446.1	6 030 643.6	34.1	15.9	-
09/08/2022	23:28:53	ST011	HG	FA/PSDA	00236	430 532.8	6 030 498.7	430 502.3	6 030 485.6	35.6	33.3	-
10/08/2022	00:02:15	ST017	HG	FA/PSDA	00237	427 441.6	6 033 628.4	427 399.4	6 033 618.3	28.7	43.3	-
10/08/2022	00:20:19	ST017	DG	CA	00238	427 441.6	6 033 628.4	427 412.8	6 033 613.5	28.5	32.4	-
10/08/2022	00:49:23	ST018	HG	NS	00239	430 441.6	6 033 628.4	430 426.9	6 033 635.3	30.6	16.2	-
10/08/2022	00:54:14	ST018	HG	NS	00240	430 441.6	6 033 628.4	430 438.9	6 033 595.7	30.6	32.7	-
10/08/2022	00:59:19	ST018	HG	FA/PSDA	00241	430 441.6	6 033 628.4	430 433.3	6 033 654.7	29.5	27.6	-
10/08/2022	01:25:37	ST019	HG	FA/PSDA	00242	433 383.6	6 033 704.6	433 388.3	6 033 703.3	29.1	4.9	-
10/08/2022	01:55:55	ST020	HG	FA/PSDA	00243	436 441.6	6 033 628.4	436 465.0	6 033 604.6	29.2	33.4	-
10/08/2022	02:19:58	ST021	HG	NS	00244	439 441.6	6 033 628.4	439 447.9	6 033 615.8	28.3	14.1	-
10/08/2022	02:23:59	ST021	HG	FA/PSDA	00245	439 441.6	6 033 628.4	439 434.1	6 033 600.8	27.8	28.6	-
10/08/2022	03:26:21	ST022	HG	FA/PSDA	00246	442 363.7	6 033 593.0	442 333.8	6 033 568.4	27.1	38.8	-
10/08/2022	03:58:14	ST029	HG	FA/PSDA	00247	439 622.8	6 036 370.4	439 624.2	6 036 347.1	17.1	23.3	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
10/08/2022	04:24:32	ST028	HG	FA/PSDA	00248	436 441.6	6 036 628.4	436 415.3	6 036 620.4	17.1	27.5	-
10/08/2022	04:57:00	BT12	BT	SOL	00249	435 960.6	6 037 889.2	436 156.5	6 037 539.4	14.1	401.0	-
10/08/2022	05:06:07	BT12	BT	EOL	00250	435 960.6	6 037 889.2	435 788.1	6 038 281.9	14.7	428.9	-
10/08/2022	06:47:04	ST027	HG	NS	00251	433 441.6	6 036 628.4	433 450.0	6 036 659.4	13.0	32.1	-
10/08/2022	06:52:15	ST027	HG	FA/PSDA	00252	433 441.6	6 036 628.4	433 436.5	6 036 640.5	13.0	13.2	-
10/08/2022	07:11:45	ST026	HG	NS	00253	430 441.6	6 036 628.4	430 449.0	6 036 622.9	13.8	9.3	-
10/08/2022	07:16:10	ST026	HG	FA/PSDA	00254	430 441.6	6 036 628.4	430 458.4	6 036 639.4	13.8	20.1	-
10/08/2022	07:34:37	ST025	HG	FA/PSDA	00255	427 441.6	6 036 628.4	427 456.5	6 036 623.0	13.7	15.9	-
10/08/2022	07:52:02	ST033	HG	FA/PSDA	00256	427 441.6	6 039 628.4	427 421.6	6 039 623.0	14.8	20.7	-
10/08/2022	08:13:46	ST034	HG	FA/PSDA	00257	430 295.5	6 039 196.6	430 263.7	6 039 208.4	14.9	33.9	-
10/08/2022	08:33:43	ST035	HG	FA/PSDA	00258	433 441.6	6 039 628.4	433 391.8	6 039 629.8	14.9	49.8	-
10/08/2022	08:54:06	ST036	HG	FA/PSDA	00259	436 441.6	6 039 628.4	436 412.9	6 039 630.9	13.5	28.8	-
10/08/2022	09:12:44	ST037	HG	FA/PSDA	00260	439 441.6	6 039 628.4	439 409.7	6 039 640.6	13.8	34.1	-
10/08/2022	09:34:29	ST047	HG	FA/PSDA	00261	436 441.6	6 042 628.4	436 417.5	6 042 615.1	14.0	27.5	-
10/08/2022	09:52:14	ST046	HG	FA/PSDA	00262	433 441.6	6 042 628.4	433 420.2	6 042 660.1	15.0	38.3	-
10/08/2022	10:09:49	ST046	DG	CA	00263	433 441.6	6 042 628.4	433 409.7	6 042 653.6	15.0	40.6	-
10/08/2022	10:28:34	ST045	HG	FA/PSDA	00264	430 441.6	6 042 628.4	430 442.9	6 042 661.3	13.9	32.9	-
10/08/2022	10:46:23	ST044	HG	FA/PSDA	00265	427 441.6	6 042 628.4	427 440.5	6 042 637.4	14.0	9.1	-
10/08/2022	11:21:01	ST044	DG	CA	00266	427 441.6	6 042 628.4	427 427.6	6 042 645.3	14.0	22.0	-
10/08/2022	11:51:20	ST057	HG	FA/PSDA	00267	427 441.6	6 045 628.4	427 432.8	6 045 636.5	21.6	11.9	-
10/08/2022	12:16:51	ST058	HG	FA/PSDA	00268	430 441.6	6 045 628.4	430 417.9	6 045 646.8	20.9	30.0	-
10/08/2022	12:37:38	ST059	HG	FA/PSDA	00269	433 441.6	6 045 628.4	433 430.9	6 045 634.8	20.5	12.5	-
10/08/2022	12:55:53	ST060	HG	FA/PSDA	00270	436 441.6	6 045 628.4	436 433.3	6 045 621.1	19.1	11.0	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
10/08/2022	13:14:43	ST076	HG	FA/PSDA	00271	435 961.6	6 048 395.7	435 958.5	6 048 391.9	21.5	4.9	-
10/08/2022	13:30:23	ST075	HG	FA/PSDA	00272	433 441.6	6 048 628.4	433 462.8	6 048 615.7	22.2	24.7	-
10/08/2022	13:50:21	ST074	DG	CA	00273	430 441.6	6 048 628.4	430 444.0	6 048 615.5	23.1	13.1	-
10/08/2022	14:04:42	ST074	HG	FA/PSDA	00274	430 441.6	6 048 628.4	430 470.4	6 048 630.7	21.3	28.9	-
10/08/2022	14:22:57	ST073	HG	FA/PSDA	00275	427 441.6	6 048 628.4	427 451.1	6 048 610.3	23.8	20.4	-
10/08/2022	14:42:14	ST091	HG	FA/PSDA	00276	427 441.6	6 051 628.4	427 442.3	6 051 600.6	25.6	27.8	-
10/08/2022	15:00:39	ST092	HG	FA/PSDA	00277	430 303.3	6 051 311.7	430 308.1	6 051 286.8	22.7	25.4	-
10/08/2022	15:34:30	BT08	BT	SOL	00278	427 610.0	6 050 489.1	428 184.1	6 050 480.9	20.0	574.2	-
10/08/2022	15:44:39	BT08	BT	EOL	00279	427 610.0	6 050 489.1	427 342.1	6 050 494.3	20.0	268.0	-
10/08/2022	20:15:41	ST090	Video	SOL	00281	424 441.6	6 051 628.4	424 434.9	6 051 645.5	21.8	18.4	-
10/08/2022	20:15:01	ST090	Still	210761_ST090_01	No fix	424 441.6	6 051 628.4	424 432.7	6 051 645.4	21.1	19.2	-
10/08/2022	20:15:09	ST090	Still	210761_ST090_02	No fix	424 441.6	6 051 628.4	424 438.6	6 051 646.4	21.2	18.3	-
10/08/2022	20:15:14	ST090	Still	210761_ST090_03	No fix	424 441.6	6 051 628.4	424 441.7	6 051 646.0	21.4	17.6	-
10/08/2022	20:15:22	ST090	Still	210761_ST090_04	No fix	424 441.6	6 051 628.4	424 446.5	6 051 646.1	21.5	18.4	-
10/08/2022	20:15:38	ST090	Still	210761_ST090_05	No fix	424 441.6	6 051 628.4	424 455.7	6 051 643.9	21.3	21.0	-
10/08/2022	20:16:02	ST090	Still	210761_ST090_06	No fix	424 441.6	6 051 628.4	424 465.8	6 051 639.8	21.5	26.8	-
10/08/2022	20:16:26	ST090	Still	210761_ST090_07	No fix	424 441.6	6 051 628.4	424 475.6	6 051 633.5	21.6	34.4	-
10/08/2022	20:16:49	ST090	Still	210761_ST090_08	No fix	424 441.6	6 051 628.4	424 485.1	6 051 626.9	21.4	43.6	-
10/08/2022	20:17:20	ST090	Still	210761_ST090_09	No fix	424 441.6	6 051 628.4	424 497.2	6 051 621.9	21.3	56.0	-
10/08/2022	20:17:49	ST090	Still	210761_ST090_10	No fix	424 441.6	6 051 628.4	424 507.5	6 051 620.9	21.8	66.4	-
10/08/2022	20:18:17	ST090	Still	210761_ST090_11	No fix	424 441.6	6 051 628.4	424 515.5	6 051 619.2	21.5	74.5	-
10/08/2022	20:19:00	ST090	Still	210761_ST090_12	No fix	424 441.6	6 051 628.4	424 530.3	6 051 617.9	21.5	89.4	-
10/08/2022	20:19:42	ST090	Video	EOL	00282	424 441.6	6 051 628.4	424 532.1	6 051 617.8	21.1	91.2	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
10/08/2022	20:30:36	ST090	HG	FA/PSDA	00283	424 441.6	6 051 628.4	424 413.9	6 051 650.7	21.7	35.6	-
10/08/2022	21:06:02	ST072	Video	SOL	00284	424 441.6	6 048 628.4	424 371.7	6 048 656.7	21.1	75.4	-
10/08/2022	21:08:46	ST072	Still	210761_ST072_01	No fix	424 441.6	6 048 628.4	424 463.8	6 048 603.8	23.1	33.1	-
10/08/2022	21:08:52	ST072	Still	210761_ST072_02	No fix	424 441.6	6 048 628.4	424 461.0	6 048 600.7	22.7	33.8	-
10/08/2022	21:09:02	ST072	Still	210761_ST072_03	No fix	424 441.6	6 048 628.4	424 455.9	6 048 594.6	22.9	36.7	-
10/08/2022	21:09:04	ST072	Still	210761_ST072_04	No fix	424 441.6	6 048 628.4	424 454.4	6 048 592.8	22.7	37.8	-
10/08/2022	21:09:16	ST072	Still	210761_ST072_05	No fix	424 441.6	6 048 628.4	424 449.2	6 048 587.1	22.9	42.0	-
10/08/2022	21:09:17	ST072	Still	210761_ST072_06	No fix	424 441.6	6 048 628.4	424 448.7	6 048 586.6	22.9	42.4	-
10/08/2022	21:10:09	ST072	Video	EOL	00285	424 441.6	6 048 628.4	424 443.5	6 048 582.3	22.4	46.1	-
10/08/2022	21:21:11	ST072	HG	NS1	00286	424 441.6	6 048 628.4	424 432.9	6 048 624.0	22.5	9.7	-
10/08/2022	21:27:07	ST072	HG	FA/PSDA	00287	424 441.6	6 048 628.4	424 455.6	6 048 664.7	22.3	39.0	-
10/08/2022	21:58:38	ST190	Video	SOL	00288	423 754.9	6 046 555.5	423 746.5	6 046 612.9	17.8	58.0	-
10/08/2022	22:00:17	ST190	Still	210761_ST190_01	00289	423 754.9	6 046 555.5	423 730.9	6 046 549.2	17.8	24.8	-
10/08/2022	22:00:22	ST190	Still	210761_ST190_02	00290	423 754.9	6 046 555.5	423 732.1	6 046 547.4	18.4	24.2	-
10/08/2022	22:00:25	ST190	Still	210761_ST190_03	00291	423 754.9	6 046 555.5	423 732.7	6 046 545.2	17.9	24.4	-
10/08/2022	22:00:30	ST190	Still	210761_ST190_04	00292	423 754.9	6 046 555.5	423 734.7	6 046 542.0	18.1	24.3	-
10/08/2022	22:00:33	ST190	Still	210761_ST190_05	00293	423 754.9	6 046 555.5	423 734.1	6 046 542.0	18.2	24.8	-
10/08/2022	22:00:35	ST190	Still	210761_ST190_06	00294	423 754.9	6 046 555.5	423 735.3	6 046 540.1	18.1	24.9	-
10/08/2022	22:00:45	ST190	Still	210761_ST190_07	00295	423 754.9	6 046 555.5	423 737.8	6 046 534.4	18.1	27.2	-
10/08/2022	22:00:48	ST190	Still	210761_ST190_08	00296	423 754.9	6 046 555.5	423 738.8	6 046 533.2	18.0	27.4	-
10/08/2022	22:00:54	ST190	Still	210761_ST190_09	00297	423 754.9	6 046 555.5	423 741.2	6 046 530.1	17.9	28.9	-
10/08/2022	22:01:00	ST190	Still	210761_ST190_10	00298	423 754.9	6 046 555.5	423 742.9	6 046 526.5	18.0	31.4	-
10/08/2022	22:01:12	ST190	Still	210761_ST190_11	00299	423 754.9	6 046 555.5	423 745.9	6 046 520.9	18.3	35.7	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
10/08/2022	22:01:22	ST190	Still	210761_ST190_12	00300	423 754.9	6 046 555.5	423 748.2	6 046 517.2	18.3	38.9	-
10/08/2022	22:01:25	ST190	Still	210761_ST190_13	00301	423 754.9	6 046 555.5	423 749.3	6 046 516.5	18.1	39.4	-
10/08/2022	22:01:34	ST190	Still	210761_ST190_14	00302	423 754.9	6 046 555.5	423 751.6	6 046 513.8	18.2	41.9	-
10/08/2022	22:01:41	ST190	Still	210761_ST190_15	00303	423 754.9	6 046 555.5	423 753.7	6 046 512.4	17.9	43.1	-
10/08/2022	22:02:19	ST190	Video	EOL	00304	423 754.9	6 046 555.5	423 760.2	6 046 508.7	18.1	47.1	-
10/08/2022	22:34:28	BT07	BT	SOL	00305	423 754.7	6 046 555.7	423 250.8	6 046 699.2	15.0	523.9	-
10/08/2022	22:49:02	BT07	BT	EOL	00306	423 754.7	6 046 555.7	424 039.4	6 046 649.1	15.0	299.7	-
11/08/2022	00:48:22	ST056	Video	SOL	00307	424 441.6	6 045 628.4	424 371.7	6 045 675.1	19.7	84.1	-
11/08/2022	00:55:54	ST056	Still	210761_ST056_01	00308	424 441.6	6 045 628.4	424 388.2	6 045 695.9	-	86.1	-
11/08/2022	00:56:39	ST056	Still	210761_ST056_02	00309	424 441.6	6 045 628.4	424 388.0	6 045 659.4	19.8	61.9	-
11/08/2022	00:56:58	ST056	Still	210761_ST056_03	00310	424 441.6	6 045 628.4	424 396.8	6 045 649.6	19.4	49.5	-
11/08/2022	00:57:00	ST056	Still	210761_ST056_04	00311	424 441.6	6 045 628.4	424 397.5	6 045 650.0	19.4	49.1	-
11/08/2022	00:57:09	ST056	Still	210761_ST056_05	00312	424 441.6	6 045 628.4	424 403.1	6 045 645.6	19.5	42.1	-
11/08/2022	00:57:23	ST056	Still	210761_ST056_06	00314	424 441.6	6 045 628.4	424 412.3	6 045 641.6	19.5	32.1	-
11/08/2022	00:57:46	ST056	Still	210761_ST056_07	00315	424 441.6	6 045 628.4	424 428.4	6 045 636.1	19.3	15.3	-
11/08/2022	00:57:53	ST056	Still	210761_ST056_08	00316	424 441.6	6 045 628.4	424 433.3	6 045 634.7	19.5	10.4	-
11/08/2022	00:58:03	ST056	Still	210761_ST056_09	00317	424 441.6	6 045 628.4	424 438.5	6 045 632.3	19.5	5.0	-
11/08/2022	00:58:11	ST056	Still	210761_ST056_10	00318	424 441.6	6 045 628.4	424 442.1	6 045 631.2	19.5	2.9	-
11/08/2022	00:58:17	ST056	Still	210761_ST056_11	00319	424 441.6	6 045 628.4	424 445.8	6 045 629.4	19.4	4.4	-
11/08/2022	00:58:31	ST056	Still	210761_ST056_12	00320	424 441.6	6 045 628.4	424 452.3	6 045 626.2	19.7	11.0	-
11/08/2022	00:58:41	ST056	Still	210761_ST056_13	00321	424 441.6	6 045 628.4	424 457.3	6 045 624.3	19.5	16.2	-
11/08/2022	00:58:55	ST056	Still	210761_ST056_14	00322	424 441.6	6 045 628.4	424 463.4	6 045 621.1	19.5	23.0	-
11/08/2022	00:59:02	ST056	Still	210761_ST056_15	00323	424 441.6	6 045 628.4	424 465.7	6 045 619.4	19.2	25.7	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	00:59:13	ST056	Still	210761_ST056_16	00324	424 441.6	6 045 628.4	424 470.3	6 045 617.2	19.2	30.8	-
11/08/2022	00:59:42	ST056	Still	210761_ST056_17	00325	424 441.6	6 045 628.4	424 482.3	6 045 609.8	19.4	44.8	-
11/08/2022	01:00:11	ST056	Still	210761_ST056_18	00326	424 441.6	6 045 628.4	424 493.2	6 045 601.6	19.5	58.1	-
11/08/2022	01:00:28	ST056	Video	EOL	00327	424 441.6	6 045 628.4	424 498.2	6 045 598.1	19.4	64.3	-
11/08/2022	01:09:12	ST056	HG	FA/PSDA	00328	424 441.6	6 045 628.4	424 434.8	6 045 594.3	19.9	34.7	-
11/08/2022	01:38:26	ST043	Video	SOL	00329	424 441.6	6 042 628.4	424 393.5	6 042 623.8	19.2	48.3	-
11/08/2022	01:38:43	ST043	Still	210761_ST043_01	00330	424 441.6	6 042 628.4	424 398.1	6 042 626.3	19.0	43.5	-
11/08/2022	01:39:01	ST043	Still	210761_ST043_02	00331	424 441.6	6 042 628.4	424 407.4	6 042 629.0	19.3	34.2	-
11/08/2022	01:39:16	ST043	Still	210761_ST043_03	00332	424 441.6	6 042 628.4	424 417.5	6 042 629.6	19.6	24.1	-
11/08/2022	01:39:31	ST043	Still	210761_ST043_04	00333	424 441.6	6 042 628.4	424 426.6	6 042 629.5	19.9	15.0	-
11/08/2022	01:39:38	ST043	Still	210761_ST043_05	00334	424 441.6	6 042 628.4	424 431.0	6 042 629.4	20.1	10.6	-
11/08/2022	01:39:50	ST043	Still	210761_ST043_06	00335	424 441.6	6 042 628.4	424 437.6	6 042 628.5	19.6	3.9	-
11/08/2022	01:39:58	ST043	Still	210761_ST043_07	00336	424 441.6	6 042 628.4	424 441.7	6 042 628.1	19.5	0.3	-
11/08/2022	01:40:04	ST043	Still	210761_ST043_08	00337	424 441.6	6 042 628.4	424 445.3	6 042 628.0	19.8	3.8	-
11/08/2022	01:40:06	ST043	Still	210761_ST043_09	00338	424 441.6	6 042 628.4	424 446.2	6 042 627.8	19.3	4.6	-
11/08/2022	01:40:07	ST043	Still	210761_ST043_10	00339	424 441.6	6 042 628.4	424 446.4	6 042 627.9	19.3	4.8	-
11/08/2022	01:40:18	ST043	Still	210761_ST043_11	00340	424 441.6	6 042 628.4	424 453.1	6 042 627.5	19.9	11.5	-
11/08/2022	01:40:38	ST043	Still	210761_ST043_12	00341	424 441.6	6 042 628.4	424 463.7	6 042 626.5	20.0	22.2	-
11/08/2022	01:40:55	ST043	Still	210761_ST043_13	00342	424 441.6	6 042 628.4	424 469.7	6 042 627.0	19.8	28.2	-
11/08/2022	01:41:09	ST043	Still	210761_ST043_14	00343	424 441.6	6 042 628.4	424 475.0	6 042 626.5	20.0	33.5	-
11/08/2022	01:41:15	ST043	Still	210761_ST043_15	00344	424 441.6	6 042 628.4	424 476.6	6 042 626.9	19.9	35.1	-
11/08/2022	01:41:48	ST043	Still	210761_ST043_16	00345	424 441.6	6 042 628.4	424 491.2	6 042 626.4	19.8	49.7	-
11/08/2022	01:42:00	ST043	Still	210761_ST043_01	00346	424 441.6	6 042 628.4	424 496.3	6 042 625.9	20.0	54.8	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	01:42:11	ST043	Video	EOL	00347	424 441.6	6 042 628.4	424 500.1	6 042 627.5	20.3	58.6	-
11/08/2022	01:51:28	ST043	HG	FA/PSDA	00348	424 441.6	6 042 628.4	424 431.6	6 042 620.7	19.7	12.6	-
11/08/2022	02:31:48	ST032	Video	SOL	00349	424 986.9	6 039 649.7	424 927.7	6 039 668.0	19.7	61.9	-
11/08/2022	02:38:35	ST032	Still	210761_ST032_01	00351	424 986.9	6 039 649.7	424 936.2	6 039 643.5	20.5	51.1	-
11/08/2022	02:38:42	ST032	Still	210761_ST032_02	00352	424 986.9	6 039 649.7	424 938.7	6 039 639.9	20.0	49.1	-
11/08/2022	02:38:55	ST032	Still	210761_ST032_03	00353	424 986.9	6 039 649.7	424 948.0	6 039 635.6	19.4	41.3	-
11/08/2022	02:39:05	ST032	Still	210761_ST032_04	00354	424 986.9	6 039 649.7	424 956.4	6 039 633.7	19.9	34.4	-
11/08/2022	02:39:16	ST032	Still	210761_ST032_05	00355	424 986.9	6 039 649.7	424 967.0	6 039 634.7	19.8	24.9	-
11/08/2022	02:39:27	ST032	Still	210761_ST032_06	00356	424 986.9	6 039 649.7	424 975.3	6 039 635.6	19.6	18.3	-
11/08/2022	02:39:35	ST032	Still	210761_ST032_07	00357	424 986.9	6 039 649.7	424 982.0	6 039 636.7	19.9	13.9	-
11/08/2022	02:39:47	ST032	Still	210761_ST032_08	00358	424 986.9	6 039 649.7	424 992.8	6 039 639.9	20.2	11.5	-
11/08/2022	02:39:59	ST032	Still	210761_ST032_09	00359	424 986.9	6 039 649.7	425 000.3	6 039 641.2	19.6	15.9	-
11/08/2022	02:40:13	ST032	Still	210761_ST032_10	00360	424 986.9	6 039 649.7	425 012.4	6 039 644.6	19.5	26.0	-
11/08/2022	02:40:29	ST032	Still	210761_ST032_11	00361	424 986.9	6 039 649.7	425 024.5	6 039 647.1	19.7	37.7	-
11/08/2022	02:40:42	ST032	Still	210761_ST032_12	00362	424 986.9	6 039 649.7	425 033.7	6 039 649.0	19.6	46.8	-
11/08/2022	02:40:53	ST032	Still	210761_ST032_13	00363	424 986.9	6 039 649.7	425 039.6	6 039 650.2	19.9	52.8	-
11/08/2022	02:41:12	ST032	Video	EOL	00364	424 986.9	6 039 649.7	425 049.0	6 039 652.1	19.4	62.2	-
11/08/2022	02:49:05	ST032	HG	FA/PSDA	00365	424 986.9	6 039 649.7	424 988.6	6 039 623.6	19.7	26.2	-
11/08/2022	03:52:11	ST189	Video	SOL	00366	423 819.7	6 038 077.6	423 848.8	6 038 035.6	19.7	51.0	-
11/08/2022	04:00:12	ST189	Still	210761_ST189_01	00368	423 819.7	6 038 077.6	423 816.0	6 038 047.1	20.0	30.7	-
11/08/2022	04:00:20	ST189	Still	210761_ST189_02	00369	423 819.7	6 038 077.6	423 823.6	6 038 049.4	19.1	28.5	-
11/08/2022	04:00:24	ST189	Still	210761_ST189_03	00370	423 819.7	6 038 077.6	423 827.4	6 038 051.6	19.4	27.1	-
11/08/2022	04:00:35	ST189	Still	210761_ST189_04	00371	423 819.7	6 038 077.6	423 838.8	6 038 055.8	19.2	29.0	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	04:00:39	ST189	Still	210761_ST189_05	00372	423 819.7	6 038 077.6	423 841.5	6 038 056.5	18.7	30.4	-
11/08/2022	04:00:43	ST189	Still	210761_ST189_06	00373	423 819.7	6 038 077.6	423 846.7	6 038 059.1	19.2	32.7	-
11/08/2022	04:00:47	ST189	Still	210761_ST189_07	00374	423 819.7	6 038 077.6	423 849.6	6 038 059.9	19.3	34.7	-
11/08/2022	04:00:51	ST189	Still	210761_ST189_08	00375	423 819.7	6 038 077.6	423 853.4	6 038 060.9	19.4	37.6	-
11/08/2022	04:00:58	ST189	Still	210761_ST189_09	00376	423 819.7	6 038 077.6	423 858.9	6 038 063.2	19.6	41.8	-
11/08/2022	04:01:05	ST189	Still	210761_ST189_10	00377	423 819.7	6 038 077.6	423 863.6	6 038 066.4	19.9	45.3	-
11/08/2022	04:01:13	ST189	Still	210761_ST189_11	00378	423 819.7	6 038 077.6	423 868.8	6 038 069.5	19.2	49.7	-
11/08/2022	04:01:21	ST189	Still	210761_ST189_12	00379	423 819.7	6 038 077.6	423 875.9	6 038 074.2	20.0	56.3	-
11/08/2022	04:01:41	ST189	Still	210761_ST189_13	00380	423 819.7	6 038 077.6	423 886.5	6 038 080.0	19.6	66.8	-
11/08/2022	04:01:59	ST189	Still	210761_ST189_14	00381	423 819.7	6 038 077.6	423 896.9	6 038 085.2	19.4	77.5	-
11/08/2022	04:02:03	ST189	Still	210761_ST189_15	00382	423 819.7	6 038 077.6	423 899.9	6 038 086.4	19.8	80.6	-
11/08/2022	04:02:32	ST189	Still	210761_ST189_16	00383	423 819.7	6 038 077.6	423 918.5	6 038 095.0	18.8	100.3	-
11/08/2022	04:02:51	ST189	Video	EOL	00384	423 819.7	6 038 077.6	423 923.0	6 038 096.0	18.9	104.9	-
11/08/2022	04:19:36	BT09	BT	SOL	00386	423 819.4	6 038 078.2	424 179.9	6 037 801.2	8.0	454.7	-
11/08/2022	04:32:18	BT09	BT	EOL	00387	423 819.4	6 038 078.2	423 555.5	6 038 311.1	8.0	352.0	-
11/08/2022	06:32:05	ST024	Video	SOL	00388	424 441.6	6 036 628.4	424 443.7	6 036 580.9	17.8	47.5	-
11/08/2022	06:32:23	ST024	Still	210761_ST024_01	00389	424 441.6	6 036 628.4	424 442.7	6 036 588.3	18.0	40.1	-
11/08/2022	06:32:32	ST024	Still	210761_ST024_02	00390	424 441.6	6 036 628.4	424 441.9	6 036 591.5	17.9	36.9	-
11/08/2022	06:32:51	ST024	Still	210761_ST024_03	00391	424 441.6	6 036 628.4	424 442.9	6 036 596.8	18.1	31.6	-
11/08/2022	06:32:55	ST024	Still	210761_ST024_04	00392	424 441.6	6 036 628.4	424 443.7	6 036 596.4	17.8	32.0	-
11/08/2022	06:33:00	ST024	Still	210761_ST024_05	00393	424 441.6	6 036 628.4	424 444.2	6 036 596.9	17.7	31.5	-
11/08/2022	06:33:13	ST024	Still	210761_ST024_06	00394	424 441.6	6 036 628.4	424 444.6	6 036 600.9	17.6	27.6	-
11/08/2022	06:33:50	ST024	Still	210761_ST024_07	00395	424 441.6	6 036 628.4	424 444.7	6 036 616.7	18.1	12.1	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	06:33:55	ST024	Still	210761_ST024_08	00396	424 441.6	6 036 628.4	424 445.2	6 036 616.7	17.8	12.2	-
11/08/2022	06:34:20	ST024	Still	210761_ST024_09	00397	424 441.6	6 036 628.4	424 445.7	6 036 630.1	18.6	4.5	-
11/08/2022	06:34:27	ST024	Still	210761_ST024_10	00398	424 441.6	6 036 628.4	424 445.7	6 036 634.3	18.2	7.2	-
11/08/2022	06:34:46	ST024	Still	210761_ST024_11	00399	424 441.6	6 036 628.4	424 445.2	6 036 641.6	18.1	13.7	-
11/08/2022	06:35:02	ST024	Still	210761_ST024_12	00400	424 441.6	6 036 628.4	424 445.2	6 036 648.0	18.4	20.0	-
11/08/2022	06:35:12	ST024	Still	210761_ST024_13	00401	424 441.6	6 036 628.4	424 445.3	6 036 652.1	18.3	24.1	-
11/08/2022	06:35:32	ST024	Still	210761_ST024_14	00402	424 441.6	6 036 628.4	424 446.2	6 036 658.1	18.0	30.1	-
11/08/2022	06:35:52	ST024	Still	210761_ST024_15	00403	424 441.6	6 036 628.4	424 446.3	6 036 666.4	18.2	38.3	-
11/08/2022	06:36:06	ST024	Still	210761_ST024_16	00404	424 441.6	6 036 628.4	424 447.4	6 036 669.8	18.4	41.8	-
11/08/2022	06:36:23	ST024	Still	210761_ST024_17	00405	424 441.6	6 036 628.4	424 447.2	6 036 675.3	18.1	47.3	-
11/08/2022	06:36:34	ST024	Still	210761_ST024_18	00406	424 441.6	6 036 628.4	424 447.2	6 036 678.5	18.2	50.5	-
11/08/2022	06:36:47	ST024	Still	210761_ST024_19	00407	424 441.6	6 036 628.4	424 447.7	6 036 682.4	18.3	54.4	-
11/08/2022	06:36:52	ST024	Video	EOL	00408	424 441.6	6 036 628.4	424 447.8	6 036 684.7	18.2	56.7	-
11/08/2022	06:46:04	ST024	HG	FA/PSDA	00409	424 441.6	6 036 628.4	424 435.4	6 036 612.0	18.4	17.5	-
11/08/2022	07:13:32	ST016	Video	SOL	00410	424 441.6	6 033 628.4	424 434.3	6 033 557.7	27.5	71.0	-
11/08/2022	07:13:46	ST016	Still	210761_ST016_01	00411	424 441.6	6 033 628.4	424 433.9	6 033 563.7	27.6	65.1	-
11/08/2022	07:14:04	ST016	Still	210761_ST016_02	00412	424 441.6	6 033 628.4	424 433.8	6 033 568.6	27.6	60.3	-
11/08/2022	07:14:22	ST016	Still	210761_ST016_03	00413	424 441.6	6 033 628.4	424 434.9	6 033 577.2	27.6	51.6	-
11/08/2022	07:14:26	ST016	Still	210761_ST016_04	00414	424 441.6	6 033 628.4	424 435.2	6 033 579.4	27.5	49.4	-
11/08/2022	07:14:41	ST016	Still	210761_ST016_05	00415	424 441.6	6 033 628.4	424 434.8	6 033 585.9	27.8	43.0	-
11/08/2022	07:14:58	ST016	Still	210761_ST016_06	00416	424 441.6	6 033 628.4	424 435.6	6 033 593.3	27.6	35.6	-
11/08/2022	07:15:40	ST016	Still	210761_ST016_07	00417	424 441.6	6 033 628.4	424 440.6	6 033 616.2	26.4	12.2	-
11/08/2022	07:15:53	ST016	Still	210761_ST016_08	00418	424 441.6	6 033 628.4	424 442.1	6 033 623.4	26.6	5.0	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	07:16:17	ST016	Still	210761_ST016_09	00419	424 441.6	6 033 628.4	424 442.9	6 033 633.2	26.1	5.0	-
11/08/2022	07:16:31	ST016	Still	210761_ST016_10	00420	424 441.6	6 033 628.4	424 442.4	6 033 637.9	26.4	9.6	-
11/08/2022	07:16:40	ST016	Still	210761_ST016_11	00421	424 441.6	6 033 628.4	424 442.6	6 033 641.9	26.5	13.6	-
11/08/2022	07:16:51	ST016	Still	210761_ST016_12	00422	424 441.6	6 033 628.4	424 443.3	6 033 645.3	26.1	17.1	-
11/08/2022	07:17:13	ST016	Still	210761_ST016_13	00423	424 441.6	6 033 628.4	424 443.2	6 033 654.0	25.6	25.7	-
11/08/2022	07:17:43	ST016	Still	210761_ST016_14	00424	424 441.6	6 033 628.4	424 443.4	6 033 664.3	25.5	36.0	-
11/08/2022	07:18:05	ST016	Still	210761_ST016_15	00425	424 441.6	6 033 628.4	424 444.2	6 033 669.9	25.1	41.7	-
11/08/2022	07:18:15	ST016	Still	210761_ST016_16	00426	424 441.6	6 033 628.4	424 443.6	6 033 674.3	25.2	46.0	-
11/08/2022	07:18:43	ST016	Still	210761_ST016_17	00427	424 441.6	6 033 628.4	424 443.4	6 033 682.3	24.6	54.0	-
11/08/2022	07:19:27	ST016	Video	EOL	00428	424 441.6	6 033 628.4	424 443.3	6 033 692.2	24.1	63.8	-
11/08/2022	07:26:18	ST016	HG	FA/PSDA	00429	424 441.6	6 033 628.4	424 442.6	6 033 605.7	26.3	22.7	-
11/08/2022	07:53:06	ST009	Video	SOL	00430	424 780.9	6 030 850.6	424 774.6	6 030 763.2	37.9	87.7	-
11/08/2022	07:53:42	ST009	Still	210761_ST009_01	00431	424 780.9	6 030 850.6	424 775.9	6 030 786.2	37.0	64.6	-
11/08/2022	07:53:50	ST009	Still	210761_ST009_02	00432	424 780.9	6 030 850.6	424 773.1	6 030 791.6	37.1	59.5	-
11/08/2022	07:53:56	ST009	Still	210761_ST009_03	00433	424 780.9	6 030 850.6	424 774.5	6 030 796.6	37.4	54.4	-
11/08/2022	07:54:07	ST009	Still	210761_ST009_04	00434	424 780.9	6 030 850.6	424 771.6	6 030 807.3	-	44.3	-
11/08/2022	07:54:12	ST009	Still	210761_ST009_05	00435	424 780.9	6 030 850.6	424 771.8	6 030 811.2	37.7	40.5	-
11/08/2022	07:54:16	ST009	Still	210761_ST009_06	00436	424 780.9	6 030 850.6	424 772.8	6 030 813.5	37.4	38.0	-
11/08/2022	07:54:21	ST009	Still	210761_ST009_07	00437	424 780.9	6 030 850.6	424 773.9	6 030 816.2	36.7	35.2	-
11/08/2022	07:54:34	ST009	Still	210761_ST009_08	00438	424 780.9	6 030 850.6	424 773.5	6 030 822.2	36.5	29.3	-
11/08/2022	07:54:47	ST009	Still	210761_ST009_09	00439	424 780.9	6 030 850.6	424 772.3	6 030 830.2	36.4	22.1	-
11/08/2022	07:54:55	ST009	Still	210761_ST009_10	00440	424 780.9	6 030 850.6	424 773.7	6 030 835.0	36.7	17.2	-
11/08/2022	07:55:09	ST009	Still	210761_ST009_11	00441	424 780.9	6 030 850.6	424 774.1	6 030 842.7	36.4	10.4	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	07:55:18	ST009	Still	210761_ST009_12	00442	424 780.9	6 030 850.6	424 774.9	6 030 847.1	36.6	7.0	-
11/08/2022	07:55:36	ST009	Still	210761_ST009_13	00443	424 780.9	6 030 850.6	424 776.2	6 030 852.9	36.4	5.2	-
11/08/2022	07:56:02	ST009	Still	210761_ST009_14	00444	424 780.9	6 030 850.6	424 778.1	6 030 861.7	36.3	11.5	-
11/08/2022	07:56:42	ST009	Still	210761_ST009_15	00445	424 780.9	6 030 850.6	424 778.7	6 030 876.1	36.1	25.6	-
11/08/2022	07:56:48	ST009	Still	210761_ST009_16	00446	424 780.9	6 030 850.6	424 778.4	6 030 876.7	36.1	26.2	-
11/08/2022	07:57:10	ST009	Still	210761_ST009_17	00447	424 780.9	6 030 850.6	424 779.2	6 030 884.9	36.3	34.3	-
11/08/2022	07:57:16	ST009	Still	210761_ST009_18	00448	424 780.9	6 030 850.6	424 777.6	6 030 886.9	36.2	36.4	-
11/08/2022	07:57:56	ST009	Still	210761_ST009_19	00449	424 780.9	6 030 850.6	424 776.7	6 030 897.6	36.2	47.2	-
11/08/2022	07:58:22	ST009	Video	EOL	00450	424 780.9	6 030 850.6	424 777.1	6 030 901.8	35.8	51.3	-
11/08/2022	08:06:25	ST009	HG	NS	00451	424 780.9	6 030 850.6	424 782.3	6 030 833.4	36.2	17.3	-
11/08/2022	08:13:16	ST009	HG	FA/PSDA	00452	424 780.9	6 030 850.6	424 743.2	6 030 854.8	36.2	38.0	-
11/08/2022	08:45:02	ST010	Video	SOL	00453	427 441.6	6 030 628.4	427 471.5	6 030 586.9	35.2	51.1	-
11/08/2022	08:45:17	ST010	Still	210761_ST010_01	00454	427 441.6	6 030 628.4	427 463.0	6 030 592.4	34.6	41.9	-
11/08/2022	08:45:30	ST010	Still	210761_ST010_02	00455	427 441.6	6 030 628.4	427 456.6	6 030 594.7	34.9	36.9	-
11/08/2022	08:45:38	ST010	Still	210761_ST010_03	00456	427 441.6	6 030 628.4	427 454.0	6 030 595.8	34.4	34.9	-
11/08/2022	08:45:48	ST010	Still	210761_ST010_04	00457	427 441.6	6 030 628.4	427 451.1	6 030 597.7	35.2	32.1	-
11/08/2022	08:46:17	ST010	Still	210761_ST010_05	00458	427 441.6	6 030 628.4	427 437.6	6 030 608.3	35.2	20.5	-
11/08/2022	08:46:21	ST010	Still	210761_ST010_06	00459	427 441.6	6 030 628.4	427 436.3	6 030 607.8	35.1	21.2	-
11/08/2022	08:46:36	ST010	Still	210761_ST010_07	00460	427 441.6	6 030 628.4	427 431.8	6 030 611.6	35.5	19.4	-
11/08/2022	08:46:49	ST010	Still	210761_ST010_08	00461	427 441.6	6 030 628.4	427 428.6	6 030 617.7	35.7	16.8	-
11/08/2022	08:47:00	ST010	Still	210761_ST010_09	00462	427 441.6	6 030 628.4	427 426.8	6 030 621.2	35.4	16.5	-
11/08/2022	08:47:09	ST010	Still	210761_ST010_10	00463	427 441.6	6 030 628.4	427 423.9	6 030 626.0	35.7	17.8	-
11/08/2022	08:47:18	ST010	Still	210761_ST010_11	00464	427 441.6	6 030 628.4	427 422.4	6 030 629.6	35.2	19.2	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	08:47:35	ST010	Still	210761_ST010_12	00465	427 441.6	6 030 628.4	427 420.2	6 030 635.7	35.1	22.6	-
11/08/2022	08:47:46	ST010	Still	210761_ST010_13	00466	427 441.6	6 030 628.4	427 414.8	6 030 644.1	35.7	31.1	-
11/08/2022	08:47:54	ST010	Still	210761_ST010_14	00467	427 441.6	6 030 628.4	427 413.0	6 030 645.9	35.1	33.5	-
11/08/2022	08:48:15	ST010	Still	210761_ST010_15	00468	427 441.6	6 030 628.4	427 405.8	6 030 654.1	35.3	44.0	-
11/08/2022	08:48:38	ST010	Video	EOL	00469	427 441.6	6 030 628.4	427 398.0	6 030 662.4	35.2	55.3	-
11/08/2022	08:57:24	ST010	HG	NS	00470	427 441.6	6 030 628.4	427 441.3	6 030 628.2	34.9	0.3	-
11/08/2022	09:04:39	ST010	HG	NS	00471	427 441.6	6 030 628.4	427 427.1	6 030 621.0	34.9	16.3	-
11/08/2022	09:10:41	ST010	HG	FA/PSDA	00472	427 441.6	6 030 628.4	427 436.4	6 030 619.4	34.8	10.4	-
11/08/2022	09:41:05	ST003	Video	SOL	00473	427 679.2	6 027 343.7	427 614.7	6 027 325.1	36.0	67.1	-
11/08/2022	09:41:17	ST003	Still	210761_ST003_01	00474	427 679.2	6 027 343.7	427 621.6	6 027 326.4	36.4	60.1	-
11/08/2022	09:41:35	ST003	Still	210761_ST003_02	00475	427 679.2	6 027 343.7	427 627.8	6 027 327.6	35.6	53.9	-
11/08/2022	09:41:55	ST003	Still	210761_ST003_03	00476	427 679.2	6 027 343.7	427 637.3	6 027 332.3	35.6	43.4	-
11/08/2022	09:42:29	ST003	Still	210761_ST003_04	00477	427 679.2	6 027 343.7	427 652.8	6 027 336.2	36.0	27.4	-
11/08/2022	09:42:38	ST003	Still	210761_ST003_05	00478	427 679.2	6 027 343.7	427 658.1	6 027 336.6	36.1	22.2	-
11/08/2022	09:43:05	ST003	Still	210761_ST003_06	00479	427 679.2	6 027 343.7	427 665.9	6 027 338.0	36.1	14.4	-
11/08/2022	09:43:20	ST003	Still	210761_ST003_07	00480	427 679.2	6 027 343.7	427 669.8	6 027 338.2	35.9	10.8	-
11/08/2022	09:43:45	ST003	Still	210761_ST003_08	00481	427 679.2	6 027 343.7	427 678.8	6 027 341.9	35.1	1.8	-
11/08/2022	09:43:55	ST003	Still	210761_ST003_09	00482	427 679.2	6 027 343.7	427 684.4	6 027 344.7	35.4	5.3	-
11/08/2022	09:44:18	ST003	Still	210761_ST003_10	00483	427 679.2	6 027 343.7	427 694.1	6 027 352.7	35.7	17.5	-
11/08/2022	09:44:41	ST003	Still	210761_ST003_11	00484	427 679.2	6 027 343.7	427 704.1	6 027 361.0	35.8	30.3	-
11/08/2022	09:44:55	ST003	Still	210761_ST003_12	00485	427 679.2	6 027 343.7	427 708.2	6 027 361.5	35.8	34.1	-
11/08/2022	09:45:10	ST003	Still	210761_ST003_13	00486	427 679.2	6 027 343.7	427 713.6	6 027 367.9	35.9	42.2	-
11/08/2022	09:45:35	ST003	Video	EOL	00487	427 679.2	6 027 343.7	427 723.9	6 027 376.8	35.5	55.7	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	09:53:16	ST003	HG	FA/PSDA	00488	427 679.2	6 027 343.7	427 646.6	6 027 356.3	35.2	35.0	-
11/08/2022	10:27:54	ST001	Video	SOL	00489	427 683.8	6 024 782.7	427 601.9	6 024 775.8	36.6	82.2	-
11/08/2022	10:28:30	ST001	Still	210761_ST001_01	00490	427 683.8	6 024 782.7	427 618.4	6 024 774.6	37.3	65.9	-
11/08/2022	10:29:02	ST001	Still	210761_ST001_02	00491	427 683.8	6 024 782.7	427 638.9	6 024 776.9	37.3	45.3	-
11/08/2022	10:29:10	ST001	Still	210761_ST001_03	00492	427 683.8	6 024 782.7	427 641.9	6 024 777.2	36.9	42.3	-
11/08/2022	10:29:18	ST001	Still	210761_ST001_04	00493	427 683.8	6 024 782.7	427 646.7	6 024 779.0	36.9	37.3	-
11/08/2022	10:29:26	ST001	Still	210761_ST001_05	00494	427 683.8	6 024 782.7	427 651.6	6 024 780.1	37.3	32.4	-
11/08/2022	10:29:38	ST001	Still	210761_ST001_06	00495	427 683.8	6 024 782.7	427 657.3	6 024 781.5	36.5	26.6	-
11/08/2022	10:29:47	ST001	Still	210761_ST001_07	00496	427 683.8	6 024 782.7	427 662.4	6 024 781.8	36.5	21.4	-
11/08/2022	10:29:53	ST001	Still	210761_ST001_08	00497	427 683.8	6 024 782.7	427 666.6	6 024 781.5	36.7	17.3	-
11/08/2022	10:30:05	ST001	Still	210761_ST001_09	00498	427 683.8	6 024 782.7	427 672.8	6 024 785.4	37.0	11.3	-
11/08/2022	10:30:27	ST001	Still	210761_ST001_10	00499	427 683.8	6 024 782.7	427 686.0	6 024 788.8	36.9	6.5	-
11/08/2022	10:30:33	ST001	Still	210761_ST001_11	00500	427 683.8	6 024 782.7	427 688.3	6 024 790.1	36.7	8.7	-
11/08/2022	10:30:45	ST001	Still	210761_ST001_12	00501	427 683.8	6 024 782.7	427 695.5	6 024 793.8	37.3	16.1	-
11/08/2022	10:30:51	ST001	Still	210761_ST001_13	00502	427 683.8	6 024 782.7	427 698.3	6 024 795.4	37.5	19.3	-
11/08/2022	10:31:01	ST001	Still	210761_ST001_14	00503	427 683.8	6 024 782.7	427 704.1	6 024 797.3	37.1	24.9	-
11/08/2022	10:31:12	ST001	Still	210761_ST001_15	00504	427 683.8	6 024 782.7	427 710.1	6 024 801.5	37.2	32.3	-
11/08/2022	10:31:33	ST001	Video	EOL	00505	427 683.8	6 024 782.7	427 721.3	6 024 802.2	36.6	42.3	-
11/08/2022	10:38:14	ST001	HG	FA/PSDA	00506	427 683.8	6 024 782.7	427 648.8	6 024 785.0	36.7	35.1	-
11/08/2022	11:42:11	ST012	Video	SOL	00507	433 441.6	6 030 628.4	433 386.0	6 030 608.8	32.5	58.9	-
11/08/2022	11:42:58	ST012	Still	210761_ST012_01	00508	433 441.6	6 030 628.4	433 398.7	6 030 613.2	32.9	45.5	-
11/08/2022	11:43:31	ST012	Still	210761_ST012_02	00509	433 441.6	6 030 628.4	433 406.0	6 030 616.6	32.7	37.5	-
11/08/2022	11:43:35	ST012	Still	210761_ST012_03	00510	433 441.6	6 030 628.4	433 408.3	6 030 616.4	32.8	35.3	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	11:43:44	ST012	Still	210761_ST012_04	00511	433 441.6	6 030 628.4	433 408.8	6 030 616.1	33.0	35.0	-
11/08/2022	11:44:49	ST012	Still	210761_ST012_05	00512	433 441.6	6 030 628.4	433 416.7	6 030 618.1	33.0	26.9	-
11/08/2022	11:45:09	ST012	Still	210761_ST012_06	00513	433 441.6	6 030 628.4	433 423.3	6 030 619.0	33.7	20.5	-
11/08/2022	11:45:13	ST012	Still	210761_ST012_07	00514	433 441.6	6 030 628.4	433 422.8	6 030 618.5	33.3	21.2	-
11/08/2022	11:45:29	ST012	Still	210761_ST012_08	00515	433 441.6	6 030 628.4	433 426.8	6 030 620.5	33.4	16.7	-
11/08/2022	11:46:01	ST012	Still	210761_ST012_09	00516	433 441.6	6 030 628.4	433 435.8	6 030 622.6	33.6	8.1	-
11/08/2022	11:46:15	ST012	Still	210761_ST012_10	00517	433 441.6	6 030 628.4	433 436.6	6 030 624.2	33.3	6.5	-
11/08/2022	11:47:05	ST012	Still	210761_ST012_11	00518	433 441.6	6 030 628.4	433 449.8	6 030 631.4	33.4	8.8	-
11/08/2022	11:47:40	ST012	Still	210761_ST012_12	00519	433 441.6	6 030 628.4	433 457.7	6 030 638.8	33.4	19.2	-
11/08/2022	11:48:03	ST012	Still	210761_ST012_13	00520	433 441.6	6 030 628.4	433 464.1	6 030 643.7	33.6	27.3	-
11/08/2022	11:48:24	ST012	Still	210761_ST012_14	00521	433 441.6	6 030 628.4	433 469.7	6 030 647.0	33.5	33.8	-
11/08/2022	11:49:07	ST012	Still	210761_ST012_15	00522	433 441.6	6 030 628.4	433 480.1	6 030 657.2	33.2	48.1	-
11/08/2022	11:49:15	ST012	Video	EOL	00523	433 441.6	6 030 628.4	433 479.9	6 030 659.7	33.1	49.5	-
11/08/2022	11:59:39	ST012	DG	CA	00524	433 441.6	6 030 628.4	433 408.2	6 030 628.0	28.0	33.4	-
11/08/2022	12:08:22	ST012	HG	FA/PSDA	00525	433 441.6	6 030 628.4	433 414.7	6 030 618.0	29.0	28.8	-
11/08/2022	13:04:35	ST015	Video	SOL	00526	442 441.6	6 030 628.4	442 408.5	6 030 606.1	29.6	39.9	-
11/08/2022	13:05:09	ST015	Still	210761_ST015_01	00527	442 441.6	6 030 628.4	442 412.8	6 030 614.1	-	32.1	-
11/08/2022	13:06:04	ST015	Video	EOL	No fix	442 441.6	6 030 628.4	442 439.3	6 030 605.9	32.0	22.6	-
11/08/2022	13:06:40	ST015	Still	210761_ST015_02	00528	442 441.6	6 030 628.4	442 438.6	6 030 604.8	32.0	23.7	-
11/08/2022	13:07:46	ST015A	Video	SOL	00529	442 441.6	6 030 628.4	442 455.7	6 030 624.7	31.5	14.6	-
11/08/2022	13:08:14	ST015A	Still	210761_ST015A_01	00530	442 441.6	6 030 628.4	442 460.9	6 030 639.5	32.5	22.3	-
11/08/2022	13:08:33	ST015A	Still	210761_ST015A_02	00531	442 441.6	6 030 628.4	442 466.9	6 030 645.0	32.2	30.3	-
11/08/2022	13:08:51	ST015A	Still	210761_ST015A_03	00532	442 441.6	6 030 628.4	442 472.8	6 030 649.3	32.1	37.6	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	13:09:01	ST015A	Still	210761_ST015A_04	00533	442 441.6	6 030 628.4	442 477.0	6 030 653.2	32.5	43.3	-
11/08/2022	13:09:13	ST015A	Still	210761_ST015A_05	00534	442 441.6	6 030 628.4	442 482.1	6 030 655.3	32.8	48.7	-
11/08/2022	13:09:20	ST015A	Still	210761_ST015A_06	00535	442 441.6	6 030 628.4	442 484.4	6 030 658.6	32.7	52.4	-
11/08/2022	13:09:28	ST015A	Still	210761_ST015A_07	00536	442 441.6	6 030 628.4	442 487.6	6 030 658.5	32.5	55.0	-
11/08/2022	13:09:31	ST015A	Still	210761_ST015A_08	00537	442 441.6	6 030 628.4	442 490.9	6 030 658.3	32.9	57.7	-
11/08/2022	13:09:42	ST015A	Still	210761_ST015A_09	00538	442 441.6	6 030 628.4	442 492.9	6 030 657.5	32.3	59.0	-
11/08/2022	13:09:54	ST015A	Still	210761_ST015A_10	00539	442 441.6	6 030 628.4	442 499.4	6 030 663.3	33.0	67.6	-
11/08/2022	13:10:06	ST015A	Still	210761_ST015A_11	00540	442 441.6	6 030 628.4	442 504.5	6 030 665.1	33.6	72.9	-
11/08/2022	13:10:24	ST015A	Still	210761_ST015A_12	00541	442 441.6	6 030 628.4	442 508.9	6 030 668.5	32.9	78.4	-
11/08/2022	13:10:31	ST015A	Still	210761_ST015A_13	00542	442 441.6	6 030 628.4	442 509.8	6 030 669.2	32.2	79.5	-
11/08/2022	13:10:37	ST015A	Video	EOL	00543	442 441.6	6 030 628.4	442 510.4	6 030 673.3	32.3	82.2	-
11/08/2022	13:18:18	ST015	HG	FA/PSDA	00544	442 441.6	6 030 628.4	442 399.5	6 030 638.4	29.0	43.3	-
11/08/2022	14:39:57	ST023	Video	SOL	00545	421 855.1	6 036 885.7	421 818.6	6 036 873.6	18.5	38.5	-
11/08/2022	14:40:34	ST023	Still	210761_ST023_01	00546	421 855.1	6 036 885.7	421 830.4	6 036 880.7	18.4	25.2	-
11/08/2022	14:40:44	ST023	Still	210761_ST023_02	00547	421 855.1	6 036 885.7	421 834.6	6 036 881.5	18.7	20.9	-
11/08/2022	14:40:50	ST023	Still	210761_ST023_03	00548	421 855.1	6 036 885.7	421 835.6	6 036 881.1	18.8	20.0	-
11/08/2022	14:40:52	ST023	Still	210761_ST023_04	00549	421 855.1	6 036 885.7	421 837.1	6 036 881.3	18.7	18.5	-
11/08/2022	14:41:01	ST023	Still	210761_ST023_05	00550	421 855.1	6 036 885.7	421 842.3	6 036 883.4	18.7	13.0	-
11/08/2022	14:41:17	ST023	Still	210761_ST023_06	00551	421 855.1	6 036 885.7	421 842.3	6 036 883.4	18.7	13.0	-
11/08/2022	14:41:21	ST023	Still	210761_ST023_07	00552	421 855.1	6 036 885.7	421 849.5	6 036 883.7	18.7	6.0	-
11/08/2022	14:41:28	ST023	Still	210761_ST023_08	00553	421 855.1	6 036 885.7	421 855.3	6 036 884.1	18.8	1.6	-
11/08/2022	14:41:47	ST023	Still	210761_ST023_09	00554	421 855.1	6 036 885.7	421 863.4	6 036 885.6	19.0	8.3	-
11/08/2022	14:41:56	ST023	Still	210761_ST023_10	00555	421 855.1	6 036 885.7	421 867.2	6 036 886.2	19.3	12.1	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	14:42:15	ST023	Still	210761_ST023_11	00556	421 855.1	6 036 885.7	421 875.6	6 036 885.9	18.8	20.5	-
11/08/2022	14:42:31	ST023	Still	210761_ST023_12	00557	421 855.1	6 036 885.7	421 881.7	6 036 885.9	18.8	26.6	-
11/08/2022	14:42:53	ST023	Still	210761_ST023_13	00558	421 855.1	6 036 885.7	421 890.4	6 036 888.3	19.0	35.4	-
11/08/2022	14:43:19	ST023	Still	210761_ST023_14	00559	421 855.1	6 036 885.7	421 899.3	6 036 890.7	18.9	44.5	-
11/08/2022	14:43:52	ST023	Still	210761_ST023_15	00560	421 855.1	6 036 885.7	421 908.2	6 036 895.8	18.6	54.0	-
11/08/2022	14:44:13	ST023	Still	210761_ST023_16	00561	421 855.1	6 036 885.7	421 911.6	6 036 900.1	18.8	58.3	-
11/08/2022	14:44:20	ST023	Video	EOL	00562	421 855.1	6 036 885.7	421 912.1	6 036 900.3	18.2	58.8	-
11/08/2022	14:50:05	ST023	HG	FA/PSDA	00563	421 855.1	6 036 885.7	421 859.8	6 036 858.6	19.0	27.6	-
11/08/2022	16:12:17	ST030	Video	SOL	00565	418 583.6	6 039 959.0	418 602.1	6 039 911.3	-	51.2	-
11/08/2022	16:13:00	ST030	Still	210761_ST030_01	00566	418 583.6	6 039 959.0	418 600.9	6 039 938.7	19.7	26.7	-
11/08/2022	16:13:11	ST030	Still	210761_ST030_02	00567	418 583.6	6 039 959.0	418 599.5	6 039 943.0	19.6	22.5	-
11/08/2022	16:13:19	ST030	Still	210761_ST030_03	00568	418 583.6	6 039 959.0	418 600.3	6 039 945.7	19.7	21.3	-
11/08/2022	16:13:24	ST030	Still	210761_ST030_04	00569	418 583.6	6 039 959.0	418 600.5	6 039 947.2	19.8	20.6	-
11/08/2022	16:13:31	ST030	Still	210761_ST030_05	00570	418 583.6	6 039 959.0	418 600.5	6 039 949.4	18.9	19.4	-
11/08/2022	16:13:43	ST030	Still	210761_ST030_06	00571	418 583.6	6 039 959.0	418 600.2	6 039 957.4	19.8	16.7	-
11/08/2022	16:13:55	ST030	Still	210761_ST030_07	00572	418 583.6	6 039 959.0	418 601.1	6 039 961.7	20.1	17.7	-
11/08/2022	16:14:04	ST030	Still	210761_ST030_08	00573	418 583.6	6 039 959.0	418 600.7	6 039 964.2	19.2	17.9	-
11/08/2022	16:14:24	ST030	Still	210761_ST030_09	00574	418 583.6	6 039 959.0	418 600.6	6 039 973.8	19.8	22.5	-
11/08/2022	16:14:59	ST030	Still	210761_ST030_10	00575	418 583.6	6 039 959.0	418 603.1	6 039 990.7	19.4	37.2	-
11/08/2022	16:15:12	ST030	Still	210761_ST030_11	00576	418 583.6	6 039 959.0	418 603.1	6 039 996.5	19.5	42.3	-
11/08/2022	16:15:21	ST030	Still	210761_ST030_12	00577	418 583.6	6 039 959.0	418 603.5	6 040 001.5	19.5	46.9	-
11/08/2022	16:15:31	ST030	Still	210761_ST030_13	00578	418 583.6	6 039 959.0	418 603.8	6 040 005.2	19.5	50.4	-
11/08/2022	16:15:52	ST030	Video	EOL	00579	418 583.6	6 039 959.0	418 606.0	6 040 013.9	19.5	59.3	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	16:23:23	ST030	HG	FA/PSDA	00580	418 583.6	6 039 959.0	418 611.9	6 039 938.2	19.7	35.2	-
11/08/2022	17:23:34	ST031	Video	SOL	00581	420 725.5	6 039 351.0	420 769.8	6 039 307.3	18.3	62.3	-
11/08/2022	17:24:20	ST031	Still	210761_ST031_01	00582	420 725.5	6 039 351.0	420 747.3	6 039 334.0	18.7	27.7	-
11/08/2022	17:24:30	ST031	Still	210761_ST031_02	00583	420 725.5	6 039 351.0	420 742.5	6 039 339.9	18.8	20.3	-
11/08/2022	17:24:34	ST031	Still	210761_ST031_03	00584	420 725.5	6 039 351.0	420 740.4	6 039 341.6	-	17.7	-
11/08/2022	17:24:37	ST031	Still	210761_ST031_04	00585	420 725.5	6 039 351.0	420 740.6	6 039 343.5	18.8	16.9	-
11/08/2022	17:24:42	ST031	Still	210761_ST031_05	00586	420 725.5	6 039 351.0	420 738.4	6 039 345.9	19.8	13.9	-
11/08/2022	17:24:46	ST031	Still	210761_ST031_06	00587	420 725.5	6 039 351.0	420 737.1	6 039 348.4	19.4	11.9	-
11/08/2022	17:24:59	ST031	Still	210761_ST031_07	00588	420 725.5	6 039 351.0	420 735.0	6 039 353.3	-	9.8	-
11/08/2022	17:25:02	ST031	Still	210761_ST031_08	00589	420 725.5	6 039 351.0	420 731.9	6 039 358.3	20.3	9.7	-
11/08/2022	17:25:16	ST031	Still	210761_ST031_09	00590	420 725.5	6 039 351.0	420 732.0	6 039 365.0	-	15.5	-
11/08/2022	17:25:25	ST031	Still	210761_ST031_10	00591	420 725.5	6 039 351.0	420 730.1	6 039 370.4	20.2	19.9	-
11/08/2022	17:25:34	ST031	Still	210761_ST031_11	00592	420 725.5	6 039 351.0	420 729.2	6 039 376.5	19.8	25.8	-
11/08/2022	17:25:45	ST031	Still	210761_ST031_12	00593	420 725.5	6 039 351.0	420 727.5	6 039 384.6	19.1	33.7	-
11/08/2022	17:25:51	ST031	Still	210761_ST031_13	00594	420 725.5	6 039 351.0	420 726.7	6 039 388.7	19.9	37.7	-
11/08/2022	17:25:54	ST031	Still	210761_ST031_14	00595	420 725.5	6 039 351.0	420 726.5	6 039 388.9	19.4	37.9	-
11/08/2022	17:25:58	ST031	Still	210761_ST031_15	00596	420 725.5	6 039 351.0	420 725.7	6 039 392.4	19.7	41.4	-
11/08/2022	17:26:02	ST031	Still	210761_ST031_16	00597	420 725.5	6 039 351.0	420 725.3	6 039 394.6	19.5	43.6	-
11/08/2022	17:26:05	ST031	Still	210761_ST031_17	00598	420 725.5	6 039 351.0	420 725.1	6 039 396.1	20.0	45.1	-
11/08/2022	17:26:08	ST031	Still	210761_ST031_18	00599	420 725.5	6 039 351.0	420 725.5	6 039 397.9	20.1	46.9	-
11/08/2022	17:26:16	ST031	Still	210761_ST031_19	00600	420 725.5	6 039 351.0	420 723.5	6 039 402.6	19.9	51.6	-
11/08/2022	17:26:25	ST031	Video	EOL	00601	420 725.5	6 039 351.0	420 724.9	6 039 406.1	18.8	55.1	-
11/08/2022	17:35:10	ST031	HG	FA/PSDA	00602	420 725.5	6 039 351.0	420 728.2	6 039 327.8	18.8	23.4	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	17:41:55	ST031	DG	CA	00603	420 725.5	6 039 351.0	420 728.5	6 039 341.5	18.8	10.0	-
11/08/2022	18:26:52	ST188	Video	SOL	00604	413 944.7	6 036 359.6	414 008.3	6 036 325.8	17.9	72.0	-
11/08/2022	18:27:39	ST188	Still	210761_ST188_01	00605	413 944.7	6 036 359.6	413 978.4	6 036 336.3	18.1	41.0	-
11/08/2022	18:27:43	ST188	Still	210761_ST188_02	00606	413 944.7	6 036 359.6	413 979.0	6 036 337.4	17.7	40.9	-
11/08/2022	18:28:02	ST188	Still	210761_ST188_03	00607	413 944.7	6 036 359.6	413 971.1	6 036 342.9	17.6	31.3	-
11/08/2022	18:28:02	ST188	Still	210761_ST188_04	00608	413 944.7	6 036 359.6	413 970.9	6 036 341.5	17.5	31.9	-
11/08/2022	18:28:06	ST188	Still	210761_ST188_05	00609	413 944.7	6 036 359.6	413 970.2	6 036 343.3	17.3	30.3	-
11/08/2022	18:28:11	ST188	Still	210761_ST188_06	00610	413 944.7	6 036 359.6	413 967.2	6 036 343.7	17.8	27.6	-
11/08/2022	18:28:23	ST188	Still	210761_ST188_07	00611	413 944.7	6 036 359.6	413 961.9	6 036 347.6	17.7	21.0	-
11/08/2022	18:28:32	ST188	Still	210761_ST188_08	00612	413 944.7	6 036 359.6	413 958.7	6 036 352.0	17.4	15.9	-
11/08/2022	18:28:42	ST188	Still	210761_ST188_09	00613	413 944.7	6 036 359.6	413 954.8	6 036 353.9	17.8	11.6	-
11/08/2022	18:29:03	ST188	Still	210761_ST188_10	00614	413 944.7	6 036 359.6	413 945.7	6 036 361.9	17.9	2.5	-
11/08/2022	18:29:08	ST188	Still	210761_ST188_11	00615	413 944.7	6 036 359.6	413 944.6	6 036 364.0	17.8	4.4	-
11/08/2022	18:29:32	ST188	Still	210761_ST188_12	00616	413 944.7	6 036 359.6	413 935.8	6 036 372.5	17.8	15.7	-
11/08/2022	18:29:40	ST188	Still	210761_ST188_13	00617	413 944.7	6 036 359.6	413 932.5	6 036 375.6	18.3	20.1	-
11/08/2022	18:29:53	ST188	Still	210761_ST188_14	00618	413 944.7	6 036 359.6	413 928.1	6 036 379.7	17.8	26.1	-
11/08/2022	18:30:01	ST188	Still	210761_ST188_15	00619	413 944.7	6 036 359.6	413 926.0	6 036 381.8	17.7	29.0	-
11/08/2022	18:30:05	ST188	Still	210761_ST188_16	00620	413 944.7	6 036 359.6	413 925.2	6 036 382.8	17.7	30.3	-
11/08/2022	18:30:14	ST188	Still	210761_ST188_17	00621	413 944.7	6 036 359.6	413 922.4	6 036 384.5	17.2	33.4	-
11/08/2022	18:30:42	ST188	Still	210761_ST188_18	00622	413 944.7	6 036 359.6	413 910.1	6 036 395.2	17.8	49.6	-
11/08/2022	18:30:50	ST188	Video	EOL	00623	413 944.7	6 036 359.6	413 907.4	6 036 397.4	18.2	53.1	-
11/08/2022	18:57:25	ST139	Video	SOL	00624	411 614.5	6 035 923.6	411 677.3	6 035 896.3	43.4	68.5	-
11/08/2022	18:57:56	ST139	Still	210761_ST139_01	00625	411 614.5	6 035 923.6	411 660.2	6 035 901.8	43.7	50.6	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	18:58:00	ST139	Still	210761_ST139_02	00626	411 614.5	6 035 923.6	411 658.6	6 035 902.4	44.2	48.9	-
11/08/2022	18:58:08	ST139	Still	210761_ST139_03	00627	411 614.5	6 035 923.6	411 653.1	6 035 904.8	44.6	42.9	-
11/08/2022	18:58:12	ST139	Still	210761_ST139_04	00628	411 614.5	6 035 923.6	411 652.2	6 035 906.5	44.1	41.4	-
11/08/2022	18:58:29	ST139	Still	210761_ST139_05	00629	411 614.5	6 035 923.6	411 642.7	6 035 912.6	44.5	30.3	-
11/08/2022	18:58:37	ST139	Still	210761_ST139_06	00630	411 614.5	6 035 923.6	411 639.5	6 035 913.6	44.3	26.9	-
11/08/2022	18:58:46	ST139	Still	210761_ST139_07	00631	411 614.5	6 035 923.6	411 634.5	6 035 915.4	43.8	21.6	-
11/08/2022	18:58:51	ST139	Still	210761_ST139_08	00632	411 614.5	6 035 923.6	411 631.4	6 035 916.3	44.7	18.4	-
11/08/2022	18:58:55	ST139	Still	210761_ST139_09	00633	411 614.5	6 035 923.6	411 631.0	6 035 916.8	44.4	17.8	-
11/08/2022	18:59:03	ST139	Still	210761_ST139_10	00634	411 614.5	6 035 923.6	411 627.0	6 035 919.8	44.3	13.0	-
11/08/2022	18:59:12	ST139	Still	210761_ST139_11	00635	411 614.5	6 035 923.6	411 621.8	6 035 922.4	44.8	7.4	-
11/08/2022	18:59:15	ST139	Still	210761_ST139_12	00636	411 614.5	6 035 923.6	411 623.2	6 035 922.3	43.8	8.8	-
11/08/2022	18:59:42	ST139	Still	210761_ST139_13	00637	411 614.5	6 035 923.6	411 610.3	6 035 930.6	44.6	8.2	-
11/08/2022	19:00:03	ST139	Still	210761_ST139_14	00638	411 614.5	6 035 923.6	411 602.4	6 035 937.0	44.6	18.1	-
11/08/2022	19:00:13	ST139	Still	210761_ST139_15	00639	411 614.5	6 035 923.6	411 598.3	6 035 941.5	44.4	24.1	-
11/08/2022	19:00:24	ST139	Still	210761_ST139_16	00640	411 614.5	6 035 923.6	411 597.2	6 035 943.0	-	26.0	-
11/08/2022	19:00:45	ST139	Still	210761_ST139_17	00641	411 614.5	6 035 923.6	411 588.4	6 035 949.0	44.5	36.4	-
11/08/2022	19:00:54	ST139	Still	210761_ST139_18	00642	411 614.5	6 035 923.6	411 590.5	6 035 948.9	-	34.9	-
11/08/2022	19:01:20	ST139	Still	210761_ST139_19	00643	411 614.5	6 035 923.6	411 580.0	6 035 957.7	44.5	48.5	-
11/08/2022	19:01:27	ST139	Video	EOL	00644	411 614.5	6 035 923.6	411 579.3	6 035 959.4	44.2	50.2	-
11/08/2022	19:52:00	ST141	DG	CA	00645	401 774.3	6 034 148.5	401 758.9	6 034 143.5	36.0	16.2	-
11/08/2022	21:14:16	BT18	BT	SOL	00646	386 160.7	6 035 920.8	386 303.0	6 035 696.6	55.0	265.6	-
11/08/2022	21:28:09	BT18	BT	EOL	00647	386 160.7	6 035 920.8	386 009.8	6 036 421.9	55.0	523.3	-
11/08/2022	21:53:06	BT18	BT	SOL	00648	386 160.7	6 035 920.8	385 762.6	6 036 030.1	55.0	412.9	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
11/08/2022	22:06:53	BT18	BT	EOL	00649	386 160.7	6 035 920.8	386 564.6	6 035 791.7	55.0	424.1	-
11/08/2022	23:50:14	ST146	DG	CA	00650	377 058.2	6 037 144.5	377 020.7	6 037 174.6	46.4	48.1	-
12/08/2022	00:43:05	ST136	HG	FA/PSDA	00651	370 610.2	6 041 063.6	370 623.2	6 041 051.3	56.0	17.8	-
12/08/2022	01:21:43	ST135	HG	NS	00652	375 121.7	6 043 219.3	375 121.8	6 043 214.0	67.1	5.3	-
12/08/2022	01:29:14	ST135	HG	FA/PSDA	00653	375 121.7	6 043 219.3	375 130.8	6 043 205.0	67.7	16.9	-
12/08/2022	02:04:04	BT23	BT	SOL	00654	376 333.1	6 043 778.3	375 981.5	6 043 968.7	65.0	399.8	-
12/08/2022	02:18:11	BT23	BT	EOL	00655	376 333.1	6 043 778.3	376 705.7	6 043 583.3	66.0	420.6	-
12/08/2022	04:18:51	ST134	HG	NS	00656	379 633.1	6 045 375.0	379 667.4	6 045 354.7	60.0	39.9	-
12/08/2022	04:25:17	ST134	HG	NS	00657	379 633.1	6 045 375.0	379 628.1	6 045 389.7	61.1	15.5	-
12/08/2022	04:32:07	ST134	HG	FA/PSDA	00658	379 633.1	6 045 375.0	379 627.8	6 045 377.7	60.8	5.9	-
12/08/2022	04:54:42	ST134	DG	CA	00659	379 633.1	6 045 375.0	379 648.3	6 045 384.4	61.2	17.9	-
12/08/2022	05:27:08	ST133	HG	FA/PSDA	00660	384 144.5	6 047 530.8	384 153.2	6 047 509.7	52.6	22.8	-
12/08/2022	05:51:08	ST187	Video	SOL	00661	385 044.8	6 048 363.7	385 056.8	6 048 304.4	42.4	60.6	-
12/08/2022	05:51:39	ST187	Still	210761_ST187_01	00662	385 044.8	6 048 363.7	385 052.5	6 048 317.0	43.3	47.3	-
12/08/2022	05:51:58	ST187	Still	210761_ST187_02	00663	385 044.8	6 048 363.7	385 053.2	6 048 324.6	43.6	40.0	-
12/08/2022	05:52:08	ST187	Still	210761_ST187_03	00664	385 044.8	6 048 363.7	385 053.5	6 048 328.8	43.0	36.0	-
12/08/2022	05:52:12	ST187	Still	210761_ST187_04	00665	385 044.8	6 048 363.7	385 054.0	6 048 330.8	43.3	34.2	-
12/08/2022	05:52:32	ST187	Still	210761_ST187_05	00666	385 044.8	6 048 363.7	385 054.7	6 048 338.0	42.7	27.6	-
12/08/2022	05:52:54	ST187	Still	210761_ST187_06	00667	385 044.8	6 048 363.7	385 058.4	6 048 351.9	43.0	18.0	-
12/08/2022	05:53:14	ST187	Still	210761_ST187_07	00668	385 044.8	6 048 363.7	385 058.5	6 048 364.6	43.6	13.8	-
12/08/2022	05:53:15	ST187	Still	210761_ST187_08	00669	385 044.8	6 048 363.7	385 058.9	6 048 365.7	43.8	14.2	-
12/08/2022	05:53:34	ST187	Still	210761_ST187_09	00670	385 044.8	6 048 363.7	385 061.4	6 048 373.6	42.5	19.3	-
12/08/2022	05:53:48	ST187	Still	210761_ST187_10	00671	385 044.8	6 048 363.7	385 060.7	6 048 381.8	42.5	24.1	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
12/08/2022	05:54:37	ST187	Still	210761_ST187_11	00672	385 044.8	6 048 363.7	385 059.9	6 048 400.9	41.9	40.1	-
12/08/2022	05:55:17	ST187	Video	EOL	00673	385 044.8	6 048 363.7	385 063.0	6 048 420.5	41.8	59.7	-
12/08/2022	06:41:19	ST153	HG	FA/PSDA	00674	383 431.8	6 049 508.1	383 426.4	6 049 499.0	49.1	10.6	-
12/08/2022	06:59:44	ST186	Video	SOL	00675	382 948.4	6 049 501.9	383 005.7	6 049 536.0	50.0	66.7	-
12/08/2022	07:00:17	ST186	Still	210761_ST186_01	00676	382 948.4	6 049 501.9	382 998.4	6 049 536.2	50.1	60.7	-
12/08/2022	07:01:31	ST186	Still	210761_ST186_02	00677	382 948.4	6 049 501.9	382 990.8	6 049 525.7	50.0	48.6	-
12/08/2022	07:01:39	ST186	Still	210761_ST186_03	00678	382 948.4	6 049 501.9	382 988.4	6 049 524.8	50.3	46.1	-
12/08/2022	07:02:16	ST186	Still	210761_ST186_04	00679	382 948.4	6 049 501.9	382 975.9	6 049 518.8	50.2	32.3	-
12/08/2022	07:02:34	ST186	Still	210761_ST186_05	00680	382 948.4	6 049 501.9	382 968.2	6 049 516.1	50.3	24.4	-
12/08/2022	07:02:47	ST186	Still	210761_ST186_06	00681	382 948.4	6 049 501.9	382 962.3	6 049 516.0	50.0	19.8	-
12/08/2022	07:03:04	ST186	Still	210761_ST186_07	00682	382 948.4	6 049 501.9	382 956.8	6 049 512.2	50.4	13.3	-
12/08/2022	07:03:13	ST186	Still	210761_ST186_08	00683	382 948.4	6 049 501.9	382 954.2	6 049 509.4	50.2	9.5	-
12/08/2022	07:03:32	ST186	Still	210761_ST186_09	00684	382 948.4	6 049 501.9	382 945.2	6 049 506.9	50.2	6.0	-
12/08/2022	07:04:15	ST186	Still	210761_ST186_10	00685	382 948.4	6 049 501.9	382 925.6	6 049 502.0	50.0	22.8	-
12/08/2022	07:04:23	ST186	Still	210761_ST186_11	00686	382 948.4	6 049 501.9	382 924.1	6 049 497.0	50.0	24.8	-
12/08/2022	07:04:30	ST186	Still	210761_ST186_12	00687	382 948.4	6 049 501.9	382 919.1	6 049 500.5	49.8	29.3	-
12/08/2022	07:04:43	ST186	Still	210761_ST186_13	00688	382 948.4	6 049 501.9	382 914.8	6 049 499.3	49.4	33.6	-
12/08/2022	07:04:55	ST186	Still	210761_ST186_14	00689	382 948.4	6 049 501.9	382 911.4	6 049 495.3	49.4	37.6	-
12/08/2022	07:05:10	ST186	Video	EOL	00690	382 948.4	6 049 501.9	382 900.4	6 049 495.0	49.6	48.4	-
12/08/2022	07:33:47	ST152	HG	FA/PSDA	00691	378 432.2	6 049 443.3	378 442.8	6 049 425.8	37.1	20.5	-
12/08/2022	08:04:39	ST151	DG	NS	00692	373 432.7	6 049 378.5	373 401.3	6 049 376.6	58.9	31.4	-
12/08/2022	08:13:15	ST151	DG	CA	00693	373 432.7	6 049 378.5	373 420.9	6 049 377.2	59.4	11.9	-
12/08/2022	08:30:04	ST151	HG	NS	00694	373 432.7	6 049 378.5	373 418.5	6 049 381.5	58.0	14.4	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
12/08/2022	08:36:12	ST151	HG	FA/PSDA	00695	373 432.7	6 049 378.5	373 435.5	6 049 383.7	57.3	5.9	-
12/08/2022	08:58:22	ST185	Video	SOL	00696	371 640.6	6 049 271.6	371 600.2	6 049 319.4	62.6	62.7	-
12/08/2022	08:58:42	ST185	Still	210761_ST185_01	00697	371 640.6	6 049 271.6	371 597.0	6 049 315.4	63.7	61.9	-
12/08/2022	08:59:16	ST185	Still	210761_ST185_02	00698	371 640.6	6 049 271.6	371 596.3	6 049 309.5	63.9	58.4	-
12/08/2022	08:59:28	ST185	Still	210761_ST185_03	00699	371 640.6	6 049 271.6	371 596.2	6 049 307.2	64.0	56.9	-
12/08/2022	08:59:40	ST185	Still	210761_ST185_04	00700	371 640.6	6 049 271.6	371 599.2	6 049 304.2	63.8	52.7	-
12/08/2022	09:00:19	ST185	Still	210761_ST185_05	00701	371 640.6	6 049 271.6	371 605.4	6 049 299.2	64.1	44.7	-
12/08/2022	09:00:26	ST185	Still	210761_ST185_06	00702	371 640.6	6 049 271.6	371 607.3	6 049 299.6	63.8	43.5	-
12/08/2022	09:01:01	ST185	Still	210761_ST185_07	00703	371 640.6	6 049 271.6	371 613.8	6 049 297.0	63.4	37.0	-
12/08/2022	09:01:57	ST185	Still	210761_ST185_08	00704	371 640.6	6 049 271.6	371 637.0	6 049 298.5	63.7	27.2	-
12/08/2022	09:02:00	ST185	Still	210761_ST185_09	00705	371 640.6	6 049 271.6	371 637.6	6 049 297.7	63.8	26.3	-
12/08/2022	09:02:13	ST185	Still	210761_ST185_10	00706	371 640.6	6 049 271.6	371 639.9	6 049 296.2	63.7	24.6	-
12/08/2022	09:02:20	ST185	Still	210761_ST185_11	00707	371 640.6	6 049 271.6	371 643.3	6 049 296.0	63.9	24.6	-
12/08/2022	09:03:00	ST185	Still	210761_ST185_12	00708	371 640.6	6 049 271.6	371 657.3	6 049 294.7	63.4	28.5	-
12/08/2022	09:03:32	ST185	Still	210761_ST185_13	00709	371 640.6	6 049 271.6	371 671.4	6 049 298.7	63.6	40.9	-
12/08/2022	09:03:33	ST185	Still	210761_ST185_14	00710	371 640.6	6 049 271.6	371 670.6	6 049 295.9	63.8	38.6	-
12/08/2022	09:03:45	ST185	Still	210761_ST185_15	00711	371 640.6	6 049 271.6	371 673.6	6 049 294.7	63.5	40.2	-
12/08/2022	09:03:55	ST185	Still	210761_ST185_16	00712	371 640.6	6 049 271.6	371 676.3	6 049 294.0	63.7	42.1	-
12/08/2022	09:04:16	ST185	Still	210761_ST185_17	00713	371 640.6	6 049 271.6	371 680.5	6 049 291.3	63.7	44.4	-
12/08/2022	09:04:29	ST185	Video	EOL	00714	371 640.6	6 049 271.6	371 685.0	6 049 291.3	63.4	48.5	-
12/08/2022	09:27:26	ST150	HG	NS	00715	368 443.0	6 049 061.4	368 430.8	6 049 068.2	56.6	14.0	-
12/08/2022	09:34:35	ST150	HG	FA/PSDA	00716	368 443.0	6 049 061.4	368 417.9	6 049 057.9	56.2	25.3	-
12/08/2022	10:08:50	ST149	HG	FA/PSDA	00717	364 132.7	6 046 647.0	364 106.7	6 046 666.0	55.3	32.2	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
12/08/2022	10:38:06	ST148	HG	NS	00718	359 906.0	6 043 975.9	359 900.6	6 043 988.4	55.4	13.6	-
12/08/2022	10:43:58	ST148	HG	FA/PSDA	00719	359 906.0	6 043 975.9	359 894.6	6 043 991.7	55.9	19.5	-
12/08/2022	12:55:11	ST061	Video	SOL	00720	391 441.6	6 048 628.4	391 400.5	6 048 666.8	-	56.2	-
12/08/2022	12:55:49	ST061	Still	210761_ST061_01	00721	391 441.6	6 048 628.4	391 416.7	6 048 655.8	31.8	37.0	-
12/08/2022	12:55:59	ST061	Still	210761_ST061_02	00722	391 441.6	6 048 628.4	391 420.8	6 048 651.8	32.1	31.3	-
12/08/2022	12:56:01	ST061	Still	210761_ST061_03	00723	391 441.6	6 048 628.4	391 422.6	6 048 651.1	32.4	29.6	-
12/08/2022	12:56:20	ST061	Still	210761_ST061_04	00724	391 441.6	6 048 628.4	391 428.5	6 048 642.8	31.7	19.5	-
12/08/2022	12:56:33	ST061	Still	210761_ST061_05	00725	391 441.6	6 048 628.4	391 432.4	6 048 636.4	31.9	12.2	-
12/08/2022	12:56:44	ST061	Still	210761_ST061_06	00726	391 441.6	6 048 628.4	391 435.8	6 048 632.6	31.8	7.2	-
12/08/2022	12:56:54	ST061	Still	210761_ST061_07	00727	391 441.6	6 048 628.4	391 440.1	6 048 628.1	31.9	1.5	-
12/08/2022	12:57:07	ST061	Still	210761_ST061_08	00728	391 441.6	6 048 628.4	391 442.7	6 048 624.1	31.5	4.4	-
12/08/2022	12:57:15	ST061	Still	210761_ST061_09	00729	391 441.6	6 048 628.4	391 445.1	6 048 620.9	31.4	8.3	-
12/08/2022	12:57:28	ST061	Still	210761_ST061_10	00730	391 441.6	6 048 628.4	391 447.2	6 048 617.4	31.5	12.3	-
12/08/2022	12:57:42	ST061	Still	210761_ST061_11	00731	391 441.6	6 048 628.4	391 451.5	6 048 615.8	31.5	16.0	-
12/08/2022	12:57:57	ST061	Still	210761_ST061_12	00732	391 441.6	6 048 628.4	391 454.0	6 048 612.4	31.6	20.2	-
12/08/2022	12:58:12	ST061	Still	210761_ST061_13	00733	391 441.6	6 048 628.4	391 458.4	6 048 609.7	31.3	25.1	-
12/08/2022	12:58:20	ST061	Still	210761_ST061_14	00734	391 441.6	6 048 628.4	391 460.1	6 048 608.2	31.4	27.4	-
12/08/2022	12:58:33	ST061	Still	210761_ST061_15	00735	391 441.6	6 048 628.4	391 463.5	6 048 605.7	31.3	31.5	-
12/08/2022	12:58:47	ST061	Still	210761_ST061_16	00736	391 441.6	6 048 628.4	391 465.8	6 048 602.0	31.5	35.8	-
12/08/2022	12:59:00	ST061	Still	210761_ST061_17	00737	391 441.6	6 048 628.4	391 468.7	6 048 598.9	31.3	40.1	-
12/08/2022	12:59:25	ST061	Still	210761_ST061_18	00738	391 441.6	6 048 628.4	391 472.9	6 048 594.5	31.0	46.1	-
12/08/2022	12:59:32	ST061	Still	210761_ST061_19	00739	391 441.6	6 048 628.4	391 473.9	6 048 593.1	31.2	47.8	-
12/08/2022	12:59:37	ST061	Still	210761_ST061_20	00740	391 441.6	6 048 628.4	391 475.1	6 048 593.9	30.6	48.1	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
12/08/2022	12:59:56	ST061	Video	EOL	00741	391 441.6	6 048 628.4	391 479.9	6 048 591.2	30.7	53.4	-
12/08/2022	13:06:24	ST061	HG	FA/PSDA	00742	391 441.6	6 048 628.4	391 430.0	6 048 625.2	31.9	12.0	-
12/08/2022	13:36:35	ST079	Video	SOL	00743	391 441.6	6 051 628.4	391 383.9	6 051 642.1	28.0	59.2	-
12/08/2022	13:37:04	ST079	Still	210761_ST079_01	00744	391 441.6	6 051 628.4	391 394.3	6 051 632.0	31.6	47.4	-
12/08/2022	13:37:33	ST079	Still	210761_ST079_02	00745	391 441.6	6 051 628.4	391 408.2	6 051 624.3	32.1	33.6	-
12/08/2022	13:37:54	ST079	Still	210761_ST079_03	00746	391 441.6	6 051 628.4	391 419.1	6 051 616.5	32.3	25.4	-
12/08/2022	13:38:10	ST079	Still	210761_ST079_04	00747	391 441.6	6 051 628.4	391 429.5	6 051 615.1	32.0	17.9	-
12/08/2022	13:38:16	ST079	Still	210761_ST079_05	00748	391 441.6	6 051 628.4	391 433.4	6 051 614.0	32.3	16.5	-
12/08/2022	13:38:36	ST079	Still	210761_ST079_06	00749	391 441.6	6 051 628.4	391 443.7	6 051 611.1	31.7	17.4	-
12/08/2022	13:38:44	ST079	Still	210761_ST079_07	00750	391 441.6	6 051 628.4	391 448.9	6 051 612.1	32.1	17.8	-
12/08/2022	13:38:51	ST079	Still	210761_ST079_08	00751	391 441.6	6 051 628.4	391 452.1	6 051 611.6	32.2	19.8	-
12/08/2022	13:38:56	ST079	Still	210761_ST079_09	00752	391 441.6	6 051 628.4	391 453.3	6 051 607.9	32.1	23.6	-
12/08/2022	13:39:01	ST079	Still	210761_ST079_10	00753	391 441.6	6 051 628.4	391 455.1	6 051 610.3	31.9	22.6	-
12/08/2022	13:39:21	ST079	Still	210761_ST079_11	00754	391 441.6	6 051 628.4	391 464.4	6 051 603.5	32.1	33.8	-
12/08/2022	13:39:34	ST079	Still	210761_ST079_12	00755	391 441.6	6 051 628.4	391 472.0	6 051 603.4	32.0	39.4	-
12/08/2022	13:40:00	ST079	Still	210761_ST079_13	00756	391 441.6	6 051 628.4	391 478.5	6 051 592.3	32.1	51.6	-
12/08/2022	13:40:24	ST079	Video	EOL	00757	391 441.6	6 051 628.4	391 487.7	6 051 586.1	31.8	62.6	-
12/08/2022	13:47:11	ST079	HG	FA/PSDA	00758	391 441.6	6 051 628.4	391 437.1	6 051 606.4	28.0	22.4	-
12/08/2022	14:11:50	ST078	Video	SOL	00759	388 335.6	6 051 708.2	388 380.6	6 051 644.8	33.2	77.8	-
12/08/2022	14:12:10	ST078	Still	210761_ST078_01	00760	388 335.6	6 051 708.2	388 372.3	6 051 659.0	33.1	61.4	-
12/08/2022	14:12:20	ST078	Still	210761_ST078_02	00761	388 335.6	6 051 708.2	388 370.4	6 051 664.1	33.0	56.2	-
12/08/2022	14:12:36	ST078	Still	210761_ST078_03	00762	388 335.6	6 051 708.2	388 367.8	6 051 672.3	32.9	48.3	-
12/08/2022	14:12:50	ST078	Still	210761_ST078_04	00763	388 335.6	6 051 708.2	388 362.8	6 051 679.5	32.9	39.6	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
12/08/2022	14:13:04	ST078	Still	210761_ST078_05	00764	388 335.6	6 051 708.2	388 359.1	6 051 684.4	32.7	33.5	-
12/08/2022	14:13:11	ST078	Still	210761_ST078_06	00765	388 335.6	6 051 708.2	388 357.2	6 051 686.9	33.1	30.4	-
12/08/2022	14:13:27	ST078	Still	210761_ST078_07	00766	388 335.6	6 051 708.2	388 353.3	6 051 695.6	32.4	21.8	-
12/08/2022	14:13:40	ST078	Still	210761_ST078_08	00767	388 335.6	6 051 708.2	388 349.0	6 051 700.0	32.6	15.8	-
12/08/2022	14:13:43	ST078	Still	210761_ST078_09	00768	388 335.6	6 051 708.2	388 346.4	6 051 700.8	33.4	13.1	-
12/08/2022	14:14:09	ST078	Still	210761_ST078_10	00769	388 335.6	6 051 708.2	388 335.6	6 051 712.1	33.5	3.9	-
12/08/2022	14:14:14	ST078	Still	210761_ST078_11	00770	388 335.6	6 051 708.2	388 333.7	6 051 715.0	33.5	7.0	-
12/08/2022	14:14:35	ST078	Still	210761_ST078_12	00771	388 335.6	6 051 708.2	388 327.7	6 051 724.5	33.8	18.1	-
12/08/2022	14:14:39	ST078	Still	210761_ST078_13	00772	388 335.6	6 051 708.2	388 327.8	6 051 726.1	33.4	19.5	-
12/08/2022	14:15:09	ST078	Still	210761_ST078_14	00773	388 335.6	6 051 708.2	388 317.8	6 051 741.4	33.7	37.6	-
12/08/2022	14:15:27	ST078	Video	EOL	00774	388 335.6	6 051 708.2	388 312.8	6 051 748.2	33.6	46.0	-
12/08/2022	14:24:43	ST078	DG	NS	00775	388 335.6	6 051 708.2	388 352.1	6 051 706.5	32.4	16.6	-
12/08/2022	14:31:39	ST078	DG	NS	00776	388 335.6	6 051 708.2	388 332.2	6 051 682.6	32.4	25.8	-
12/08/2022	14:39:02	ST078	DG	CA	00777	388 335.6	6 051 708.2	388 370.3	6 051 693.7	32.4	37.6	-
12/08/2022	14:47:24	ST078	HG	FA/PSDA	00778	388 335.6	6 051 708.2	388 341.8	6 051 713.2	32.4	8.0	-
12/08/2022	15:23:11	ST205	Video	SOL	00779	387 894.0	6 051 586.0	387 895.0	6 051 511.6	33.1	74.4	-
12/08/2022	15:23:37	ST205	Still	210761_ST205_01	00780	387 894.0	6 051 586.0	387 898.2	6 051 525.3	33.5	60.8	-
12/08/2022	15:24:03	ST205	Still	210761_ST205_02	00781	387 894.0	6 051 586.0	387 899.3	6 051 537.7	33.8	48.6	-
12/08/2022	15:24:17	ST205	Still	210761_ST205_03	00782	387 894.0	6 051 586.0	387 900.0	6 051 545.0	33.8	41.4	-
12/08/2022	15:24:22	ST205	Still	210761_ST205_04	00783	387 894.0	6 051 586.0	387 899.4	6 051 546.0	33.8	40.3	-
12/08/2022	15:24:37	ST205	Still	210761_ST205_05	00784	387 894.0	6 051 586.0	387 897.7	6 051 553.2	33.9	33.0	-
12/08/2022	15:24:49	ST205	Still	210761_ST205_06	00785	387 894.0	6 051 586.0	387 897.5	6 051 556.6	33.7	29.6	-
12/08/2022	15:24:53	ST205	Still	210761_ST205_07	00786	387 894.0	6 051 586.0	387 896.4	6 051 558.4	34.2	27.7	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
12/08/2022	15:25:03	ST205	Still	210761_ST205_08	00787	387 894.0	6 051 586.0	387 898.3	6 051 562.2	33.6	24.2	-
12/08/2022	15:25:11	ST205	Still	210761_ST205_09	00788	387 894.0	6 051 586.0	387 897.8	6 051 565.0	33.5	21.3	-
12/08/2022	15:25:35	ST205	Still	210761_ST205_10	00789	387 894.0	6 051 586.0	387 899.1	6 051 573.2	33.5	13.7	-
12/08/2022	15:25:42	ST205	Still	210761_ST205_11	00790	387 894.0	6 051 586.0	387 898.4	6 051 575.3	33.7	11.5	-
12/08/2022	15:25:53	ST205	Still	210761_ST205_12	00791	387 894.0	6 051 586.0	387 898.8	6 051 578.4	33.7	9.0	-
12/08/2022	15:26:25	ST205	Still	210761_ST205_13	00792	387 894.0	6 051 586.0	387 899.6	6 051 589.2	33.8	6.4	-
12/08/2022	15:26:42	ST205	Still	210761_ST205_14	00793	387 894.0	6 051 586.0	387 898.1	6 051 594.0	33.6	9.0	-
12/08/2022	15:26:49	ST205	Still	210761_ST205_15	00794	387 894.0	6 051 586.0	387 897.5	6 051 596.3	33.9	10.9	-
12/08/2022	15:27:14	ST205	Still	210761_ST205_16	00795	387 894.0	6 051 586.0	387 895.6	6 051 605.0	33.6	19.1	-
12/08/2022	15:27:30	ST205	Still	210761_ST205_17	00796	387 894.0	6 051 586.0	387 893.5	6 051 608.6	34.0	22.6	-
12/08/2022	15:27:47	ST205	Still	210761_ST205_18	00797	387 894.0	6 051 586.0	387 893.7	6 051 611.9	33.3	25.9	-
12/08/2022	15:28:10	ST205	Still	210761_ST205_19	00798	387 894.0	6 051 586.0	387 891.4	6 051 616.4	33.6	30.5	-
12/08/2022	15:28:33	ST205	Still	210761_ST205_20	00799	387 894.0	6 051 586.0	387 891.6	6 051 621.5	33.7	35.6	-
12/08/2022	15:28:50	ST205	Still	210761_ST205_21	00800	387 894.0	6 051 586.0	387 891.7	6 051 625.4	33.6	39.5	-
12/08/2022	15:29:08	ST205	Still	210761_ST205_22	00801	387 894.0	6 051 586.0	387 892.5	6 051 628.5	33.7	42.5	-
12/08/2022	15:29:20	ST205	Still	210761_ST205_23	00802	387 894.0	6 051 586.0	387 894.2	6 051 631.3	33.7	45.3	-
12/08/2022	15:29:31	ST205	Video	EOL	00803	387 894.0	6 051 586.0	387 892.0	6 051 633.7	33.6	47.8	-
12/08/2022	16:07:55	BT03	BT	SOL	00804	387 893.9	6 051 585.9	387 757.3	6 051 109.5	30.0	495.7	-
12/08/2022	16:19:57	BT03	BT	EOL	00805	387 893.9	6 051 585.9	387 944.0	6 051 986.9	30.0	404.0	-
12/08/2022	18:14:48	ST077	Video	SOL	00806	385 441.6	6 051 628.4	385 514.2	6 051 610.6	28.9	74.8	-
12/08/2022	18:15:13	ST077	Still	210761_ST077_01	00807	385 441.6	6 051 628.4	385 494.5	6 051 616.6	28.4	54.2	-
12/08/2022	18:15:17	ST077	Still	210761_ST077_02	00808	385 441.6	6 051 628.4	385 492.7	6 051 618.6	28.2	52.1	-
12/08/2022	18:15:20	ST077	Still	210761_ST077_03	00809	385 441.6	6 051 628.4	385 490.5	6 051 618.8	28.4	49.9	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
12/08/2022	18:15:31	ST077	Still	210761_ST077_04	00810	385 441.6	6 051 628.4	385 483.7	6 051 621.9	28.2	42.6	-
12/08/2022	18:15:36	ST077	Still	210761_ST077_05	00811	385 441.6	6 051 628.4	385 481.0	6 051 622.4	28.0	39.9	-
12/08/2022	18:15:40	ST077	Still	210761_ST077_06	00812	385 441.6	6 051 628.4	385 478.3	6 051 623.5	28.4	37.1	-
12/08/2022	18:15:48	ST077	Still	210761_ST077_07	00813	385 441.6	6 051 628.4	385 475.2	6 051 624.4	27.6	33.9	-
12/08/2022	18:15:54	ST077	Still	210761_ST077_08	00814	385 441.6	6 051 628.4	385 473.5	6 051 625.1	-	32.1	-
12/08/2022	18:15:58	ST077	Still	210761_ST077_09	00815	385 441.6	6 051 628.4	385 469.7	6 051 626.9	28.7	28.2	-
12/08/2022	18:16:02	ST077	Still	210761_ST077_10	00816	385 441.6	6 051 628.4	385 466.8	6 051 626.7	28.0	25.3	-
12/08/2022	18:16:17	ST077	Still	210761_ST077_11	00817	385 441.6	6 051 628.4	385 460.8	6 051 627.3	27.7	19.3	-
12/08/2022	18:16:19	ST077	Still	210761_ST077_12	00818	385 441.6	6 051 628.4	385 459.7	6 051 629.2	28.2	18.2	-
12/08/2022	18:16:25	ST077	Still	210761_ST077_13	00819	385 441.6	6 051 628.4	385 458.2	6 051 628.6	28.3	16.6	-
12/08/2022	18:17:03	ST077	Still	210761_ST077_14	00820	385 441.6	6 051 628.4	385 444.3	6 051 632.8	27.6	5.2	-
12/08/2022	18:17:09	ST077	Still	210761_ST077_15	00821	385 441.6	6 051 628.4	385 439.5	6 051 632.9	28.3	5.0	-
12/08/2022	18:17:16	ST077	Still	210761_ST077_16	00822	385 441.6	6 051 628.4	385 437.3	6 051 634.2	28.1	7.2	-
12/08/2022	18:17:21	ST077	Still	210761_ST077_17	00823	385 441.6	6 051 628.4	385 435.6	6 051 635.7	28.1	9.5	-
12/08/2022	18:17:44	ST077	Still	210761_ST077_18	00824	385 441.6	6 051 628.4	385 428.9	6 051 640.4	28.1	17.5	-
12/08/2022	18:17:56	ST077	Still	210761_ST077_19	00825	385 441.6	6 051 628.4	385 422.9	6 051 641.2	28.5	22.7	-
12/08/2022	18:18:13	ST077	Still	210761_ST077_20	00826	385 441.6	6 051 628.4	385 417.4	6 051 643.8	27.9	28.7	-
12/08/2022	18:18:38	ST077	Still	210761_ST077_21	00827	385 441.6	6 051 628.4	385 407.3	6 051 647.6	27.9	39.3	-
12/08/2022	18:18:50	ST077	Video	EOL	00828	385 441.6	6 051 628.4	385 405.0	6 051 648.0	28.1	41.5	-
12/08/2022	18:25:54	ST077	HG	FA/PSDA	00829	385 441.6	6 051 628.4	385 425.8	6 051 615.0	28.1	20.6	-
12/08/2022	18:52:27	ST093	Video	SOL	00830	385 863.9	6 054 512.8	385 914.5	6 054 501.8	37.4	51.8	-
12/08/2022	18:52:49	ST093	Still	210761_ST093_01	00831	385 863.9	6 054 512.8	385 918.4	6 054 498.9	37.4	56.3	-
12/08/2022	18:52:52	ST093	Still	210761_ST093_02	00832	385 863.9	6 054 512.8	385 916.6	6 054 502.4	37.6	53.7	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
12/08/2022	18:53:01	ST093	Still	210761_ST093_03	00833	385 863.9	6 054 512.8	385 911.0	6 054 502.8	37.4	48.2	-
12/08/2022	18:53:13	ST093	Still	210761_ST093_04	00834	385 863.9	6 054 512.8	385 904.9	6 054 506.9	37.1	41.4	-
12/08/2022	18:53:23	ST093	Still	210761_ST093_05	00835	385 863.9	6 054 512.8	385 895.0	6 054 508.8	-	31.4	-
12/08/2022	18:53:26	ST093	Still	210761_ST093_06	00836	385 863.9	6 054 512.8	385 895.4	6 054 511.2	37.0	31.6	-
12/08/2022	18:53:30	ST093	Still	210761_ST093_07	00837	385 863.9	6 054 512.8	385 892.8	6 054 510.8	37.5	29.0	-
12/08/2022	18:53:40	ST093	Still	210761_ST093_08	00838	385 863.9	6 054 512.8	385 886.3	6 054 512.2	37.4	22.4	-
12/08/2022	18:53:48	ST093	Still	210761_ST093_09	00839	385 863.9	6 054 512.8	385 883.3	6 054 513.9	-	19.5	-
12/08/2022	18:53:52	ST093	Still	210761_ST093_10	00840	385 863.9	6 054 512.8	385 878.0	6 054 514.3	38.3	14.2	-
12/08/2022	18:54:01	ST093	Still	210761_ST093_11	00841	385 863.9	6 054 512.8	385 874.8	6 054 515.7	37.8	11.3	-
12/08/2022	18:54:04	ST093	Still	210761_ST093_12	00842	385 863.9	6 054 512.8	385 872.2	6 054 515.2	38.1	8.7	-
12/08/2022	18:54:31	ST093	Still	210761_ST093_13	00843	385 863.9	6 054 512.8	385 858.9	6 054 519.2	-	8.1	-
12/08/2022	18:54:34	ST093	Still	210761_ST093_14	00844	385 863.9	6 054 512.8	385 856.3	6 054 520.0	37.4	10.5	-
12/08/2022	18:54:38	ST093	Still	210761_ST093_15	00845	385 863.9	6 054 512.8	385 856.1	6 054 518.8	37.2	9.8	-
12/08/2022	18:54:52	ST093	Still	210761_ST093_16	00846	385 863.9	6 054 512.8	385 850.4	6 054 521.8	37.2	16.2	-
12/08/2022	18:54:56	ST093	Still	210761_ST093_17	00847	385 863.9	6 054 512.8	385 847.3	6 054 521.5	37.9	18.7	-
12/08/2022	18:55:10	ST093	Still	210761_ST093_18	00848	385 863.9	6 054 512.8	385 840.5	6 054 518.5	38.3	24.1	-
12/08/2022	18:55:27	ST093	Still	210761_ST093_19	00849	385 863.9	6 054 512.8	385 835.4	6 054 527.0	-	31.8	-
12/08/2022	18:55:57	ST093	Still	210761_ST093_20	00850	385 863.9	6 054 512.8	385 824.1	6 054 524.7	37.6	41.5	-
12/08/2022	18:56:10	ST093	Still	210761_ST093_21	00851	385 863.9	6 054 512.8	385 821.1	6 054 529.4	37.7	45.9	-
12/08/2022	18:56:17	ST093	Video	EOL	00852	385 863.9	6 054 512.8	385 808.0	6 054 531.7	37.5	59.0	-
12/08/2022	19:03:12	ST093	HG	FA/PSDA	00853	385 863.9	6 054 512.8	385 847.5	6 054 496.5	34.0	23.1	-
12/08/2022	19:35:43	ST094	Video	SOL	00854	388 441.6	6 054 628.4	388 494.4	6 054 607.4	34.0	56.8	-
12/08/2022	19:36:38	ST094	Still	210761_ST094_01	00855	388 441.6	6 054 628.4	388 473.7	6 054 629.3	34.7	32.2	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
12/08/2022	19:36:47	ST094	Still	210761_ST094_02	00856	388 441.6	6 054 628.4	388 467.4	6 054 629.1	34.9	25.9	-
12/08/2022	19:36:56	ST094	Still	210761_ST094_03	00857	388 441.6	6 054 628.4	388 460.9	6 054 629.6	35.6	19.4	-
12/08/2022	19:37:04	ST094	Still	210761_ST094_04	00858	388 441.6	6 054 628.4	388 457.8	6 054 631.7	35.1	16.6	-
12/08/2022	19:37:07	ST094	Still	210761_ST094_05	00859	388 441.6	6 054 628.4	388 456.2	6 054 632.3	34.8	15.2	-
12/08/2022	19:37:11	ST094	Still	210761_ST094_06	00860	388 441.6	6 054 628.4	388 455.0	6 054 632.5	34.6	14.1	-
12/08/2022	19:37:15	ST094	Still	210761_ST094_07	00861	388 441.6	6 054 628.4	388 451.7	6 054 633.0	35.0	11.2	-
12/08/2022	19:37:25	ST094	Still	210761_ST094_08	00862	388 441.6	6 054 628.4	388 449.2	6 054 634.7	34.4	9.9	-
12/08/2022	19:37:34	ST094	Still	210761_ST094_09	00863	388 441.6	6 054 628.4	388 443.7	6 054 635.8	34.6	7.7	-
12/08/2022	19:37:46	ST094	Still	210761_ST094_10	00864	388 441.6	6 054 628.4	388 439.2	6 054 638.0	34.1	9.9	-
12/08/2022	19:37:53	ST094	Still	210761_ST094_11	00865	388 441.6	6 054 628.4	388 436.3	6 054 638.5	34.5	11.4	-
12/08/2022	19:38:00	ST094	Still	210761_ST094_12	00866	388 441.6	6 054 628.4	388 434.2	6 054 640.1	34.1	13.9	-
12/08/2022	19:38:28	ST094	Still	210761_ST094_13	00867	388 441.6	6 054 628.4	388 421.4	6 054 643.8	34.3	25.4	-
12/08/2022	19:38:34	ST094	Still	210761_ST094_14	00868	388 441.6	6 054 628.4	388 418.1	6 054 642.8	34.3	27.5	-
12/08/2022	19:38:43	ST094	Still	210761_ST094_15	00869	388 441.6	6 054 628.4	388 412.3	6 054 644.6	34.2	33.5	-
12/08/2022	19:39:06	ST094	Still	210761_ST094_16	00870	388 441.6	6 054 628.4	388 406.8	6 054 649.3	34.0	40.6	-
12/08/2022	19:39:27	ST094	Still	210761_ST094_17	00871	388 441.6	6 054 628.4	388 393.8	6 054 653.6	34.4	54.0	-
12/08/2022	19:39:32	ST094	Video	EOL	00872	388 441.6	6 054 628.4	388 392.7	6 054 651.9	34.3	54.2	-
12/08/2022	19:49:06	ST094	HG	FA/PSDA	00873	388 441.6	6 054 628.4	388 454.5	6 054 637.5	34.6	15.8	-
12/08/2022	20:19:35	ST106	Video	SOL	00874	388 441.6	6 057 628.4	388 481.2	6 057 592.7	36.6	53.3	-
12/08/2022	20:20:23	ST106	Still	210761_ST106_01	00875	388 441.6	6 057 628.4	388 458.2	6 057 621.3	37.6	18.1	-
12/08/2022	20:20:28	ST106	Still	210761_ST106_02	00876	388 441.6	6 057 628.4	388 454.9	6 057 623.4	38.0	14.2	-
12/08/2022	20:20:31	ST106	Still	210761_ST106_03	00877	388 441.6	6 057 628.4	388 454.7	6 057 626.6	37.8	13.3	-
12/08/2022	20:20:38	ST106	Still	210761_ST106_04	00878	388 441.6	6 057 628.4	388 451.0	6 057 633.2	38.1	10.6	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
12/08/2022	20:20:43	ST106	Still	210761_ST106_05	00879	388 441.6	6 057 628.4	388 448.3	6 057 635.9	38.1	10.1	-
12/08/2022	20:20:47	ST106	Still	210761_ST106_06	00880	388 441.6	6 057 628.4	388 445.9	6 057 637.1	38.1	9.8	-
12/08/2022	20:20:51	ST106	Still	210761_ST106_07	00881	388 441.6	6 057 628.4	388 446.0	6 057 640.3	37.8	12.7	-
12/08/2022	20:20:55	ST106	Still	210761_ST106_08	00882	388 441.6	6 057 628.4	388 442.2	6 057 641.7	38.3	13.4	-
12/08/2022	20:20:59	ST106	Still	210761_ST106_09	00883	388 441.6	6 057 628.4	388 441.1	6 057 643.4	37.9	15.0	-
12/08/2022	20:21:02	ST106	Still	210761_ST106_10	00884	388 441.6	6 057 628.4	388 441.7	6 057 645.1	37.5	16.7	-
12/08/2022	20:21:07	ST106	Still	210761_ST106_11	00885	388 441.6	6 057 628.4	388 437.2	6 057 648.1	-	20.2	-
12/08/2022	20:21:13	ST106	Still	210761_ST106_12	00886	388 441.6	6 057 628.4	388 437.4	6 057 649.6	37.4	21.6	-
12/08/2022	20:21:23	ST106	Still	210761_ST106_13	00887	388 441.6	6 057 628.4	388 431.8	6 057 656.3	37.6	29.6	-
12/08/2022	20:21:30	ST106	Still	210761_ST106_14	00888	388 441.6	6 057 628.4	388 428.4	6 057 664.2	37.5	38.2	-
12/08/2022	20:21:34	ST106	Still	210761_ST106_15	00889	388 441.6	6 057 628.4	388 426.3	6 057 661.5	37.1	36.5	-
12/08/2022	20:21:43	ST106	Still	210761_ST106_16	00890	388 441.6	6 057 628.4	388 421.0	6 057 668.3	37.7	44.9	-
12/08/2022	20:21:48	ST106	Still	210761_ST106_17	00891	388 441.6	6 057 628.4	388 418.9	6 057 669.4	37.3	46.9	-
12/08/2022	20:21:53	ST106	Video	EOL	00892	388 441.6	6 057 628.4	388 416.9	6 057 672.5	37.5	50.6	-
12/08/2022	21:22:54	ST106	HG	NS1	00893	388 441.6	6 057 628.4	388 453.8	6 057 661.7	38.0	35.5	-
12/08/2022	21:29:06	ST106	HG	FA/PSDA	00894	388 441.6	6 057 628.4	388 428.2	6 057 624.4	38.0	13.9	-
12/08/2022	22:01:56	ST116	Video	SOL	00895	388 441.6	6 060 628.4	388 353.6	6 060 670.2	39.5	97.4	-
12/08/2022	22:02:33	ST116	Still	210761_ST116_01	00896	388 441.6	6 060 628.4	388 375.6	6 060 656.0	39.5	71.5	-
12/08/2022	22:02:48	ST116	Still	210761_ST116_02	00897	388 441.6	6 060 628.4	388 385.9	6 060 652.7	40.1	60.7	-
12/08/2022	22:02:58	ST116	Still	210761_ST116_03	00898	388 441.6	6 060 628.4	388 392.3	6 060 653.3	39.3	55.2	-
12/08/2022	22:03:13	ST116	Still	210761_ST116_04	00899	388 441.6	6 060 628.4	388 403.0	6 060 652.0	39.0	45.2	-
12/08/2022	22:03:49	ST116	Still	210761_ST116_05	00900	388 441.6	6 060 628.4	388 422.0	6 060 643.9	38.9	25.0	-
12/08/2022	22:04:06	ST116	Still	210761_ST116_06	00901	388 441.6	6 060 628.4	388 429.8	6 060 639.2	39.3	16.0	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
12/08/2022	22:04:15	ST116	Still	210761_ST116_07	00902	388 441.6	6 060 628.4	388 433.4	6 060 638.6	38.7	13.1	-
12/08/2022	22:04:25	ST116	Still	210761_ST116_08	00903	388 441.6	6 060 628.4	388 439.0	6 060 636.2	39.4	8.2	-
12/08/2022	22:04:36	ST116	Still	210761_ST116_09	00904	388 441.6	6 060 628.4	388 442.7	6 060 632.2	39.0	4.0	-
12/08/2022	22:04:47	ST116	Still	210761_ST116_10	00905	388 441.6	6 060 628.4	388 450.7	6 060 628.1	39.6	9.1	-
12/08/2022	22:04:56	ST116	Still	210761_ST116_11	00906	388 441.6	6 060 628.4	388 454.9	6 060 627.5	39.4	13.4	-
12/08/2022	22:05:02	ST116	Still	210761_ST116_12	00907	388 441.6	6 060 628.4	388 456.9	6 060 626.3	38.6	15.5	-
12/08/2022	22:05:13	ST116	Still	210761_ST116_13	00908	388 441.6	6 060 628.4	388 459.6	6 060 624.7	38.3	18.4	-
12/08/2022	22:05:23	ST116	Still	210761_ST116_14	00909	388 441.6	6 060 628.4	388 464.4	6 060 619.3	38.9	24.6	-
12/08/2022	22:05:46	ST116	Still	210761_ST116_15	00910	388 441.6	6 060 628.4	388 479.5	6 060 613.9	39.2	40.6	-
12/08/2022	22:05:57	ST116	Still	210761_ST116_16	00911	388 441.6	6 060 628.4	388 480.6	6 060 612.5	38.9	42.1	-
12/08/2022	22:06:04	ST116	Still	210761_ST116_17	00912	388 441.6	6 060 628.4	388 482.2	6 060 612.1	38.7	43.8	-
12/08/2022	22:06:14	ST116	Video	EOL	00913	388 441.6	6 060 628.4	388 485.4	6 060 610.7	39.2	47.3	-
12/08/2022	22:12:22	ST116	HG	FA/PSDA	00914	388 441.6	6 060 628.4	388 409.0	6 060 643.2	39.0	35.8	-
12/08/2022	22:43:03	ST117	Video	SOL	00915	391 441.6	6 060 628.4	391 350.4	6 060 636.5	35.2	91.5	-
12/08/2022	22:43:32	ST117	Still	210761_ST117_01	00916	391 441.6	6 060 628.4	391 371.8	6 060 635.4	35.7	70.1	-
12/08/2022	22:43:34	ST117	Still	210761_ST117_02	00917	391 441.6	6 060 628.4	391 372.7	6 060 636.8	-	69.4	-
12/08/2022	22:43:39	ST117	Still	210761_ST117_03	00918	391 441.6	6 060 628.4	391 377.1	6 060 635.2	35.9	64.8	-
12/08/2022	22:43:46	ST117	Still	210761_ST117_04	00919	391 441.6	6 060 628.4	391 382.2	6 060 636.4	35.6	59.9	-
12/08/2022	22:43:55	ST117	Still	210761_ST117_05	00920	391 441.6	6 060 628.4	391 387.3	6 060 636.2	35.4	54.8	-
12/08/2022	22:44:03	ST117	Still	210761_ST117_06	00921	391 441.6	6 060 628.4	391 393.5	6 060 640.5	34.8	49.6	-
12/08/2022	22:44:24	ST117	Still	210761_ST117_07	00922	391 441.6	6 060 628.4	391 409.2	6 060 641.3	34.3	34.9	-
12/08/2022	22:44:30	ST117	Still	210761_ST117_08	00923	391 441.6	6 060 628.4	391 410.4	6 060 642.8	-	34.3	-
12/08/2022	22:44:33	ST117	Still	210761_ST117_09	00924	391 441.6	6 060 628.4	391 413.6	6 060 641.2	35.0	30.8	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
12/08/2022	22:44:45	ST117	Still	210761_ST117_10	00925	391 441.6	6 060 628.4	391 418.9	6 060 641.2	35.1	26.0	-
12/08/2022	22:45:14	ST117	Still	210761_ST117_11	00926	391 441.6	6 060 628.4	391 431.7	6 060 637.3	35.3	13.3	-
12/08/2022	22:45:19	ST117	Still	210761_ST117_12	00927	391 441.6	6 060 628.4	391 431.8	6 060 636.8	35.4	12.9	-
12/08/2022	22:45:41	ST117	Still	210761_ST117_13	00928	391 441.6	6 060 628.4	391 439.6	6 060 629.6	36.2	2.3	-
12/08/2022	22:46:07	ST117	Still	210761_ST117_14	00929	391 441.6	6 060 628.4	391 447.8	6 060 623.4	35.9	8.0	-
12/08/2022	22:46:17	ST117	Still	210761_ST117_15	00930	391 441.6	6 060 628.4	391 449.8	6 060 624.7	35.5	9.0	-
12/08/2022	22:46:34	ST117	Still	210761_ST117_16	00931	391 441.6	6 060 628.4	391 454.7	6 060 620.3	34.7	15.4	-
12/08/2022	22:46:46	ST117	Still	210761_ST117_17	00932	391 441.6	6 060 628.4	391 456.0	6 060 620.9	34.8	16.3	-
12/08/2022	22:46:56	ST117	Still	210761_ST117_18	00933	391 441.6	6 060 628.4	391 460.3	6 060 618.5	34.7	21.2	-
12/08/2022	22:47:14	ST117	Still	210761_ST117_19	00934	391 441.6	6 060 628.4	391 463.6	6 060 611.8	35.1	27.6	-
12/08/2022	22:47:57	ST117	Still	210761_ST117_20	00935	391 441.6	6 060 628.4	391 473.2	6 060 605.0	35.4	39.3	-
12/08/2022	22:48:17	ST117	Still	210761_ST117_21	00936	391 441.6	6 060 628.4	391 475.5	6 060 601.9	35.4	43.0	-
12/08/2022	22:48:29	ST117	Video	EOL	00937	391 441.6	6 060 628.4	391 475.8	6 060 601.7	35.3	43.4	-
12/08/2022	22:59:20	ST117	HG	FA/PSDA	00938	391 441.6	6 060 628.4	391 418.5	6 060 634.7	35.0	23.9	-
12/08/2022	23:33:04	ST124	Video	SOL	00939	391 441.6	6 063 628.4	391 364.1	6 063 637.5	37.1	78.0	-
12/08/2022	23:33:16	ST124	Still	210761_ST124_01	00940	391 441.6	6 063 628.4	391 368.7	6 063 637.2	36.7	73.4	-
12/08/2022	23:33:23	ST124	Still	210761_ST124_02	00941	391 441.6	6 063 628.4	391 372.5	6 063 638.7	36.7	69.8	-
12/08/2022	23:33:29	ST124	Still	210761_ST124_03	00942	391 441.6	6 063 628.4	391 375.7	6 063 640.0	36.9	66.9	-
12/08/2022	23:33:37	ST124	Still	210761_ST124_04	00943	391 441.6	6 063 628.4	391 379.6	6 063 639.5	37.4	63.0	-
12/08/2022	23:33:49	ST124	Still	210761_ST124_05	00944	391 441.6	6 063 628.4	391 386.2	6 063 639.3	37.2	56.4	-
12/08/2022	23:33:56	ST124	Still	210761_ST124_06	00945	391 441.6	6 063 628.4	391 386.9	6 063 634.5	36.4	55.0	-
12/08/2022	23:34:22	ST124	Still	210761_ST124_07	00946	391 441.6	6 063 628.4	391 403.9	6 063 639.6	36.8	39.3	-
12/08/2022	23:34:26	ST124	Still	210761_ST124_08	00947	391 441.6	6 063 628.4	391 405.8	6 063 641.5	36.6	38.1	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
12/08/2022	23:34:33	ST124	Still	210761_ST124_09	00948	391 441.6	6 063 628.4	391 408.2	6 063 641.2	36.3	35.7	-
12/08/2022	23:34:46	ST124	Still	210761_ST124_10	00949	391 441.6	6 063 628.4	391 424.6	6 063 639.7	36.4	20.4	-
12/08/2022	23:35:06	ST124	Still	210761_ST124_11	00950	391 441.6	6 063 628.4	391 429.4	6 063 635.0	36.7	13.9	-
12/08/2022	23:35:22	ST124	Still	210761_ST124_12	00951	391 441.6	6 063 628.4	391 434.2	6 063 626.8	36.7	7.5	-
12/08/2022	23:35:43	ST124	Still	210761_ST124_13	00952	391 441.6	6 063 628.4	391 441.8	6 063 599.0	37.4	29.4	-
12/08/2022	23:36:32	ST124	Still	210761_ST124_14	00953	391 441.6	6 063 628.4	391 441.1	6 063 600.4	36.4	28.0	-
12/08/2022	23:36:35	ST124	Still	210761_ST124_15	00954	391 441.6	6 063 628.4	391 455.8	6 063 578.3	37.7	52.0	-
12/08/2022	23:37:13	ST124	Still	210761_ST124_16	00955	391 441.6	6 063 628.4	391 457.7	6 063 575.2	37.3	55.6	-
12/08/2022	23:37:21	ST124	Still	210761_ST124_17	00956	391 441.6	6 063 628.4	391 462.9	6 063 570.5	37.6	61.7	-
12/08/2022	23:37:33	ST124	Still	EOL	00958	391 441.6	6 063 628.4	391 477.2	6 063 563.8	37.4	73.7	-
12/08/2022	23:37:57	ST124	Video	FA/PSDA	00938	391 441.6	6 060 628.4	391 418.5	6 060 634.7	35.0	23.9	-
12/08/2022	23:49:05	ST124	HG	FA/PSDA	00959	391 441.6	6 063 628.4	391 426.9	6 063 626.8	36.3	14.7	-
13/08/2022	00:21:57	ST128	Video	SOL	00960	391 441.6	6 066 628.4	391 363.5	6 066 621.9	30.1	78.4	-
13/08/2022	00:22:06	ST128	Still	210761_ST128_01	00961	391 441.6	6 066 628.4	391 371.0	6 066 621.6	30.6	70.9	-
13/08/2022	00:22:16	ST128	Still	210761_ST128_02	00962	391 441.6	6 066 628.4	391 377.3	6 066 625.1	30.8	64.3	-
13/08/2022	00:22:24	ST128	Still	210761_ST128_03	00963	391 441.6	6 066 628.4	391 383.3	6 066 626.5	30.4	58.3	-
13/08/2022	00:22:41	ST128	Still	210761_ST128_04	00964	391 441.6	6 066 628.4	391 394.0	6 066 629.5	30.0	47.6	-
13/08/2022	00:22:49	ST128	Still	210761_ST128_05	00965	391 441.6	6 066 628.4	391 400.0	6 066 631.7	30.4	41.7	-
13/08/2022	00:23:32	ST128	Still	210761_ST128_06	00966	391 441.6	6 066 628.4	391 426.2	6 066 633.9	30.4	16.4	-
13/08/2022	00:23:46	ST128	Still	210761_ST128_07	00967	391 441.6	6 066 628.4	391 436.2	6 066 628.3	31.1	5.4	-
13/08/2022	00:24:03	ST128	Still	210761_ST128_08	00968	391 441.6	6 066 628.4	391 443.4	6 066 621.0	30.6	7.6	-
13/08/2022	00:24:18	ST128	Still	210761_ST128_09	00969	391 441.6	6 066 628.4	391 450.3	6 066 617.6	30.9	13.9	-
13/08/2022	00:24:31	ST128	Still	210761_ST128_10	00970	391 441.6	6 066 628.4	391 453.6	6 066 610.0	31.2	21.9	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	00:24:46	ST128	Still	210761_ST128_11	00971	391 441.6	6 066 628.4	391 461.6	6 066 607.9	30.7	28.7	-
13/08/2022	00:25:14	ST128	Still	210761_ST128_12	00972	391 441.6	6 066 628.4	391 470.8	6 066 596.2	30.6	43.5	-
13/08/2022	00:25:35	ST128	Still	210761_ST128_13	00973	391 441.6	6 066 628.4	391 477.9	6 066 584.0	30.8	57.3	-
13/08/2022	00:25:53	ST128	Still	210761_ST128_14	00974	391 441.6	6 066 628.4	391 487.1	6 066 584.9	30.9	63.0	-
13/08/2022	00:25:58	ST128	Video	EOL	00975	391 441.6	6 066 628.4	391 486.9	6 066 581.2	30.8	65.4	-
13/08/2022	00:36:11	ST128	HG	FA/PSDA	00976	391 441.6	6 066 628.4	391 444.7	6 066 648.8	30.1	20.6	-
13/08/2022	01:19:23	ST129	Video	SOL	00977	394 441.6	6 066 628.4	394 365.6	6 066 628.8	32.2	76.0	-
13/08/2022	01:19:54	ST129	Still	210761_ST129_01	00978	394 441.6	6 066 628.4	394 392.1	6 066 622.5	33.3	49.8	-
13/08/2022	01:20:09	ST129	Still	210761_ST129_02	00979	394 441.6	6 066 628.4	394 402.5	6 066 622.9	32.8	39.4	-
13/08/2022	01:20:12	ST129	Still	210761_ST129_03	00980	394 441.6	6 066 628.4	394 405.0	6 066 621.5	32.8	37.2	-
13/08/2022	01:20:19	ST129	Still	210761_ST129_04	00981	394 441.6	6 066 628.4	394 409.6	6 066 622.3	32.5	32.6	-
13/08/2022	01:20:24	ST129	Still	210761_ST129_05	00982	394 441.6	6 066 628.4	394 414.0	6 066 621.7	32.8	28.4	-
13/08/2022	01:20:40	ST129	Still	210761_ST129_06	00983	394 441.6	6 066 628.4	394 426.1	6 066 622.2	33.1	16.7	-
13/08/2022	01:21:23	ST129	Still	210761_ST129_07	00984	394 441.6	6 066 628.4	394 453.3	6 066 627.2	32.8	11.8	-
13/08/2022	01:21:36	ST129	Still	210761_ST129_08	00985	394 441.6	6 066 628.4	394 461.1	6 066 630.2	32.5	19.6	-
13/08/2022	01:21:44	ST129	Still	210761_ST129_09	00986	394 441.6	6 066 628.4	394 465.3	6 066 634.2	33.2	24.4	-
13/08/2022	01:22:00	ST129	Still	210761_ST129_10	00987	394 441.6	6 066 628.4	394 474.6	6 066 637.0	32.8	34.1	-
13/08/2022	01:22:15	ST129	Still	210761_ST129_11	00988	394 441.6	6 066 628.4	394 480.8	6 066 634.6	32.1	39.7	-
13/08/2022	01:22:19	ST129	Still	210761_ST129_12	00989	394 441.6	6 066 628.4	394 482.7	6 066 637.6	32.2	42.2	-
13/08/2022	01:22:45	ST129	Still	210761_ST129_13	00990	394 441.6	6 066 628.4	394 493.0	6 066 639.9	32.5	52.7	-
13/08/2022	01:23:16	ST129	Video	EOL	00991	394 441.6	6 066 628.4	394 507.0	6 066 645.3	32.7	67.6	-
13/08/2022	01:29:54	ST129	HG	FA/PSDA	00992	394 441.6	6 066 628.4	394 425.6	6 066 622.0	32.3	17.2	-
13/08/2022	02:02:42	ST125	Video	SOL	00993	394 441.6	6 063 628.4	394 371.5	6 063 627.0	35.9	70.1	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	02:02:52	ST125	Still	210761_ST125_01	00994	394 441.6	6 063 628.4	394 376.6	6 063 623.9	35.5	65.1	-
13/08/2022	02:03:13	ST125	Still	210761_ST125_02	00995	394 441.6	6 063 628.4	394 393.1	6 063 622.6	35.4	48.8	-
13/08/2022	02:03:20	ST125	Still	210761_ST125_03	00996	394 441.6	6 063 628.4	394 398.7	6 063 622.2	35.5	43.3	-
13/08/2022	02:03:56	ST125	Still	210761_ST125_04	00997	394 441.6	6 063 628.4	394 426.5	6 063 624.0	36.1	15.7	-
13/08/2022	02:04:01	ST125	Still	210761_ST125_05	00998	394 441.6	6 063 628.4	394 426.5	6 063 624.4	35.2	15.5	-
13/08/2022	02:04:23	ST125	Still	210761_ST125_06	00999	394 441.6	6 063 628.4	394 444.0	6 063 627.0	36.0	2.8	-
13/08/2022	02:04:50	ST125	Still	210761_ST125_07	01000	394 441.6	6 063 628.4	394 465.6	6 063 625.7	35.9	24.2	-
13/08/2022	02:04:57	ST125	Still	210761_ST125_08	01001	394 441.6	6 063 628.4	394 468.9	6 063 624.2	35.7	27.7	-
13/08/2022	02:05:19	ST125	Still	210761_ST125_09	01002	394 441.6	6 063 628.4	394 486.1	6 063 626.8	36.1	44.5	-
13/08/2022	02:05:38	ST125	Still	210761_ST125_10	01003	394 441.6	6 063 628.4	394 494.8	6 063 627.8	36.1	53.2	-
13/08/2022	02:06:30	ST125	Video	EOL	01004	394 441.6	6 063 628.4	394 514.8	6 063 627.6	36.2	73.3	-
13/08/2022	02:13:33	ST125	HG	NS	01005	394 441.6	6 063 628.4	394 439.3	6 063 634.0	35.0	6.1	-
13/08/2022	02:18:59	ST125	HG	NS	01006	394 441.6	6 063 628.4	394 440.8	6 063 646.1	34.9	17.7	-
13/08/2022	02:25:16	ST125	HG	NS	01007	394 441.6	6 063 628.4	394 454.7	6 063 590.5	35.1	40.1	-
13/08/2022	02:33:38	ST125	HG	FA/PSDA	01008	394 441.6	6 063 628.4	394 476.8	6 063 620.7	36.7	36.0	-
13/08/2022	02:50:59	ST125	DG	NS	01009	394 441.6	6 063 628.4	394 440.3	6 063 619.8	36.1	8.7	-
13/08/2022	02:57:59	ST125	DG	CA	01010	394 441.6	6 063 628.4	394 487.3	6 063 610.4	36.8	49.1	-
13/08/2022	03:56:10	ST204	Video	SOL	01011	393 142.9	6 062 371.8	393 121.0	6 062 317.2	37.1	58.9	-
13/08/2022	03:56:14	ST204	Still	210761_ST204_01	01012	393 142.9	6 062 371.8	393 124.5	6 062 318.9	-	56.0	-
13/08/2022	03:56:16	ST204	Still	210761_ST204_02	01013	393 142.9	6 062 371.8	393 124.1	6 062 320.5	37.9	54.7	-
13/08/2022	03:56:21	ST204	Still	210761_ST204_03	01014	393 142.9	6 062 371.8	393 126.6	6 062 322.8	-	51.7	-
13/08/2022	03:56:41	ST204	Still	210761_ST204_04	01015	393 142.9	6 062 371.8	393 136.2	6 062 331.9	36.8	40.5	-
13/08/2022	03:56:48	ST204	Still	210761_ST204_05	01016	393 142.9	6 062 371.8	393 143.1	6 062 338.5	36.9	33.3	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	03:56:52	ST204	Still	210761_ST204_06	01017	393 142.9	6 062 371.8	393 144.5	6 062 341.6	37.5	30.3	-
13/08/2022	03:57:12	ST204	Still	210761_ST204_07	01018	393 142.9	6 062 371.8	393 155.7	6 062 353.6	37.8	22.3	-
13/08/2022	03:57:20	ST204	Still	210761_ST204_08	01019	393 142.9	6 062 371.8	393 158.9	6 062 355.9	37.3	22.6	-
13/08/2022	03:57:43	ST204	Still	210761_ST204_09	01020	393 142.9	6 062 371.8	393 173.0	6 062 368.6	37.4	30.3	-
13/08/2022	03:58:05	ST204	Still	210761_ST204_10	01021	393 142.9	6 062 371.8	393 184.4	6 062 377.9	-	42.0	-
13/08/2022	03:58:22	ST204	Still	210761_ST204_11	01022	393 142.9	6 062 371.8	393 192.4	6 062 390.1	37.1	52.8	-
13/08/2022	03:58:26	ST204	Still	210761_ST204_12	01023	393 142.9	6 062 371.8	393 195.1	6 062 388.6	35.8	54.8	-
13/08/2022	03:58:33	ST204	Still	210761_ST204_13	01024	393 142.9	6 062 371.8	393 197.7	6 062 388.9	35.7	57.4	-
13/08/2022	03:58:45	ST204	Video	EOL	01025	393 142.9	6 062 371.8	393 202.2	6 062 393.6	35.9	63.1	-
13/08/2022	04:18:07	BT01	BT	SOL	01026	393 143.1	6 062 372.0	393 376.7	6 062 091.0	23.0	365.3	-
13/08/2022	04:31:37	BT01	BT	EOL	01027	393 143.1	6 062 372.0	392 884.0	6 062 737.2	36.0	447.8	-
13/08/2022	06:37:31	ST118	Video	SOL	01028	394 441.6	6 060 628.4	394 466.7	6 060 579.8	46.3	54.7	-
13/08/2022	06:38:05	ST118	Still	210761_ST118_01	01029	394 441.6	6 060 628.4	394 454.6	6 060 600.5	47.1	30.7	-
13/08/2022	06:38:13	ST118	Still	210761_ST118_02	01030	394 441.6	6 060 628.4	394 453.0	6 060 603.3	47.1	27.5	-
13/08/2022	06:38:40	ST118	Still	210761_ST118_03	01031	394 441.6	6 060 628.4	394 447.8	6 060 615.6	47.0	14.2	-
13/08/2022	06:38:48	ST118	Still	210761_ST118_04	01032	394 441.6	6 060 628.4	394 445.8	6 060 619.2	46.8	10.1	-
13/08/2022	06:39:02	ST118	Still	210761_ST118_05	01033	394 441.6	6 060 628.4	394 442.6	6 060 626.6	46.7	2.0	-
13/08/2022	06:39:31	ST118	Still	210761_ST118_06	01034	394 441.6	6 060 628.4	394 437.4	6 060 638.0	46.6	10.5	-
13/08/2022	06:39:59	ST118	Still	210761_ST118_07	01035	394 441.6	6 060 628.4	394 434.7	6 060 648.3	46.4	21.1	-
13/08/2022	06:40:07	ST118	Still	210761_ST118_08	01036	394 441.6	6 060 628.4	394 434.0	6 060 651.3	46.2	24.1	-
13/08/2022	06:40:24	ST118	Still	210761_ST118_09	01037	394 441.6	6 060 628.4	394 430.9	6 060 657.3	46.3	30.8	-
13/08/2022	06:40:31	ST118	Still	210761_ST118_10	01038	394 441.6	6 060 628.4	394 429.5	6 060 660.1	46.4	33.9	-
13/08/2022	06:41:00	ST118	Still	210761_ST118_11	01039	394 441.6	6 060 628.4	394 426.7	6 060 669.5	46.4	43.8	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	06:41:39	ST118	Still	210761_ST118_12	01040	394 441.6	6 060 628.4	394 423.8	6 060 682.2	46.3	56.7	-
13/08/2022	06:41:51	ST118	Still	210761_ST118_13	01041	394 441.6	6 060 628.4	394 423.0	6 060 685.4	46.2	60.0	-
13/08/2022	06:42:03	ST118	Still	210761_ST118_14	01042	394 441.6	6 060 628.4	394 422.5	6 060 688.1	46.4	62.7	-
13/08/2022	06:42:18	ST118	Video	EOL	01043	394 441.6	6 060 628.4	394 422.0	6 060 690.5	46.3	65.2	-
13/08/2022	06:50:41	ST118	HG	FA/PSDA	01044	394 441.6	6 060 628.4	394 465.8	6 060 622.2	33.1	25.0	-
13/08/2022	07:16:59	ST108	Video	SOL	01045	394 441.6	6 057 628.4	394 444.0	6 057 564.6	36.8	63.8	-
13/08/2022	07:17:13	ST108	Still	210761_ST108_01	01046	394 441.6	6 057 628.4	394 445.1	6 057 573.9	37.0	54.6	-
13/08/2022	07:17:17	ST108	Still	210761_ST108_02	01047	394 441.6	6 057 628.4	394 445.5	6 057 574.8	36.9	53.7	-
13/08/2022	07:17:28	ST108	Still	210761_ST108_03	01048	394 441.6	6 057 628.4	394 447.0	6 057 579.1	37.2	49.6	-
13/08/2022	07:17:44	ST108	Still	210761_ST108_04	01049	394 441.6	6 057 628.4	394 450.1	6 057 586.3	36.7	42.9	-
13/08/2022	07:17:52	ST108	Still	210761_ST108_05	01050	394 441.6	6 057 628.4	394 451.6	6 057 590.0	36.9	39.6	-
13/08/2022	07:18:04	ST108	Still	210761_ST108_06	01051	394 441.6	6 057 628.4	394 452.8	6 057 598.0	37.3	32.4	-
13/08/2022	07:18:38	ST108	Still	210761_ST108_07	01052	394 441.6	6 057 628.4	394 456.0	6 057 615.1	36.7	19.6	-
13/08/2022	07:18:46	ST108	Still	210761_ST108_08	01053	394 441.6	6 057 628.4	394 456.5	6 057 621.3	37.1	16.5	-
13/08/2022	07:19:00	ST108	Still	210761_ST108_09	01054	394 441.6	6 057 628.4	394 454.8	6 057 629.3	36.8	13.3	-
13/08/2022	07:19:23	ST108	Still	210761_ST108_10	01055	394 441.6	6 057 628.4	394 452.5	6 057 643.0	37.3	18.3	-
13/08/2022	07:19:44	ST108	Still	210761_ST108_11	01056	394 441.6	6 057 628.4	394 451.6	6 057 648.9	36.7	22.9	-
13/08/2022	07:20:02	ST108	Still	210761_ST108_12	01057	394 441.6	6 057 628.4	394 450.6	6 057 660.7	37.6	33.6	-
13/08/2022	07:20:18	ST108	Still	210761_ST108_13	01058	394 441.6	6 057 628.4	394 451.2	6 057 668.8	37.7	41.6	-
13/08/2022	07:20:45	ST108	Still	210761_ST108_14	01059	394 441.6	6 057 628.4	394 452.4	6 057 684.7	36.9	57.3	-
13/08/2022	07:21:01	ST108	Video	EOL	01060	394 441.6	6 057 628.4	394 448.1	6 057 691.8	37.3	63.7	-
13/08/2022	07:28:30	ST108	HG	FA/PSDA	01061	394 441.6	6 057 628.4	394 462.9	6 057 605.2	36.7	31.5	-
13/08/2022	07:51:46	ST107	Video	SOL	01062	391 441.6	6 057 628.4	391 442.0	6 057 573.3	36.1	55.1	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	07:52:01	ST107	Still	210761_ST107_01	01063	391 441.6	6 057 628.4	391 442.2	6 057 583.8	36.2	44.6	-
13/08/2022	07:52:10	ST107	Still	210761_ST107_02	01064	391 441.6	6 057 628.4	391 442.8	6 057 589.1	36.7	39.3	-
13/08/2022	07:52:22	ST107	Still	210761_ST107_03	01065	391 441.6	6 057 628.4	391 442.9	6 057 595.1	36.7	33.3	-
13/08/2022	07:52:44	ST107	Still	210761_ST107_04	01066	391 441.6	6 057 628.4	391 440.8	6 057 606.6	37.1	21.8	-
13/08/2022	07:53:02	ST107	Still	210761_ST107_05	01067	391 441.6	6 057 628.4	391 444.5	6 057 612.2	36.7	16.4	-
13/08/2022	07:53:19	ST107	Still	210761_ST107_06	01068	391 441.6	6 057 628.4	391 446.3	6 057 619.8	36.5	9.8	-
13/08/2022	07:53:36	ST107	Still	210761_ST107_07	01069	391 441.6	6 057 628.4	391 448.6	6 057 625.9	36.5	7.4	-
13/08/2022	07:53:52	ST107	Still	210761_ST107_08	01070	391 441.6	6 057 628.4	391 446.8	6 057 630.6	36.0	5.7	-
13/08/2022	07:54:50	ST107	Still	210761_ST107_09	01071	391 441.6	6 057 628.4	391 442.9	6 057 656.8	36.2	28.5	-
13/08/2022	07:55:21	ST107	Still	210761_ST107_10	01072	391 441.6	6 057 628.4	391 440.8	6 057 665.7	36.5	37.4	-
13/08/2022	07:55:47	ST107	Still	210761_ST107_11	01073	391 441.6	6 057 628.4	391 437.9	6 057 679.9	36.7	51.6	-
13/08/2022	07:56:04	ST107	Video	EOL	01074	391 441.6	6 057 628.4	391 435.1	6 057 684.9	36.2	56.9	-
13/08/2022	08:03:08	ST107	HG	FA/PSDA	01075	391 441.6	6 057 628.4	391 434.7	6 057 611.9	37.0	17.9	-
13/08/2022	08:18:55	ST107	DG	NS	01076	391 441.6	6 057 628.4	391 424.8	6 057 603.9	35.5	29.7	-
13/08/2022	08:25:34	ST107	DG	CA	01077	391 441.6	6 057 628.4	391 428.7	6 057 616.7	35.8	17.4	-
13/08/2022	08:48:38	ST095	Video	SOL	01078	391 441.6	6 054 628.4	391 448.8	6 054 704.6	34.6	76.6	-
13/08/2022	08:48:45	ST095	Still	210761_ST095_01	01079	391 441.6	6 054 628.4	391 447.9	6 054 701.9	35.0	73.8	-
13/08/2022	08:50:08	ST095	Still	210761_ST095_02	01080	391 441.6	6 054 628.4	391 434.7	6 054 661.6	34.4	33.9	-
13/08/2022	08:50:21	ST095	Still	210761_ST095_03	01081	391 441.6	6 054 628.4	391 432.5	6 054 654.1	34.9	27.3	-
13/08/2022	08:50:31	ST095	Still	210761_ST095_04	01082	391 441.6	6 054 628.4	391 428.9	6 054 649.5	35.3	24.6	-
13/08/2022	08:50:35	ST095	Still	210761_ST095_05	01083	391 441.6	6 054 628.4	391 430.3	6 054 649.5	35.0	23.9	-
13/08/2022	08:50:47	ST095	Still	210761_ST095_06	01084	391 441.6	6 054 628.4	391 427.5	6 054 641.8	35.1	19.5	-
13/08/2022	08:50:54	ST095	Still	210761_ST095_07	01085	391 441.6	6 054 628.4	391 426.5	6 054 639.4	34.9	18.7	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	08:51:18	ST095	Still	210761_ST095_08	01086	391 441.6	6 054 628.4	391 424.9	6 054 628.6	34.6	16.7	-
13/08/2022	08:51:50	ST095	Still	210761_ST095_09	01087	391 441.6	6 054 628.4	391 420.3	6 054 611.4	35.1	27.2	-
13/08/2022	08:51:57	ST095	Still	210761_ST095_10	01088	391 441.6	6 054 628.4	391 417.8	6 054 607.7	35.6	31.6	-
13/08/2022	08:52:12	ST095	Still	210761_ST095_11	01089	391 441.6	6 054 628.4	391 415.9	6 054 602.1	34.8	36.7	-
13/08/2022	08:52:32	ST095	Still	210761_ST095_12	01090	391 441.6	6 054 628.4	391 410.4	6 054 592.7	35.1	47.4	-
13/08/2022	08:52:39	ST095	Video	EOL	01091	391 441.6	6 054 628.4	391 409.8	6 054 589.8	34.4	50.0	-
13/08/2022	09:00:03	ST095	HG	FA/PSDA	01092	391 441.6	6 054 628.4	391 427.1	6 054 625.5	34.0	14.7	-
13/08/2022	09:29:41	ST096	Video	SOL	01093	394 441.6	6 054 628.4	394 412.0	6 054 590.2	34.0	48.3	-
13/08/2022	09:29:55	ST096	Still	210761_ST096_01	01094	394 441.6	6 054 628.4	394 415.0	6 054 599.7	34.1	39.1	-
13/08/2022	09:30:26	ST096	Still	210761_ST096_02	01095	394 441.6	6 054 628.4	394 426.9	6 054 614.6	34.6	20.1	-
13/08/2022	09:30:38	ST096	Still	210761_ST096_03	01096	394 441.6	6 054 628.4	394 433.1	6 054 618.9	34.6	12.7	-
13/08/2022	09:30:49	ST096	Still	210761_ST096_04	01097	394 441.6	6 054 628.4	394 437.3	6 054 624.6	34.6	5.7	-
13/08/2022	09:30:56	ST096	Still	210761_ST096_05	01098	394 441.6	6 054 628.4	394 440.5	6 054 626.2	34.5	2.4	-
13/08/2022	09:31:04	ST096	Still	210761_ST096_06	01099	394 441.6	6 054 628.4	394 445.6	6 054 628.8	35.0	4.1	-
13/08/2022	09:31:23	ST096	Still	210761_ST096_07	01100	394 441.6	6 054 628.4	394 452.5	6 054 633.1	34.8	11.9	-
13/08/2022	09:32:02	ST096	Still	210761_ST096_08	01101	394 441.6	6 054 628.4	394 468.0	6 054 646.7	34.8	32.1	-
13/08/2022	09:32:19	ST096	Still	210761_ST096_09	01102	394 441.6	6 054 628.4	394 472.5	6 054 649.2	34.3	37.3	-
13/08/2022	09:32:38	ST096	Still	210761_ST096_10	01103	394 441.6	6 054 628.4	394 475.1	6 054 662.1	34.5	47.6	-
13/08/2022	09:33:07	ST096	Video	EOL	01104	394 441.6	6 054 628.4	394 481.0	6 054 673.4	34.2	59.9	-
13/08/2022	09:39:45	ST096	HG	FA/PSDA	01105	394 441.6	6 054 628.4	394 401.4	6 054 642.9	34.0	42.8	-
13/08/2022	10:06:18	ST203	Video	SOL	01106	394 587.3	6 055 716.5	394 537.0	6 055 674.5	34.3	65.6	-
13/08/2022	10:06:37	ST203	Still	210761_ST203_01	01107	394 587.3	6 055 716.5	394 552.0	6 055 681.0	35.0	50.1	-
13/08/2022	10:07:06	ST203	Still	210761_ST203_02	01108	394 587.3	6 055 716.5	394 563.6	6 055 691.7	34.1	34.3	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	10:07:14	ST203	Still	210761_ST203_03	01109	394 587.3	6 055 716.5	394 566.3	6 055 695.3	33.9	29.9	-
13/08/2022	10:07:53	ST203	Still	210761_ST203_04	01110	394 587.3	6 055 716.5	394 582.5	6 055 712.6	34.2	6.2	-
13/08/2022	10:08:13	ST203	Still	210761_ST203_05	01111	394 587.3	6 055 716.5	394 592.8	6 055 720.5	34.0	6.8	-
13/08/2022	10:08:33	ST203	Still	210761_ST203_06	01112	394 587.3	6 055 716.5	394 600.0	6 055 724.4	34.1	14.9	-
13/08/2022	10:08:45	ST203	Still	210761_ST203_07	01113	394 587.3	6 055 716.5	394 605.6	6 055 727.7	34.2	21.4	-
13/08/2022	10:09:08	ST203	Still	210761_ST203_08	01114	394 587.3	6 055 716.5	394 613.9	6 055 732.9	34.5	31.2	-
13/08/2022	10:09:29	ST203	Still	210761_ST203_09	01115	394 587.3	6 055 716.5	394 623.0	6 055 740.1	34.3	42.7	-
13/08/2022	10:10:01	ST203	Video	EOL	01116	394 587.3	6 055 716.5	394 635.0	6 055 749.4	34.0	57.9	-
13/08/2022	10:32:50	BT02	BT	SOL	01117	394 587.3	6 055 716.5	394 384.4	6 056 091.9	43.7	426.8	-
13/08/2022	10:46:21	BT02	BT	EOL	01118	394 587.3	6 055 716.5	394 792.5	6 055 369.0	43.6	403.6	-
13/08/2022	12:20:48	ST080	Video	SOL	01119	394 441.6	6 051 628.4	394 391.2	6 051 670.5	30.3	65.6	-
13/08/2022	12:21:24	ST080	Still	210761_ST080_01	01120	394 441.6	6 051 628.4	394 402.0	6 051 654.5	30.4	47.4	-
13/08/2022	12:21:35	ST080	Still	210761_ST080_02	01121	394 441.6	6 051 628.4	394 403.9	6 051 651.2	30.0	44.1	-
13/08/2022	12:21:42	ST080	Still	210761_ST080_03	01122	394 441.6	6 051 628.4	394 406.1	6 051 648.6	30.7	40.9	-
13/08/2022	12:21:51	ST080	Still	210761_ST080_04	01123	394 441.6	6 051 628.4	394 410.2	6 051 647.0	30.8	36.4	-
13/08/2022	12:21:59	ST080	Still	210761_ST080_05	01124	394 441.6	6 051 628.4	394 413.6	6 051 645.8	31.0	33.0	-
13/08/2022	12:22:07	ST080	Still	210761_ST080_06	01125	394 441.6	6 051 628.4	394 414.8	6 051 642.2	31.3	30.2	-
13/08/2022	12:22:22	ST080	Still	210761_ST080_07	01126	394 441.6	6 051 628.4	394 419.0	6 051 637.3	30.5	24.3	-
13/08/2022	12:22:39	ST080	Still	210761_ST080_08	01127	394 441.6	6 051 628.4	394 424.3	6 051 635.8	30.2	18.8	-
13/08/2022	12:22:43	ST080	Still	210761_ST080_09	01128	394 441.6	6 051 628.4	394 425.3	6 051 635.5	30.4	17.7	-
13/08/2022	12:23:14	ST080	Still	210761_ST080_10	01129	394 441.6	6 051 628.4	394 431.0	6 051 626.5	30.5	10.7	-
13/08/2022	12:23:28	ST080	Still	210761_ST080_11	01130	394 441.6	6 051 628.4	394 433.5	6 051 620.3	31.4	11.4	-
13/08/2022	12:23:45	ST080	Still	210761_ST080_12	01131	394 441.6	6 051 628.4	394 437.5	6 051 613.0	31.3	15.9	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	12:24:16	ST080	Still	210761_ST080_13	01132	394 441.6	6 051 628.4	394 448.1	6 051 605.8	31.2	23.5	-
13/08/2022	12:24:32	ST080	Still	210761_ST080_14	01133	394 441.6	6 051 628.4	394 455.2	6 051 602.5	31.3	29.3	-
13/08/2022	12:24:48	ST080	Still	210761_ST080_15	01134	394 441.6	6 051 628.4	394 458.8	6 051 599.0	30.8	34.0	-
13/08/2022	12:24:58	ST080	Still	210761_ST080_16	01135	394 441.6	6 051 628.4	394 463.5	6 051 598.1	30.8	37.4	-
13/08/2022	12:25:12	ST080	Video	EOL	01136	394 441.6	6 051 628.4	394 469.3	6 051 595.4	30.9	43.1	-
13/08/2022	12:32:02	ST080	HG	NS	01137	394 441.6	6 051 628.4	394 441.5	6 051 622.4	30.9	6.0	-
13/08/2022	12:35:54	ST080	HG	FA/PSDA	01138	394 441.6	6 051 628.4	394 421.9	6 051 630.0	29.2	19.8	-
13/08/2022	13:02:25	ST081	Video	SOL	01139	397 093.3	6 051 665.4	397 038.1	6 051 727.6	31.9	83.1	-
13/08/2022	13:03:04	ST081	Still	210761_ST081_01	01140	397 093.3	6 051 665.4	397 045.9	6 051 713.9	33.3	67.7	-
13/08/2022	13:03:13	ST081	Still	210761_ST081_02	01141	397 093.3	6 051 665.4	397 046.4	6 051 713.7	32.6	67.3	-
13/08/2022	13:03:20	ST081	Still	210761_ST081_03	01142	397 093.3	6 051 665.4	397 047.0	6 051 712.7	32.6	66.2	-
13/08/2022	13:03:48	ST081	Still	210761_ST081_04	01143	397 093.3	6 051 665.4	397 055.1	6 051 703.3	32.5	53.8	-
13/08/2022	13:04:13	ST081	Still	210761_ST081_05	01144	397 093.3	6 051 665.4	397 061.7	6 051 693.5	33.3	42.3	-
13/08/2022	13:04:34	ST081	Still	210761_ST081_06	01145	397 093.3	6 051 665.4	397 066.3	6 051 686.5	32.7	34.3	-
13/08/2022	13:04:46	ST081	Still	210761_ST081_07	01146	397 093.3	6 051 665.4	397 070.1	6 051 681.7	33.5	28.3	-
13/08/2022	13:04:57	ST081	Still	210761_ST081_08	01147	397 093.3	6 051 665.4	397 073.7	6 051 679.0	32.7	23.8	-
13/08/2022	13:05:05	ST081	Still	210761_ST081_09	01148	397 093.3	6 051 665.4	397 075.0	6 051 677.8	32.6	22.1	-
13/08/2022	13:05:28	ST081	Still	210761_ST081_10	01149	397 093.3	6 051 665.4	397 082.2	6 051 673.0	32.3	13.4	-
13/08/2022	13:05:35	ST081	Still	210761_ST081_11	01150	397 093.3	6 051 665.4	397 083.4	6 051 671.9	32.2	11.8	-
13/08/2022	13:05:53	ST081	Still	210761_ST081_12	01151	397 093.3	6 051 665.4	397 091.0	6 051 668.8	33.3	4.1	-
13/08/2022	13:05:59	ST081	Still	210761_ST081_13	01152	397 093.3	6 051 665.4	397 088.1	6 051 664.5	32.8	5.3	-
13/08/2022	13:06:14	ST081	Still	210761_ST081_14	01153	397 093.3	6 051 665.4	397 090.4	6 051 658.6	32.6	7.4	-
13/08/2022	13:06:40	ST081	Still	210761_ST081_15	01154	397 093.3	6 051 665.4	397 095.2	6 051 649.2	32.1	16.3	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	13:06:45	ST081	Still	210761_ST081_16	01155	397 093.3	6 051 665.4	397 097.2	6 051 646.5	32.7	19.3	-
13/08/2022	13:07:03	ST081	Still	210761_ST081_17	01156	397 093.3	6 051 665.4	397 097.4	6 051 642.2	-	23.6	-
13/08/2022	13:07:21	ST081	Still	210761_ST081_18	01157	397 093.3	6 051 665.4	397 100.5	6 051 636.0	31.9	30.3	-
13/08/2022	13:07:34	ST081	Still	210761_ST081_19	01158	397 093.3	6 051 665.4	397 103.3	6 051 631.8	32.9	35.1	-
13/08/2022	13:07:56	ST081	Still	210761_ST081_20	01159	397 093.3	6 051 665.4	397 107.4	6 051 623.5	32.9	44.2	-
13/08/2022	13:08:06	ST081	Video	EOL	01160	397 093.3	6 051 665.4	397 107.4	6 051 621.0	32.1	46.6	-
13/08/2022	13:13:34	ST081	HG	NS	01161	397 093.3	6 051 665.4	397 098.6	6 051 638.5	30.7	27.5	-
13/08/2022	13:18:20	ST081	HG	FA/PSDA	01162	397 093.3	6 051 665.4	397 088.8	6 051 667.9	31.8	5.2	-
13/08/2022	13:43:51	ST062	Video	SOL	01163	394 441.6	6 048 628.4	394 413.7	6 048 687.1	30.2	65.0	-
13/08/2022	13:44:16	ST062	Still	210761_ST062_01	01164	394 441.6	6 048 628.4	394 417.2	6 048 671.0	30.5	49.1	-
13/08/2022	13:44:20	ST062	Still	210761_ST062_02	01165	394 441.6	6 048 628.4	394 418.1	6 048 669.1	30.4	47.0	-
13/08/2022	13:44:23	ST062	Still	210761_ST062_03	01166	394 441.6	6 048 628.4	394 417.9	6 048 670.4	29.5	48.3	-
13/08/2022	13:44:31	ST062	Still	210761_ST062_04	01167	394 441.6	6 048 628.4	394 418.7	6 048 663.6	29.9	42.0	-
13/08/2022	13:44:34	ST062	Still	210761_ST062_05	01168	394 441.6	6 048 628.4	394 418.4	6 048 660.5	30.6	39.7	-
13/08/2022	13:44:41	ST062	Still	210761_ST062_06	01169	394 441.6	6 048 628.4	394 419.3	6 048 656.7	30.2	36.0	-
13/08/2022	13:44:44	ST062	Still	210761_ST062_07	01170	394 441.6	6 048 628.4	394 419.9	6 048 655.6	30.3	34.8	-
13/08/2022	13:44:48	ST062	Still	210761_ST062_08	01171	394 441.6	6 048 628.4	394 420.0	6 048 654.7	30.7	34.1	-
13/08/2022	13:45:13	ST062	Still	210761_ST062_09	01172	394 441.6	6 048 628.4	394 423.0	6 048 641.6	29.5	22.8	-
13/08/2022	13:45:28	ST062	Still	210761_ST062_10	01173	394 441.6	6 048 628.4	394 423.0	6 048 636.7	29.4	20.4	-
13/08/2022	13:45:41	ST062	Still	210761_ST062_11	01174	394 441.6	6 048 628.4	394 423.0	6 048 634.3	29.5	19.5	-
13/08/2022	13:46:09	ST062	Still	210761_ST062_12	01175	394 441.6	6 048 628.4	394 422.8	6 048 624.1	29.9	19.2	-
13/08/2022	13:46:17	ST062	Still	210761_ST062_13	01176	394 441.6	6 048 628.4	394 422.9	6 048 623.0	30.3	19.4	-
13/08/2022	13:46:51	ST062	Still	210761_ST062_14	01177	394 441.6	6 048 628.4	394 422.5	6 048 610.3	29.6	26.2	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	13:47:27	ST062	Still	210761_ST062_15	01178	394 441.6	6 048 628.4	394 417.2	6 048 595.0	29.4	41.3	-
13/08/2022	13:48:02	ST062	Video	EOL	01179	394 441.6	6 048 628.4	394 417.0	6 048 576.3	29.6	57.6	-
13/08/2022	13:54:16	ST062	HG	FA/PSDA	01180	394 441.6	6 048 628.4	394 445.2	6 048 610.8	32.6	18.0	-
13/08/2022	14:23:25	ST130	Video	SOL	01181	394 326.8	6 047 339.1	394 264.7	6 047 312.9	29.0	67.4	-
13/08/2022	14:23:54	ST130	Still	210761_ST130_01	01182	394 326.8	6 047 339.1	394 283.7	6 047 313.5	29.6	50.1	-
13/08/2022	14:24:04	ST130	Still	210761_ST130_02	01183	394 326.8	6 047 339.1	394 287.9	6 047 318.4	30.1	44.1	-
13/08/2022	14:24:14	ST130	Still	210761_ST130_03	01184	394 326.8	6 047 339.1	394 291.7	6 047 320.8	29.7	39.6	-
13/08/2022	14:24:27	ST130	Still	210761_ST130_04	01185	394 326.8	6 047 339.1	394 297.3	6 047 322.1	29.8	34.0	-
13/08/2022	14:24:35	ST130	Still	210761_ST130_05	01186	394 326.8	6 047 339.1	394 302.9	6 047 325.6	30.1	27.4	-
13/08/2022	14:24:43	ST130	Still	210761_ST130_06	01187	394 326.8	6 047 339.1	394 307.0	6 047 323.7	29.8	25.1	-
13/08/2022	14:24:57	ST130	Still	210761_ST130_07	01188	394 326.8	6 047 339.1	394 313.2	6 047 324.4	29.4	20.0	-
13/08/2022	14:25:06	ST130	Still	210761_ST130_08	01189	394 326.8	6 047 339.1	394 317.0	6 047 324.6	29.2	17.5	-
13/08/2022	14:25:10	ST130	Still	210761_ST130_09	01190	394 326.8	6 047 339.1	394 318.1	6 047 326.7	29.5	15.1	-
13/08/2022	14:25:28	ST130	Still	210761_ST130_10	01191	394 326.8	6 047 339.1	394 323.9	6 047 328.7	29.6	10.8	-
13/08/2022	14:25:40	ST130	Still	210761_ST130_11	01192	394 326.8	6 047 339.1	394 329.6	6 047 328.6	29.5	10.8	-
13/08/2022	14:25:59	ST130	Still	210761_ST130_12	01193	394 326.8	6 047 339.1	394 337.7	6 047 329.4	29.4	14.6	-
13/08/2022	14:27:15	ST130	Still	210761_ST130_13	01194	394 326.8	6 047 339.1	394 369.4	6 047 346.0	29.4	43.2	-
13/08/2022	14:27:29	ST130	Video	EOL	01195	394 326.8	6 047 339.1	394 375.1	6 047 350.1	29.0	49.5	-
13/08/2022	14:32:49	ST130	HG	FA/PSDA	01196	394 326.8	6 047 339.1	394 322.6	6 047 333.0	30.3	7.4	-
13/08/2022	14:57:19	ST202	Video	SOL	01197	395 167.0	6 047 537.6	395 108.6	6 047 537.6	30.5	58.3	-
13/08/2022	14:58:18	ST202	Still	210761_ST202_01	01198	395 167.0	6 047 537.6	395 129.6	6 047 523.0	31.7	40.2	-
13/08/2022	14:58:21	ST202	Still	210761_ST202_02	01199	395 167.0	6 047 537.6	395 130.8	6 047 523.6	31.8	38.8	-
13/08/2022	14:58:25	ST202	Still	210761_ST202_03	01200	395 167.0	6 047 537.6	395 132.2	6 047 523.1	31.6	37.7	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	14:58:30	ST202	Still	210761_ST202_04	01201	395 167.0	6 047 537.6	395 134.1	6 047 521.3	31.8	36.7	-
13/08/2022	14:58:43	ST202	Still	210761_ST202_05	01202	395 167.0	6 047 537.6	395 140.7	6 047 520.2	31.7	31.5	-
13/08/2022	14:58:46	ST202	Still	210761_ST202_06	01203	395 167.0	6 047 537.6	395 143.0	6 047 519.5	31.9	30.1	-
13/08/2022	14:58:51	ST202	Still	210761_ST202_07	01204	395 167.0	6 047 537.6	395 144.1	6 047 519.6	31.6	29.1	-
13/08/2022	14:59:36	ST202	Still	210761_ST202_08	01205	395 167.0	6 047 537.6	395 166.2	6 047 528.5	31.7	9.1	-
13/08/2022	14:59:59	ST202	Still	210761_ST202_09	01206	395 167.0	6 047 537.6	395 177.9	6 047 530.8	31.9	12.8	-
13/08/2022	15:00:03	ST202	Still	210761_ST202_10	01207	395 167.0	6 047 537.6	395 177.6	6 047 532.9	32.4	11.6	-
13/08/2022	15:00:14	ST202	Still	210761_ST202_11	01208	395 167.0	6 047 537.6	395 184.7	6 047 535.4	32.0	17.8	-
13/08/2022	15:00:18	ST202	Still	210761_ST202_12	01209	395 167.0	6 047 537.6	395 186.9	6 047 534.2	31.5	20.3	-
13/08/2022	15:00:22	ST202	Still	210761_ST202_13	01210	395 167.0	6 047 537.6	395 188.1	6 047 536.9	31.6	21.1	-
13/08/2022	15:00:25	ST202	Still	210761_ST202_14	01211	395 167.0	6 047 537.6	395 190.9	6 047 535.2	31.6	24.1	-
13/08/2022	15:00:35	ST202	Still	210761_ST202_15	01212	395 167.0	6 047 537.6	395 195.6	6 047 538.0	31.6	28.6	-
13/08/2022	15:00:41	ST202	Still	210761_ST202_16	01213	395 167.0	6 047 537.6	395 196.5	6 047 539.0	31.6	29.6	-
13/08/2022	15:00:48	ST202	Still	210761_ST202_17	01214	395 167.0	6 047 537.6	395 199.1	6 047 538.9	32.1	32.2	-
13/08/2022	15:00:52	ST202	Still	210761_ST202_18	01215	395 167.0	6 047 537.6	395 204.4	6 047 542.7	31.6	37.8	-
13/08/2022	15:01:01	ST202	Still	210761_ST202_19	01216	395 167.0	6 047 537.6	395 206.0	6 047 545.8	32.5	39.8	-
13/08/2022	15:01:05	ST202	Still	210761_ST202_20	01217	395 167.0	6 047 537.6	395 208.1	6 047 542.1	32.0	41.3	-
13/08/2022	15:01:12	ST202	Still	210761_ST202_21	01218	395 167.0	6 047 537.6	395 212.6	6 047 544.3	32.3	46.1	-
13/08/2022	15:01:26	ST202	Video	EOL	01219	395 167.0	6 047 537.6	395 218.4	6 047 545.7	31.7	52.1	-
13/08/2022	15:31:39	BT15	BT	SOL	01220	395 167.1	6 047 537.4	394 968.8	6 047 844.0	28.0	365.1	-
13/08/2022	15:40:09	BT15	BT	EOL	01221	395 167.1	6 047 537.4	395 474.5	6 047 171.9	28.0	477.5	-
13/08/2022	17:28:33	ST063	Video	SOL	01222	396 891.3	6 048 624.1	396 921.9	6 048 551.1	30.9	79.2	-
13/08/2022	17:29:55	ST063	Still	210761_ST063_01	01223	396 891.3	6 048 624.1	396 919.8	6 048 595.3	32.5	40.5	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	17:30:01	ST063	Still	210761_ST063_02	01224	396 891.3	6 048 624.1	396 917.8	6 048 596.9	32.5	38.0	-
13/08/2022	17:30:05	ST063	Still	210761_ST063_03	01225	396 891.3	6 048 624.1	396 916.6	6 048 599.8	32.8	35.1	-
13/08/2022	17:30:14	ST063	Still	210761_ST063_04	01226	396 891.3	6 048 624.1	396 914.0	6 048 605.7	-	29.2	-
13/08/2022	17:30:23	ST063	Still	210761_ST063_05	01227	396 891.3	6 048 624.1	396 913.7	6 048 609.3	32.0	26.8	-
13/08/2022	17:30:27	ST063	Still	210761_ST063_06	01228	396 891.3	6 048 624.1	396 913.3	6 048 611.4	32.0	25.4	-
13/08/2022	17:30:31	ST063	Still	210761_ST063_07	01229	396 891.3	6 048 624.1	396 912.0	6 048 613.6	33.0	23.2	-
13/08/2022	17:30:37	ST063	Still	210761_ST063_08	01230	396 891.3	6 048 624.1	396 910.3	6 048 616.5	32.4	20.5	-
13/08/2022	17:30:41	ST063	Still	210761_ST063_09	01231	396 891.3	6 048 624.1	396 909.4	6 048 619.4	32.3	18.7	-
13/08/2022	17:30:50	ST063	Still	210761_ST063_10	01232	396 891.3	6 048 624.1	396 907.1	6 048 623.4	31.9	15.8	-
13/08/2022	17:31:15	ST063	Still	210761_ST063_11	01233	396 891.3	6 048 624.1	396 901.1	6 048 641.3	32.5	19.8	-
13/08/2022	17:31:19	ST063	Still	210761_ST063_12	01234	396 891.3	6 048 624.1	396 899.6	6 048 642.4	32.1	20.1	-
13/08/2022	17:31:30	ST063	Still	210761_ST063_13	01235	396 891.3	6 048 624.1	396 895.5	6 048 651.2	-	27.4	-
13/08/2022	17:31:41	ST063	Still	210761_ST063_14	01236	396 891.3	6 048 624.1	396 895.7	6 048 653.7	32.2	29.9	-
13/08/2022	17:31:50	ST063	Still	210761_ST063_15	01237	396 891.3	6 048 624.1	396 891.9	6 048 658.4	32.9	34.3	-
13/08/2022	17:31:58	ST063	Still	210761_ST063_16	01238	396 891.3	6 048 624.1	396 890.6	6 048 661.1	32.1	37.0	-
13/08/2022	17:32:04	ST063	Still	210761_ST063_17	01239	396 891.3	6 048 624.1	396 891.2	6 048 665.7	32.1	41.6	-
13/08/2022	17:32:32	ST063	Video	EOL	01240	396 891.3	6 048 624.1	396 889.9	6 048 672.0	33.0	47.9	-
13/08/2022	17:43:17	ST063	DG	NS	01241	396 891.3	6 048 624.1	396 886.1	6 048 587.7	29.0	36.8	-
13/08/2022	17:48:47	ST063	DG	CA	01242	396 891.3	6 048 624.1	396 896.9	6 048 600.2	29.0	24.6	-
13/08/2022	17:54:58	ST063	HG	FA/PSDA	01243	396 891.3	6 048 624.1	396 920.9	6 048 592.5	29.0	43.3	-
13/08/2022	18:39:57	ST097	Video	SOL	01244	397 441.6	6 054 628.4	397 483.4	6 054 592.6	33.7	55.0	-
13/08/2022	18:40:47	ST097	Still	210761_ST097_01	01245	397 441.6	6 054 628.4	397 469.2	6 054 617.9	34.1	29.6	-
13/08/2022	18:41:10	ST097	Still	210761_ST097_02	01246	397 441.6	6 054 628.4	397 458.5	6 054 629.4	35.0	17.0	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	18:41:31	ST097	Still	210761_ST097_03	01247	397 441.6	6 054 628.4	397 446.8	6 054 639.4	35.5	12.2	-
13/08/2022	18:41:37	ST097	Still	210761_ST097_04	01248	397 441.6	6 054 628.4	397 446.3	6 054 641.4	34.6	13.9	-
13/08/2022	18:41:41	ST097	Still	210761_ST097_05	01249	397 441.6	6 054 628.4	397 442.3	6 054 640.7	35.3	12.4	-
13/08/2022	18:41:46	ST097	Still	210761_ST097_06	01250	397 441.6	6 054 628.4	397 443.1	6 054 641.7	-	13.4	-
13/08/2022	18:41:50	ST097	Still	210761_ST097_07	01251	397 441.6	6 054 628.4	397 439.5	6 054 647.6	-	19.3	-
13/08/2022	18:41:55	ST097	Still	210761_ST097_08	01252	397 441.6	6 054 628.4	397 435.1	6 054 647.2	35.0	19.9	-
13/08/2022	18:41:59	ST097	Still	210761_ST097_09	01253	397 441.6	6 054 628.4	397 433.1	6 054 648.6	35.4	21.9	-
13/08/2022	18:42:13	ST097	Still	210761_ST097_10	01254	397 441.6	6 054 628.4	397 424.7	6 054 650.5	-	27.8	-
13/08/2022	18:42:17	ST097	Still	210761_ST097_11	01255	397 441.6	6 054 628.4	397 423.8	6 054 654.0	-	31.2	-
13/08/2022	18:42:25	ST097	Still	210761_ST097_12	01256	397 441.6	6 054 628.4	397 423.9	6 054 654.7	34.7	31.7	-
13/08/2022	18:42:33	ST097	Still	210761_ST097_13	01257	397 441.6	6 054 628.4	397 418.2	6 054 656.5	35.1	36.6	-
13/08/2022	18:42:38	ST097	Still	210761_ST097_14	01258	397 441.6	6 054 628.4	397 416.9	6 054 658.8	-	39.2	-
13/08/2022	18:42:46	ST097	Still	210761_ST097_15	01259	397 441.6	6 054 628.4	397 413.5	6 054 660.9	35.3	43.0	-
13/08/2022	18:43:06	ST097	Still	210761_ST097_16	01260	397 441.6	6 054 628.4	397 403.1	6 054 667.9	35.0	55.2	-
13/08/2022	18:43:10	ST097	Video	EOL	01261	397 441.6	6 054 628.4	397 402.9	6 054 669.4	34.7	56.4	-
13/08/2022	18:51:13	ST097	HG	NS	01262	397 441.6	6 054 628.4	397 434.8	6 054 613.5	31.0	16.3	-
13/08/2022	18:56:43	ST097	HG	NS	01263	397 441.6	6 054 628.4	397 472.5	6 054 601.0	31.0	41.3	-
13/08/2022	19:01:37	ST097	HG	NS	01264	397 441.6	6 054 628.4	397 448.1	6 054 631.3	31.0	7.1	-
13/08/2022	19:09:54	ST097	HG	NS	01266	397 441.6	6 054 628.4	397 308.3	6 054 620.7	31.0	133.4	-
13/08/2022	19:35:42	ST109	Video	SOL	01267	397 441.6	6 057 628.4	397 485.4	6 057 610.5	36.0	47.3	-
13/08/2022	19:36:13	ST109	Still	210761_ST109_01	01268	397 441.6	6 057 628.4	397 487.0	6 057 611.2	36.1	48.6	-
13/08/2022	19:36:40	ST109	Still	210761_ST109_02	01269	397 441.6	6 057 628.4	397 489.7	6 057 616.2	36.4	49.7	-
13/08/2022	19:37:21	ST109	Still	210761_ST109_03	01270	397 441.6	6 057 628.4	397 477.7	6 057 630.3	36.9	36.2	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	19:37:41	ST109	Still	210761_ST109_04	01271	397 441.6	6 057 628.4	397 462.7	6 057 629.4	36.8	21.2	-
13/08/2022	19:38:00	ST109	Still	210761_ST109_05	01272	397 441.6	6 057 628.4	397 451.5	6 057 625.1	-	10.5	-
13/08/2022	19:38:04	ST109	Still	210761_ST109_06	01273	397 441.6	6 057 628.4	397 446.5	6 057 623.4	37.5	7.0	-
13/08/2022	19:38:31	ST109	Still	210761_ST109_07	01274	397 441.6	6 057 628.4	397 425.3	6 057 620.2	37.3	18.2	-
13/08/2022	19:38:48	ST109	Still	210761_ST109_08	01275	397 441.6	6 057 628.4	397 412.2	6 057 619.9	36.9	30.6	-
13/08/2022	19:39:12	ST109	Still	210761_ST109_09	01276	397 441.6	6 057 628.4	397 393.4	6 057 615.4	37.4	49.9	-
13/08/2022	19:39:17	ST109	Still	210761_ST109_10	01277	397 441.6	6 057 628.4	397 389.4	6 057 616.7	37.8	53.4	-
13/08/2022	19:39:21	ST109	Still	210761_ST109_11	01278	397 441.6	6 057 628.4	397 388.8	6 057 616.1	36.7	54.2	-
13/08/2022	19:39:25	ST109	Video	EOL	01279	397 441.6	6 057 628.4	397 383.1	6 057 616.1	38.2	59.7	-
13/08/2022	19:48:22	ST109	HG	FA/PSDA	01280	397 441.6	6 057 628.4	397 463.0	6 057 628.5	33.0	21.5	-
13/08/2022	20:17:47	ST119	Video	SOL	01281	397 441.6	6 060 628.4	397 474.7	6 060 577.1	36.0	61.0	-
13/08/2022	20:18:39	ST119	Still	210761_ST119_01	01282	397 441.6	6 060 628.4	397 462.6	6 060 620.3	37.0	22.5	-
13/08/2022	20:18:54	ST119	Still	210761_ST119_02	01283	397 441.6	6 060 628.4	397 457.0	6 060 632.4	36.5	16.0	-
13/08/2022	20:18:58	ST119	Still	210761_ST119_03	01284	397 441.6	6 060 628.4	397 455.9	6 060 633.0	36.6	15.1	-
13/08/2022	20:19:03	ST119	Still	210761_ST119_04	01285	397 441.6	6 060 628.4	397 455.0	6 060 638.1	36.5	16.6	-
13/08/2022	20:19:18	ST119	Still	210761_ST119_05	01286	397 441.6	6 060 628.4	397 447.1	6 060 650.3	35.7	22.6	-
13/08/2022	20:19:24	ST119	Still	210761_ST119_06	01287	397 441.6	6 060 628.4	397 443.9	6 060 653.6	36.0	25.3	-
13/08/2022	20:19:26	ST119	Still	210761_ST119_07	01288	397 441.6	6 060 628.4	397 443.2	6 060 654.7	36.2	26.4	-
13/08/2022	20:19:31	ST119	Still	210761_ST119_08	01289	397 441.6	6 060 628.4	397 441.7	6 060 656.5	36.1	28.1	-
13/08/2022	20:19:34	ST119	Still	210761_ST119_09	01290	397 441.6	6 060 628.4	397 440.2	6 060 659.5	36.5	31.2	-
13/08/2022	20:19:44	ST119	Still	210761_ST119_10	01291	397 441.6	6 060 628.4	397 435.1	6 060 666.8	35.9	39.0	-
13/08/2022	20:19:57	ST119	Still	210761_ST119_11	01292	397 441.6	6 060 628.4	397 429.6	6 060 674.5	36.2	47.7	-
13/08/2022	20:20:02	ST119	Still	210761_ST119_12	01293	397 441.6	6 060 628.4	397 427.9	6 060 675.8	35.8	49.4	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	20:20:05	ST119	Still	210761_ST119_13	01294	397 441.6	6 060 628.4	397 427.2	6 060 677.0	35.9	50.7	-
13/08/2022	20:20:17	ST119	Still	210761_ST119_01	01295	397 441.6	6 060 628.4	397 421.2	6 060 678.9	36.1	54.5	-
13/08/2022	20:20:21	ST119	Video	EOL	01296	397 441.6	6 060 628.4	397 423.1	6 060 682.1	35.8	56.8	-
13/08/2022	20:30:01	ST119	HG	NS	01297	397 441.6	6 060 628.4	397 463.0	6 060 627.8	33.0	21.5	-
13/08/2022	20:34:47	ST119	HG	NS	01298	397 441.6	6 060 628.4	397 460.0	6 060 645.5	33.0	25.2	-
13/08/2022	20:39:36	ST119	HG	FA/PSDA	01299	397 441.6	6 060 628.4	397 459.1	6 060 646.6	33.0	25.3	-
13/08/2022	21:05:29	ST126	Video	SOL	01300	397 441.6	6 063 628.4	397 467.6	6 063 588.1	32.8	47.9	-
13/08/2022	21:05:53	ST126	Still	210761_ST126_01	01301	397 441.6	6 063 628.4	397 468.1	6 063 605.7	33.3	34.9	-
13/08/2022	21:06:15	ST126	Still	210761_ST126_02	01302	397 441.6	6 063 628.4	397 464.5	6 063 622.5	33.5	23.7	-
13/08/2022	21:06:42	ST126	Still	210761_ST126_03	01303	397 441.6	6 063 628.4	397 452.4	6 063 641.4	33.5	17.0	-
13/08/2022	21:06:47	ST126	Still	210761_ST126_04	01304	397 441.6	6 063 628.4	397 448.7	6 063 641.4	33.7	14.9	-
13/08/2022	21:06:51	ST126	Still	210761_ST126_05	01305	397 441.6	6 063 628.4	397 446.3	6 063 645.2	33.8	17.5	-
13/08/2022	21:06:55	ST126	Still	210761_ST126_06	01306	397 441.6	6 063 628.4	397 445.3	6 063 644.8	33.1	16.9	-
13/08/2022	21:06:59	ST126	Still	210761_ST126_07	01307	397 441.6	6 063 628.4	397 440.5	6 063 648.3	34.2	20.0	-
13/08/2022	21:07:03	ST126	Still	210761_ST126_08	01308	397 441.6	6 063 628.4	397 443.1	6 063 650.3	32.9	22.0	-
13/08/2022	21:07:07	ST126	Still	210761_ST126_09	01309	397 441.6	6 063 628.4	397 437.1	6 063 651.7	34.2	23.8	-
13/08/2022	21:07:11	ST126	Still	210761_ST126_10	01310	397 441.6	6 063 628.4	397 436.1	6 063 654.8	33.8	27.0	-
13/08/2022	21:07:17	ST126	Still	210761_ST126_11	01311	397 441.6	6 063 628.4	397 433.4	6 063 658.9	33.8	31.6	-
13/08/2022	21:07:20	ST126	Still	210761_ST126_12	01312	397 441.6	6 063 628.4	397 432.1	6 063 657.9	33.1	31.0	-
13/08/2022	21:07:24	ST126	Still	210761_ST126_13	01313	397 441.6	6 063 628.4	397 430.3	6 063 662.6	33.9	36.0	-
13/08/2022	21:07:27	ST126	Still	210761_ST126_14	01314	397 441.6	6 063 628.4	397 428.0	6 063 663.7	33.4	37.9	-
13/08/2022	21:07:32	ST126	Still	210761_ST126_15	01315	397 441.6	6 063 628.4	397 426.8	6 063 666.9	33.8	41.3	-
13/08/2022	21:07:36	ST126	Still	210761_ST126_16	01316	397 441.6	6 063 628.4	397 424.0	6 063 670.6	34.3	45.7	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	21:07:40	ST126	Still	210761_ST126_17	01317	397 441.6	6 063 628.4	397 424.1	6 063 670.1	33.5	45.2	-
13/08/2022	21:07:42	ST126	Still	210761_ST126_18	01318	397 441.6	6 063 628.4	397 420.6	6 063 673.3	34.2	49.6	-
13/08/2022	21:07:45	ST126	Still	210761_ST126_19	01319	397 441.6	6 063 628.4	397 421.0	6 063 675.3	34.1	51.2	-
13/08/2022	21:07:49	ST126	Still	210761_ST126_20	01320	397 441.6	6 063 628.4	397 419.8	6 063 675.6	33.7	52.0	-
13/08/2022	21:07:55	ST126	Still	210761_ST126_21	01321	397 441.6	6 063 628.4	397 418.6	6 063 678.6	33.3	55.2	-
13/08/2022	21:08:02	ST126	Video	EOL	01322	397 441.6	6 063 628.4	397 414.6	6 063 681.2	33.1	59.3	-
13/08/2022	21:16:06	ST126	HG	FA/PSDA	01323	397 441.6	6 063 628.4	397 452.3	6 063 635.3	30.0	12.8	-
13/08/2022	21:39:49	ST127	HG	FA/PSDA	01324	400 441.6	6 063 628.4	400 422.0	6 063 640.2	22.0	22.9	-
13/08/2022	22:08:36	ST120	Video	SOL	01325	400 441.6	6 060 628.4	400 364.6	6 060 653.8	31.2	81.1	-
13/08/2022	22:09:01	ST120	Still	210761_ST120_01	01326	400 441.6	6 060 628.4	400 380.3	6 060 641.0	31.5	62.6	-
13/08/2022	22:09:08	ST120	Still	210761_ST120_02	01327	400 441.6	6 060 628.4	400 383.6	6 060 637.9	31.9	58.7	-
13/08/2022	22:09:12	ST120	Still	210761_ST120_03	01328	400 441.6	6 060 628.4	400 387.9	6 060 635.7	32.3	54.2	-
13/08/2022	22:09:15	ST120	Still	210761_ST120_04	01329	400 441.6	6 060 628.4	400 387.2	6 060 638.9	31.5	55.4	-
13/08/2022	22:09:23	ST120	Still	210761_ST120_05	01330	400 441.6	6 060 628.4	400 393.3	6 060 636.3	32.1	48.9	-
13/08/2022	22:09:28	ST120	Still	210761_ST120_06	01331	400 441.6	6 060 628.4	400 398.3	6 060 635.8	32.0	43.9	-
13/08/2022	22:09:40	ST120	Still	210761_ST120_07	01332	400 441.6	6 060 628.4	400 405.1	6 060 633.2	30.8	36.8	-
13/08/2022	22:09:58	ST120	Still	210761_ST120_08	01333	400 441.6	6 060 628.4	400 422.9	6 060 638.2	31.4	21.1	-
13/08/2022	22:10:07	ST120	Still	210761_ST120_09	01334	400 441.6	6 060 628.4	400 430.9	6 060 640.5	31.5	16.2	-
13/08/2022	22:10:17	ST120	Still	210761_ST120_10	01335	400 441.6	6 060 628.4	400 438.6	6 060 642.1	31.0	14.1	-
13/08/2022	22:10:21	ST120	Still	210761_ST120_11	01336	400 441.6	6 060 628.4	400 441.5	6 060 640.6	30.8	12.2	-
13/08/2022	22:10:33	ST120	Still	210761_ST120_12	01337	400 441.6	6 060 628.4	400 449.5	6 060 642.0	31.1	15.8	-
13/08/2022	22:10:51	ST120	Still	210761_ST120_13	01338	400 441.6	6 060 628.4	400 466.6	6 060 645.5	31.0	30.3	-
13/08/2022	22:10:57	ST120	Still	210761_ST120_14	01339	400 441.6	6 060 628.4	400 468.8	6 060 644.5	31.1	31.7	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	22:11:10	ST120	Still	210761_ST120_15	01340	400 441.6	6 060 628.4	400 478.6	6 060 648.3	30.9	42.1	-
13/08/2022	22:11:21	ST120	Still	210761_ST120_16	01341	400 441.6	6 060 628.4	400 488.2	6 060 647.2	31.0	50.3	-
13/08/2022	22:11:29	ST120	Still	210761_ST120_17	01342	400 441.6	6 060 628.4	400 495.0	6 060 648.7	31.3	57.2	-
13/08/2022	22:11:33	ST120	Still	210761_ST120_18	01343	400 441.6	6 060 628.4	400 496.5	6 060 649.4	30.6	58.8	-
13/08/2022	22:11:39	ST120	Video	EOL	01344	400 441.6	6 060 628.4	400 500.0	6 060 649.5	31.2	62.1	-
13/08/2022	22:20:22	ST120	HG	FA/PSDA	01345	400 441.6	6 060 628.4	400 426.6	6 060 631.0	28.0	15.2	-
13/08/2022	22:52:21	ST110	Video	SOL	01346	400 441.6	6 057 628.4	400 387.6	6 057 680.1	25.3	74.8	-
13/08/2022	22:53:18	ST110	Still	210761_ST110_01	01347	400 441.6	6 057 628.4	400 418.6	6 057 643.4	26.5	27.4	-
13/08/2022	22:53:29	ST110	Still	210761_ST110_02	01348	400 441.6	6 057 628.4	400 422.6	6 057 637.0	26.4	20.8	-
13/08/2022	22:53:31	ST110	Still	210761_ST110_03	01349	400 441.6	6 057 628.4	400 425.0	6 057 637.7	25.9	19.0	-
13/08/2022	22:53:38	ST110	Still	210761_ST110_04	01350	400 441.6	6 057 628.4	400 439.5	6 057 621.3	-	7.4	-
13/08/2022	22:53:42	ST110	Still	210761_ST110_05	01351	400 441.6	6 057 628.4	400 427.0	6 057 633.7	-	15.5	-
13/08/2022	22:53:45	ST110	Still	210761_ST110_06	01352	400 441.6	6 057 628.4	400 432.6	6 057 630.1	26.3	9.1	-
13/08/2022	22:53:50	ST110	Still	210761_ST110_07	01353	400 441.6	6 057 628.4	400 434.4	6 057 626.6	26.3	7.4	-
13/08/2022	22:53:57	ST110	Still	210761_ST110_08	01354	400 441.6	6 057 628.4	400 440.2	6 057 624.8	26.5	3.8	-
13/08/2022	22:54:04	ST110	Still	210761_ST110_09	01355	400 441.6	6 057 628.4	400 443.0	6 057 618.8	26.6	9.7	-
13/08/2022	22:54:24	ST110	Still	210761_ST110_10	01356	400 441.6	6 057 628.4	400 455.4	6 057 610.6	26.2	22.5	-
13/08/2022	22:54:27	ST110	Still	210761_ST110_11	01357	400 441.6	6 057 628.4	400 456.9	6 057 609.9	26.6	24.0	-
13/08/2022	22:54:29	ST110	Still	210761_ST110_12	01358	400 441.6	6 057 628.4	400 458.1	6 057 610.4	26.6	24.4	-
13/08/2022	22:54:37	ST110	Still	210761_ST110_13	01359	400 441.6	6 057 628.4	400 460.9	6 057 608.6	26.7	27.6	-
13/08/2022	22:54:40	ST110	Still	210761_ST110_14	01360	400 441.6	6 057 628.4	400 462.4	6 057 611.0	26.1	27.1	-
13/08/2022	22:54:50	ST110	Still	210761_ST110_15	01361	400 441.6	6 057 628.4	400 466.6	6 057 606.4	26.3	33.3	-
13/08/2022	22:55:26	ST110	Still	210761_ST110_16	01362	400 441.6	6 057 628.4	400 485.0	6 057 600.8	26.1	51.4	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
13/08/2022	22:55:38	ST110	Video	EOL	01363	400 441.6	6 057 628.4	400 488.1	6 057 597.4	26.3	55.9	-
13/08/2022	23:02:17	ST110	HG	FA/PSDA	01364	400 441.6	6 057 628.4	400 430.0	6 057 642.7	22.0	18.5	-
13/08/2022	23:38:11	ST098	Video	SOL	01365	400 963.7	6 054 540.2	400 904.9	6 054 591.4	45.4	77.9	-
13/08/2022	23:39:04	ST098	Still	210761_ST098_01	01366	400 963.7	6 054 540.2	400 929.4	6 054 566.0	44.3	42.9	-
13/08/2022	23:39:33	ST098	Still	210761_ST098_02	01367	400 963.7	6 054 540.2	400 949.0	6 054 556.3	44.3	21.7	-
13/08/2022	23:39:40	ST098	Still	210761_ST098_03	01368	400 963.7	6 054 540.2	400 953.5	6 054 553.8	44.4	17.0	-
13/08/2022	23:39:54	ST098	Still	210761_ST098_04	01369	400 963.7	6 054 540.2	400 961.8	6 054 550.5	44.3	10.4	-
13/08/2022	23:40:17	ST098	Still	210761_ST098_05	01370	400 963.7	6 054 540.2	400 980.4	6 054 542.6	44.5	16.9	-
13/08/2022	23:40:42	ST098	Still	210761_ST098_06	01371	400 963.7	6 054 540.2	400 998.0	6 054 535.3	44.5	34.7	-
13/08/2022	23:40:51	ST098	Still	210761_ST098_07	01372	400 963.7	6 054 540.2	401 003.4	6 054 532.9	44.6	40.4	-
13/08/2022	23:41:18	ST098	Still	210761_ST098_08	01373	400 963.7	6 054 540.2	401 016.8	6 054 526.1	44.6	55.0	-
13/08/2022	23:41:36	ST098	Still	210761_ST098_09	01374	400 963.7	6 054 540.2	401 023.7	6 054 524.4	44.5	62.1	-
13/08/2022	23:41:43	ST098	Video	EOL	01375	400 963.7	6 054 540.2	401 025.6	6 054 524.0	44.5	64.1	-
13/08/2022	23:49:17	ST098	HG	FA/PSDA	01376	400 963.7	6 054 540.2	400 944.3	6 054 557.4	20.0	25.9	-
14/08/2022	00:06:00	ST098	DG	CA	NO FIX	400 963.7	6 054 540.2			23.3		-
14/08/2022	00:33:03	ST082	Video	SOL	01377	400 441.6	6 051 628.4	400 365.7	6 051 653.6	31.7	80.0	-
14/08/2022	00:33:31	ST082	Still	210761_ST082_01	01378	400 441.6	6 051 628.4	400 386.0	6 051 647.2	32.2	58.7	-
14/08/2022	00:33:39	ST082	Still	210761_ST082_02	01379	400 441.6	6 051 628.4	400 390.2	6 051 644.2	31.8	53.7	-
14/08/2022	00:33:55	ST082	Still	210761_ST082_03	01380	400 441.6	6 051 628.4	400 402.7	6 051 644.6	32.4	42.2	-
14/08/2022	00:34:10	ST082	Still	210761_ST082_04	01381	400 441.6	6 051 628.4	400 413.7	6 051 644.6	32.4	32.3	-
14/08/2022	00:34:25	ST082	Still	210761_ST082_05	01382	400 441.6	6 051 628.4	400 424.7	6 051 642.3	32.0	21.9	-
14/08/2022	00:34:55	ST082	Still	210761_ST082_06	01383	400 441.6	6 051 628.4	400 446.0	6 051 642.1	31.5	14.4	-
14/08/2022	00:34:58	ST082	Still	210761_ST082_07	01384	400 441.6	6 051 628.4	400 447.9	6 051 639.9	32.1	13.2	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
14/08/2022	00:35:10	ST082	Still	210761_ST082_08	01385	400 441.6	6 051 628.4	400 455.8	6 051 638.1	32.2	17.3	-
14/08/2022	00:35:44	ST082	Still	210761_ST082_09	01386	400 441.6	6 051 628.4	400 479.2	6 051 636.2	32.0	38.4	-
14/08/2022	00:36:14	ST082	Still	210761_ST082_10	01387	400 441.6	6 051 628.4	400 492.5	6 051 633.2	31.6	51.2	-
14/08/2022	00:36:54	ST082	Video	EOL	01388	400 441.6	6 051 628.4	400 503.8	6 051 636.4	30.8	62.8	-
14/08/2022	00:45:27	ST082	HG	FA/PSDA	01389	400 441.6	6 051 628.4	400 404.7	6 051 648.3	31.9	41.9	-
14/08/2022	01:18:08	ST064	Video	SOL	01390	400 441.6	6 048 628.4	400 394.8	6 048 666.6	30.6	60.4	-
14/08/2022	01:18:54	ST064	Still	210761_ST064_01	01403	400 441.6	6 048 628.4	400 413.5	6 048 648.9	31.4	34.8	-
14/08/2022	01:19:05	ST064	Still	210761_ST064_02	01404	400 441.6	6 048 628.4	400 418.1	6 048 644.5	31.5	28.5	-
14/08/2022	01:19:13	ST064	Still	210761_ST064_03	01405	400 441.6	6 048 628.4	400 422.0	6 048 640.3	31.4	22.9	-
14/08/2022	01:19:30	ST064	Still	210761_ST064_04	01406	400 441.6	6 048 628.4	400 428.2	6 048 634.9	31.4	14.9	-
14/08/2022	01:19:51	ST064	Still	210761_ST064_05	01407	400 441.6	6 048 628.4	400 441.5	6 048 626.9	31.4	1.5	-
14/08/2022	01:20:02	ST064	Still	210761_ST064_06	01408	400 441.6	6 048 628.4	400 446.6	6 048 624.4	31.2	6.5	-
14/08/2022	01:20:18	ST064	Still	210761_ST064_07	01409	400 441.6	6 048 628.4	400 456.8	6 048 620.7	31.6	17.0	-
14/08/2022	01:20:29	ST064	Still	210761_ST064_08	01410	400 441.6	6 048 628.4	400 457.1	6 048 616.9	30.8	19.3	-
14/08/2022	01:20:45	ST064	Still	210761_ST064_09	01411	400 441.6	6 048 628.4	400 471.6	6 048 613.5	31.6	33.5	-
14/08/2022	01:21:12	ST064	Still	210761_ST064_10	01412	400 441.6	6 048 628.4	400 484.8	6 048 602.6	32.6	50.3	-
14/08/2022	01:21:20	ST064	Still	210761_ST064_11	01413	400 441.6	6 048 628.4	400 486.4	6 048 598.3	32.5	54.0	-
14/08/2022	01:21:49	ST064	Video	EOL	01414	400 441.6	6 048 628.4	400 498.6	6 048 593.2	32.2	67.0	-
14/08/2022	01:27:46	ST064	HG	FA/PSDA	01415	400 441.6	6 048 628.4	400 401.2	6 048 611.0	28.8	44.0	-
14/08/2022	01:58:30	ST048	Video	SOL	01416	400 441.6	6 045 628.4	400 375.5	6 045 651.2	33.4	69.9	-
14/08/2022	01:58:50	ST048	Still	210761_ST048_01	01417	400 441.6	6 045 628.4	400 391.7	6 045 646.0	34.4	52.9	-
14/08/2022	01:59:01	ST048	Still	210761_ST048_02	01418	400 441.6	6 045 628.4	400 400.0	6 045 642.1	34.6	43.7	-
14/08/2022	01:59:24	ST048	Still	210761_ST048_03	01419	400 441.6	6 045 628.4	400 419.5	6 045 634.8	34.2	23.0	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
14/08/2022	01:59:34	ST048	Still	210761_ST048_04	01420	400 441.6	6 045 628.4	400 426.9	6 045 634.7	33.8	16.0	-
14/08/2022	01:59:52	ST048	Still	210761_ST048_05	01421	400 441.6	6 045 628.4	400 442.7	6 045 631.3	34.1	3.1	-
14/08/2022	02:00:08	ST048	Still	210761_ST048_06	01422	400 441.6	6 045 628.4	400 456.2	6 045 629.6	33.8	14.7	-
14/08/2022	02:00:11	ST048	Still	210761_ST048_07	01423	400 441.6	6 045 628.4	400 456.8	6 045 630.1	33.5	15.3	-
14/08/2022	02:00:26	ST048	Still	210761_ST048_08	01424	400 441.6	6 045 628.4	400 468.7	6 045 623.0	34.2	27.6	-
14/08/2022	02:00:33	ST048	Still	210761_ST048_09	01425	400 441.6	6 045 628.4	400 469.0	6 045 625.9	-	27.6	-
14/08/2022	02:01:05	ST048	Still	210761_ST048_10	01426	400 441.6	6 045 628.4	400 493.0	6 045 623.1	33.8	51.7	-
14/08/2022	02:01:15	ST048	Still	210761_ST048_11	01427	400 441.6	6 045 628.4	400 497.3	6 045 622.5	34.0	56.1	-
14/08/2022	02:01:42	ST048	Still	210761_ST048_12	01428	400 441.6	6 045 628.4	400 510.6	6 045 617.0	-	69.9	-
14/08/2022	02:01:50	ST048	Video	EOL	01429	400 441.6	6 045 628.4	400 512.5	6 045 614.1	33.4	72.3	-
14/08/2022	02:08:36	ST048	HG	FA/PSDA	01430	400 441.6	6 045 628.4	400 411.4	6 045 630.4	32.4	30.2	-
14/08/2022	03:03:26	ST131	HG	FA/PSDA	01431	404 013.5	6 044 308.4	403 989.7	6 044 312.7	34.1	24.2	-
14/08/2022	03:25:46	ST049	Video	SOL	01432	403 441.6	6 045 628.4	403 377.3	6 045 603.8	36.3	68.8	-
14/08/2022	03:26:20	ST049	Still	210761_ST049_01	01433	403 441.6	6 045 628.4	403 404.4	6 045 604.5	37.0	44.2	-
14/08/2022	03:26:36	ST049	Still	210761_ST049_02	01434	403 441.6	6 045 628.4	403 418.0	6 045 607.0	36.2	31.8	-
14/08/2022	03:27:09	ST049	Still	210761_ST049_03	01435	403 441.6	6 045 628.4	403 443.9	6 045 621.2	37.1	7.5	-
14/08/2022	03:27:25	ST049	Still	210761_ST049_04	01436	403 441.6	6 045 628.4	403 458.2	6 045 625.5	36.9	16.9	-
14/08/2022	03:27:31	ST049	Still	210761_ST049_05	01437	403 441.6	6 045 628.4	403 462.0	6 045 627.1	36.5	20.5	-
14/08/2022	03:27:51	ST049	Still	210761_ST049_06	01438	403 441.6	6 045 628.4	403 475.3	6 045 636.9	36.3	34.8	-
14/08/2022	03:28:01	ST049	Still	210761_ST049_07	01439	403 441.6	6 045 628.4	403 474.9	6 045 646.1	37.8	37.7	-
14/08/2022	03:28:18	ST049	Still	210761_ST049_08	01440	403 441.6	6 045 628.4	403 486.1	6 045 648.8	36.9	49.0	-
14/08/2022	03:28:47	ST049	Still	210761_ST049_09	01441	403 441.6	6 045 628.4	403 494.4	6 045 664.6	37.0	64.1	-
14/08/2022	03:29:09	ST049	Still	210761_ST049_10	01442	403 441.6	6 045 628.4	403 500.0	6 045 669.1	36.0	71.2	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
14/08/2022	03:29:20	ST049	Video	EOL	01443	403 441.6	6 045 628.4	403 503.1	6 045 669.9	35.1	74.2	-
14/08/2022	03:36:47	ST049	HG	FA/PSDA	01444	403 441.6	6 045 628.4	403 452.3	6 045 588.3	36.3	41.4	-
14/08/2022	04:07:51	ST065	Video	SOL	01445	403 535.2	6 048 930.0	403 480.5	6 048 854.9	34.9	92.9	-
14/08/2022	04:08:01	ST065	Still	210761_ST065_01	01446	403 535.2	6 048 930.0	403 488.0	6 048 860.5	33.6	84.0	-
14/08/2022	04:08:05	ST065	Still	210761_ST065_02	01447	403 535.2	6 048 930.0	403 488.0	6 048 863.4	34.6	81.7	-
14/08/2022	04:08:17	ST065	Still	210761_ST065_03	01448	403 535.2	6 048 930.0	403 495.4	6 048 872.2	33.8	70.2	-
14/08/2022	04:08:34	ST065	Still	210761_ST065_04	01449	403 535.2	6 048 930.0	403 504.5	6 048 885.6	34.5	54.0	-
14/08/2022	04:08:46	ST065	Still	210761_ST065_05	01450	403 535.2	6 048 930.0	403 511.1	6 048 894.0	34.1	43.4	-
14/08/2022	04:08:55	ST065	Still	210761_ST065_06	01451	403 535.2	6 048 930.0	403 514.4	6 048 899.6	33.5	36.8	-
14/08/2022	04:09:16	ST065	Still	210761_ST065_07	01452	403 535.2	6 048 930.0	403 526.7	6 048 912.1	33.5	19.9	-
14/08/2022	04:09:18	ST065	Still	210761_ST065_08	01453	403 535.2	6 048 930.0	403 527.8	6 048 912.8	33.6	18.7	-
14/08/2022	04:09:34	ST065	Still	210761_ST065_09	01454	403 535.2	6 048 930.0	403 538.4	6 048 923.2	34.1	7.5	-
14/08/2022	04:09:41	ST065	Still	210761_ST065_10	01455	403 535.2	6 048 930.0	403 541.2	6 048 925.7	-	7.3	-
14/08/2022	04:10:01	ST065	Still	210761_ST065_11	01456	403 535.2	6 048 930.0	403 551.7	6 048 939.1	34.0	18.8	-
14/08/2022	04:10:05	ST065	Still	210761_ST065_12	01457	403 535.2	6 048 930.0	403 552.4	6 048 942.1	34.7	21.0	-
14/08/2022	04:10:25	ST065	Still	210761_ST065_13	01458	403 535.2	6 048 930.0	403 561.8	6 048 953.2	33.4	35.3	-
14/08/2022	04:10:41	ST065	Still	210761_ST065_14	01459	403 535.2	6 048 930.0	403 566.0	6 048 962.3	33.8	44.6	-
14/08/2022	04:10:59	ST065	Still	210761_ST065_15	01460	403 535.2	6 048 930.0	403 576.2	6 048 968.0	32.5	55.9	-
14/08/2022	04:11:19	ST065	Still	210761_ST065_16	01461	403 535.2	6 048 930.0	403 579.7	6 048 977.8	32.3	65.3	-
14/08/2022	04:11:38	ST065	Video	EOL	01462	403 535.2	6 048 930.0	403 580.9	6 048 982.6	32.8	69.7	-
14/08/2022	04:19:15	ST065	HG	FA/PSDA	01463	403 535.2	6 048 930.0	403 547.8	6 048 943.9	32.5	18.8	-
14/08/2022	05:00:24	ST083	Video	SOL	01464	403 441.6	6 051 628.4	403 401.3	6 051 573.9	25.5	67.7	-
14/08/2022	05:00:37	ST083	Still	210761_ST083_01	01465	403 441.6	6 051 628.4	403 407.7	6 051 576.2	25.5	62.2	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
14/08/2022	05:00:54	ST083	Still	210761_ST083_02	01466	403 441.6	6 051 628.4	403 418.5	6 051 579.2	25.7	54.3	-
14/08/2022	05:01:24	ST083	Still	210761_ST083_03	01467	403 441.6	6 051 628.4	403 430.3	6 051 587.0	25.3	42.9	-
14/08/2022	05:01:44	ST083	Still	210761_ST083_04	01468	403 441.6	6 051 628.4	403 440.1	6 051 595.2	25.3	33.2	-
14/08/2022	05:02:12	ST083	Still	210761_ST083_05	01469	403 441.6	6 051 628.4	403 438.8	6 051 606.5	24.8	22.0	-
14/08/2022	05:02:42	ST083	Still	210761_ST083_06	01470	403 441.6	6 051 628.4	403 437.5	6 051 616.7	25.0	12.4	-
14/08/2022	05:03:21	ST083	Still	210761_ST083_07	01471	403 441.6	6 051 628.4	403 437.2	6 051 636.9	25.4	9.6	-
14/08/2022	05:04:09	ST083	Still	210761_ST083_08	01472	403 441.6	6 051 628.4	403 429.7	6 051 661.1	25.1	34.8	-
14/08/2022	05:04:28	ST083	Still	210761_ST083_09	01473	403 441.6	6 051 628.4	403 424.3	6 051 668.2	25.3	43.4	-
14/08/2022	05:04:44	ST083	Still	210761_ST083_10	01474	403 441.6	6 051 628.4	403 419.7	6 051 676.9	-	53.2	-
14/08/2022	05:04:49	ST083	Video	EOL	01475	403 441.6	6 051 628.4	403 420.3	6 051 678.2	25.0	54.2	-
14/08/2022	05:12:34	ST083	HG	FA/PSDA	01476	403 441.6	6 051 628.4	403 445.0	6 051 630.7	25.5	4.1	-
14/08/2022	05:38:11	ST099	Video	SOL	01477	403 441.6	6 054 628.4	403 481.9	6 054 585.5	30.0	58.8	-
14/08/2022	05:38:20	ST099	Still	210761_ST099_01	01478	403 441.6	6 054 628.4	403 478.8	6 054 588.9	29.2	54.2	-
14/08/2022	05:38:27	ST099	Still	210761_ST099_02	01479	403 441.6	6 054 628.4	403 475.8	6 054 592.1	30.1	49.8	-
14/08/2022	05:38:34	ST099	Still	210761_ST099_03	01480	403 441.6	6 054 628.4	403 473.9	6 054 595.1	30.5	46.4	-
14/08/2022	05:39:00	ST099	Still	210761_ST099_04	01481	403 441.6	6 054 628.4	403 467.5	6 054 599.4	29.5	38.9	-
14/08/2022	05:39:24	ST099	Still	210761_ST099_05	01482	403 441.6	6 054 628.4	403 461.6	6 054 611.2	30.0	26.4	-
14/08/2022	05:39:37	ST099	Still	210761_ST099_06	01483	403 441.6	6 054 628.4	403 457.9	6 054 615.6	29.4	20.7	-
14/08/2022	05:39:49	ST099	Still	210761_ST099_07	01484	403 441.6	6 054 628.4	403 452.3	6 054 619.4	30.1	14.0	-
14/08/2022	05:40:17	ST099	Still	210761_ST099_08	01485	403 441.6	6 054 628.4	403 445.4	6 054 626.0	29.4	4.5	-
14/08/2022	05:40:36	ST099	Still	210761_ST099_09	01486	403 441.6	6 054 628.4	403 437.1	6 054 632.3	-	5.9	-
14/08/2022	05:40:57	ST099	Still	210761_ST099_10	01487	403 441.6	6 054 628.4	403 432.9	6 054 639.1	30.1	13.8	-
14/08/2022	05:41:17	ST099	Still	210761_ST099_11	01488	403 441.6	6 054 628.4	403 427.4	6 054 643.2	29.4	20.5	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
14/08/2022	05:42:25	ST099	Still	210761_ST099_12	01489	403 441.6	6 054 628.4	403 415.3	6 054 659.9	30.0	41.1	-
14/08/2022	05:43:06	ST099	Video	EOL	01490	403 441.6	6 054 628.4	403 407.6	6 054 668.1	29.2	52.3	-
14/08/2022	05:48:45	ST099	HG	FA/PSDA	01491	403 441.6	6 054 628.4	403 448.7	6 054 624.8	28.6	8.0	-
14/08/2022	06:54:10	ST111	Video	SOL	01492	403 441.6	6 057 628.4	403 490.5	6 057 590.5	28.6	61.8	-
14/08/2022	06:54:23	ST111	Still	210761_ST111_01	01493	403 441.6	6 057 628.4	403 483.1	6 057 598.3	29.5	51.2	-
14/08/2022	06:55:10	ST111	Still	210761_ST111_02	01494	403 441.6	6 057 628.4	403 462.6	6 057 619.0	29.3	23.0	-
14/08/2022	06:55:11	ST111	Still	210761_ST111_03	01495	403 441.6	6 057 628.4	403 461.6	6 057 619.2	29.6	22.0	-
14/08/2022	06:55:19	ST111	Still	210761_ST111_04	01496	403 441.6	6 057 628.4	403 457.3	6 057 623.6	30.3	16.4	-
14/08/2022	06:55:34	ST111	Still	210761_ST111_05	01497	403 441.6	6 057 628.4	403 451.8	6 057 629.0	28.6	10.2	-
14/08/2022	06:56:13	ST111	Still	210761_ST111_06	01498	403 441.6	6 057 628.4	403 435.9	6 057 639.9	29.0	12.8	-
14/08/2022	06:56:26	ST111	Still	210761_ST111_07	01499	403 441.6	6 057 628.4	403 429.0	6 057 643.6	29.2	19.7	-
14/08/2022	06:56:48	ST111	Still	210761_ST111_08	01500	403 441.6	6 057 628.4	403 423.9	6 057 651.9	-	29.4	-
14/08/2022	06:57:04	ST111	Still	210761_ST111_09	01501	403 441.6	6 057 628.4	403 415.9	6 057 659.1	29.7	40.1	-
14/08/2022	06:57:42	ST111	Still	210761_ST111_10	01502	403 441.6	6 057 628.4	403 407.6	6 057 671.0	29.4	54.6	-
14/08/2022	06:57:55	ST111	Video	EOL	01503	403 441.6	6 057 628.4	403 405.3	6 057 673.2	28.9	57.6	-
14/08/2022	07:03:40	ST111	HG	FA/PSDA	01504	403 441.6	6 057 628.4	403 455.3	6 057 621.6	27.8	15.3	-
14/08/2022	07:24:53	ST201	Video	SOL	01505	404 735.9	6 055 376.5	404 772.3	6 055 344.0	30.7	48.8	-
14/08/2022	07:25:08	ST201	Still	210761_ST201_01	01506	404 735.9	6 055 376.5	404 764.3	6 055 349.0	30.3	39.6	-
14/08/2022	07:25:32	ST201	Still	210761_ST201_02	01507	404 735.9	6 055 376.5	404 757.3	6 055 354.7	30.4	30.5	-
14/08/2022	07:25:46	ST201	Still	210761_ST201_03	01508	404 735.9	6 055 376.5	404 749.4	6 055 359.3	30.3	21.9	-
14/08/2022	07:26:04	ST201	Still	210761_ST201_04	01509	404 735.9	6 055 376.5	404 741.6	6 055 364.9	30.6	12.9	-
14/08/2022	07:26:27	ST201	Still	210761_ST201_05	01510	404 735.9	6 055 376.5	404 732.6	6 055 374.5	30.7	3.8	-
14/08/2022	07:27:16	ST201	Still	210761_ST201_06	01511	404 735.9	6 055 376.5	404 705.9	6 055 393.8	30.8	34.6	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
14/08/2022	07:27:51	ST201	Still	210761_ST201_07	01512	404 735.9	6 055 376.5	404 686.0	6 055 405.9	30.5	57.9	-
14/08/2022	07:27:58	ST201	Video	EOL	01513	404 735.9	6 055 376.5	404 681.6	6 055 409.6	31.1	63.5	-
14/08/2022	07:51:09	BT04	BT	SOL	01514	404 735.8	6 055 376.8	404 274.7	6 055 295.8	23.0	468.2	-
14/08/2022	07:59:54	BT04	BT	EOL	01515	404 735.8	6 055 376.8	405 062.5	6 055 502.5	27.0	350.0	-
14/08/2022	08:22:36	BT04	BT	SOL	01516	404 735.8	6 055 376.8	404 970.7	6 055 818.8	23.0	500.5	-
14/08/2022	08:33:48	BT04	BT	EOL	01517	404 735.8	6 055 376.8	404 551.2	6 055 108.0	27.0	326.1	-
14/08/2022	09:25:24	ST121	Video	SOL	01518	403 900.2	6 061 092.5	403 898.3	6 061 059.4	24.3	33.1	-
14/08/2022	09:25:59	ST121	Still	210761_ST121_01	01519	403 900.2	6 061 092.5	403 886.2	6 061 082.3	24.8	17.3	-
14/08/2022	09:26:10	ST121	Still	210761_ST121_02	01520	403 900.2	6 061 092.5	403 885.2	6 061 090.5	24.9	15.1	-
14/08/2022	09:26:14	ST121	Still	210761_ST121_03	01521	403 900.2	6 061 092.5	403 885.2	6 061 094.0	25.2	15.0	-
14/08/2022	09:26:26	ST121	Still	210761_ST121_04	01522	403 900.2	6 061 092.5	403 884.2	6 061 101.9	24.9	18.5	-
14/08/2022	09:26:41	ST121	Still	210761_ST121_05	01523	403 900.2	6 061 092.5	403 884.0	6 061 112.6	24.7	25.8	-
14/08/2022	09:27:05	ST121	Still	210761_ST121_06	01524	403 900.2	6 061 092.5	403 880.4	6 061 132.5	24.6	44.6	-
14/08/2022	09:27:28	ST121	Still	210761_ST121_07	01525	403 900.2	6 061 092.5	403 875.1	6 061 150.6	23.9	63.3	-
14/08/2022	09:27:46	ST121	Video	EOL	01526	403 900.2	6 061 092.5	403 870.0	6 061 170.9	24.8	84.0	-
14/08/2022	09:36:34	ST121	DG	CA	01527	403 900.2	6 061 092.5	403 881.5	6 061 081.0	25.2	21.9	-
14/08/2022	09:44:20	ST121	HG	FA/PSDA	01528	403 900.2	6 061 092.5	403 892.2	6 061 080.3	24.8	14.6	-
14/08/2022	10:16:43	ST122	Video	SOL	01529	406 441.6	6 060 628.4	406 371.7	6 060 671.9	20.7	82.3	-
14/08/2022	10:17:00	ST122	Still	210761_ST122_01	01530	406 441.6	6 060 628.4	406 381.7	6 060 665.6	20.3	70.5	-
14/08/2022	10:17:29	ST122	Still	210761_ST122_02	01531	406 441.6	6 060 628.4	406 400.4	6 060 654.7	20.8	48.9	-
14/08/2022	10:17:57	ST122	Still	210761_ST122_03	01532	406 441.6	6 060 628.4	406 420.0	6 060 646.3	20.5	28.0	-
14/08/2022	10:18:25	ST122	Still	210761_ST122_04	01533	406 441.6	6 060 628.4	406 435.2	6 060 638.8	20.3	12.3	-
14/08/2022	10:18:40	ST122	Still	210761_ST122_05	01534	406 441.6	6 060 628.4	406 443.5	6 060 634.5	20.9	6.4	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
14/08/2022	10:19:08	ST122	Still	210761_ST122_06	01535	406 441.6	6 060 628.4	406 457.3	6 060 629.8	20.8	15.8	-
14/08/2022	10:19:32	ST122	Still	210761_ST122_07	01536	406 441.6	6 060 628.4	406 469.9	6 060 625.7	20.0	28.5	-
14/08/2022	10:20:05	ST122	Still	210761_ST122_08	01537	406 441.6	6 060 628.4	406 485.7	6 060 616.7	20.3	45.6	-
14/08/2022	10:20:33	ST122	Video	EOL	01538	406 441.6	6 060 628.4	406 493.1	6 060 611.0	19.6	54.3	-
14/08/2022	10:27:03	ST122	HG	FA/PSDA	01539	406 441.6	6 060 628.4	406 434.7	6 060 640.1	20.0	13.6	-
14/08/2022	10:50:37	ST112	Video	SOL	01540	406 441.6	6 057 628.4	406 401.1	6 057 671.7	23.2	59.3	-
14/08/2022	10:50:58	ST112	Still	210761_ST112_01	01541	406 441.6	6 057 628.4	406 406.3	6 057 662.8	23.4	49.3	-
14/08/2022	10:51:11	ST112	Still	210761_ST112_02	01542	406 441.6	6 057 628.4	406 409.8	6 057 658.1	23.5	43.5	-
14/08/2022	10:51:30	ST112	Still	210761_ST112_03	01543	406 441.6	6 057 628.4	406 415.0	6 057 650.5	23.3	34.6	-
14/08/2022	10:51:48	ST112	Still	210761_ST112_04	01544	406 441.6	6 057 628.4	406 422.9	6 057 644.6	23.6	24.7	-
14/08/2022	10:52:28	ST112	Still	210761_ST112_05	01545	406 441.6	6 057 628.4	406 439.6	6 057 634.5	22.9	6.5	-
14/08/2022	10:52:58	ST112	Still	210761_ST112_06	01546	406 441.6	6 057 628.4	406 453.7	6 057 628.2	23.4	12.2	-
14/08/2022	10:53:46	ST112	Still	210761_ST112_07	01547	406 441.6	6 057 628.4	406 478.5	6 057 622.8	22.9	37.3	-
14/08/2022	10:54:15	ST112	Still	210761_ST112_08	01548	406 441.6	6 057 628.4	406 499.2	6 057 617.0	-	58.7	-
14/08/2022	10:54:21	ST112	Video	EOL	01549	406 441.6	6 057 628.4	406 495.7	6 057 618.4	22.8	55.0	-
14/08/2022	10:59:11	ST112	HG	FA/PSDA	01550	406 441.6	6 057 628.4	406 448.2	6 057 630.9	22.4	7.1	-
14/08/2022	11:29:57	ST100	Video	SOL	01551	406 441.6	6 054 628.4	406 383.0	6 054 669.2	22.5	71.4	-
14/08/2022	11:30:27	ST100	Still	210761_ST100_01	01552	406 441.6	6 054 628.4	406 396.5	6 054 659.4	22.3	54.7	-
14/08/2022	11:30:38	ST100	Still	210761_ST100_02	01553	406 441.6	6 054 628.4	406 402.0	6 054 656.4	22.9	48.5	-
14/08/2022	11:30:49	ST100	Still	210761_ST100_03	01554	406 441.6	6 054 628.4	406 410.1	6 054 653.5	22.9	40.2	-
14/08/2022	11:31:16	ST100	Still	210761_ST100_04	01555	406 441.6	6 054 628.4	406 421.3	6 054 644.3	22.9	25.8	-
14/08/2022	11:31:47	ST100	Still	210761_ST100_05	01556	406 441.6	6 054 628.4	406 437.4	6 054 634.4	22.8	7.3	-
14/08/2022	11:31:57	ST100	Still	210761_ST100_06	01557	406 441.6	6 054 628.4	406 439.4	6 054 629.7	22.6	2.5	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
14/08/2022	11:32:03	ST100	Still	210761_ST100_07	01558	406 441.6	6 054 628.4	406 437.4	6 054 625.4	22.1	5.2	-
14/08/2022	11:32:17	ST100	Still	210761_ST100_08	01559	406 441.6	6 054 628.4	406 444.8	6 054 619.9	23.0	9.1	-
14/08/2022	11:32:25	ST100	Still	210761_ST100_09	01560	406 441.6	6 054 628.4	406 447.0	6 054 615.8	22.8	13.7	-
14/08/2022	11:32:33	ST100	Still	210761_ST100_10	01561	406 441.6	6 054 628.4	406 450.6	6 054 613.0	22.8	17.9	-
14/08/2022	11:32:41	ST100	Still	210761_ST100_11	01562	406 441.6	6 054 628.4	406 450.7	6 054 607.5	22.3	22.8	-
14/08/2022	11:32:45	ST100	Still	210761_ST100_12	01563	406 441.6	6 054 628.4	406 452.4	6 054 606.8	23.1	24.1	-
14/08/2022	11:33:03	ST100	Still	210761_ST100_13	01564	406 441.6	6 054 628.4	406 457.5	6 054 598.6	22.8	33.8	-
14/08/2022	11:33:11	ST100	Still	210761_ST100_14	01565	406 441.6	6 054 628.4	406 461.0	6 054 594.8	-	38.8	-
14/08/2022	11:33:30	ST100	Still	EOL	01566	406 441.6	6 054 628.4	406 466.8	6 054 588.8	22.4	46.9	-
14/08/2022	11:38:35	ST100	HG	FA/PSDA	01567	406 441.6	6 054 628.4	406 441.5	6 054 604.8	24.6	23.6	-
14/08/2022	12:00:08	ST084	Video	SOL	01568	406 441.6	6 051 628.4	406 397.6	6 051 667.8	28.7	59.1	-
14/08/2022	12:00:39	ST084	Still	210761_ST084_01	01569	406 441.6	6 051 628.4	406 411.3	6 051 656.9	28.2	41.6	-
14/08/2022	12:00:51	ST084	Still	210761_ST084_02	01570	406 441.6	6 051 628.4	406 418.5	6 051 654.8	28.0	35.0	-
14/08/2022	12:01:07	ST084	Still	210761_ST084_03	01571	406 441.6	6 051 628.4	406 426.2	6 051 647.7	28.4	24.7	-
14/08/2022	12:01:12	ST084	Still	210761_ST084_04	01572	406 441.6	6 051 628.4	406 428.1	6 051 646.5	28.4	22.6	-
14/08/2022	12:01:22	ST084	Still	210761_ST084_05	01573	406 441.6	6 051 628.4	406 434.8	6 051 645.1	27.9	18.1	-
14/08/2022	12:01:26	ST084	Still	210761_ST084_06	01574	406 441.6	6 051 628.4	406 435.8	6 051 639.9	-	12.9	-
14/08/2022	12:01:36	ST084	Still	210761_ST084_07	01575	406 441.6	6 051 628.4	406 441.7	6 051 639.0	28.9	10.6	-
14/08/2022	12:01:39	ST084	Still	210761_ST084_08	01576	406 441.6	6 051 628.4	406 442.0	6 051 636.9	28.6	8.5	-
14/08/2022	12:01:51	ST084	Still	210761_ST084_09	01577	406 441.6	6 051 628.4	406 449.5	6 051 636.4	28.2	11.3	-
14/08/2022	12:01:55	ST084	Still	210761_ST084_10	01578	406 441.6	6 051 628.4	406 450.5	6 051 633.4	29.1	10.3	-
14/08/2022	12:01:59	ST084	Still	210761_ST084_11	01579	406 441.6	6 051 628.4	406 451.6	6 051 632.8	28.8	10.9	-
14/08/2022	12:02:07	ST084	Still	210761_ST084_12	01580	406 441.6	6 051 628.4	406 455.0	6 051 629.9	28.6	13.5	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
14/08/2022	12:02:16	ST084	Still	210761_ST084_13	01581	406 441.6	6 051 628.4	406 460.6	6 051 629.0	28.5	19.0	-
14/08/2022	12:02:26	ST084	Still	210761_ST084_14	01582	406 441.6	6 051 628.4	406 465.4	6 051 626.1	28.4	24.0	-
14/08/2022	12:02:37	ST084	Still	210761_ST084_15	01583	406 441.6	6 051 628.4	406 472.4	6 051 624.5	28.8	31.1	-
14/08/2022	12:02:53	ST084	Still	210761_ST084_16	01584	406 441.6	6 051 628.4	406 481.8	6 051 623.4	28.2	40.5	-
14/08/2022	12:03:11	ST084	Still	210761_ST084_17	01585	406 441.6	6 051 628.4	406 493.5	6 051 619.0	28.3	52.8	-
14/08/2022	12:03:17	ST084	Video	EOL	01586	406 441.6	6 051 628.4	406 496.9	6 051 618.7	28.5	56.2	-
14/08/2022	12:08:51	ST084	HG	FA/PSDA	01587	406 441.6	6 051 628.4	406 437.0	6 051 630.7	28.7	5.1	-
14/08/2022	12:30:30	ST066	Video	SOL	01588	406 441.6	6 048 628.4	406 398.5	6 048 671.2	27.0	60.7	-
14/08/2022	12:30:55	ST066	Still	210761_ST066_01	01589	406 441.6	6 048 628.4	406 407.1	6 048 659.0	27.3	46.1	-
14/08/2022	12:30:59	ST066	Still	210761_ST066_02	01590	406 441.6	6 048 628.4	406 406.6	6 048 656.8	27.5	45.1	-
14/08/2022	12:31:03	ST066	Still	210761_ST066_03	01591	406 441.6	6 048 628.4	406 409.4	6 048 654.4	28.2	41.4	-
14/08/2022	12:31:10	ST066	Still	210761_ST066_04	01592	406 441.6	6 048 628.4	406 410.8	6 048 653.8	26.9	39.9	-
14/08/2022	12:31:14	ST066	Still	210761_ST066_05	01593	406 441.6	6 048 628.4	406 412.8	6 048 651.1	27.7	36.7	-
14/08/2022	12:31:39	ST066	Still	210761_ST066_06	01594	406 441.6	6 048 628.4	406 423.1	6 048 642.2	27.8	23.1	-
14/08/2022	12:32:03	ST066	Still	210761_ST066_07	01595	406 441.6	6 048 628.4	406 432.2	6 048 633.1	28.1	10.5	-
14/08/2022	12:32:32	ST066	Still	210761_ST066_08	01596	406 441.6	6 048 628.4	406 443.6	6 048 622.0	27.9	6.7	-
14/08/2022	12:34:15	ST066	Video	EOL	01607	406 441.6	6 048 628.4	406 483.1	6 048 578.9	23.0	64.6	-
14/08/2022	12:39:51	ST066	HG	FA/PSDA	01608	406 441.6	6 048 628.4	406 404.6	6 048 649.9	23.0	42.7	-
14/08/2022	13:00:17	ST050	Video	SOL	01609	406 441.6	6 045 628.4	406 400.4	6 045 687.3	20.7	71.9	-
14/08/2022	13:00:50	ST050	Still	210761_ST050_01	01610	406 441.6	6 045 628.4	406 405.1	6 045 670.3	21.3	55.6	-
14/08/2022	13:00:57	ST050	Still	210761_ST050_02	01611	406 441.6	6 045 628.4	406 407.3	6 045 666.5	20.9	51.3	-
14/08/2022	13:01:01	ST050	Still	210761_ST050_03	01612	406 441.6	6 045 628.4	406 408.3	6 045 663.8	21.3	48.6	-
14/08/2022	13:01:08	ST050	Still	210761_ST050_04	01613	406 441.6	6 045 628.4	406 411.7	6 045 659.6	21.5	43.2	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
14/08/2022	13:01:13	ST050	Still	210761_ST050_05	01614	406 441.6	6 045 628.4	406 412.7	6 045 660.0	20.8	42.8	-
14/08/2022	13:01:21	ST050	Still	210761_ST050_06	01615	406 441.6	6 045 628.4	406 414.5	6 045 654.0	21.2	37.3	-
14/08/2022	13:01:36	ST050	Still	210761_ST050_07	01616	406 441.6	6 045 628.4	406 420.4	6 045 646.5	21.7	27.9	-
14/08/2022	13:01:40	ST050	Still	210761_ST050_08	01617	406 441.6	6 045 628.4	406 421.5	6 045 646.7	21.1	27.2	-
14/08/2022	13:01:55	ST050	Still	210761_ST050_09	01618	406 441.6	6 045 628.4	406 425.9	6 045 636.7	21.7	17.7	-
14/08/2022	13:01:59	ST050	Still	210761_ST050_10	01619	406 441.6	6 045 628.4	406 426.4	6 045 638.1	-	18.0	-
14/08/2022	13:02:03	ST050	Still	210761_ST050_11	01620	406 441.6	6 045 628.4	406 427.3	6 045 633.4	21.5	15.1	-
14/08/2022	13:02:08	ST050	Still	210761_ST050_12	01621	406 441.6	6 045 628.4	406 428.1	6 045 631.9	20.9	13.9	-
14/08/2022	13:02:16	ST050	Still	210761_ST050_13	01622	406 441.6	6 045 628.4	406 429.3	6 045 629.1	21.1	12.3	-
14/08/2022	13:02:27	ST050	Still	210761_ST050_14	01623	406 441.6	6 045 628.4	406 432.4	6 045 622.6	21.8	10.8	-
14/08/2022	13:02:39	ST050	Still	210761_ST050_15	01624	406 441.6	6 045 628.4	406 434.5	6 045 620.1	21.0	10.9	-
14/08/2022	13:02:47	ST050	Still	210761_ST050_16	01625	406 441.6	6 045 628.4	406 435.8	6 045 616.9	21.0	12.8	-
14/08/2022	13:03:00	ST050	Still	210761_ST050_17	01626	406 441.6	6 045 628.4	406 440.1	6 045 611.1	21.1	17.3	-
14/08/2022	13:03:12	ST050	Still	210761_ST050_18	01627	406 441.6	6 045 628.4	406 442.5	6 045 609.5	21.0	18.9	-
14/08/2022	13:03:30	ST050	Still	210761_ST050_19	01628	406 441.6	6 045 628.4	406 445.2	6 045 603.9	21.3	24.7	-
14/08/2022	13:03:38	ST050	Still	210761_ST050_20	01629	406 441.6	6 045 628.4	406 446.7	6 045 599.1	21.7	29.7	-
14/08/2022	13:03:52	ST050	Still	210761_ST050_21	01630	406 441.6	6 045 628.4	406 445.8	6 045 589.8	20.6	38.8	-
14/08/2022	13:04:09	ST050	Still	210761_ST050_22	01631	406 441.6	6 045 628.4	406 445.7	6 045 578.9	20.4	49.6	-
14/08/2022	13:04:19	ST050	Video	EOL	01632	406 441.6	6 045 628.4	406 446.8	6 045 574.7	20.5	53.9	-
14/08/2022	13:09:48	ST050	HG	FA/PSDA	01633	406 441.6	6 045 628.4	406 417.0	6 045 611.1	17.0	30.0	-
14/08/2022	13:37:33	ST038	Video	SOL	01634	409 462.1	6 042 701.3	409 410.9	6 042 732.8	24.4	60.1	-
14/08/2022	13:37:53	ST038	Still	210761_ST038_01	01636	409 462.1	6 042 701.3	409 416.8	6 042 730.7	22.7	54.0	-
14/08/2022	13:38:08	ST038	Still	210761_ST038_02	01637	409 462.1	6 042 701.3	409 421.7	6 042 727.0	22.8	47.9	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
14/08/2022	13:38:12	ST038	Still	210761_ST038_03	01638	409 462.1	6 042 701.3	409 431.0	6 042 721.2	22.5	36.9	-
14/08/2022	13:38:16	ST038	Still	210761_ST038_04	01639	409 462.1	6 042 701.3	409 434.2	6 042 720.6	22.7	33.9	-
14/08/2022	13:38:32	ST038	Still	210761_ST038_05	01640	409 462.1	6 042 701.3	409 436.0	6 042 718.1	22.6	31.0	-
14/08/2022	13:38:42	ST038	Still	210761_ST038_06	01641	409 462.1	6 042 701.3	409 445.3	6 042 711.2	22.8	19.5	-
14/08/2022	13:38:50	ST038	Still	210761_ST038_07	01642	409 462.1	6 042 701.3	409 451.7	6 042 707.7	22.6	12.2	-
14/08/2022	13:38:58	ST038	Still	210761_ST038_08	01643	409 462.1	6 042 701.3	409 457.1	6 042 705.6	22.2	6.6	-
14/08/2022	13:39:10	ST038	Still	210761_ST038_09	01644	409 462.1	6 042 701.3	409 461.2	6 042 701.4	22.5	0.9	-
14/08/2022	13:39:16	ST038	Still	210761_ST038_10	01645	409 462.1	6 042 701.3	409 470.3	6 042 695.3	23.1	10.2	-
14/08/2022	13:39:27	ST038	Still	210761_ST038_11	01646	409 462.1	6 042 701.3	409 474.1	6 042 695.0	23.0	13.6	-
14/08/2022	13:39:37	ST038	Still	210761_ST038_12	01647	409 462.1	6 042 701.3	409 479.7	6 042 689.7	23.3	21.1	-
14/08/2022	13:39:45	ST038	Still	210761_ST038_13	01648	409 462.1	6 042 701.3	409 486.2	6 042 686.2	22.6	28.4	-
14/08/2022	13:39:49	ST038	Still	210761_ST038_14	01649	409 462.1	6 042 701.3	409 490.9	6 042 681.1	23.2	35.2	-
14/08/2022	13:39:59	ST038	Still	210761_ST038_15	01650	409 462.1	6 042 701.3	409 493.2	6 042 680.5	22.4	37.4	-
14/08/2022	13:40:04	ST038	Video	EOL	01651	409 462.1	6 042 701.3	409 498.4	6 042 676.8	22.7	43.8	-
14/08/2022	13:48:39	ST038	DG	CA	01652	409 462.1	6 042 701.3	409 499.1	6 042 674.9	22.6	45.5	-
14/08/2022	13:54:36	ST038	HG	FA/PSDA	01653	409 462.1	6 042 701.3	409 445.3	6 042 681.6	18.0	25.9	-
14/08/2022	14:31:07	ST051	Video	SOL	01654	409 441.6	6 045 628.4	409 397.7	6 045 664.9	26.7	57.1	-
14/08/2022	14:31:33	ST051	Still	210761_ST051_01	01655	409 441.6	6 045 628.4	409 409.8	6 045 653.4	26.7	40.4	-
14/08/2022	14:31:42	ST051	Still	210761_ST051_02	01656	409 441.6	6 045 628.4	409 415.6	6 045 650.0	26.9	33.8	-
14/08/2022	14:31:55	ST051	Still	210761_ST051_03	01657	409 441.6	6 045 628.4	409 420.6	6 045 643.6	26.7	25.9	-
14/08/2022	14:32:00	ST051	Still	210761_ST051_04	01658	409 441.6	6 045 628.4	409 422.7	6 045 642.0	26.8	23.3	-
14/08/2022	14:32:03	ST051	Still	210761_ST051_05	01659	409 441.6	6 045 628.4	409 423.9	6 045 641.8	27.2	22.2	-
14/08/2022	14:32:10	ST051	Still	210761_ST051_06	01660	409 441.6	6 045 628.4	409 427.2	6 045 637.9	26.8	17.2	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
14/08/2022	14:32:14	ST051	Still	210761_ST051_07	01661	409 441.6	6 045 628.4	409 429.3	6 045 635.8	27.5	14.3	-
14/08/2022	14:32:21	ST051	Still	210761_ST051_08	01662	409 441.6	6 045 628.4	409 432.2	6 045 632.5	27.3	10.2	-
14/08/2022	14:32:30	ST051	Still	210761_ST051_09	01663	409 441.6	6 045 628.4	409 435.1	6 045 628.7	27.6	6.5	-
14/08/2022	14:32:33	ST051	Still	210761_ST051_10	01664	409 441.6	6 045 628.4	409 437.6	6 045 629.7	27.5	4.2	-
14/08/2022	14:32:40	ST051	Still	210761_ST051_11	01665	409 441.6	6 045 628.4	409 440.6	6 045 626.4	27.4	2.2	-
14/08/2022	14:32:51	ST051	Still	210761_ST051_12	01666	409 441.6	6 045 628.4	409 442.0	6 045 624.1	-	4.3	-
14/08/2022	14:33:04	ST051	Still	210761_ST051_13	01667	409 441.6	6 045 628.4	409 450.9	6 045 616.1	27.3	15.4	-
14/08/2022	14:33:16	ST051	Still	210761_ST051_14	01668	409 441.6	6 045 628.4	409 455.0	6 045 612.1	26.5	21.1	-
14/08/2022	14:33:26	ST051	Still	210761_ST051_15	01669	409 441.6	6 045 628.4	409 460.6	6 045 608.7	27.3	27.4	-
14/08/2022	14:33:42	ST051	Still	210761_ST051_16	01670	409 441.6	6 045 628.4	409 467.4	6 045 602.8	27.4	36.3	-
14/08/2022	14:33:48	ST051	Still	210761_ST051_17	01671	409 441.6	6 045 628.4	409 469.6	6 045 600.5	27.5	39.5	-
14/08/2022	14:33:57	ST051	Still	210761_ST051_18	01672	409 441.6	6 045 628.4	409 473.7	6 045 598.7	28.4	43.7	-
14/08/2022	14:34:07	ST051	Still	210761_ST051_19	01673	409 441.6	6 045 628.4	409 477.8	6 045 592.6	27.7	50.9	-
14/08/2022	14:34:17	ST051	Video	EOL	01674	409 441.6	6 045 628.4	409 481.9	6 045 589.1	27.2	56.3	-
14/08/2022	14:41:05	ST051	HG	FA/PSDA	01675	409 441.6	6 045 628.4	409 432.4	6 045 647.3	23.0	21.0	-
14/08/2022	15:17:04	ST200	Video	SOL	01676	408 841.4	6 045 437.8	408 822.5	6 045 474.1	23.9	40.9	-
14/08/2022	15:18:03	ST200	Still	210761_ST200_01	01677	408 841.4	6 045 437.8	408 834.8	6 045 458.1	24.1	21.4	-
14/08/2022	15:18:50	ST200	Still	210761_ST200_02	01678	408 841.4	6 045 437.8	408 855.5	6 045 420.2	24.4	22.5	-
14/08/2022	15:19:24	ST200	Still	210761_ST200_03	NO FIX	408 841.4	6 045 437.8	408 873.1	6 045 398.9	24.4	50.2	-
14/08/2022	15:19:40	ST200	Video	EOL	01679	408 841.4	6 045 437.8	408 879.7	6 045 390.4	24.4	60.9	-
14/08/2022	15:56:47	BT06	BT	SOL	01680	408 841.7	6 045 437.7	408 538.6	6 045 559.8	20.0	326.8	-
14/08/2022	16:05:14	BT06	BT	EOL	01681	408 841.7	6 045 437.7	409 299.3	6 045 197.3	20.0	516.9	-
14/08/2022	18:07:17	ST067	Video	SOL	01682	409 441.6	6 048 628.4	409 486.5	6 048 584.4	21.2	62.9	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
14/08/2022	18:07:56	ST067	Still	210761_ST067_01	01683	409 441.6	6 048 628.4	409 471.9	6 048 602.4	-	39.9	-
14/08/2022	18:08:04	ST067	Still	210761_ST067_02	01684	409 441.6	6 048 628.4	409 468.0	6 048 609.1	-	32.7	-
14/08/2022	18:08:15	ST067	Still	210761_ST067_03	01685	409 441.6	6 048 628.4	409 466.1	6 048 617.0	21.4	27.0	-
14/08/2022	18:08:20	ST067	Still	210761_ST067_04	01686	409 441.6	6 048 628.4	409 463.4	6 048 621.1	21.3	23.0	-
14/08/2022	18:08:29	ST067	Still	210761_ST067_05	01687	409 441.6	6 048 628.4	409 459.4	6 048 629.0	22.2	17.9	-
14/08/2022	18:08:33	ST067	Still	210761_ST067_06	01688	409 441.6	6 048 628.4	409 457.7	6 048 630.1	22.3	16.2	-
14/08/2022	18:08:37	ST067	Still	210761_ST067_07	01689	409 441.6	6 048 628.4	409 457.3	6 048 631.8	21.9	16.1	-
14/08/2022	18:08:41	ST067	Still	210761_ST067_08	01690	409 441.6	6 048 628.4	409 457.3	6 048 633.7	21.8	16.6	-
14/08/2022	18:08:46	ST067	Still	210761_ST067_09	01691	409 441.6	6 048 628.4	409 456.2	6 048 633.2	-	15.4	-
14/08/2022	18:08:56	ST067	Still	210761_ST067_10	01692	409 441.6	6 048 628.4	409 452.7	6 048 644.1	22.4	19.3	-
14/08/2022	18:09:00	ST067	Still	210761_ST067_11	01693	409 441.6	6 048 628.4	409 451.2	6 048 644.0	21.8	18.4	-
14/08/2022	18:09:04	ST067	Still	210761_ST067_12	01694	409 441.6	6 048 628.4	409 450.1	6 048 646.7	22.3	20.2	-
14/08/2022	18:09:10	ST067	Still	210761_ST067_13	01695	409 441.6	6 048 628.4	409 448.9	6 048 649.4	21.9	22.3	-
14/08/2022	18:09:14	ST067	Still	210761_ST067_14	01696	409 441.6	6 048 628.4	409 449.9	6 048 649.9	20.9	23.1	-
14/08/2022	18:09:18	ST067	Still	210761_ST067_15	01697	409 441.6	6 048 628.4	409 447.4	6 048 652.0	21.6	24.4	-
14/08/2022	18:09:23	ST067	Still	210761_ST067_16	01698	409 441.6	6 048 628.4	409 445.9	6 048 656.2	21.6	28.2	-
14/08/2022	18:09:30	ST067	Still	210761_ST067_17	01699	409 441.6	6 048 628.4	409 443.1	6 048 659.5	21.7	31.2	-
14/08/2022	18:10:04	ST067	Still	210761_ST067_18	01700	409 441.6	6 048 628.4	409 431.7	6 048 677.6	21.8	50.2	-
14/08/2022	18:10:12	ST067	Video	EOL	01701	409 441.6	6 048 628.4	409 431.0	6 048 680.3	21.5	53.0	-
14/08/2022	18:20:18	ST067	HG	FA/PSDA	01702	409 441.6	6 048 628.4	409 466.9	6 048 616.9	18.0	27.8	-
14/08/2022	18:44:14	ST085	Video	SOL	01703	409 441.6	6 051 628.4	409 486.7	6 051 587.4	21.4	61.0	-
14/08/2022	18:44:27	ST085	Still	210761_ST085_01	01704	409 441.6	6 051 628.4	409 477.9	6 051 594.6	21.8	49.6	-
14/08/2022	18:44:51	ST085	Still	210761_ST085_02	01705	409 441.6	6 051 628.4	409 468.2	6 051 611.1	21.1	31.7	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
14/08/2022	18:45:02	ST085	Still	210761_ST085_03	01706	409 441.6	6 051 628.4	409 464.6	6 051 620.6	21.8	24.3	-
14/08/2022	18:45:13	ST085	Still	210761_ST085_04	01707	409 441.6	6 051 628.4	409 462.2	6 051 628.5	21.4	20.6	-
14/08/2022	18:45:17	ST085	Still	210761_ST085_05	01708	409 441.6	6 051 628.4	409 461.4	6 051 630.8	21.7	20.0	-
14/08/2022	18:45:33	ST085	Still	210761_ST085_06	01709	409 441.6	6 051 628.4	409 455.9	6 051 641.9	22.0	19.7	-
14/08/2022	18:45:43	ST085	Still	210761_ST085_07	01710	409 441.6	6 051 628.4	409 455.9	6 051 649.7	21.4	25.7	-
14/08/2022	18:45:47	ST085	Still	210761_ST085_08	01711	409 441.6	6 051 628.4	409 454.5	6 051 651.7	21.8	26.7	-
14/08/2022	18:45:59	ST085	Still	210761_ST085_09	01712	409 441.6	6 051 628.4	409 452.0	6 051 659.8	21.6	33.1	-
14/08/2022	18:46:03	ST085	Still	210761_ST085_10	01713	409 441.6	6 051 628.4	409 451.7	6 051 661.7	21.3	34.8	-
14/08/2022	18:46:18	ST085	Still	210761_ST085_11	01714	409 441.6	6 051 628.4	409 451.7	6 051 674.7	22.1	47.4	-
14/08/2022	18:46:22	ST085	Still	210761_ST085_12	01715	409 441.6	6 051 628.4	409 450.2	6 051 676.5	21.3	48.9	-
14/08/2022	18:46:25	ST085	Still	210761_ST085_13	01716	409 441.6	6 051 628.4	409 450.3	6 051 677.9	21.3	50.3	-
14/08/2022	18:46:30	ST085	Still	210761_ST085_14	01717	409 441.6	6 051 628.4	409 449.8	6 051 681.5	21.6	53.8	-
14/08/2022	18:46:35	ST085	Still	210761_ST085_15	01718	409 441.6	6 051 628.4	409 448.3	6 051 683.4	21.9	55.5	-
14/08/2022	18:46:45	ST085	Video	EOL	01719	409 441.6	6 051 628.4	409 450.4	6 051 690.6	21.1	62.9	-
14/08/2022	18:55:11	ST085	HG	FA/PSDA	01720	409 441.6	6 051 628.4	409 468.3	6 051 600.9	18.0	38.3	-
14/08/2022	19:00:49	ST085	DG	CA	01721	409 441.6	6 051 628.4	409 461.3	6 051 597.2	18.0	36.8	-
18/08/2022	12:20:29	ST123	Video	SOL	01722	409 342.5	6 060 321.8	409 340.8	6 060 377.0	25.9	55.2	-
18/08/2022	12:21:18	ST123	Still	210761_ST123_01	01723	409 342.5	6 060 321.8	409 348.2	6 060 345.5	26.8	24.3	-
18/08/2022	12:21:21	ST123	Still	210761_ST123_02	01724	409 342.5	6 060 321.8	409 346.3	6 060 340.8	27.3	19.4	-
18/08/2022	12:21:30	ST123	Still	210761_ST123_03	01725	409 342.5	6 060 321.8	409 349.7	6 060 334.3	26.9	14.4	-
18/08/2022	12:21:40	ST123	Still	210761_ST123_04	01726	409 342.5	6 060 321.8	409 347.5	6 060 329.0	26.4	8.7	-
18/08/2022	12:21:49	ST123	Still	210761_ST123_05	01727	409 342.5	6 060 321.8	409 345.8	6 060 322.0	26.6	3.2	-
18/08/2022	12:22:02	ST123	Still	210761_ST123_06	01728	409 342.5	6 060 321.8	409 344.9	6 060 313.2	26.5	8.9	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
18/08/2022	12:22:13	ST123	Still	210761_ST123_07	01729	409 342.5	6 060 321.8	409 345.9	6 060 304.4	26.9	17.7	-
18/08/2022	12:22:26	ST123	Still	210761_ST123_08	01730	409 342.5	6 060 321.8	409 345.3	6 060 295.3	26.8	26.7	-
18/08/2022	12:22:44	ST123	Still	210761_ST123_09	01731	409 342.5	6 060 321.8	409 343.1	6 060 282.3	26.5	39.5	-
18/08/2022	12:22:57	ST123	Still	210761_ST123_10	01732	409 342.5	6 060 321.8	409 342.5	6 060 273.0	26.6	48.8	-
18/08/2022	12:23:03	ST123	Still	210761_ST123_11	01733	409 342.5	6 060 321.8	409 345.2	6 060 270.9	26.2	50.9	-
18/08/2022	12:23:13	ST123	Video	EOL	01734	409 342.5	6 060 321.8	409 341.9	6 060 262.8	26.1	59.0	-
18/08/2022	12:37:13	ST123	HG	NS	01735	409 342.5	6 060 321.8	409 351.4	6 060 306.4	27.2	17.8	-
18/08/2022	12:44:01	ST123	HG	NS	01736	409 342.5	6 060 321.8	409 353.6	6 060 329.3	25.3	13.3	-
18/08/2022	12:51:01	ST123	HG	FA/PSDA	01737	409 342.5	6 060 321.8	409 339.8	6 060 329.3	25.4	8.0	-
18/08/2022	13:17:49	ST113	Video	SOL	01738	409 441.6	6 057 628.4	409 383.4	6 057 673.5	16.2	73.6	-
18/08/2022	13:18:29	ST113	Still	210761_ST113_01	01739	409 441.6	6 057 628.4	409 408.5	6 057 665.4	-	49.6	-
18/08/2022	13:18:39	ST113	Still	210761_ST113_02	01740	409 441.6	6 057 628.4	409 413.4	6 057 659.9	-	42.3	-
18/08/2022	13:18:46	ST113	Still	210761_ST113_03	01741	409 441.6	6 057 628.4	409 417.6	6 057 661.0	-	40.5	-
18/08/2022	13:18:58	ST113	Still	210761_ST113_04	01742	409 441.6	6 057 628.4	409 432.7	6 057 661.2	-	34.0	-
18/08/2022	13:19:06	ST113	Still	210761_ST113_05	01743	409 441.6	6 057 628.4	409 437.4	6 057 628.7	-	4.1	-
18/08/2022	13:19:19	ST113	Still	210761_ST113_06	01744	409 441.6	6 057 628.4	409 436.3	6 057 658.7	-	30.8	-
18/08/2022	13:19:41	ST113	Still	210761_ST113_07	01745	409 441.6	6 057 628.4	409 442.9	6 057 651.9	-	23.5	-
18/08/2022	13:20:03	ST113	Still	210761_ST113_08	01746	409 441.6	6 057 628.4	409 444.3	6 057 637.9	-	10.0	-
18/08/2022	13:20:10	ST113	Still	210761_ST113_09	01747	409 441.6	6 057 628.4	409 444.4	6 057 635.6	-	7.8	-
18/08/2022	13:20:14	ST113	Still	210761_ST113_10	01748	409 441.6	6 057 628.4	409 444.5	6 057 637.5	-	9.6	-
18/08/2022	13:20:29	ST113	Still	210761_ST113_11	01749	409 441.6	6 057 628.4	409 442.8	6 057 626.6	-	2.2	-
18/08/2022	13:20:40	ST113	Still	210761_ST113_12	01750	409 441.6	6 057 628.4	409 442.8	6 057 625.7	-	3.0	-
18/08/2022	13:20:53	ST113	Still	210761_ST113_13	01751	409 441.6	6 057 628.4	409 438.8	6 057 615.4	-	13.3	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
18/08/2022	13:21:07	ST113	Still	210761_ST113_14	01752	409 441.6	6 057 628.4	409 438.5	6 057 610.5	-	18.2	-
18/08/2022	13:21:19	ST113	Still	210761_ST113_15	01753	409 441.6	6 057 628.4	409 439.2	6 057 600.4	-	28.1	-
18/08/2022	13:21:37	ST113	Still	210761_ST113_16	01754	409 441.6	6 057 628.4	409 435.7	6 057 590.5	-	38.3	-
18/08/2022	13:21:50	ST113	Still	210761_ST113_17	01755	409 441.6	6 057 628.4	409 431.3	6 057 587.1	-	42.5	-
18/08/2022	13:21:58	ST113	Still	210761_ST113_18	01756	409 441.6	6 057 628.4	409 433.1	6 057 583.8	-	45.4	-
18/08/2022	13:22:11	ST113	Video	EOL	01757	409 441.6	6 057 628.4	409 433.2	6 057 574.6	16.7	54.4	-
18/08/2022	13:28:19	ST113	HG	FA/PSDA	01758	409 441.6	6 057 628.4	409 425.7	6 057 654.1	14.8	30.2	-
18/08/2022	13:36:41	ST113	DG	CA	01759	409 441.6	6 057 628.4	409 410.6	6 057 609.3	16.4	36.4	-
18/08/2022	14:05:41	ST101	Video	SOL	01760	409 441.6	6 054 628.4	409 416.2	6 054 675.4	18.5	53.5	-
18/08/2022	14:06:15	ST101	Still	210761_ST101_01	01761	409 441.6	6 054 628.4	409 420.6	6 054 651.2	-	31.0	-
18/08/2022	14:06:19	ST101	Still	210761_ST101_02	01762	409 441.6	6 054 628.4	409 423.3	6 054 650.6	-	28.7	-
18/08/2022	14:06:26	ST101	Still	210761_ST101_03	01763	409 441.6	6 054 628.4	409 423.3	6 054 645.9	-	25.3	-
18/08/2022	14:06:31	ST101	Still	210761_ST101_04	01764	409 441.6	6 054 628.4	409 423.8	6 054 644.1	-	23.8	-
18/08/2022	14:06:39	ST101	Still	210761_ST101_05	01765	409 441.6	6 054 628.4	409 424.4	6 054 643.4	-	22.8	-
18/08/2022	14:06:44	ST101	Still	210761_ST101_06	01766	409 441.6	6 054 628.4	409 430.7	6 054 641.6	-	17.2	-
18/08/2022	14:06:52	ST101	Still	210761_ST101_07	01767	409 441.6	6 054 628.4	409 426.2	6 054 637.2	-	17.8	-
18/08/2022	14:07:08	ST101	Still	210761_ST101_08	01768	409 441.6	6 054 628.4	409 437.2	6 054 633.4	-	6.7	-
18/08/2022	14:07:13	ST101	Still	210761_ST101_09	01769	409 441.6	6 054 628.4	409 438.5	6 054 630.0	-	3.5	-
18/08/2022	14:07:22	ST101	Still	210761_ST101_10	01770	409 441.6	6 054 628.4	409 444.9	6 054 628.9	-	3.3	-
18/08/2022	14:07:30	ST101	Still	210761_ST101_11	01771	409 441.6	6 054 628.4	409 448.3	6 054 625.8	-	7.2	-
18/08/2022	14:07:36	ST101	Still	210761_ST101_12	01772	409 441.6	6 054 628.4	409 452.8	6 054 623.3	-	12.3	-
18/08/2022	14:07:48	ST101	Still	210761_ST101_13	01773	409 441.6	6 054 628.4	409 454.3	6 054 618.3	-	16.2	-
18/08/2022	14:08:05	ST101	Still	210761_ST101_14	01774	409 441.6	6 054 628.4	409 460.0	6 054 614.8	-	22.9	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
18/08/2022	14:08:28	ST101	Still	210761_ST101_15	01775	409 441.6	6 054 628.4	409 465.6	6 054 613.1	-	28.4	-
18/08/2022	14:08:44	ST101	Still	210761_ST101_16	01776	409 441.6	6 054 628.4	409 464.0	6 054 602.4	-	34.4	-
18/08/2022	14:08:56	ST101	Still	210761_ST101_17	01777	409 441.6	6 054 628.4	409 463.2	6 054 597.2	-	38.0	-
18/08/2022	14:09:12	ST101	Still	210761_ST101_18	01778	409 441.6	6 054 628.4	409 466.0	6 054 586.0	-	48.9	-
18/08/2022	14:09:25	ST101	Video	EOL	01779	409 441.6	6 054 628.4	409 466.9	6 054 581.8	18.7	53.0	-
18/08/2022	14:14:47	ST101	HG	FA/PSDA	01780	409 441.6	6 054 628.4	409 417.7	6 054 634.0	17.3	24.5	-
18/08/2022	14:44:59	ST114	HG	FA/PSDA	01781	412 441.6	6 057 628.4	412 435.6	6 057 631.3	18.6	6.6	-
18/08/2022	15:09:07	ST102	HG	FA/PSDA	01782	412 441.6	6 054 628.4	412 410.1	6 054 632.2	23.4	31.7	-
18/08/2022	15:29:00	ST086	HG	FA/PSDA	01783	412 441.6	6 051 628.4	412 416.9	6 051 645.5	17.7	30.0	-
18/08/2022	15:53:32	ST068	HG	FA/PSDA	01784	412 441.6	6 048 628.4	412 428.0	6 048 622.6	18.6	14.7	-
18/08/2022	16:58:18	ST052	Video	SOL	01785	412 655.5	6 046 158.3	412 630.8	6 046 233.7	18.0	79.4	-
18/08/2022	16:58:44	ST052	Still	210761_ST052_01	01786	412 655.5	6 046 158.3	412 633.6	6 046 220.8	-	66.3	-
18/08/2022	16:59:02	ST052	Still	210761_ST052_02	01787	412 655.5	6 046 158.3	412 639.6	6 046 214.0	-	58.0	-
18/08/2022	16:59:15	ST052	Still	210761_ST052_03	01788	412 655.5	6 046 158.3	412 640.8	6 046 205.9	-	49.9	-
18/08/2022	16:59:22	ST052	Still	210761_ST052_04	01789	412 655.5	6 046 158.3	412 641.2	6 046 205.6	-	49.5	-
18/08/2022	16:59:48	ST052	Still	210761_ST052_05	01791	412 655.5	6 046 158.3	412 637.8	6 046 187.4	-	34.1	-
18/08/2022	17:00:00	ST052	Still	210761_ST052_06	01792	412 655.5	6 046 158.3	412 642.5	6 046 183.0	-	27.9	-
18/08/2022	17:00:09	ST052	Still	210761_ST052_07	01793	412 655.5	6 046 158.3	412 639.5	6 046 179.2	-	26.3	-
18/08/2022	17:00:19	ST052	Still	210761_ST052_08	01794	412 655.5	6 046 158.3	412 643.4	6 046 175.1	-	20.7	-
18/08/2022	17:00:34	ST052	Still	210761_ST052_09	01795	412 655.5	6 046 158.3	412 642.8	6 046 166.6	-	15.2	-
18/08/2022	17:00:55	ST052	Still	210761_ST052_10	01796	412 655.5	6 046 158.3	412 646.5	6 046 161.3	-	9.6	-
18/08/2022	17:01:03	ST052	Still	210761_ST052_11	01797	412 655.5	6 046 158.3	412 655.4	6 046 156.5	-	1.8	-
18/08/2022	17:01:34	ST052	Still	210761_ST052_12	01798	412 655.5	6 046 158.3	412 666.1	6 046 153.4	-	11.6	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
18/08/2022	17:01:54	ST052	Still	210761_ST052_13	01799	412 655.5	6 046 158.3	412 674.6	6 046 146.5	-	22.4	-
18/08/2022	17:02:15	ST052	Still	210761_ST052_14	01800	412 655.5	6 046 158.3	412 680.0	6 046 134.8	-	33.9	-
18/08/2022	17:02:21	ST052	Still	210761_ST052_15	01801	412 655.5	6 046 158.3	412 683.1	6 046 132.5	-	37.7	-
18/08/2022	17:02:31	ST052	Still	210761_ST052_16	01802	412 655.5	6 046 158.3	412 686.1	6 046 127.2	-	43.5	-
18/08/2022	17:02:51	ST052	Video	EOL	01803	412 655.5	6 046 158.3	412 691.1	6 046 115.2	18.2	55.8	-
18/08/2022	17:12:16	ST052	HG	NS	01804	412 655.5	6 046 158.3	412 613.8	6 046 173.6	14.4	44.5	-
18/08/2022	17:18:35	ST052	HG	NS	01805	412 655.5	6 046 158.3	412 644.8	6 046 158.9	19.5	10.8	-
18/08/2022	17:25:15	ST052	HG	FA/PSDA	01806	412 655.5	6 046 158.3	412 628.8	6 046 190.6	19.8	42.0	-
18/08/2022	17:54:19	ST039	HG	FA/PSDA	01807	412 441.6	6 042 628.4	412 404.7	6 042 634.4	19.1	37.4	-
18/08/2022	18:13:22	ST132	Video	SOL	01808	413 431.5	6 041 528.4	413 412.1	6 041 582.2	17.5	57.2	-
18/08/2022	18:13:50	ST132	Still	210761_ST132_01	01809	413 431.5	6 041 528.4	413 416.3	6 041 564.4	17.2	39.1	-
18/08/2022	18:13:58	ST132	Still	210761_ST132_02	01810	413 431.5	6 041 528.4	413 417.8	6 041 560.5	17.4	34.9	-
18/08/2022	18:14:05	ST132	Still	210761_ST132_03	01811	413 431.5	6 041 528.4	413 421.9	6 041 558.6	17.2	31.7	-
18/08/2022	18:14:11	ST132	Still	210761_ST132_04	01812	413 431.5	6 041 528.4	413 422.8	6 041 556.4	16.5	29.3	-
18/08/2022	18:14:45	ST132	Still	210761_ST132_05	01813	413 431.5	6 041 528.4	413 453.9	6 041 553.5	16.8	33.7	-
18/08/2022	18:14:49	ST132	Video	EOL	01814	413 431.5	6 041 528.4	413 458.0	6 041 555.2	17.1	37.7	-
18/08/2022	18:17:11	ST132A	Video	SOL	01815	413 431.5	6 041 528.4	413 496.0	6 041 535.1	17.9	64.8	-
18/08/2022	18:17:27	ST132A	Still	210761_ST132A_01	01816	413 431.5	6 041 528.4	413 472.2	6 041 541.0	-	42.6	-
18/08/2022	18:17:34	ST132A	Still	210761_ST132A_02	01817	413 431.5	6 041 528.4	413 468.8	6 041 544.8	-	40.7	-
18/08/2022	18:17:43	ST132A	Still	210761_ST132A_03	01818	413 431.5	6 041 528.4	413 454.2	6 041 547.2	17.9	29.5	-
18/08/2022	18:17:55	ST132A	Still	210761_ST132A_04	01819	413 431.5	6 041 528.4	413 442.0	6 041 549.5	-	23.6	-
18/08/2022	18:18:05	ST132A	Video	EOL	01820	413 431.5	6 041 528.4	413 431.1	6 041 551.4	17.6	23.0	-
18/08/2022	18:23:33	ST132B	Video	SOL	01821	413 431.5	6 041 528.4	413 405.1	6 041 569.1	16.0	48.6	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
18/08/2022	18:23:40	ST132B	Still	210761_ST132B_01	01822	413 431.5	6 041 528.4	413 409.1	6 041 565.3	-	43.2	-
18/08/2022	18:23:48	ST132B	Still	210761_ST132B_02	01823	413 431.5	6 041 528.4	413 415.9	6 041 562.0	-	37.1	-
18/08/2022	18:24:00	ST132B	Still	210761_ST132B_03	01824	413 431.5	6 041 528.4	413 420.0	6 041 553.1	-	27.2	-
18/08/2022	18:24:10	ST132B	Still	210761_ST132B_04	01825	413 431.5	6 041 528.4	413 427.0	6 041 546.4	-	18.6	-
18/08/2022	18:24:28	ST132B	Still	210761_ST132B_05	01826	413 431.5	6 041 528.4	413 441.1	6 041 535.6	-	12.0	-
18/08/2022	18:24:35	ST132B	Still	210761_ST132B_06	01827	413 431.5	6 041 528.4	413 445.7	6 041 529.6	-	14.3	-
18/08/2022	18:24:48	ST132B	Still	210761_ST132B_07	01828	413 431.5	6 041 528.4	413 456.8	6 041 523.6	-	25.8	-
18/08/2022	18:24:54	ST132B	Still	210761_ST132B_08	01829	413 431.5	6 041 528.4	413 465.7	6 041 522.0	-	34.8	-
18/08/2022	18:25:01	ST132B	Still	210761_ST132B_09	01830	413 431.5	6 041 528.4	413 465.6	6 041 516.4	-	36.1	-
18/08/2022	18:25:08	ST132B	Still	210761_ST132B_10	01831	413 431.5	6 041 528.4	413 471.0	6 041 513.0	-	42.4	-
18/08/2022	18:25:21	ST132B	Still	210761_ST132B_11	01832	413 431.5	6 041 528.4	413 480.7	6 041 507.8	-	53.4	-
18/08/2022	18:25:50	ST132B	Still	210761_ST132B_12	01833	413 431.5	6 041 528.4	413 498.6	6 041 503.2	-	71.7	-
18/08/2022	18:25:57	ST132B	Video	EOL	01834	413 431.5	6 041 528.4	413 499.9	6 041 500.2	15.9	74.0	-
18/08/2022	18:36:28	ST132	HG	FA/PSDA	01835	413 431.5	6 041 528.4	413 454.2	6 041 548.0	15.9	30.0	-
19/08/2022	02:02:51	ST040	HG	FA/PSDA	01836	415 441.6	6 042 628.4	415 433.0	6 042 609.6	20.7	20.6	-
19/08/2022	02:13:48	ST040	DG	CA	01837	415 441.6	6 042 628.4	415 425.1	6 042 639.1	21.0	19.6	-
19/08/2022	02:44:30	ST053	HG	FA/PSDA	01838	415 441.6	6 045 628.4	415 450.3	6 045 619.1	17.9	12.7	-
19/08/2022	04:14:58	ST069	HG	FA/PSDA	01839	415 441.6	6 048 628.4	415 498.6	6 048 641.5	17.9	58.5	-
19/08/2022	04:15:33	ST069	Video	SOL	01840	415 441.6	6 048 628.4	415 486.6	6 048 629.1	-	45.0	-
19/08/2022	04:15:43	ST069	Still	210761_ST069_01	01841	415 441.6	6 048 628.4	415 483.1	6 048 625.9	-	41.6	-
19/08/2022	04:16:53	ST069	Still	210761_ST069_02	01842	415 441.6	6 048 628.4	415 428.7	6 048 650.2	19.2	25.3	-
19/08/2022	04:17:00	ST069	Still	210761_ST069_03	01843	415 441.6	6 048 628.4	415 424.6	6 048 650.9	19.2	28.2	-
19/08/2022	04:17:07	ST069	Still	210761_ST069_04	01844	415 441.6	6 048 628.4	415 423.7	6 048 651.4	-	29.1	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
19/08/2022	04:20:31	ST069	Video	EOL	01845	415 441.6	6 048 628.4	415 403.7	6 048 676.8	19.3	61.5	-
19/08/2022	04:20:38	ST069	Video	SOL	01846	415 441.6	6 048 628.4	415 412.1	6 048 676.6	17.6	56.6	-
19/08/2022	04:20:52	ST069A	Still	210761_ST069A_01	01847	415 441.6	6 048 628.4	415 426.0	6 048 669.3	-	43.8	-
19/08/2022	04:20:57	ST069A	Still	210761_ST069A_02	01848	415 441.6	6 048 628.4	415 428.7	6 048 665.1	-	38.9	-
19/08/2022	04:21:34	ST069A	Still	210761_ST069A_03	01849	415 441.6	6 048 628.4	415 461.1	6 048 638.7	-	22.1	-
19/08/2022	04:21:38	ST069A	Still	210761_ST069A_04	01850	415 441.6	6 048 628.4	415 462.9	6 048 638.5	-	23.6	-
19/08/2022	04:21:43	ST069A	Still	210761_ST069A_05	01851	415 441.6	6 048 628.4	415 467.5	6 048 634.8	-	26.7	-
19/08/2022	04:21:46	ST069A	Still	210761_ST069A_06	01852	415 441.6	6 048 628.4	415 469.4	6 048 631.5	-	28.0	-
19/08/2022	04:21:55	ST069A	Still	210761_ST069A_07	01853	415 441.6	6 048 628.4	415 474.4	6 048 626.7	-	32.9	-
19/08/2022	04:22:04	ST069A	Still	210761_ST069A_08	01854	415 441.6	6 048 628.4	415 479.3	6 048 621.6	-	38.3	-
19/08/2022	04:22:08	ST069A	Still	210761_ST069A_09	01855	415 441.6	6 048 628.4	415 482.1	6 048 617.8	-	41.9	-
19/08/2022	04:22:16	ST069A	Still	210761_ST069A_10	01856	415 441.6	6 048 628.4	415 487.5	6 048 610.5	-	49.3	-
19/08/2022	04:22:31	ST069A	Still	210761_ST069A_11	01857	415 441.6	6 048 628.4	415 494.6	6 048 598.0	-	61.1	-
19/08/2022	04:22:42	ST069	Video	EOL	01858	415 441.6	6 048 628.4	415 497.7	6 048 596.1	18.4	64.8	-
19/08/2022	04:30:47	ST069	HG	FA/PSDA	01859	415 441.6	6 048 628.4	415 463.3	6 048 599.1	18.3	36.4	-
19/08/2022	04:37:24	ST069	DG	CA	01860	415 441.6	6 048 628.4	415 462.0	6 048 605.3	19.3	30.8	-
19/08/2022	05:19:24	ST087	Video	SOL	01861	415 441.6	6 051 628.4	415 504.0	6 051 611.1	18.7	64.8	-
19/08/2022	05:19:49	ST087	Still	210761_ST087_01	01862	415 441.6	6 051 628.4	415 484.3	6 051 619.8	-	43.5	-
19/08/2022	05:19:56	ST087	Still	210761_ST087_02	01863	415 441.6	6 051 628.4	415 478.0	6 051 619.5	-	37.5	-
19/08/2022	05:20:02	ST087	Still	210761_ST087_03	01864	415 441.6	6 051 628.4	415 473.2	6 051 620.2	-	32.7	-
19/08/2022	05:20:21	ST087	Still	210761_ST087_04	01865	415 441.6	6 051 628.4	415 461.5	6 051 625.8	-	20.1	-
19/08/2022	05:20:26	ST087	Still	210761_ST087_05	01866	415 441.6	6 051 628.4	415 457.2	6 051 629.6	-	15.7	-
19/08/2022	05:20:35	ST087	Still	210761_ST087_06	01867	415 441.6	6 051 628.4	415 452.5	6 051 629.6	-	11.0	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
19/08/2022	05:20:43	ST087	Still	210761_ST087_07	01868	415 441.6	6 051 628.4	415 446.0	6 051 631.2	-	5.3	-
19/08/2022	05:20:52	ST087	Still	210761_ST087_08	01869	415 441.6	6 051 628.4	415 441.9	6 051 633.5	-	5.2	-
19/08/2022	05:21:06	ST087	Still	210761_ST087_09	01870	415 441.6	6 051 628.4	415 430.4	6 051 632.7	-	12.0	-
19/08/2022	05:21:18	ST087	Still	210761_ST087_10	01871	415 441.6	6 051 628.4	415 424.1	6 051 637.1	-	19.5	-
19/08/2022	05:21:32	ST087	Still	210761_ST087_11	01872	415 441.6	6 051 628.4	415 413.6	6 051 641.6	-	31.0	-
19/08/2022	05:21:45	ST087	Still	210761_ST087_12	01873	415 441.6	6 051 628.4	415 407.4	6 051 644.0	-	37.6	-
19/08/2022	05:22:07	ST087	Still	210761_ST087_13	01874	415 441.6	6 051 628.4	415 393.4	6 051 656.4	-	55.7	-
19/08/2022	05:22:18	ST087	Video	EOL	01875	415 441.6	6 051 628.4	415 387.4	6 051 658.1	20.2	61.8	-
19/08/2022	05:28:57	ST087	HG	FA/PSDA	01876	415 441.6	6 051 628.4	415 444.8	6 051 638.1	19.9	10.2	-
19/08/2022	05:54:41	ST103	Video	SOL	01877	415 441.6	6 054 628.4	415 500.8	6 054 629.8	21.9	59.3	-
19/08/2022	05:55:05	ST103	Still	210761_ST103_01	01878	415 441.6	6 054 628.4	415 483.5	6 054 623.8	22.1	42.1	-
19/08/2022	05:55:13	ST103	Still	210761_ST103_02	01879	415 441.6	6 054 628.4	415 477.0	6 054 622.1	22.5	36.0	-
19/08/2022	05:55:22	ST103	Still	210761_ST103_03	01880	415 441.6	6 054 628.4	415 473.4	6 054 618.2	22.8	33.4	-
19/08/2022	05:55:31	ST103	Still	210761_ST103_04	01881	415 441.6	6 054 628.4	415 468.3	6 054 620.4	22.7	27.9	-
19/08/2022	05:55:41	ST103	Still	210761_ST103_05	01882	415 441.6	6 054 628.4	415 462.6	6 054 617.2	22.6	23.8	-
19/08/2022	05:56:02	ST103	Still	210761_ST103_06	01883	415 441.6	6 054 628.4	415 450.5	6 054 620.0	22.7	12.2	-
19/08/2022	05:56:22	ST103	Still	210761_ST103_07	01884	415 441.6	6 054 628.4	415 436.5	6 054 621.4	22.5	8.6	-
19/08/2022	05:56:39	ST103	Still	210761_ST103_08	01885	415 441.6	6 054 628.4	415 423.0	6 054 625.7	23.2	18.8	-
19/08/2022	05:57:01	ST103	Still	210761_ST103_09	01886	415 441.6	6 054 628.4	415 410.0	6 054 627.0	23.8	31.6	-
19/08/2022	05:57:28	ST103	Still	210761_ST103_10	01887	415 441.6	6 054 628.4	415 392.2	6 054 626.2	23.7	49.4	-
19/08/2022	05:57:50	ST103	Video	EOL	01888	415 441.6	6 054 628.4	415 383.3	6 054 628.0	23.9	58.2	-
19/08/2022	06:03:51	ST103	HG	FA/PSDA	01889	415 441.6	6 054 628.4	415 469.0	6 054 596.7	25.3	41.9	-
19/08/2022	06:13:21	ST103	DG	CA	01890	415 441.6	6 054 628.4	415 435.3	6 054 645.8	22.0	18.6	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
19/08/2022	07:13:24	ST115	Video	SOL	01891	415 441.6	6 057 628.4	415 489.4	6 057 560.6	19.8	82.9	-
19/08/2022	07:13:39	ST115	Still	210761_ST115_01	01892	415 441.6	6 057 628.4	415 479.2	6 057 567.6	21.1	71.5	-
19/08/2022	07:13:49	ST115	Still	210761_ST115_02	01893	415 441.6	6 057 628.4	415 474.8	6 057 573.3	21.0	64.3	-
19/08/2022	07:14:15	ST115	Still	210761_ST115_03	01894	415 441.6	6 057 628.4	415 461.3	6 057 585.9	21.7	46.8	-
19/08/2022	07:14:36	ST115	Still	210761_ST115_04	01895	415 441.6	6 057 628.4	415 461.5	6 057 600.4	21.2	34.3	-
19/08/2022	07:14:56	ST115	Still	210761_ST115_05	01896	415 441.6	6 057 628.4	415 457.8	6 057 613.1	21.1	22.3	-
19/08/2022	07:15:08	ST115	Still	210761_ST115_06	01897	415 441.6	6 057 628.4	415 454.2	6 057 620.9	21.1	14.7	-
19/08/2022	07:15:28	ST115	Still	210761_ST115_07	01898	415 441.6	6 057 628.4	415 450.4	6 057 634.0	21.7	10.4	-
19/08/2022	07:15:54	ST115	Still	210761_ST115_08	01899	415 441.6	6 057 628.4	415 448.6	6 057 647.5	20.8	20.4	-
19/08/2022	07:16:15	ST115	Still	210761_ST115_09	01900	415 441.6	6 057 628.4	415 448.8	6 057 662.5	-	34.9	-
19/08/2022	07:16:42	ST115	Still	210761_ST115_10	01901	415 441.6	6 057 628.4	415 455.0	6 057 676.6	19.8	50.1	-
19/08/2022	07:17:04	ST115	Video	EOL	01902	415 441.6	6 057 628.4	415 455.5	6 057 686.7	19.3	60.0	-
19/08/2022	07:24:21	ST115	HG	FA/PSDA	01903	415 441.6	6 057 628.4	415 455.6	6 057 593.4	20.6	37.6	-
19/08/2022	07:53:56	ST104	Video	SOL	01904	418 441.6	6 054 628.4	418 503.9	6 054 617.5	21.2	63.3	-
19/08/2022	07:54:23	ST104	Still	210761_ST104_01	01905	418 441.6	6 054 628.4	418 484.6	6 054 602.3	21.5	50.3	-
19/08/2022	07:54:37	ST104	Still	210761_ST104_02	01906	418 441.6	6 054 628.4	418 477.8	6 054 600.7	21.7	45.6	-
19/08/2022	07:54:57	ST104	Still	210761_ST104_03	01907	418 441.6	6 054 628.4	418 464.0	6 054 607.6	22.4	30.6	-
19/08/2022	07:55:22	ST104	Still	210761_ST104_04	01908	418 441.6	6 054 628.4	418 451.3	6 054 617.1	21.9	14.9	-
19/08/2022	07:55:40	ST104	Still	210761_ST104_05	01909	418 441.6	6 054 628.4	418 445.8	6 054 626.5	21.0	4.7	-
19/08/2022	07:55:52	ST104	Still	210761_ST104_06	01910	418 441.6	6 054 628.4	418 441.3	6 054 633.3	21.9	5.0	-
19/08/2022	07:56:03	ST104	Still	210761_ST104_07	01911	418 441.6	6 054 628.4	418 438.5	6 054 637.7	-	9.8	-
19/08/2022	07:56:31	ST104	Still	210761_ST104_08	01912	418 441.6	6 054 628.4	418 423.6	6 054 651.8	22.4	29.6	-
19/08/2022	07:56:58	ST104	Still	210761_ST104_09	01913	418 441.6	6 054 628.4	418 417.0	6 054 662.3	21.8	41.9	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
19/08/2022	07:57:16	ST104	Still	210761_ST104_10	01914	418 441.6	6 054 628.4	418 409.0	6 054 667.7	21.9	51.1	-
19/08/2022	07:57:37	ST104	Video	EOL	01915	418 441.6	6 054 628.4	418 406.2	6 054 676.3	20.8	59.6	-
19/08/2022	08:02:52	ST104	HG	FA/PSDA	01916	418 441.6	6 054 628.4	418 452.7	6 054 584.9	20.8	44.9	-
19/08/2022	08:26:44	ST105	Video	SOL	01917	421 441.6	6 054 628.4	421 490.2	6 054 576.6	22.3	71.1	-
19/08/2022	08:27:03	ST105	Still	210761_ST105_01	01918	421 441.6	6 054 628.4	421 494.3	6 054 590.1	23.8	65.1	-
19/08/2022	08:27:17	ST105	Still	210761_ST105_02	01919	421 441.6	6 054 628.4	421 489.8	6 054 600.3	22.9	55.8	-
19/08/2022	08:27:27	ST105	Still	210761_ST105_03	01920	421 441.6	6 054 628.4	421 487.0	6 054 602.2	22.3	52.5	-
19/08/2022	08:27:42	ST105	Still	210761_ST105_04	01921	421 441.6	6 054 628.4	421 476.8	6 054 610.9	22.8	39.3	-
19/08/2022	08:27:53	ST105	Still	210761_ST105_05	01922	421 441.6	6 054 628.4	421 475.7	6 054 615.3	-	36.6	-
19/08/2022	08:28:01	ST105	Still	210761_ST105_06	01923	421 441.6	6 054 628.4	421 468.6	6 054 615.8	22.3	29.8	-
19/08/2022	08:28:35	ST105	Still	210761_ST105_07	01924	421 441.6	6 054 628.4	421 448.3	6 054 625.1	-	7.5	-
19/08/2022	08:28:56	ST105	Still	210761_ST105_08	01925	421 441.6	6 054 628.4	421 440.5	6 054 627.5	22.4	1.4	-
19/08/2022	08:29:41	ST105	Still	210761_ST105_09	01926	421 441.6	6 054 628.4	421 422.3	6 054 632.1	23.3	19.6	-
19/08/2022	08:30:06	ST105	Still	210761_ST105_10	01927	421 441.6	6 054 628.4	421 412.9	6 054 633.4	23.4	29.1	-
19/08/2022	08:30:39	ST105	Still	210761_ST105_11	01928	421 441.6	6 054 628.4	421 399.8	6 054 643.9	23.1	44.6	-
19/08/2022	08:31:10	ST105	Video	EOL	01929	421 441.6	6 054 628.4	421 385.7	6 054 653.7	23.5	61.4	-
19/08/2022	08:37:00	ST105	HG	FA/PSDA	01930	421 441.6	6 054 628.4	421 461.4	6 054 582.7	22.7	49.8	-
19/08/2022	08:48:43	ST105	DG	CA	01931	421 441.6	6 054 628.4	421 422.2	6 054 610.8	22.4	26.2	-
19/08/2022	09:17:33	ST089	Video	SOL	01932	421 441.6	6 051 628.4	421 476.2	6 051 570.9	22.2	67.1	-
19/08/2022	09:17:46	ST089	Still	210761_ST089_01	01933	421 441.6	6 051 628.4	421 473.7	6 051 578.2	22.1	59.5	-
19/08/2022	09:17:56	ST089	Still	210761_ST089_02	01934	421 441.6	6 051 628.4	421 470.9	6 051 581.5	22.4	55.3	-
19/08/2022	09:18:27	ST089	Still	210761_ST089_03	01935	421 441.6	6 051 628.4	421 460.8	6 051 594.8	22.2	38.7	-
19/08/2022	09:18:53	ST089	Still	210761_ST089_04	01936	421 441.6	6 051 628.4	421 454.6	6 051 608.2	22.1	24.0	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
19/08/2022	09:19:21	ST089	Still	210761_ST089_05	01937	421 441.6	6 051 628.4	421 450.5	6 051 625.4	22.0	9.4	-
19/08/2022	09:19:31	ST089	Still	210761_ST089_06	01938	421 441.6	6 051 628.4	421 449.5	6 051 630.5	-	8.2	-
19/08/2022	09:19:48	ST089	Still	210761_ST089_07	01939	421 441.6	6 051 628.4	421 445.0	6 051 644.0	22.4	16.0	-
19/08/2022	09:20:04	ST089	Still	210761_ST089_08	01940	421 441.6	6 051 628.4	421 443.4	6 051 655.0	22.4	26.7	-
19/08/2022	09:20:23	ST089	Still	210761_ST089_09	01941	421 441.6	6 051 628.4	421 441.5	6 051 666.7	22.2	38.3	-
19/08/2022	09:20:38	ST089	Still	210761_ST089_10	01942	421 441.6	6 051 628.4	421 439.4	6 051 676.3	22.5	48.0	-
19/08/2022	09:21:00	ST089	Video	EOL	01943	421 441.6	6 051 628.4	421 439.0	6 051 686.0	22.7	57.7	-
19/08/2022	09:27:16	ST089	HG	FA/PSDA	01944	421 441.6	6 051 628.4	421 418.2	6 051 617.1	21.6	25.9	-
19/08/2022	09:54:13	ST088	Video	SOL	01945	418 441.6	6 051 628.4	418 487.0	6 051 593.0	21.6	57.6	-
19/08/2022	09:54:31	ST088	Still	210761_ST088_01	01946	418 441.6	6 051 628.4	418 479.6	6 051 600.1	21.6	47.4	-
19/08/2022	09:54:41	ST088	Still	210761_ST088_02	01947	418 441.6	6 051 628.4	418 475.8	6 051 603.6	21.4	42.2	-
19/08/2022	09:55:01	ST088	Still	210761_ST088_03	01948	418 441.6	6 051 628.4	418 468.0	6 051 609.3	20.7	32.6	-
19/08/2022	09:55:14	ST088	Still	210761_ST088_04	01949	418 441.6	6 051 628.4	418 459.9	6 051 614.8	21.7	22.8	-
19/08/2022	09:55:34	ST088	Still	210761_ST088_05	01950	418 441.6	6 051 628.4	418 452.5	6 051 622.5	21.8	12.4	-
19/08/2022	09:55:54	ST088	Still	210761_ST088_06	01951	418 441.6	6 051 628.4	418 445.5	6 051 634.7	22.5	7.5	-
19/08/2022	09:56:14	ST088	Still	210761_ST088_07	01952	418 441.6	6 051 628.4	418 441.0	6 051 641.5	22.2	13.1	-
19/08/2022	09:56:33	ST088	Still	210761_ST088_08	01953	418 441.6	6 051 628.4	418 439.0	6 051 653.4	21.9	25.2	-
19/08/2022	09:56:59	ST088	Still	210761_ST088_09	01954	418 441.6	6 051 628.4	418 436.6	6 051 668.3	22.3	40.3	-
19/08/2022	09:57:28	ST088	Still	210761_ST088_10	01955	418 441.6	6 051 628.4	418 435.6	6 051 686.9	22.1	58.8	-
19/08/2022	09:57:39	ST088	Video	EOL	01956	418 441.6	6 051 628.4	418 437.9	6 051 687.8	21.2	59.5	-
19/08/2022	10:03:21	ST088	HG	FA/PSDA	01957	418 441.6	6 051 628.4	418 432.3	6 051 606.7	21.1	23.5	-
19/08/2022	10:25:09	ST070	Video	SOL	01958	418 441.6	6 048 628.4	418 478.2	6 048 601.2	21.6	45.6	-
19/08/2022	10:25:26	ST070	Still	210761_ST070_01	01959	418 441.6	6 048 628.4	418 475.7	6 048 604.8	21.6	41.4	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
19/08/2022	10:25:53	ST070	Still	210761_ST070_02	01960	418 441.6	6 048 628.4	418 467.8	6 048 618.9	21.5	27.9	-
19/08/2022	10:26:04	ST070	Still	210761_ST070_03	01961	418 441.6	6 048 628.4	418 463.4	6 048 624.1	22.0	22.2	-
19/08/2022	10:26:20	ST070	Still	210761_ST070_04	01962	418 441.6	6 048 628.4	418 457.6	6 048 631.9	21.3	16.4	-
19/08/2022	10:26:36	ST070	Still	210761_ST070_05	01963	418 441.6	6 048 628.4	418 448.7	6 048 638.2	-	12.2	-
19/08/2022	10:26:53	ST070	Still	210761_ST070_06	01964	418 441.6	6 048 628.4	418 444.4	6 048 644.2	22.0	16.1	-
19/08/2022	10:27:10	ST070	Still	210761_ST070_07	01965	418 441.6	6 048 628.4	418 439.8	6 048 652.6	21.8	24.3	-
19/08/2022	10:27:33	ST070	Still	210761_ST070_08	01966	418 441.6	6 048 628.4	418 436.4	6 048 663.9	21.7	35.9	-
19/08/2022	10:27:46	ST070	Still	210761_ST070_09	01967	418 441.6	6 048 628.4	418 434.5	6 048 672.5	22.1	44.6	-
19/08/2022	10:28:03	ST070	Still	210761_ST070_10	01968	418 441.6	6 048 628.4	418 432.6	6 048 681.6	21.3	54.0	-
19/08/2022	10:28:21	ST070	Still	210761_ST070_11	01969	418 441.6	6 048 628.4	418 433.8	6 048 694.7	22.0	66.8	-
19/08/2022	10:28:32	ST070	Video	EOL	01970	418 441.6	6 048 628.4	418 435.4	6 048 697.6	21.2	69.5	-
19/08/2022	10:34:36	ST070	HG	FA/PSDA	01971	418 441.6	6 048 628.4	418 436.1	6 048 626.1	21.2	5.9	-
19/08/2022	11:17:14	ST071	Video	SOL	01972	421 441.6	6 048 628.4	421 487.4	6 048 595.9	21.1	56.2	-
19/08/2022	11:17:29	ST071	Still	210761_ST071_01	01973	421 441.6	6 048 628.4	421 474.7	6 048 602.9	21.8	41.8	-
19/08/2022	11:17:35	ST071	Still	210761_ST071_02	01974	421 441.6	6 048 628.4	421 469.8	6 048 603.8	21.6	37.4	-
19/08/2022	11:17:40	ST071	Still	210761_ST071_03	01975	421 441.6	6 048 628.4	421 467.8	6 048 606.8	20.8	33.9	-
19/08/2022	11:17:44	ST071	Still	210761_ST071_04	01976	421 441.6	6 048 628.4	421 465.4	6 048 608.2	21.5	31.2	-
19/08/2022	11:17:50	ST071	Still	210761_ST071_05	01977	421 441.6	6 048 628.4	421 461.5	6 048 609.6	21.4	27.4	-
19/08/2022	11:17:57	ST071	Still	210761_ST071_06	01978	421 441.6	6 048 628.4	421 459.3	6 048 611.3	-	24.6	-
19/08/2022	11:18:03	ST071	Still	210761_ST071_07	01979	421 441.6	6 048 628.4	421 453.6	6 048 614.0	21.9	18.7	-
19/08/2022	11:18:10	ST071	Still	210761_ST071_08	01980	421 441.6	6 048 628.4	421 449.3	6 048 614.8	22.0	15.7	-
19/08/2022	11:18:19	ST071	Still	210761_ST071_09	01981	421 441.6	6 048 628.4	421 443.7	6 048 617.4	22.0	11.2	-
19/08/2022	11:18:30	ST071	Still	210761_ST071_10	01982	421 441.6	6 048 628.4	421 441.7	6 048 622.1	21.5	6.3	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
19/08/2022	11:18:37	ST071	Still	210761_ST071_11	01983	421 441.6	6 048 628.4	421 436.7	6 048 623.7	21.4	6.8	-
19/08/2022	11:18:45	ST071	Still	210761_ST071_12	01984	421 441.6	6 048 628.4	421 432.9	6 048 625.5	21.6	9.1	-
19/08/2022	11:18:53	ST071	Still	210761_ST071_13	01985	421 441.6	6 048 628.4	421 430.4	6 048 627.9	21.3	11.2	-
19/08/2022	11:19:02	ST071	Still	210761_ST071_14	01986	421 441.6	6 048 628.4	421 428.0	6 048 633.0	21.9	14.4	-
19/08/2022	11:19:12	ST071	Still	210761_ST071_15	01987	421 441.6	6 048 628.4	421 422.2	6 048 636.1	21.4	20.8	-
19/08/2022	11:19:20	ST071	Still	210761_ST071_16	01988	421 441.6	6 048 628.4	421 419.2	6 048 640.7	21.9	25.5	-
19/08/2022	11:19:32	ST071	Still	210761_ST071_17	01989	421 441.6	6 048 628.4	421 415.0	6 048 644.8	21.0	31.2	-
19/08/2022	11:19:41	ST071	Still	210761_ST071_18	01990	421 441.6	6 048 628.4	421 411.1	6 048 648.5	20.7	36.5	-
19/08/2022	11:19:50	ST071	Still	210761_ST071_19	01991	421 441.6	6 048 628.4	421 404.6	6 048 649.7	21.1	42.7	-
19/08/2022	11:20:02	ST071	Still	210761_ST071_20	01992	421 441.6	6 048 628.4	421 398.4	6 048 656.2	21.9	51.3	-
19/08/2022	11:20:10	ST071	Video	EOL	01994	421 441.6	6 048 628.4	421 393.5	6 048 658.5	22.0	56.7	-
19/08/2022	11:25:55	ST071	HG	FA/PSDA	01995	421 441.6	6 048 628.4	421 446.2	6 048 610.2	20.3	18.8	-
19/08/2022	11:34:33	ST071	DG	CA	01996	421 441.6	6 048 628.4	421 436.1	6 048 618.7	20.7	11.1	-
19/08/2022	12:03:26	ST054	Video	SOL	01997	418 441.6	6 045 628.4	418 494.5	6 045 615.6	20.2	54.4	-
19/08/2022	12:03:39	ST054	Still	210761_ST054_01	01998	418 441.6	6 045 628.4	418 486.7	6 045 617.8	20.2	46.3	-
19/08/2022	12:03:43	ST054	Still	210761_ST054_02	01999	418 441.6	6 045 628.4	418 484.8	6 045 619.1	20.6	44.2	-
19/08/2022	12:03:49	ST054	Still	210761_ST054_03	02000	418 441.6	6 045 628.4	418 488.6	6 045 621.2	-	47.6	-
19/08/2022	12:03:53	ST054	Still	210761_ST054_04	02001	418 441.6	6 045 628.4	418 478.1	6 045 620.5	20.6	37.4	-
19/08/2022	12:04:01	ST054	Still	210761_ST054_05	02002	418 441.6	6 045 628.4	418 472.1	6 045 621.3	-	31.4	-
19/08/2022	12:04:07	ST054	Still	210761_ST054_06	02004	418 441.6	6 045 628.4	418 474.1	6 045 623.0	20.0	33.0	-
19/08/2022	12:04:09	ST054	Still	210761_ST054_07	02005	418 441.6	6 045 628.4	418 473.7	6 045 623.3	20.0	32.5	-
19/08/2022	12:04:13	ST054	Still	210761_ST054_08	02006	418 441.6	6 045 628.4	418 469.7	6 045 624.1	20.8	28.5	-
19/08/2022	12:04:27	ST054	Still	210761_ST054_09	02007	418 441.6	6 045 628.4	418 464.7	6 045 628.0	20.3	23.1	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
19/08/2022	12:04:32	ST054	Still	210761_ST054_10	02008	418 441.6	6 045 628.4	418 462.0	6 045 629.2	20.8	20.4	-
19/08/2022	12:04:46	ST054	Still	210761_ST054_11	02009	418 441.6	6 045 628.4	418 459.5	6 045 632.4	20.9	18.4	-
19/08/2022	12:04:57	ST054	Still	210761_ST054_12	02010	418 441.6	6 045 628.4	418 453.3	6 045 633.9	20.3	12.9	-
19/08/2022	12:05:04	ST054	Still	210761_ST054_13	02011	418 441.6	6 045 628.4	418 449.7	6 045 635.8	-	11.0	-
19/08/2022	12:05:18	ST054	Still	210761_ST054_14	02012	418 441.6	6 045 628.4	418 445.8	6 045 637.4	-	10.0	-
19/08/2022	12:05:34	ST054	Still	210761_ST054_15	02013	418 441.6	6 045 628.4	418 441.1	6 045 648.0	-	19.6	-
19/08/2022	12:05:42	ST054	Still	210761_ST054_16	02014	418 441.6	6 045 628.4	418 448.5	6 045 634.3	-	9.1	-
19/08/2022	12:05:58	ST054	Still	210761_ST054_17	02015	418 441.6	6 045 628.4	418 433.6	6 045 659.2	20.5	31.8	-
19/08/2022	12:06:18	ST054	Still	210761_ST054_18	02016	418 441.6	6 045 628.4	418 428.3	6 045 668.8	20.1	42.6	-
19/08/2022	12:06:29	ST054	Still	210761_ST054_19	02017	418 441.6	6 045 628.4	418 428.0	6 045 671.2	19.3	44.9	-
19/08/2022	12:06:37	ST054	Still	210761_ST054_20	02018	418 441.6	6 045 628.4	418 424.8	6 045 677.5	19.6	51.9	-
19/08/2022	12:06:43	ST054	Video	EOL	02019	418 441.6	6 045 628.4	418 423.4	6 045 681.0	19.4	55.7	-
19/08/2022	12:13:43	ST054	HG	FA/PSDA	02020	418 441.6	6 045 628.4	418 445.0	6 045 650.4	20.0	22.3	-
19/08/2022	12:34:33	ST055	Video	SOL	02021	421 441.6	6 045 628.4	421 484.1	6 045 587.1	19.0	59.3	-
19/08/2022	12:34:45	ST055	Still	210761_ST055_01	02023	421 441.6	6 045 628.4	421 480.1	6 045 597.7	20.3	49.2	-
19/08/2022	12:34:53	ST055	Still	210761_ST055_02	02024	421 441.6	6 045 628.4	421 474.9	6 045 603.4	19.5	41.6	-
19/08/2022	12:34:59	ST055	Still	210761_ST055_03	02025	421 441.6	6 045 628.4	421 481.8	6 045 598.7	-	50.0	-
19/08/2022	12:35:12	ST055	Still	210761_ST055_04	02026	421 441.6	6 045 628.4	421 460.9	6 045 621.3	18.4	20.6	-
19/08/2022	12:35:16	ST055	Still	210761_ST055_05	02027	421 441.6	6 045 628.4	421 464.6	6 045 617.8	19.8	25.4	-
19/08/2022	12:35:26	ST055	Still	210761_ST055_06	02028	421 441.6	6 045 628.4	421 470.1	6 045 609.6	-	34.2	-
19/08/2022	12:35:42	ST055	Still	210761_ST055_07	02029	421 441.6	6 045 628.4	421 454.7	6 045 632.2	-	13.7	-
19/08/2022	12:35:50	ST055	Still	210761_ST055_08	02030	421 441.6	6 045 628.4	421 468.3	6 045 612.2	-	31.2	-
19/08/2022	12:35:59	ST055	Still	210761_ST055_09	02031	421 441.6	6 045 628.4	421 442.3	6 045 656.3	-	27.9	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
19/08/2022	12:36:05	ST055	Still	210761_ST055_10	02032	421 441.6	6 045 628.4	421 447.6	6 045 651.9	20.0	24.3	-
19/08/2022	12:36:17	ST055	Still	210761_ST055_11	02033	421 441.6	6 045 628.4	421 444.0	6 045 659.4	20.3	31.2	-
19/08/2022	12:36:30	ST055	Still	210761_ST055_12	02034	421 441.6	6 045 628.4	421 439.6	6 045 673.9	-	45.6	-
19/08/2022	12:36:41	ST055	Still	210761_ST055_13	02035	421 441.6	6 045 628.4	421 448.3	6 045 657.6	-	30.0	-
19/08/2022	12:37:02	ST055	Still	210761_ST055_14	02036	421 441.6	6 045 628.4	421 440.1	6 045 685.6	-	57.3	-
19/08/2022	12:37:23	ST055	Still	210761_ST055_15	02037	421 441.6	6 045 628.4	421 437.7	6 045 701.7	-	73.5	-
19/08/2022	12:37:29	ST055	Video	EOL	02038	421 441.6	6 045 628.4	421 437.7	6 045 706.9	19.9	78.6	-
19/08/2022	12:43:03	ST055	HG	NS	02039	421 441.6	6 045 628.4	421 428.3	6 045 594.1	20.2	36.8	-
19/08/2022	12:49:22	ST055	HG	FA/PSDA	02040	421 441.6	6 045 628.4	421 448.0	6 045 625.8	19.3	6.9	-
19/08/2022	13:10:43	ST042	Video	SOL	02041	421 665.9	6 043 250.4	421 721.0	6 043 248.6	19.1	55.1	-
19/08/2022	13:10:56	ST042	Still	210761_ST042_01	02042	421 665.9	6 043 250.4	421 717.0	6 043 255.0	-	51.3	-
19/08/2022	13:11:01	ST042	Still	210761_ST042_02	02043	421 665.9	6 043 250.4	421 713.1	6 043 255.9	19.0	47.5	-
19/08/2022	13:11:08	ST042	Still	210761_ST042_03	02044	421 665.9	6 043 250.4	421 707.4	6 043 256.7	19.1	42.0	-
19/08/2022	13:11:16	ST042	Still	210761_ST042_04	02045	421 665.9	6 043 250.4	421 701.5	6 043 257.8	19.1	36.4	-
19/08/2022	13:11:28	ST042	Still	210761_ST042_05	02046	421 665.9	6 043 250.4	421 688.9	6 043 254.6	19.2	23.4	-
19/08/2022	13:11:39	ST042	Still	210761_ST042_06	02047	421 665.9	6 043 250.4	421 679.3	6 043 251.0	19.2	13.4	-
19/08/2022	13:11:44	ST042	Still	210761_ST042_07	02048	421 665.9	6 043 250.4	421 676.5	6 043 250.2	18.3	10.6	-
19/08/2022	13:11:53	ST042	Still	210761_ST042_08	02049	421 665.9	6 043 250.4	421 670.7	6 043 245.4	18.5	6.9	-
19/08/2022	13:12:01	ST042	Still	210761_ST042_09	02050	421 665.9	6 043 250.4	421 664.9	6 043 241.7	18.9	8.7	-
19/08/2022	13:12:13	ST042	Still	210761_ST042_10	02051	421 665.9	6 043 250.4	421 656.8	6 043 235.8	18.6	17.1	-
19/08/2022	13:12:17	ST042	Still	210761_ST042_11	02052	421 665.9	6 043 250.4	421 651.2	6 043 232.9	18.8	22.8	-
19/08/2022	13:12:26	ST042	Still	210761_ST042_12	02053	421 665.9	6 043 250.4	421 645.4	6 043 229.4	18.3	29.3	-
19/08/2022	13:12:33	ST042	Still	210761_ST042_13	02054	421 665.9	6 043 250.4	421 639.6	6 043 225.1	18.8	36.5	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
19/08/2022	13:12:44	ST042	Still	210761_ST042_14	02055	421 665.9	6 043 250.4	421 631.9	6 043 219.6	18.7	45.8	-
19/08/2022	13:12:55	ST042	Still	210761_ST042_15	02056	421 665.9	6 043 250.4	421 625.9	6 043 213.4	19.1	54.4	-
19/08/2022	13:13:01	ST042	Video	EOL	02057	421 665.9	6 043 250.4	421 622.0	6 043 210.0	18.9	59.6	-
19/08/2022	13:18:44	ST042	HG	FA/PSDA	02058	421 665.9	6 043 250.4	421 657.3	6 043 277.2	18.1	28.2	-
19/08/2022	13:40:24	ST041	Video	SOL	02059	418 441.6	6 042 628.4	418 491.4	6 042 637.7	17.7	50.7	-
19/08/2022	13:40:47	ST041	Still	210761_ST041_01	02060	418 441.6	6 042 628.4	418 474.2	6 042 639.6	18.4	34.5	-
19/08/2022	13:40:54	ST041	Still	210761_ST041_02	02061	418 441.6	6 042 628.4	418 470.9	6 042 641.7	18.8	32.2	-
19/08/2022	13:41:02	ST041	Still	210761_ST041_03	02062	418 441.6	6 042 628.4	418 464.3	6 042 641.6	18.8	26.3	-
19/08/2022	13:41:10	ST041	Still	210761_ST041_04	02063	418 441.6	6 042 628.4	418 459.2	6 042 640.0	17.9	21.1	-
19/08/2022	13:41:20	ST041	Still	210761_ST041_05	02064	418 441.6	6 042 628.4	418 449.3	6 042 638.4	18.6	12.7	-
19/08/2022	13:41:27	ST041	Still	210761_ST041_06	02065	418 441.6	6 042 628.4	418 443.7	6 042 637.9	18.4	9.8	-
19/08/2022	13:41:36	ST041	Still	210761_ST041_07	02066	418 441.6	6 042 628.4	418 439.4	6 042 636.3	18.4	8.2	-
19/08/2022	13:41:43	ST041	Still	210761_ST041_08	02067	418 441.6	6 042 628.4	418 433.9	6 042 636.4	18.2	11.1	-
19/08/2022	13:41:55	ST041	Still	210761_ST041_09	02068	418 441.6	6 042 628.4	418 424.2	6 042 639.6	18.6	20.7	-
19/08/2022	13:42:06	ST041	Still	210761_ST041_10	02069	418 441.6	6 042 628.4	418 415.4	6 042 643.3	19.1	30.1	-
19/08/2022	13:42:20	ST041	Still	210761_ST041_11	02070	418 441.6	6 042 628.4	418 405.5	6 042 644.6	18.5	39.5	-
19/08/2022	13:42:28	ST041	Still	210761_ST041_12	02071	418 441.6	6 042 628.4	418 399.5	6 042 644.4	18.5	45.0	-
19/08/2022	13:42:44	ST041	Still	210761_ST041_13	02072	418 441.6	6 042 628.4	418 389.1	6 042 644.2	18.9	54.8	-
19/08/2022	13:42:52	ST041	Still	210761_ST041_14	02073	418 441.6	6 042 628.4	418 385.0	6 042 645.6	18.9	59.1	-
19/08/2022	13:43:01	ST041	Video	EOL	02074	418 441.6	6 042 628.4	418 381.7	6 042 647.5	17.9	62.8	-
19/08/2022	13:48:10	ST041	HG	NS	02075	418 441.6	6 042 628.4	418 458.0	6 042 647.9	18.0	25.5	-
19/08/2022	13:53:36	ST041	HG	FA/PSDA	02077	418 441.6	6 042 628.4	418 431.9	6 042 633.0	18.0	10.7	-
19/08/2022	14:45:28	BT21	BT	SOL	02078	415 159.8	6 041 259.8	415 436	6 041 573	15.0	418.0	-

Date	Time [UTC]	Station	Type	Event	Fix No.	Proposed Location		Actual Location		Depth [m BSL]	Offset	Notes
						Easting	Northing	Easting	Northing			
19/08/2022	14:54:40	BT21	BT	EOL	02079	415 159.8	6 041 259.8	414 885	6 040 937	15.0	424.2	-
19/08/2022	15:54:03	BT05	BT	SOL	02080	412 656.5	6 051 657.2	413 091	6 051 839	21.0	470.8	-
19/08/2022	16:01:50	BT05	BT	EOL	02081	412 656.5	6 051 657.2	412 277	6 051 512	15.0	406.8	-
Notes BT = Beam trawl CA = Chemical analysis DG = Day grab EOL = End of line FA = Faunal sample A HG = Hamon grab NS = No sample SOL = Start of line UTC = Coordinated Universal Time												

C.2 Grab Log

Date	Time [UTC]	Station	Sample Rep	Fix No.	Sample Depth [cm] Sample Volume [L]	Sediment Description		Comments (fauna, smell, bioturbation, debris)
						Sediment Type	Sediment Description	
06/08/2022	21:51:33	ST177	FA/PSDA	00026	5 L	sM	Sandy mud	-
06/08/2022	22:30:39	ST168	FA/PSDA	00028	4 L	mS	Muddy sand	Small sample
06/08/2022	22:30:39	ST168	NS	00028	3 L	mS	Muddy sand	-
06/08/2022	22:36:01	ST168	NS	00029	3 L	mS	Muddy sand	-
06/08/2022	22:43:37	ST168	NS	00030	3 L	mS	Muddy sand	-
06/08/2022	23:53:25	ST167	NS	00048	1 L	mS	Muddy sand	-
06/08/2022	23:57:41	ST167	NS	00049	0 L	mS	Muddy sand	-
07/08/2022	00:03:31	ST167	NS	00050	1 L	mS	Muddy sand	-
07/08/2022	00:11:46	ST167	FA/PSDA	00051	3 L	(g)mS	Gravelly muddy sand	-
07/08/2022	01:23:27	ST166	NS	00073	1 L	(g)mS	Gravelly muddy sand	-
07/08/2022	01:28:20	ST166	NS	00074	0 L	(g)mS	Gravelly muddy sand	-
07/08/2022	01:32:29	ST166	PSDA	00075	3 L	(g)mS	Gravelly muddy sand	-
07/08/2022	01:40:21	ST166	NS	00076	2 L	(g)mS	Gravelly muddy sand	-
07/08/2022	02:31:09	ST165	FA/PSDA	00077	7 L	(g)sM	Gravelly sandy mud	-
07/08/2022	03:33:33	ST164	FA/PSDA	00078	7 L	(g)sM	Gravelly sandy mud	-
07/08/2022	04:12:47	ST163	NS	00079	1 L	(g)sM	Gravelly sandy mud	-
07/08/2022	04:20:29	ST163	NS	00080	4 L	(g)sM	Gravelly sandy mud	-
07/08/2022	04:26:10	ST163	NS	00081	1 L	(g)sM	Gravelly sandy mud	-
07/08/2022	04:37:18	ST163	FA/PSDA	00082	6 L	(g)sM	Gravelly sandy mud	-

Date	Time [UTC]	Station	Sample Rep	Fix No.	Sample Depth [cm] Sample Volume [L]	Sediment Description		Comments (fauna, smell, bioturbation, debris)
						Sediment Type	Sediment Description	
07/08/2022	06:55:53	ST162	FA/PSDA	00100	6 L	(g)sM	Gravelly sandy mud	-
07/08/2022	08:29:43	ST161	NS	00140	3 L	sM	Sandy mud	-
07/08/2022	08:38:39	ST161	FA/PSDA	00141	5 L	sM	Sandy mud	-
07/08/2022	09:20:44	ST160	FA/PSDA	00142	5 L	mS	Muddy fine sand	-
07/08/2022	09:51:54	ST159	FA/PSDA	00143	5 L	mS	Muddy fine sand	-
07/08/2022	10:22:24	ST158	FA/PSDA	00144	6 L	-	-	-
07/08/2022	11:41:29	ST178	FA/PSDA	00145	5 L	mS	Muddy sand	-
07/08/2022	12:12:39	ST169	NS	00146	3 L	S	Sand	-
07/08/2022	12:22:59	ST169	FA/PSDA	00147	5 L	S	Sand	-
07/08/2022	13:34:59	ST178	CA	00148	7 cm	S	Sand	-
07/08/2022	08:29:43	ST161	NS	00140	2 cm	(g)sM	Slightly sandy gravelly mud	-
07/08/2022	15:06:43	ST161	CA	00149	7 cm	(g)sM	Slightly sandy gravelly mud	-
07/08/2022	16:27:17	ST164	CA	00151	9 cm	msG	Muddy sandy gravel	-
07/08/2022	17:52:28	ST168	CA	00152	7 cm	(g)mS	Slightly gravelly muddy sand	-
08/08/2022	12:38:05	ST154	FA/PSDA	00162	5 L	mS	Muddy sand	-
08/08/2022	13:13:49	ST179	FA/PSDA	00163	5 L	mS	Muddy sand	-
08/08/2022	13:44:59	ST170	FA/PSDA	00164	5 L	mS	Muddy sand	-
08/08/2022	14:15:20	ST171	FA/PSDA	00165	5 L	mS	Muddy sand	-
08/08/2022	14:46:10	ST172	FA/PSDA	00166	6 L	S	Sand	-
08/08/2022	15:24:27	ST155	FA/PSDA	00167	5 L	S	Sand	-

Date	Time [UTC]	Station	Sample Rep	Fix No.	Sample Depth [cm] Sample Volume [L]	Sediment Description		Comments (fauna, smell, bioturbation, debris)
						Sediment Type	Sediment Description	
08/08/2022	16:36:32	ST156	FA/PSDA	00192	5 L	S	Sand	-
08/08/2022	18:18:30	ST174	FA/PSDA	00194	5 L	mS	Muddy sand	-
08/08/2022	18:47:33	ST137	NS	00195	3 L	S	Sand	-
08/08/2022	18:56:28	ST137	FA/PSDA	00196	5 L	S	Sand	-
08/08/2022	19:29:59	ST175	FA/PSDA	00197	5 L	S	Sand	-
08/08/2022	20:04:31	ST176	FA/PSDA	00198	5 L	mS	Muddy sand	-
08/08/2022	20:30:34	ST157	NS	00199	4 L	mS	Muddy sand	-
08/08/2022	20:39:46	ST157	FA/PSDA	00200	5 L	mS	Muddy sand	-
08/08/2022	21:16:07	ST180	FA/PSDA	00201	5 L	mS	Muddy sand	-
09/08/2022	01:15:39	ST156	CA	00205	7 cm	S	Sand	-
09/08/2022	02:03:19	ST172	CA	00206	11 cm	S	Sand	-
09/08/2022	05:31:37	ST147	FA/PSDA	00209	6 L	mS	Muddy sand	-
09/08/2022	06:13:39	ST146	FA/PSDA	00210	5 L	mS	Muddy sand	-
09/08/2022	06:44:45	ST145	FA/PSDA	00211	5 L	mS	Muddy sand	-
09/08/2022	07:14:10	ST144	FA/PSDA	00212	5 L	mS	Muddy sand	-
09/08/2022	07:45:37	ST143	FA/PSDA	00213	7 L	mS	Muddy sand	-
09/08/2022	08:14:33	ST142	FA/PSDA	00214	5 L	sM	Sandy mud	-
09/08/2022	08:44:09	ST141	FA/PSDA	00215	6 L	S	Sand	-
09/08/2022	09:13:29	ST140	FA/PSDA	00216	5 L	mS	Muddy sand	-
09/08/2022	09:42:53	ST139	NS	00217	2 L	mS	Muddy sand	-

Date	Time [UTC]	Station	Sample Rep	Fix No.	Sample Depth [cm] Sample Volume [L]	Sediment Description		Comments (fauna, smell, bioturbation, debris)
						Sediment Type	Sediment Description	
09/08/2022	09:50:31	ST139	FA/PSDA	00218	5 L	mS	Muddy sand	-
09/08/2022	13:51:56	ST138	FA/PSDA	00221	6 L	mS	Slightly muddy sand	-
09/08/2022	15:11:18	ST002	FA/PSDA	00222	7 L	mS	Muddy sand	-
09/08/2022	15:35:18	ST004	FA/PSDA	00223	8 L	mS	Muddy sand	-
09/08/2022	16:07:10	ST005	FA/PSDA	00224	6 L	(g)mS	Gravelly muddy sand	-
09/08/2022	18:55:52	ST006	NS	00227	4 L	mS	Muddy sand	-
09/08/2022	19:00:32	ST006	FA/PSDA	00228	5 L	mS	Muddy sand	-
09/08/2022	19:27:35	ST007	FA/PSDA	00229	9 L	(g)mS	Gravelly muddy sand	-
09/08/2022	19:54:11	ST008	FA/PSDA	00230	5 L	sM	Sandy mud	-
09/08/2022	20:23:46	ST014	FA/PSDA	00231	8 L	mS	Muddy sand	-
09/08/2022	22:39:25	ST013	NS	00234	3 L	sM	Sandy mud	-
09/08/2022	22:45:29	ST013	FA/PSDA	00235	5 L	sM	Sandy mud	-
09/08/2022	23:28:53	ST011	FA/PSDA	00236	7 L	sM	Sandy mud	-
10/08/2022	00:02:15	ST017	FA/PSDA	00237	6 L	mS	Muddy sand	-
10/08/2022	00:20:19	ST017	CA	00238	7 cm	mS	Muddy sand	Anoxic sediment after 1 cm depth
10/08/2022	00:49:23	ST018	NS	00239	3 L	mS	Muddy sand	-
10/08/2022	00:54:14	ST018	NS	00240	3 L	mS	Muddy sand	-
10/08/2022	00:59:19	ST018	FA/PSDA	00241	5 L	mS	Muddy sand	-
10/08/2022	01:25:37	ST019	FA/PSDA	00242	5 L	mS	Muddy sand	-
10/08/2022	01:55:55	ST020	FA/PSDA	00243	6 L	mS	Muddy sand	-

Date	Time [UTC]	Station	Sample Rep	Fix No.	Sample Depth [cm] Sample Volume [L]	Sediment Description		Comments (fauna, smell, bioturbation, debris)
						Sediment Type	Sediment Description	
10/08/2022	02:19:58	ST021	NS	00244	2 L	mS	Muddy sand	-
10/08/2022	02:23:59	ST021	FA/PSDA	00245	5 L	mS	Muddy sand	-
10/08/2022	03:26:21	ST022	FA/PSDA	00246	5 L	mS	Muddy sand	-
10/08/2022	03:58:14	ST029	FA/PSDA	00247	6 L	S	Sand	-
10/08/2022	04:24:32	ST028	FA/PSDA	00248	6 L	S	Sand	-
10/08/2022	06:47:04	ST027	NS	00251	3 L	S	Sand	-
10/08/2022	06:52:15	ST027	FA/PSDA	00252	8 L	S	Sand	-
10/08/2022	07:11:45	ST026	NS	00253	3 L	S	Sand	-
10/08/2022	07:16:10	ST026	FA/PSDA	00254	5 L	S	Sand	-
10/08/2022	07:34:37	ST025	FA/PSDA	00255	8 L	S	Sand	-
10/08/2022	07:52:02	ST033	FA/PSDA	00256	5 L	S	Sand	-
10/08/2022	08:13:46	ST034	FA/PSDA	00257	5 L	S	Sand	-
10/08/2022	08:33:43	ST035	FA/PSDA	00258	9 L	S	Sand	-
10/08/2022	08:54:06	ST036	FA/PSDA	00259	6 L	S	Sand	-
10/08/2022	09:12:44	ST037	FA/PSDA	00260	6 L	S	Sand	-
10/08/2022	09:34:29	ST047	FA/PSDA	00261	5 L	S	Sand	-
10/08/2022	09:52:14	ST046	FA/PSDA	00262	6 L	S	Sand	-
10/08/2022	10:09:49	ST046	CA	00263	9 cm	S	Sand	-
10/08/2022	10:28:34	ST045	FA/PSDA	00264	7 L	S	Sand	-
10/08/2022	10:28:34	ST045	FA/PSDA	00264	5 L	S	Sand	-

Date	Time [UTC]	Station	Sample Rep	Fix No.	Sample Depth [cm] Sample Volume [L]	Sediment Description		Comments (fauna, smell, bioturbation, debris)
						Sediment Type	Sediment Description	
10/08/2022	11:21:01	ST044	CA	00266	8 cm	S	Sand	-
10/08/2022	11:51:20	ST057	FA/PSDA	00267	5 L	gS	Gravelly sand	Shell fragments
10/08/2022	12:16:51	ST058	FA/PSDA	00268	5 L	mS	Muddy sand	Shell fragments
10/08/2022	12:37:38	ST059	FA/PSDA	00269	5 L	mS	Muddy sand	Sea potato
10/08/2022	12:55:53	ST060	FA/PSDA	00270	5 L	mS	Muddy sand	Sea potato
10/08/2022	13:14:43	ST076	FA/PSDA	00271	5 L	mS	Muddy sand	Shell fragments
10/08/2022	13:30:23	ST075	FA/PSDA	00272	5 L	mS	Muddy sand	Shell fragments
10/08/2022	13:50:21	ST074	CA	00273	8 cm	mS	Muddy sand	-
10/08/2022	14:04:42	ST074	FA/PSDA	00274	5 L	mS	Muddy sand	Shell fragments
10/08/2022	14:22:57	ST073	FA/PSDA	00275	5 L	S	Sand	Sand eel
10/08/2022	14:42:14	ST091	FA/PSDA	00276	5 L	sM	Sandy mud	Sea potato
10/08/2022	15:00:39	ST092	FA/PSDA	00277	6 L	S	Sand	-
10/08/2022	20:30:36	ST090	FA/PSDA	00283	5 L	mS	Muddy Sand	Shell fragments
10/08/2022	21:21:11	ST072	NS	00286	3 L	-	-	-
10/08/2022	21:27:07	ST072	FA/PSDA	00287	5 L	mS	Muddy Sand	Shell fragments
11/08/2022	01:09:12	ST056	FA/PSDA	00328	8 L	mS	Muddy Sand	-
11/08/2022	01:51:28	ST043	FA/PSDA	00348	7 L	mS	Muddy Sand	-
11/08/2022	02:49:05	ST032	FA/PSDA	00365	6 L	S	Sand	-
11/08/2022	06:46:04	ST024	FA/PSDA	00409	7 L	S	Sand	-
11/08/2022	07:26:18	ST016	FA/PSDA	00429	5 L	mS	Muddy Sand	-

Date	Time [UTC]	Station	Sample Rep	Fix No.	Sample Depth [cm] Sample Volume [L]	Sediment Description		Comments (fauna, smell, bioturbation, debris)
						Sediment Type	Sediment Description	
11/08/2022	08:06:25	ST009	NS	00451	4 L	mS	Muddy Sand	-
11/08/2022	08:13:16	ST009	FA/PSDA	00452	5 L	mS	Muddy Sand	-
11/08/2022	08:57:24	ST010	NS	00470	3 L	mS	Muddy Sand	-
11/08/2022	09:04:39	ST010	NS	00471	1 L	mS	Muddy Sand	-
11/08/2022	09:10:41	ST010	FA/PSDA	00472	7 L	mS	Muddy Sand	-
11/08/2022	09:53:16	ST003	FA/PSDA	00488	6 L	mS	Muddy Sand	-
11/08/2022	10:38:14	ST001	FA/PSDA	00506	7 L	mS	Muddy Sand	-
11/08/2022	11:59:39	ST012	CA	00524	9 cm	gS	Gravelly sand	-
11/08/2022	12:08:22	ST012	FA/PSDA	00525	10 L	gS	Gravelly sand	Shell fragments
11/08/2022	13:18:18	ST015	FA/PSDA	00544	8 L	gS	Gravelly sand	Shell fragments
11/08/2022	14:50:05	ST023	FA/PSDA	00563	5 L	mS	Muddy Sand	Shell fragments
11/08/2022	16:23:23	ST030	FA/PSDA	00580	5 L	mS	Muddy Sand	-
11/08/2022	17:35:10	ST031	FA/PSDA	00602	5 L	mS	Muddy Sand	Anoxia marbled sediment
11/08/2022	17:41:55	ST031	CA	00603	8 cm	-	-	-
11/08/2022	19:52:00	ST141	CA	00645	10 cm	S	Sand	-
11/08/2022	23:50:14	ST146	CA	00650	8 cm	S	Sand	-
12/08/2022	00:43:05	ST136	FA/PSDA	00651	6 L	mS	Muddy sand	-
12/08/2022	01:21:43	ST135	NS	00652	3 L	mS	Muddy sand	-
12/08/2022	01:29:14	ST135	FA/PSDA	00653	5 L	(g)mS	Slightly gravelly muddy sand	-
12/08/2022	04:18:51	ST134	NS	00656	3 L	sM	Muddy sand	-

Date	Time [UTC]	Station	Sample Rep	Fix No.	Sample Depth [cm] Sample Volume [L]	Sediment Description		Comments (fauna, smell, bioturbation, debris)
						Sediment Type	Sediment Description	
12/08/2022	04:25:17	ST134	NS	00657	3 L	sM	Muddy sand	-
12/08/2022	04:32:07	ST134	FA/PSDA	00658	6 L	sM	Muddy sand	-
12/08/2022	04:54:42	ST134	CA	00659	7 cm	sM	Muddy sand	-
12/08/2022	05:27:08	ST133	FA/PSDA	00660	5 L	mS	Muddy sand	-
12/08/2022	06:41:19	ST153	FA/PSDA	00674	5 L	mS	Muddy sand	-
12/08/2022	07:33:47	ST152	FA/PSDA	00691	8 L	S	Sand	-
12/08/2022	08:04:39	ST151	NS	00692	6 cm	S	Sand	-
12/08/2022	08:13:15	ST151	CA	00693	9 cm	mS	Muddy sand	-
12/08/2022	08:04:39	ST151	NS	00692	3 L	mS	Muddy sand	-
12/08/2022	08:36:12	ST151	FA/PSDA	00695	6 L	mS	Muddy sand	-
12/08/2022	09:27:26	ST150	NS	00715	3 L	mS	Muddy sand	-
12/08/2022	09:34:35	ST150	FA/PSDA	00716	5 L	mS	Muddy sand	-
12/08/2022	10:08:50	ST149	FA/PSDA	00717	7 L	mS	Muddy sand	-
12/08/2022	10:38:06	ST148	NS	00718	3 L	mS	Muddy sand	-
12/08/2022	10:43:58	ST148	FA/PSDA	00719	5 L	mS	Muddy sand	-
12/08/2022	13:06:24	ST061	FA/PSDA	00742	7 L	msG	Muddy sandy gravel	-
12/08/2022	13:47:11	ST079	FA/PSDA	00758	5 L	(g)S	Slightly gravelly sand	-
12/08/2022	14:24:43	ST078	NS	00775	0 cm	-	-	Rock caught in jaws - washout
12/08/2022	14:31:39	ST078	NS	00776	0 cm	-	-	Rock caught in jaws - washout
12/08/2022	14:39:02	ST078	CA	00777	7 cm	S	Sand	-

Date	Time [UTC]	Station	Sample Rep	Fix No.	Sample Depth [cm] Sample Volume [L]	Sediment Description		Comments (fauna, smell, bioturbation, debris)
						Sediment Type	Sediment Description	
12/08/2022	14:47:24	ST078	FA/PSDA	00778	8 L	gS	Gravelly sand	Shell fragments
12/08/2022	18:25:54	ST077	FA/PSDA	00829	6 L	S	Sand	Sand eel
12/08/2022	19:03:12	ST093	FA/PSDA	00853	8 L	gS	Gravelly sand	Shell fragments
12/08/2022	19:49:06	ST094	FA/PSDA	00873	5 L	gS	Gravelly sand	Sand eel
12/08/2022	21:29:06	ST106	FA/PSDA	00894	10 L	gS	Gravelly sand	-
12/08/2022	22:12:22	ST116	FA/PSDA	00914	5 L	S	Sand	Shell fragments
12/08/2022	22:59:20	ST117	FA/PSDA	00938	5 L	S	Sand	Shell fragments
12/08/2022	23:49:05	ST124	FA/PSDA	00959	6 L	S	Sand	-
13/08/2022	00:36:11	ST128	FA/PSDA	00976	5 L	S	Sand	-
13/08/2022	01:29:54	ST129	FA/PSDA	00992	6 L	mS	Muddy sand	-
13/08/2022	02:13:33	ST125	NS	01005	0 L	-	-	-
13/08/2022	02:18:59	ST125	NS	01006	0 L	-	-	-
13/08/2022	02:25:16	ST125	NS	01007	1 L	mS	Muddy sand	-
13/08/2022	02:33:38	ST125	FA/PSDA	01008	6 L	mS	Muddy sand	-
13/08/2022	02:13:33	ST125	NS	01005	0 cm	(g)mS	Slightly gravelly muddy sand	Gravel in jaws - washout
13/08/2022	02:57:59	ST125	CA	01010	8 cm	(g)mS	Slightly gravelly muddy sand	-
13/08/2022	06:50:41	ST118	FA/PSDA	01044	7 L	S	Sand	-
13/08/2022	07:28:30	ST108	FA/PSDA	01061	6 L	S	Sand	-
13/08/2022	08:03:08	ST107	FA/PSDA	01075	5 L	(g)mS	Slightly gravelly muddy sand	-
13/08/2022	08:18:55	ST107	NS	01076	0 cm	-	-	Gravel in jaws - washout

Date	Time [UTC]	Station	Sample Rep	Fix No.	Sample Depth [cm] Sample Volume [L]	Sediment Description		Comments (fauna, smell, bioturbation, debris)
						Sediment Type	Sediment Description	
13/08/2022	08:25:34	ST107	CA	01077	9 cm	gS	Gravelly sand	-
13/08/2022	09:00:03	ST095	FA/PSDA	01092	7 L	(g)mS	Slightly gravelly muddy sand	-
13/08/2022	09:39:45	ST096	FA/PSDA	01105	7 L	(g)mS	Slightly gravelly muddy sand	-
13/08/2022	12:35:54	ST080	FA/PSDA	01138	5 L	gS	Gravelly sand	Sand eel, shell fragments
13/08/2022	13:18:20	ST081	FA/PSDA	01162	8 L	gS	Gravelly sand	Shell fragments
13/08/2022	13:13:34	ST081	NS	01161	3 L	gS	Gravelly sand	Shell fragments
13/08/2022	13:54:16	ST062	FA/PSDA	01180	8 L	S	Sand	Shell fragments
13/08/2022	14:32:49	ST130	FA/PSDA	01196	7 L	S	Sand	Shell fragments
13/08/2022	17:48:47	ST063	CA	01242	14 cm	gS	Gravelly sand	Sand eel, shell fragments
13/08/2022	17:43:17	ST063	NS	01241	0 cm	-	-	-
13/08/2022	17:54:58	ST063	FA/PSDA	01243	6 L	gS	Gravelly sand	Shell fragments
13/08/2022	18:51:13	ST097	NS	01262	1 L	-	-	-
13/08/2022	18:56:43	ST097	NS	01263	0 L	-	-	-
13/08/2022	19:01:37	ST097	NS	01264	0 L	-	-	-
13/08/2022	19:48:22	ST109	FA/PSDA	01280	5 L	gS	Gravelly sand	Shell fragments
13/08/2022	20:39:36	ST119	FA/PSDA	01299	5 L	S	Sand	Shell fragments
13/08/2022	20:30:01	ST119	NS	01297	1 L	-	-	-
13/08/2022	20:34:47	ST119	NS	01298	1 L	-	-	-
13/08/2022	21:16:06	ST126	FA/PSDA	01323	5 L	mS	Muddy sand	Sea potato, shell fragments
13/08/2022	21:39:49	ST127	FA/PSDA	01324	5 L	mS	Muddy sand	Shell fragments

Date	Time [UTC]	Station	Sample Rep	Fix No.	Sample Depth [cm] Sample Volume [L]	Sediment Description		Comments (fauna, smell, bioturbation, debris)
						Sediment Type	Sediment Description	
13/08/2022	22:20:22	ST120	FA/PSDA	01345	5 L	gS	Gravelly sand	Shell fragments
13/08/2022	23:02:17	ST110	FA/PSDA	01364	7 L	S	Sand	Shell fragments
13/08/2022	23:49:17	ST098	FA/PSDA	01376	5 L	S	Sand	-
14/08/2022	00:06:00	ST098	CA	NO FIX	11 cm	S	Sand	-
14/08/2022	00:45:27	ST082	FA/PSDA	01389	6 L	S	Sand	-
14/08/2022	01:27:46	ST064	FA/PSDA	01415	7 L	(g)mS	Slightly gravelly muddy sand	-
14/08/2022	02:08:36	ST048	FA/PSDA	01430	6 L	(g)sM	Slightly gravelly sandy mud	-
14/08/2022	03:03:26	ST131	FA/PSDA	01431	8 L	mS	Muddy sand	-
14/08/2022	03:36:47	ST049	FA/PSDA	01444	5 L	(g)mS	Slightly gravelly muddy sand	-
14/08/2022	04:19:15	ST065	FA/PSDA	01463	7 L	mS	Muddy sand	-
14/08/2022	05:12:34	ST083	FA/PSDA	01476	5 L	mS	Muddy sand	-
14/08/2022	05:48:45	ST099	FA/PSDA	01491	7 L	mS	Muddy sand	-
14/08/2022	07:03:40	ST111	FA/PSDA	01504	5 L	mS	Muddy sand	-
14/08/2022	09:36:34	ST121	CA	01527	8 cm	S	Sand	-
14/08/2022	09:44:20	ST121	FA/PSDA	01528	7 L	S	Sand	-
14/08/2022	10:27:03	ST122	FA/PSDA	01539	6 L	S	Sand	-
14/08/2022	10:59:11	ST112	FA/PSDA	01550	5 L	mS	Muddy sand	-
14/08/2022	11:38:35	ST100	FA/PSDA	01567	5 L	S	Sand	-
14/08/2022	12:08:51	ST084	FA/PSDA	01587	5 L	(g)mS	Slightly gravelly muddy sand	-
14/08/2022	01:27:46	ST064	FA/PSDA	01415	5 L	mS	Muddy sand	-

Date	Time [UTC]	Station	Sample Rep	Fix No.	Sample Depth [cm] Sample Volume [L]	Sediment Description		Comments (fauna, smell, bioturbation, debris)
						Sediment Type	Sediment Description	
14/08/2022	12:39:51	ST066	FA/PSDA	01608	5 L	mS	Muddy sand	-
14/08/2022	13:09:48	ST050	FA/PSDA	01633	5 L	S	Sand	-
14/08/2022	13:48:39	ST038	CA	01652	10 cm	S	Sand	-
14/08/2022	13:54:36	ST038	FA/PSDA	01653	6 L	S	Sand	-
14/08/2022	14:41:05	ST051	FA/PSDA	01675	10 L	S	Sand	Sand eel, shell fragments
14/08/2022	18:20:18	ST067	FA/PSDA	01702	5 L	S	Sand	Swimming crab, sand eel, shell fragments
14/08/2022	18:55:11	ST085	FA/PSDA	01720	5 L	S	Sand	-
14/08/2022	19:00:49	ST085	CA	01721	9 cm	S	Sand	Sand eels
18/08/2022	12:37:13	ST123	NS	01735	3 L	-	-	-
18/08/2022	12:44:01	ST123	NS	01736	2 L	-	-	-
18/08/2022	12:51:01	ST123	FA/PSDA	01737	5 L	mS	Muddy sand	-
18/08/2022	13:28:19	ST113	FA/PSDA	01758	6 L	S	Sand	-
18/08/2022	13:36:41	ST113	CA	01759	8 cm	S	Sand	-
18/08/2022	14:14:47	ST101	FA/PSDA	01780	5 L	S	Sand	Sand eels, sea potato
18/08/2022	14:44:59	ST114	FA/PSDA	01781	6 L	S	Sand	-
18/08/2022	15:09:07	ST102	FA/PSDA	01782	5 L	S	Sand	Sea potato
18/08/2022	15:29:00	ST086	FA/PSDA	01783	5 L	S	Sand	Sea potato
18/08/2022	15:53:32	ST068	FA/PSDA	01784	5 L	S	Sand	Anoxic sediment after 2 cm depth
18/08/2022	17:25:15	ST052	FA/PSDA	01806	5 L	S	Sand	-
18/08/2022	17:54:19	ST039	FA/PSDA	01807	5 L	S	Sand	Sand eels

Date	Time [UTC]	Station	Sample Rep	Fix No.	Sample Depth [cm] Sample Volume [L]	Sediment Description		Comments (fauna, smell, bioturbation, debris)
						Sediment Type	Sediment Description	
18/08/2022	18:36:28	ST132	FA/PSDA	01835	9 L	(g)S	Slightly gravelly sand	-
19/08/2022	02:02:51	ST040	FA/PSDA	01836	5 L	mS	Muddy sand	-
19/08/2022	02:13:48	ST040	CA	01837	8 cm	mS	Muddy sand	-
19/08/2022	02:44:30	ST053	FA/PSDA	01838	6 L	S	Sand	-
19/08/2022	04:14:58	ST069	FA/PSDA	01839	5 L	S	Sand	-
19/08/2022	04:37:24	ST069	CA	01860	10 cm	S	Sand	-
19/08/2022	05:28:57	ST087	FA/PSDA	01876	5 L	mS	Slightly muddy sand	-
19/08/2022	06:03:51	ST103	FA/PSDA	01889	5 L	mS	Slightly muddy sand	-
19/08/2022	06:13:21	ST103	CA	01890	11 cm	mS	Slightly muddy sand	-
19/08/2022	07:24:21	ST115	FA/PSDA	01903	7 L	sM	Slightly sandy mud	-
19/08/2022	08:02:52	ST104	FA/PSDA	01916	5 L	mS	Muddy sand	-
19/08/2022	08:37:00	ST105	FA/PSDA	01930	5 L	mS	Slightly muddy sand	-
19/08/2022	09:27:16	ST089	FA/PSDA	01944	6 L	mS	Slightly muddy sand	-
19/08/2022	10:34:36	ST070	FA/PSDA	01971	5 L	mS	Muddy sand	-
19/08/2022	11:25:55	ST071	FA/PSDA	01995	5 L	S	Sand	-
19/08/2022	11:34:33	ST071	CA	01996	10 cm	S	Sand	-
19/08/2022	12:13:43	ST054	FA/PSDA	02020	5 L	S	Sand	-
19/08/2022	12:43:03	ST055	NS	02039	2 L	S	Sand	-
19/08/2022	12:49:22	ST055	FA/PSDA	02040	5 L	mS	Slightly muddy sand	-
19/08/2022	13:18:44	ST042	FA/PSDA	02058	5 L	S	Sand	Shell fragments

Date	Time [UTC]	Station	Sample Rep	Fix No.	Sample Depth [cm] Sample Volume [L]	Sediment Description		Comments (fauna, smell, bioturbation, debris)
						Sediment Type	Sediment Description	
19/08/2022	13:48:10	ST041	NS	02075	2	S	Sand	-
19/08/2022	13:53:36	ST041	FA/PSDA	02077	5	S	Sand	Sea potato, shell fragments
Notes UTC = Coordinated Universal Time FA = Faunal sample A PSDA = Particle size distribution sample A CA = Chemical analysis NS = No sample								

C.3 Video and Photographic Log

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
11/08/22	ST001	10:27:54	427 601.9	6 024 775.8	122	01-15	Rippled sand/muddy sand with a varying proportion of shell fragments and pebbles	Fauna sparse. Anemone (Actiniaria), faunal turf (Hydrozoa/Bryozoa), starfish (<i>Asterias rubens</i> , <i>Astropecten irregularis</i>), flatfish (Pleuronectiformes), piddock burrows (Imparidentia).
		10:31:33	427 721.3	6 024 802.2				
11/08/22	ST003	09:41:05	427 614.7	6 027 325.1	121	01-13	Rippled sand/muddy sand with a varying proportion of shell fragments and pebbles	Fauna sparse. Faunal turf (Hydrozoa/Bryozoa), starfish (<i>Astropecten irregularis</i> , <i>Asterias rubens</i>), hermit crab (Paguridae), piddock burrows (Imparidentia).
		09:45:35	427 723.9	6 027 376.8				
11/08/22	ST009	07:53:06	424 774.6	6 030 763.2	139	01-19	Muddy sand with shell fragments	Fauna sparse. Faunal turf (Hydrozoa/Bryozoa inc. Flustridae: <i>Flustra foliacea</i>), starfish (<i>Asterias rubens</i> , <i>Astropecten irregularis</i>), ?hermit crab (Paguridae), ?soft coral (<i>Alcyonium digitatum</i>), flatfish (Pleuronectiformes). Faunal burrows and mounds
		07:58:22	424 777.1	6 030 901.8				
11/08/22	ST010	08:45:02	427 471.5	6 030 586.9	105	01-15	Muddy sand with shell fragments and pebbles	Fauna sparse. Faunal turf (Hydrozoa/Bryozoa), starfish (Asteroidea inc. <i>Asterias rubens</i>), hermit crabs (Paguridae) ?with associated hydrozoan (<i>Hydractinia</i> sp.), ?flatfish (Pleuronectiformes). Faunal burrows and mounds
		08:48:38	427 398.0	6 030 662.4				
11/08/22	ST012	11:42:11	433 391.9	6 030 611.9	107	01-15	Gravelly sand/muddy sand with shell fragments and pebbles	Fauna sparse. Hermit crab (Paguridae) with associated hydrozoan (<i>Hydractinia</i> sp.), ?bryozoan (Flustridae: <i>Flustra foliacea</i>), ?soft coral (<i>Alcyonium digitatum</i>), starfish (Asteroidea inc. <i>Astropecten irregularis</i> , ? <i>Asterias rubens</i>), flatfish (Pleuronectiformes)
		11:49:15	433 483.2	6 030 668.1				
11/08/22	ST015	13:04:10	442 411.4	6 030 602.1	28	01-02	Coarse sediment (Sandy gravel with shell fragments and pebbles)	No fauna identified

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
		13:06:04	442 439.3	6 030 605.9				
11/08/22	ST015A	13:07:46	442 454.3	6 030 633.0	80	01-13	Muddy sand with shell fragments and pebbles	Fauna sparse. Starfish (Asteroidea inc. <i>Asterias rubens</i> , <i>Astropecten irregularis</i>)
		13:10:37	442 517.5	6 030 681.4				
11/08/22	ST016	07:13:32	424 434.3	6 033 557.7	135	01-17	Sand/muddy sand with shell fragments and pebbles	Fauna sparse. Starfish (<i>Luidia sarsi</i> , <i>Astropecten irregularis</i> , <i>Asterias rubens</i>), hermit crabs (Paguridae inc. <i>Pagurus bernhardus</i>) ?with associated hydrozoan (<i>Hydractinia</i> sp.), faunal turf (Hydrozoa/Bryozoa inc. Flustridae: <i>Flustra foliacea</i>), whelk (Buccinidae)
		07:19:27	424 443.3	6 033 692.2				
11/08/22	ST023	14:39:57	421 813.5	6 036 876.5	99	01-16	Rippled sand with shell fragments and occasional pebbles	Fauna sparse. Starfish (Asteroidea inc. <i>Astropecten irregularis</i>), crab (Brachyura), hermit crab (Paguridae)
		14:44:20	421 908.5	6 036 902.9				
11/08/22	ST024	06:32:05	424 443.7	6 036 580.9	104	01-19	Rippled sand with shell fragments and occasional pebbles	Fauna sparse. Starfish (<i>Astropecten irregularis</i>), hermit crab (Paguridae)
		06:36:52	424 447.8	6 036 684.7				
11/08/22	ST030	15:20:52	418 607.9	6 039 906.4	111	01-13	Rippled sand/muddy sand with shell fragments	Fauna sparse. ?Bryozoan (Flustridae: <i>Flustra foliacea</i>), starfish (<i>Asterias rubens</i> , <i>Astropecten irregularis</i>), hermit crab (Paguridae). Anthropogenic debris (?Plastic)
		16:15:52	418 605.1	6 040 017.2				
11/08/22	ST031	17:23:34	420 768.7	6 039 308.6	115	01-19	Rippled sand/muddy sand with shell fragments and pebbles	Fauna sparse. ?Bryozoan (Flustridae: <i>Flustra foliacea</i>), starfish (<i>Astropecten irregularis</i>), hermit crab (Paguridae), sandeel (Ammodytidae)
		17:26:25	420 720.5	6 039 413.0				
11/08/22	ST032	02:31:48	424 927.7	6 039 668.0	122	01-13		

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
		02:41:12	425 049.0	6 039 652.1			Rippled sand/muddy sand with shell fragments and pebbles	Fauna sparse. Starfish (<i>Astropecten irregularis</i>), faunal turf (Bryozoa/Hydrozoa), urchin (Brissidina), sandeels (Ammodytidae), flatfish (Pleuronectiformes)
14/08/22	ST038	13:37:33	409 418.9	6 042 730.0	111	01-16	Rippled sand with shell fragments	Fauna sparse. Starfish (Asteroidea inc. <i>Astropecten irregularis</i>)
		13:40:04	409 510.9	6 042 668.4				
19/08/22	ST041	13:40:24	418 491.4	6 042 637.7	110	01-14	Rippled muddy sand/sandy mud with shell fragments	Fauna sparse. Hermit crabs (Paguridae) with associated hydrozoan (<i>Hydractinia</i> sp.), starfish (<i>Asterias rubens</i> , <i>Astropecten irregularis</i>), faunal turf (Hydrozoa/Bryozoa inc. Flustridae: <i>Flustra foliacea</i>), Possible diatom film (Chromista: ? Bacillariophyceae). Faunal burrows, tracks and casts
		13:43:01	418 381.7	6 042 647.5				
19/08/22	ST042	13:10:43	421 721.0	6 043 248.6	106	01-15	Rippled muddy sand/sandy mud with shell fragments	Fauna sparse. Starfish (<i>Asterias rubens</i> , <i>Astropecten irregularis</i>), faunal turf (Hydrozoa/Bryozoa inc. Flustridae: <i>Flustra foliacea</i>), hermit crabs (Paguridae). Possible diatom film (Chromista: ? Bacillariophyceae). Faunal tracks
		13:13:01	421 622.0	6 043 210.0				
11/08/22	ST043	01:38:26	424 393.5	6 042 623.8	107	01-16	Rippled sand/muddy sand with shell fragments and pebbles	Fauna sparse. Hermit crabs (Paguridae) with associated hydrozoan (<i>Hydractinia</i> sp.), fauna turf (Hydrozoa/Bryozoa inc. Flustridae: <i>Flustra foliacea</i>), starfish (Asteroidea), flatfish (Pleuronectiformes inc. ?Soleidae), dragonet (Callionymidae). Faunal burrows
		01:42:11	424 500.1	6 042 627.5				
14/08/22	ST048	01:58:30	400 375.5	6 045 651.2	46	01-05	Muddy sand with shell fragments and pebbles overlying clay	Fauna sparse. Soft coral (<i>Alcyonium digitatum</i>), hermit crabs (Paguridae) ?with associated hydrozoan (<i>Hydractinia</i> sp.), faunal turf (Hydrozoa/Bryozoa), starfish (<i>Asterias rubens</i>), gadoid fish (Gadidae), gurnard (Triglidae), flatfish (Pleuronectiformes)
		01:58:47	400 418.7	6 045 635.2				
		01:58:47	400 418.7	6 045 635.2	96	06-12	Mixed sediment (Muddy sand with pebbles, cobbles, shell fragments and occasional boulders) overlying clay	Faunal turf (Hydrozoa/Bryozoa inc. Flustridae: <i>Flustra foliacea</i> , ? <i>Halecium</i> sp.), crabs (Brachyura inc. <i>Necora puber</i>), soft coral (<i>Alcyonium digitatum</i>), starfish (<i>Asterias rubens</i>), hermit crabs (Paguridae), anemone (Actiniaria), gadoid fish (Gadidae),
		02:01:50	400 512.5	6 045 614.1				

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
								flatfish (Pleuronectiformes), piddock burrows (Imparidentia). Faunal burrows
14/08/22	ST049	03:25:46	403 377.3	6 045 603.8	142	01-10	Muddy sand with shell fragments and varying proportions of coarser sediment (pebbles and sporadic cobbles)	Fauna sparse. Hermit crab (Paguridae) with associated hydrozoan (<i>Hydractinia</i> sp.), faunal turf (Hydrozoa/Bryozoa inc. Flustridae: <i>Flustra foliacea</i>), soft coral (<i>Alcyonium digitatum</i>), starfish (Asteroidea), anemone (Actiniaria), flatfish (Pleuronectiformes), gadoid fish (Gadidae)
		03:29:20	403 503.1	6 045 669.9				
14/08/22	ST050	13:00:17	406 402.8	6 045 683.6	128	01-22	Rippled sand with shell fragments	Fauna sparse. Hermit crab (Paguridae), starfish (<i>Astropecten irregularis</i> , <i>Asterias rubens</i>), brittlestar (? <i>Ophiura</i> sp.), faunal turf (Hydrozoa/Bryozoa inc. ?Flustridae), flatfish (Pleuronectiformes)
		13:04:19	406 450.5	6 045 564.7				
14/08/22	ST051	14:31:07	409 404.6	6 045 662.0	117	01-19	Rippled sand with shell fragments	Fauna sparse. Starfish (Asteroidea inc. <i>Asterias rubens</i> , ? <i>Astropecten irregularis</i>), hermit crab (Paguridae) ?with associated hydrozoan (<i>Hydractinia</i> sp.), bryozoan (Flustridae: <i>Flustra foliacea</i>), ?sandeel (Ammodytidae)
		14:34:17	409 491.1	6 045 583.5				
18/08/22	ST052	16:58:18	412 630.8	6 046 233.7	133	01-16	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Astropecten irregularis</i> , <i>Asterias rubens</i>), crab (Brachyura), urchin (<i>Echinocardium cordatum</i>), brittlestar (Ophiuroidea), ?sandeel (Ammodytidae), unidentified fish (Gnathostomata). Faunal burrows
		17:02:51	412 691.1	6 046 115.2				
19/08/22	ST054	12:03:26	418 494.5	6 045 615.6	97	01-20	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Asterias rubens</i> , <i>Astropecten irregularis</i>), hermit crab (Paguridae) with associated hydrozoan (<i>Hydractinia</i> sp.), ?bryozoan (Flustridae: <i>Flustra foliacea</i>). Faunal tracks and burrows
		12:06:43	418 423.4	6 045 681.0				
19/08/22	ST055	12:34:33	421 484.1	6 045 587.1	128	01-14	Rippled sand/muddy sand with shell fragments	

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
		12:37:29	421 437.7	6 045 706.9				Fauna sparse. Starfish (<i>Astropecten irregularis</i> , ? <i>Asterias rubens</i>), faunal turf (Bryozoa/Hydrozoa inc. ?Flustridae: <i>Flustra foliacea</i>). Faunal tracks and burrows
11/08/22	ST056	00:48:22	424 371.7	6 045 675.1	148	01-18	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Astropecten irregularis</i> , <i>Asterias rubens</i>), faunal turf (Bryozoa/Hydrozoa), hermit crabs (Paguridae inc. <i>Pagurus bernhardus</i>) with associated hydrozoan (<i>Hydractinia</i> sp.), flatfish (Pleuronectiformes inc. Soleidae), ?comb jelly (Ctenophora)
		01:00:28	424 498.2	6 045 598.1				
12/08/22	ST061	12:55:11	391 407.5	6 048 668.7	42	01-05	(Slightly) gravelly sand/muddy sand with shell fragments and pebbles	No fauna identified
		12:56:02	391 432.9	6 048 635.5				
		12:56:02	391 432.9	6 048 635.5	57	06-18	Rippled sand/muddy sand with a varying proportion of shell fragments and varying proportions of coarser sediment (pebbles and solitary boulders)	Fauna generally sparse. Hermit crabs (Paguridae inc. <i>Pagurus bernhardus</i>) with associated hydrozoan (<i>Hydractinia</i> sp.), soft coral (<i>Alcyonium digitatum</i>), faunal turf (Hydrozoa/Bryozoa), unidentified fish (Gnathostomata), flatfish (Pleuronectiformes).
		12:58:48	391 474.2	6 048 596.2				
		12:58:48	391 474.2	6 048 596.2	6	19-20	Muddy sandy gravel with pebbles, cobbles and shell fragments	Soft coral (<i>Alcyonium digitatum</i>), faunal turf (Hydrozoa/Bryozoa inc. Flustridae: <i>Securiflustra securifrons</i>), crab (<i>Necora puber</i>), piddock burrows (Imparidentia).
		12:59:56	391 479.7	6 048 592.9				
13/08/22	ST062	13:43:51	394 413.7	6 048 687.1	111	01-15	Rippled sand with shell fragments	Fauna sparse. Hermit crab (Paguridae) with associated hydrozoan (<i>Hydractinia</i> sp.), starfish (? <i>Asterias rubens</i>), bryozoan (Flustridae: <i>Flustra foliacea</i>), flatfish (Pleuronectiformes), unidentified fish (Gnathostomata)
		13:48:02	394 417.0	6 048 576.3				

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
13/08/22	ST063	17:28:33	396 921.2	6 048 548.8	149	01-17	(Slightly) gravelly sand/muddy sand with shell fragments and pebbles	Fauna sparse. Starfish (Asteroidea inc. ? <i>Asterias rubens</i>), ?sandeels (Ammodytidae). Faunal tubes
		17:32:32	396 879.3	6 048 692.3				
14/08/22	ST064	01:18:08	400 394.8	6 048 666.6	127	01-11	Rippled sand with shell fragments and patches of coarser sediment (gravelly sand)	Fauna sparse. Hermit crab (Paguridae) with associated hydrozoan (<i>Hydractinia</i> sp.), ?bryozoan (Flustridae: <i>Flustra foliacea</i>), unidentified fish (Gnathostomata), flatfish (Pleuronectiformes), ?sandeel (Ammodytidae), gadoid fish (Gadidae)
		01:21:49	400 498.6	6 048 593.2				
14/08/22	ST065	04:07:51	403 480.5	6 048 854.9	162	01-16	Rippled sand/muddy sand with shell fragments	Fauna generally sparse. Starfish (Asteroidea inc. <i>Astropecten irregularis</i> , <i>Luidia ciliaris</i>), ?bryozoan (Flustridae: <i>Flustra foliacea</i>), unidentified fish (Gnathostomata), flatfish (Pleuronectiformes), sandeels (Ammodytidae)
		04:11:38	403 580.9	6 048 982.6				
14/08/22	ST066	12:30:30	406 408.0	6 048 661.8	31	01-06	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Astropecten irregularis</i> , <i>Asterias rubens</i>), faunal turf (Hydrozoa/Bryozoa inc. ?Flustridae: <i>Flustra foliacea</i>). Flatfish (Pleuronectiformes), sandeel (Ammodytidae)
		12:31:14	406 426.5	6 048 636.5				
		12:31:14	406 426.5	6 048 636.5	81	07-18	Coarse sediment (Sandy gravel/gravelly sand with shell fragments and pebbles)	Fauna sparse. Starfish (Asteroidea inc. <i>Astropecten irregularis</i>), hermit crab (Paguridae) ?with associated hydrozoan (<i>Hydractinia</i> sp.), ?soft coral (<i>Alcyonium digitatum</i>), ?bryozoan (Flustridae: <i>Flustra foliacea</i>)
		12:34:15	406 483.1	6 048 578.9				
14/08/22	ST067	18:07:17	409 475.4	6 048 585.4	112	01-18	Rippled sand/muddy sand with shell fragments	Fauna generally sparse. Starfish (Asteroidea inc. <i>Asterias rubens</i>), hermit crab (Paguridae) ?with associated hydrozoan (<i>Hydractinia</i> sp.), brittlestar (Ophiuroidea), flatfish (Pleuronectiformes), sandeels (Ammodytidae)
		18:10:12	409 424.3	6 048 685.1				
19/08/22	ST069	04:15:33	415 486.6	6 048 629.1	35	01-04	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Astropecten irregularis</i>), ?flatfish (Pleuronectiformes), crab (Brachyura), brittlestar (Ophiuroidea). Faunal tracks and burrows
		04:22:42	415 497.7	6 048 596.1				

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
19/08/22	ST069A	04:19:57	415 407.2	6 048 678.2	122	01-11	Rippled muddy sand with shell fragments	Fauna sparse. Starfish (<i>Astropecten irregularis</i>), ?bryozoan (Flustridae: <i>Flustra foliacea</i>), brittlestar (Ophiuroidea), sandeels (Ammodytidae). Faunal tracks and burrows
		04:22:06	415 498.5	6 048 597.7				
19/08/22	ST070	10:25:09	418 478.2	6 048 601.2	106	01-11	Rippled sand/muddy sand with shell fragments pebbles	Fauna sparse. Brittlestar (Ophiuroidea), starfish (<i>Astropecten irregularis</i>), faunal turf (Hydrozoa/Bryozoa inc. Flustridae: <i>Flustra foliacea</i>). Faunal burrows
		10:28:32	418 435.4	6 048 697.6				
19/08/22	ST071	11:17:14	421 487.4	6 048 595.9	113	01-20	Rippled sand/muddy sand with shell fragments and pebbles	Fauna sparse. Starfish (<i>Astropecten irregularis</i>), faunal turf (Hydrozoa/Bryozoa inc. Flustridae), urchin (<i>Echinocardium cordatum</i>), ?hermit crab (Paguridae), flatfish (Soleidae). Faunal tracks and burrows
		11:20:10	421 393.5	6 048 658.5				
10/08/22	ST072	21:06:02	424 371.7	6 048 656.7	103	01-06	Rippled sand/muddy sand with shell fragments and pebbles	Fauna sparse. Starfish (Asteroidea inc. <i>Astropecten irregularis</i> , ? <i>Asterias rubens</i>), hermit crab (Paguridae) with associated hydrozoan (<i>Hydractinia</i> sp.), faunal turf (Bryozoa/Hydrozoa inc. Flustridae: ? <i>Flustra foliacea</i>), flatfish (Pleuronectiformes)
		21:10:09	424 443.5	6 048 582.3				
12/08/22	ST077	18:14:48	385 501.8	6 051 613.4	113	01-21	Rippled sand/muddy sand with shell fragments	Fauna sparse. Faunal turf (Hydrozoa/Bryozoa), starfish (<i>Asterias rubens</i> , <i>Astropecten irregularis</i>), sandeel (Ammodytidae)
		18:18:50	385 394.7	6 051 650.2				
12/08/22	ST078	14:11:50	388 372.1	6 051 653.3	57	01-08	Rippled sand/muddy sand with a varying proportion of shell fragments, pebbles and infrequent boulders	Fauna sparse. Faunal turf (Hydrozoa/Bryozoa inc. Flustridae: <i>Flustra foliacea</i>), soft coral (<i>Alcyonium digitatum</i>), starfish (<i>Astropecten irregularis</i>), crabs (Brachyura), plaice (<i>Pleuronectes platessa</i>), anemone (Actiniaria: ? <i>Urticina</i> sp.)
		14:13:09	388 346.4	6 051 703.6				
		14:13:09	388 346.4	6 051 703.6	61	09-14	Rippled gravelly sand/sandy gravel with a varying	Hard substrate dominated by soft coral (<i>Alcyonium digitatum</i>) and faunal turf (Hydrozoa/Bryozoa inc. Flustridae: ? <i>Flustra</i>

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
		14:15:27	388 307.7	6 051 751.2			proportion of shell fragments, pebbles and infrequent boulders	<i>foliacea</i>), crab (<i>Necora puber</i>), anemones (Actiniaria), faunal tubes (Serpulidae)
12/08/22	ST079	13:36:35	391 383.9	6 051 642.1	118	01-13	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Asteroidea</i>), sandeel (Ammodytidae). Anthropogenic debris
		13:40:24	391 489.6	6 051 588.9				
13/08/22	ST080	12:20:48	394 391.2	6 051 670.5	108	01-16	Coarse sediment (Gravelly sand/sandy gravel with shell fragments and pebbles)	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa inc. Flustridae: <i>Flustra foliacea</i>), soft coral (<i>Alcyonium digitatum</i>)
		12:25:12	394 469.3	6 051 595.4				
13/08/22	ST081	13:02:25	397 038.1	6 051 727.6	127	01-20	Coarse sediment (Gravelly sand/sandy gravel with shell fragments and pebbles)	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa), soft coral (<i>Alcyonium digitatum</i>), crab (Brachyura), hermit crabs (Paguridae), starfish (<i>Asterias rubens</i>), dragonet (Callionymidae)
		13:08:06	397 107.4	6 051 621.0				
14/08/22	ST082	00:33:03	400 365.7	6 051 653.6	139	01-10	Rippled sand/muddy sand with a varying proportion of shell fragments and pebbles with patches of coarser sediment (pebbles and boulders)	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa inc. Flustridae: <i>Flustra foliacea</i>), starfish (<i>Asterias rubens</i> , <i>Astropecten irregularis</i>), flatfish (Pleuronectiformes), sandeels (Ammodytidae), unidentified fish (Gnathostomata)
		00:36:54	400 503.8	6 051 636.4				
14/08/22	ST083	05:00:24	403 401.3	6 051 573.9	106	01-10	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Asterias rubens</i> , <i>Astropecten irregularis</i>), brittlestar (<i>Ophiura</i> sp.), unidentified fish (Gnathostomata)
		05:04:49	403 420.3	6 051 678.2				

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
14/08/22	ST084	12:00:08	406 397.6	6 051 667.8	111	01-17	Rippled slightly gravelly (?muddy) sand with shell fragments and pebbles	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa), soft coral (<i>Alcyonium digitatum</i>), starfish (Asteroidea inc. <i>Asterias rubens</i>)
		12:03:17	406 496.9	6 051 618.7				
14/08/22	ST085	18:44:14	409 469.2	6 051 595.4	104	01-15	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Astropecten irregularis</i>), unidentified fish (Gnathostomata), sandeels (Ammodytidae)
		18:46:45	409 445.8	6 051 697.1				
19/08/22	ST087	05:19:24	415 504.0	6 051 611.1	126	01-13	Rippled sand/muddy sand with shell fragments	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa ?inc. Flustridae: <i>Flustra foliacea</i>), starfish (Asteroidea inc. <i>Asterias rubens</i> , <i>Astropecten irregularis</i>), brittlestar (<i>Ophiura</i> sp.), flatfish (Pleuronectiformes: ?Soleidae). Faunal tracks
		05:22:18	415 387.4	6 051 658.1				
19/08/22	ST088	09:54:13	418 487.0	6 051 593.0	107	01-10	Rippled sand/muddy sand with shell fragments	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa inc. Flustridae: <i>Flustra foliacea</i>), starfish (Asteroidea inc. <i>Asterias rubens</i> , <i>Astropecten irregularis</i>), hermit crab (Paguridae) with associated hydroid (<i>Hydractinia</i> sp.), flatfish (Soleidae). Faunal tracks
		09:57:39	418 437.9	6 051 687.8				
19/08/22	ST089	09:17:33	421 476.2	6 051 570.9	121	01-10	Rippled sand/muddy sand with shell fragments	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa), starfish (Asteroidea inc. <i>Asterias rubens</i> , <i>Astropecten irregularis</i>)
		09:21:00	421 439.0	6 051 686.0				
10/08/22	ST090	20:15:41	424 434.9	6 051 645.5	101	01-12	Rippled sand/muddy sand with a varying proportion of shell fragments	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa), starfish (Asteroidea inc. <i>Astropecten irregularis</i>), crab (Brachyura), flatfish (Pleuronectiformes inc. <i>Pleuronectes platessa</i>)
		20:19:42	424 532.1	6 051 617.8				

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
12/08/22	ST093	18:52:27	385 914.5	6 054 501.8	111	01-21	Rippled (gravelly) sand with a varying proportion of shell fragments, pebbles and infrequent boulders	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa), soft coral (<i>Alcyonium digitatum</i>), crab (<i>Cancer pagurus</i> , <i>Necora puber</i>), starfish (Asteroidea), unidentified fish (Gnathostomata)
		18:56:17	385 808.0	6 054 531.7				
12/08/22	ST094	19:35:43	388 494.1	6 054 603.2	121	01-17	Coarse sediment (Gravelly sand/sandy gravel with shell fragments and pebbles)	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa inc. Flustridae: <i>Flustra foliacea</i>), soft coral (<i>Alcyonium digitatum</i>), starfish (Asteroidea), anemone (Actiniaria), flatfish (Pleuronectiformes), dragonet (Callionymidae)
		19:39:32	388 382.9	6 054 650.1				
13/08/22	ST095	08:48:38	391 448.8	6 054 704.6	121	01-12	Rippled sand/muddy sand with a varying proportion of shell fragments and pebbles with patches of coarser sediment (Pebbles and shell fragments)	Fauna sparse. Soft coral (<i>Alcyonium digitatum</i>), starfish (<i>Asterias rubens</i>)
		08:52:39	391 409.8	6 054 589.8				
13/08/22	ST096	09:29:41	394 412.0	6 054 590.2	108	01-10	Rippled sand/muddy sand with a varying proportion of shell fragments and pebbles with patches of coarser sediment (Pebbles and shell fragments)	Fauna sparse. Soft coral (<i>Alcyonium digitatum</i>), starfish (Asteroidea), unidentified fish (Gnathostomata)
		09:33:07	394 481.0	6 054 673.4				
13/08/22	ST097	18:39:57	397 470.8	6 054 601.8	73	01-12	Rippled sand/gravelly sand with a varying proportion of shell fragments, pebbles and infrequent cobbles	Faunal turf (Bryozoa/Hydrozoa inc. Flustridae: <i>Flustra foliacea</i>), soft coral (<i>Alcyonium digitatum</i>), crab (<i>Cancer pagurus</i>)
		18:41:56	397 421.3	6 054 655.3				

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
		18:41:56	397 421.3	6 054 655.3	43	13-17	Coarse sediment (Gravelly sand/sandy gravel with shell fragments and pebbles)	No fauna identified
		18:43:10	397 385.7	6 054 678.6				
13/08/22	ST098	23:38:11	400 904.9	6 054 591.4	138	01-09	Rippled sand/sandy mud with shell fragments	Fauna sparse. Starfish (<i>Asteroidea</i>), crab (<i>Brachyura</i>), flatfish (<i>Pleuronectiformes</i> inc. <i>Pleuronectes platessa</i>), sandeel (<i>Ammodytidae</i>)
		23:41:43	401 025.6	6 054 524.0				
14/08/22	ST099	05:38:11	403 481.9	6 054 585.5	111	01-12	Rippled sand/muddy sand with a varying proportion of shell fragments and pebbles	Fauna sparse. Starfish (<i>Asteroidea</i> inc. <i>Asterias rubens</i> , <i>Astropecten irregularis</i>), flatfish (<i>Pleuronectiformes</i>), unidentified fish (<i>Gnathostomata</i>), sandeels (<i>Ammodytidae</i>)
		05:43:06	403 407.6	6 054 668.1				
14/08/22	ST100	11:29:57	406 383.0	6 054 669.2	116	01-14	Rippled sand/sandy mud with shell fragments	Fauna sparse. Starfish (<i>Asteroidea</i> inc. <i>Asterias rubens</i> , <i>Astropecten irregularis</i> , ? <i>Asterina gibbosa</i>)
		11:33:30	406 466.8	6 054 588.8				
18/08/22	ST101	14:05:41	409 416.2	6 054 675.4	107	01-18	Rippled sand/muddy sand with shell fragments	Fauna sparse. Faunal turf (<i>Bryozoa</i> / <i>Hydrozoa</i>), starfish (<i>Asterias rubens</i> , <i>Astropecten irregularis</i>), brittlestars (<i>Ophiura</i> sp.), crab (<i>Brachyura</i>), sandeel (<i>Ammodytidae</i>). Faunal burrows
		14:09:25	409 466.9	6 054 581.8				
19/08/22	ST103	05:54:41	415 500.8	6 054 629.8	117	01-10	Rippled muddy sand/sandy mud with shell fragments	Fauna sparse. Faunal turf (<i>Bryozoa</i> / <i>Hydrozoa</i> inc. <i>Flustridae</i> : <i>Flustra foliacea</i>), starfish (<i>Asteroidea</i> inc. <i>Asterias rubens</i> , <i>Astropecten irregularis</i> , <i>Asterina gibbosa</i>). Faunal tracks and burrows
		05:57:50	415 383.3	6 054 628.0				

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
19/08/22	ST104	07:53:56	418 503.9	6 054 617.5	114	01-10	Rippled muddy sand/sandy mud with shell fragments	Fauna dominated by starfish (Asteroidea inc. <i>Asterias rubens</i> , <i>Astropecten irregularis</i>). Faunal turf (Bryozoa/Hydrozoa inc. Flustridae: <i>Flustra foliacea</i>), brittlestar (<i>Ophiura</i> sp.). Faunal tracks, tubes and burrows
		07:57:37	418 406.2	6 054 676.3				
19/08/22	ST105	08:26:44	421 490.2	6 054 576.6	130	01-11	Rippled muddy sand/sandy mud with shell fragments	Fauna dominated by starfish (Asteroidea inc. <i>Asterias rubens</i> , <i>Astropecten irregularis</i>). Faunal turf (Bryozoa/Hydrozoa), hermit crab (Paguridae) with associated hydrozoan (<i>Hydractinia</i> sp.), dragonet (Callionymidae). Faunal tracks and burrows
		08:31:10	421 385.7	6 054 653.7				
12/08/22	ST106	20:19:35	388 476.6	6 057 586.1	74	01-11	Rippled sand/muddy sand with shell fragments and pebbles	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa), soft coral (<i>Alcyonium digitatum</i>), starfish (<i>Luidia ciliaris</i>), crab (<i>Cancer pagurus</i>), flatfish (Pleuronectiformes)
		20:20:32	388 439.4	6 057 649.9				
		20:20:32	388 439.4	6 057 649.9	41	12-17	Coarse sediment (Gravelly sand/sandy gravel with shell fragments and pebbles)	Fauna sparse. Soft coral (<i>Alcyonium digitatum</i>), starfish (Asteroidea inc. <i>Asterias rubens</i>), flatfish (Pleuronectiformes)
		20:21:53	388 407.3	6 057 675.6				
13/08/22	ST107	07:51:46	391 442.0	6 057 573.3	112	01-11	Coarse sediment (Gravelly sand/sandy gravel with shell fragments and pebbles)	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa), starfish (Asteroidea inc. <i>Asterias rubens</i> , <i>Astropecten irregularis</i>), anemone (Actiniaria)
		07:56:04	391 435.1	6 057 684.9				
13/08/22	ST108	07:16:59	394 444.0	6 057 564.6	127	01-14	Rippled sand/muddy sand with a varying proportion of shell fragments and pebbles	Fauna sparse. Starfish (Asteroidea inc. <i>Asterias rubens</i> , <i>Astropecten irregularis</i>), hermit crab (Paguridae). Faunal tube (? Polychaeta)
		07:21:01	394 448.1	6 057 691.8				

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
13/08/22	ST109	19:35:42	397 484.3	6 057 607.4	120	01-11	Rippled sand/muddy sand with a varying proportion of shell fragments and pebbles	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa), starfish (<i>Astropecten irregularis</i>)
		19:39:25	397 364.3	6 057 613.4				
13/08/22	ST110	22:52:21	400 391.7	6 057 675.9	124	01-16	Rippled sand/muddy sand with a varying proportion of shell fragments and pebbles	Fauna sparse. Starfish (<i>Asterias rubens</i>), crab (<i>Cancer pagurus</i>), hermit crabs (Paguridae), flatfish (Pleuronectiformes), sandeels (Ammodytidae)
		22:55:38	400 489.3	6 057 599.4				
14/08/22	ST111	06:54:10	403 490.5	6 057 590.5	119	01-10	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Astropecten irregularis</i>), crab (Brachyura)
		06:57:55	403 405.3	6 057 673.2				
14/08/22	ST112	10:50:37	406 401.1	6 057 671.7	109	01-08	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (Asteroidea inc. <i>Asterias rubens</i> , <i>Astropecten irregularis</i>), crabs (Brachyura inc. Majoidea). Faunal burrows
		10:54:21	406 495.7	6 057 618.4				
18/08/22	ST113	13:17:49	409 383.4	6 057 673.5	111	01-18	Rippled sand/muddy sand with shell fragments	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa), sandeels (Ammodytidae). Possible diatom film (Chromista: ? Bacillariophyceae)
		13:22:11	409 433.2	6 057 574.6				
19/08/22	ST115	07:13:24	415 489.4	6 057 560.6	131	01-10	Rippled muddy sand/sandy mud with shell fragments	Fauna generally sparse. Faunal turf (Bryozoa/Hydrozoa inc. Flustridae: <i>Flustra foliacea</i>), starfish (Asteroidea inc. <i>Asterias rubens</i> , <i>Astropecten irregularis</i>). Possible diatom film (Chromista: ? Bacillariophyceae)
		07:17:04	415 455.5	6 057 686.7				
12/08/22	ST116	22:01:56	388 368.2	6 060 661.0	24	01-02	Coarse sediment (Gravelly sand/sandy gravel with shell fragments and pebbles)	Faunal turf (Bryozoa/Hydrozoa), soft coral (<i>Alcyonium digitatum</i>), starfish (<i>Astropecten irregularis</i>)
		22:02:17	388 391.6	6 060 657.0				

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
		22:02:17	388 391.6	6 060 657.0	118	03-17	Rippled sand/muddy sand with a varying proportion of shell fragments and pebbles	Faunal turf (Bryozoa/Hydrozoa), starfish (<i>Asterias rubens</i> , <i>Astropecten irregularis</i> , <i>Luidia sarsi</i>), crabs (Brachyura inc. ? <i>Liocarcinus</i> sp.), hermit crab (Paguridae), flatfish (Pleuronectiformes), sandeels (Ammodytidae)
		22:06:14	388 497.8	6 060 605.2				
12/08/22	ST117	22:43:03	391 368.7	6 060 630.4	6	None	Rippled sand/muddy sand with shell fragments, pebbles and occasional cobbles	Fauna generally sparse. Soft coral (<i>Alcyonium digitatum</i>), faunal siphon
		22:42:52	391 371.1	6 060 635.5				
		22:42:52	391 371.1	6 060 635.5	9	01-03	?Muddy sandy gravel inc. shell fragments, pebbles and cobbles	Fauna sparse. Soft coral (<i>Alcyonium digitatum</i>)
		22:43:06	391 379.8	6 060 637.0				
		22:43:06	391 379.8	6 060 637.0	112	04-21	Rippled sand/muddy sand with shell fragments and patches of coarser sediment (inc. pebbles, cobbles and occasional boulders)	Fauna generally sparse. Soft coral (<i>Alcyonium digitatum</i>), starfish (Asteroidea inc. <i>Astropecten irregularis</i>), faunal turf (Bryozoa/Hydrozoa), sandeels (Ammodytidae). Faunal tube (? <i>Lanice conchilega</i>)
		22:48:29	391 483.6	6 060 596.0				
13/08/22	ST118	06:37:31	394 466.7	6 060 579.8	119	01-14	Rippled sand with shell fragments	Fauna sparse. Starfish (Asteroidea inc. <i>Asterias rubens</i> , <i>Astropecten irregularis</i>), flatfish (Pleuronectiformes), unidentified fish (Gnathostomata), sandeels (Ammodytidae), ?comb jelly (Ctenophora)
		06:42:18	394 422.0	6 060 690.5				
13/08/22	ST119	20:17:47	397 470.1	6 060 584.0	118	01-13	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Asterias rubens</i>), hermit crab (Paguridae), flatfish (Pleuronectiformes)
		20:20:21	397 412.9	6 060 687.1				

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
13/08/22	ST120	22:08:36	400 373.4	6 060 640.5	87	01-12	Rippled muddy sand/sandy mud with a varying proportion of shell fragments, pebbles and occasional cobbles	Fauna sparse. Starfish (<i>Asterias rubens</i> , ? <i>Astropecten irregularis</i>), soft coral (<i>Alcyonium digitatum</i>)
		22:10:09	400 460.6	6 060 644.1				
		22:10:09	400 460.6	6 060 644.1	50	13-18	Muddy sandy gravel with pebbles, shell fragments and occasional cobbles	Fauna sparse. Soft coral (<i>Alcyonium digitatum</i>), starfish (<i>Asterias rubens</i>)
		22:11:39	400 510.4	6 060 651.1				
14/08/22	ST121	09:25:24	403 898.3	6 061 059.4	115	01-07	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Asteroidea</i> inc. <i>Astropecten irregularis</i> , <i>Asterias rubens</i>), hermit crab (Paguridae) ?with associated hydrozoan (<i>Hydractinia</i> sp.), sandeels (Ammodytidae), ?jellyfish (<i>Cyanea capillata</i>)
		09:27:46	403 870.0	6 061 170.9				
14/08/22	ST122	10:16:43	406 371.7	6 060 671.9	136	01-08	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Astropecten irregularis</i> , <i>Asterias rubens</i>), faunal turf (Bryozoa/Hydrozoa), hermit crab (Paguridae) ?with associated hydrozoan (<i>Hydractinia</i> sp.). Faunal burrows
		10:20:33	406 493.1	6 060 611.0				
18/08/22	ST123	12:20:29	409 340.8	6 060 377.0	91	01-08	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Asterias rubens</i> , <i>Astropecten irregularis</i>), plaice (<i>Pleuronectes platessa</i>), faunal turf (Bryozoa/Hydrozoa), ?urchin (Brissidina). Faunal tracks and burrows
		12:22:05	409 346.9	6 060 286.2				
		12:22:05	409 346.9	6 060 286.2	24	09-11	?Muddy sandy gravel with shell fragments, pebbles and infrequent cobbles	Fauna sparse. Starfish (<i>Asterias rubens</i>), soft coral (<i>Alcyonidium digitatum</i>), faunal turf (Bryozoa/Hydrozoa), barnacles (Sessilia). Faunal tubes (Serpulidae)
		12:23:13	409 341.9	6 060 262.8				
12/08/22	ST124	23:33:04	391 371.2	6 063 637.5	17	01-05		

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
		23:33:12	391 388.1	6 063 639.8	14	06	Sandy gravel with pebbles, cobbles and shell fragments overlying clay	Fauna sparse. Soft coral (<i>Alcyonium digitatum</i>), faunal turf (Bryozoa/Hydrozoa), starfish (<i>Astropecten irregularis</i> , ? <i>Asterias rubens</i>), piddock burrows (Imparidentia).
		23:33:12	391 388.1	6 063 639.8			Muddy sandy gravel with pebbles, cobbles and shell fragments	Fauna dominated by soft coral (<i>Alcyonium digitatum</i>). Faunal turf (Bryozoa/Hydrozoa), starfish (<i>Asterias rubens</i>), ?anemone (Actiniaria), ?flatfish (Pleuronectiformes). Faunal tubes (Serpulidae)
		23:33:40	391 402.1	6 063 641.4				
		23:33:40	391 402.1	6 063 641.4	24	07-10	Sandy gravel with pebbles, cobbles and shell fragments overlying clay	Fauna sparse. Soft coral (<i>Alcyonium digitatum</i>), starfish (Asteroidea inc. ? <i>Asterias rubens</i>), flatfish (Pleuronectiformes), unidentified fish (Gnathostomata), piddock burrows (Imparidentia).
		23:34:34	391 425.6	6 063 637.0				
		23:34:34	391 425.6	6 063 637.0	10	11	Muddy sandy gravel with pebbles, cobbles, boulders and shell fragments	Soft coral (<i>Alcyonium digitatum</i>), ?anemone (Actiniaria), gadoid fish (Gadidae). Faunal tubes (Serpulidae)
		23:34:58	391 432.9	6 063 629.9				
		23:34:58	391 432.9	6 063 629.9	90	12-17	Gravelly muddy sand with patches of coarser sediment inc. shell fragments, pebbles, cobbles and occasional boulders	Fauna sparse. Starfish (? <i>Astropecten irregularis</i> , ? <i>Asterias rubens</i>), hermit crabs (Paguridae) ?with associated hydrozoan (<i>Hydractinia</i> sp.), soft coral (<i>Alcyonium digitatum</i>). Faunal tubes
		23:37:57	391 487.0	6 063 558.6				
13/08/22	ST125	02:02:42	394 371.5	6 063 627.0	143	01-10	Gravelly muddy sand with patches of coarser sediment inc. pebbles, cobbles, boulders and shell fragments	Fauna generally sparse. Soft coral (<i>Alcyonium digitatum</i>), hermit crabs (Paguridae inc. <i>Pagurus bernhardus</i>) with associated hydrozoan (<i>Hydractinia</i> sp.), starfish (Asteroidea inc. <i>Asterias rubens</i>), ?anemones (Actiniaria inc. ? <i>Metridium</i> sp.),

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
		02:06:30	394 514.8	6 063 627.6				crabs (<i>Brachyura</i> inc. ? <i>Necora puber</i>), brittlestar (<i>Ophiuroidea</i>), flatfish (<i>Pleuronectiformes</i> inc. ? <i>Pleuronectes platessa</i>), unidentified fish (<i>Gnathostomata</i>). Faunal tubes
13/08/22	ST126	21:05:29	397 469.4	6 063 589.4	117	01-21	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Astroidea</i> inc. <i>Astropecten irregularis</i>), crab (? <i>Liocarcinus</i> sp.), hermit crab (<i>Paguridae</i>), unidentified fish (<i>Gnathostomata</i>), ?gurnard (<i>Triglidae</i>), ?flatfish (<i>Pleuronectiformes</i>)
		21:08:02	397 402.4	6 063 685.3				
13/08/22	ST128	00:21:57	391 363.5	6 066 621.9	130	01-14	Rippled sand with shell fragments	Fauna sparse. Starfish (<i>Astropecten irregularis</i>), ?shrimp (<i>Caridea</i>), hermit crab (<i>Paguridae</i>) ?with associated hydrozoan (<i>Hydractinia</i> sp.), crab (<i>Brachyura</i>), brittlestar (<i>Ophiuroidea</i>), flatfish (<i>Pleuronectiformes</i>), unidentified fish (<i>Gnathostomata</i>), sandeels (<i>Ammodytidae</i>). Anthropogenic debris (Rope)
		00:25:58	391 486.9	6 066 581.2				
13/08/22	ST129	01:19:23	394 365.6	6 066 628.8	142	01-13	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Astroidea</i> inc. <i>Astropecten irregularis</i> , <i>Asterias rubens</i>), ?hermit crab (<i>Paguridae</i>), crab (<i>Brachyura</i>), flatfish (<i>Pleuronectiformes</i> inc. <i>Soleidae</i>), gadoid fish (<i>Gadidae</i>), unidentified fish (<i>Gnathostomata</i>)
		01:23:16	394 507.0	6 066 645.3				
13/08/22	ST130	14:23:25	394 264.7	6 047 312.9	116	01-13	Rippled sand with shell fragments	Fauna sparse. Faunal turf (<i>Bryozoa</i> / <i>Hydrozoa</i> inc. ? <i>Flustridae</i> : <i>Flustra foliacea</i>), barnacles (<i>Sessilia</i>), hermit crab (<i>Paguridae</i>)
		14:27:29	394 375.1	6 047 350.1				
18/08/22	ST132	18:13:22	413 412.1	6 041 582.2	120	01-05	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Astropecten irregularis</i>), bryozoan (<i>Flustridae</i> : <i>Flustra foliacea</i>), sandeels (<i>Ammodytidae</i>)
		18:25:57	413 499.9	6 041 500.2				
18/08/22	ST132A	18:16:36	413 494.6	6 041 536.0	65	01-04	Rippled sand/muddy sand with shell fragments	Fauna sparse. Starfish (<i>Astropecten irregularis</i>), sandeels (<i>Ammodytidae</i>)
		18:17:19	413 431.3	6 041 551.4				

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
18/08/22	ST132B	18:22:59	413 406.9	6 041 574.5	118	01-12	Rippled sand/muddy sand with a varying proportion of shell fragments	Fauna sparse. Starfish (Asteroidea inc. <i>Astropecten irregularis</i> , <i>Asterias rubens</i>), ?bryozoan (Bryozoa), crab (Brachyura), ?sandeels (Ammodytidae), flatfish (Pleuronectiformes)
		18:25:20	413 499.0	6 041 500.3				
11/08/22	ST139	18:57:25	411 668.5	6 035 897.4	123	01-19	Muddy sand with shell fragments and pebbles	Fauna sparse. Hermit crab (Paguridae) ?with associated hydrozoan (<i>Hydractinia</i> sp.), faunal turf (Bryozoa/Hydrozoa inc. ?Flustridae: <i>Flustra foliacea</i>), starfish (Asteroidea inc. <i>Asterias rubens</i>), soft coral (<i>Alcyonium digitatum</i>), flatfish (Pleuronectiformes inc. Soleidae)
		19:01:27	411 568.4	6 035 968.8				
07/08/22	ST161	08:12:57	323 354.2	6 004 617.8	107	01-17	Muddy ?sandy gravel inc. shell fragments and pebbles	Soft coral (<i>Alcyonium digitatum</i>), faunal turf (Bryozoa/Hydrozoa), ?sponge (Porifera), crabs (<i>Atelecyclus rotundatus</i> , <i>Ebalia</i> sp.), ?hermit crab (Paguridae), scallops (Pectenidae), gastropod eggs (Gastropoda), starfish (<i>Asterias rubens</i>), dragonets (Callionymidae), gadoid fish (Gadidae), unidentified fish (Gnathostomata). Faunal tubes (Polychaeta)
		08:16:30	323 252.9	6 004 583.6				
07/08/22	ST166	01:07:17	302 466.8	5 991 396.0	143	01-19	Coarse sediment (Sandy gravel with cobbles, pebbles and boulders)	Anemones (<i>Urticina</i> sp.), faunal turf (Bryozoa/Hydrozoa inc. <i>Alcyonidium diaphanum</i> , Flustridae: <i>Flustra foliacea</i> , ? <i>Halecium</i> sp., Tubulariidae, <i>Nemertesia</i> sp., <i>Bugula</i> sp.), barnacles (Sessilia), starfish (Asteroidea inc. <i>Henricia</i> sp.), squat lobster (Galatheaidea), lobster (<i>Homarus gammarus</i>), crabs (Brachyura inc. <i>Necora puber</i>), soft coral (<i>Alcyonium digitatum</i>), tube worm (Sabellidae), gadoid fish (Gadidae), , ?comb jellies (Ctenophora). Faunal tubes (Polychaeta inc. Sabellidae and Serpulidae)
		01:12:37	302 404.4	5 991 267.3				
06/08/22	ST167	23:37:48	298 108.6	5 988 631.2	82	01-08	Coarse sediment (Gravelly sand/sandy gravel with cobbles, pebbles, boulders and shell fragments) with patches of rippled sand	Faunal turf (Bryozoa/Hydrozoa inc. <i>Alcyonidium diaphanum</i> , <i>Halecium</i> sp., Flustridae: <i>Securiflustra securifrons</i> and <i>Flustra foliacea</i> , Tubulariidae), anemones (<i>Urticina</i> sp.), squat lobster (Galatheaidea), crabs (Brachyura inc. ? <i>Liocarcinus</i> sp., <i>Necora puber</i>), barnacles (Sessilia), soft coral (<i>Alcyonium digitatum</i>), lobster (<i>Homarus gammarus</i>), starfish (<i>Henricia</i> sp.), unidentified fish (Gnathostomata). Faunal tracks, burrows and tubes (Polychaeta). Anthropogenic debris (Rope)
		23:36:08	298 042.9	5 988 680.2				

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
		23:36:08	298 042.9	5 988 680.2	36	09-15	Rippled gravelly sand with a varying proportion of pebbles, cobbles and shell fragments	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa inc. <i>Alcyonidium diaphanum</i>), unidentified fish (Gnathostomata)
		23:41:55	298 035.2	5 988 714.9				
06/08/22	ST181	21:15:59	291 354.6	5 986 480.1	46	01-07	Mud/sandy mud with occasional cobbles and boulders	Faunal turf (Bryozoa/Hydrozoa inc. Flustridae: <i>Flustra foliacea</i>), shrimp (Caridea), unidentified fish (Gnathostomata), faunal tubes (Serpulidae)
		21:12:37	291 308.7	5 986 481.0				
		21:12:37	291 308.7	5 986 481.0	76	08-22	Muddy (sandy) gravel with cobbles, pebbles, boulders and shell fragments) with emergent consolidated clay	Crabs (<i>Necora puber</i> , Inachidae, <i>Liocarcinus</i> sp.), faunal turf (Bryozoa/Hydrozoa inc. <i>Halecium</i> sp., <i>Alcyonidium diaphanum</i> , Flustridae: <i>Flustra foliacea</i> , <i>Nemertesia</i> sp.: <i>Nemertesia antennina</i>), shrimp (Caridea), lobster (<i>Homarus gammarus</i>), barnacles (Sessilia), anemones (Actiniaria inc. <i>?Urticina</i> sp.), squat lobster (Galatheaidea), ?sponge (Porifera), unidentified fish (Gnathostomata), ?comb jelly (Ctenophora), piddock burrows (Imparidentia). Faunal tubes and burrows
		21:19:02	291 249.9	5 986 528.5				
07/08/22	ST182	05:27:26	315 924.1	5 999 088.0	106	01-15	Rippled sand/muddy sand with varying proportions of shells and gravel (pebbles and occasional cobbles)	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa inc. Flustridae: <i>Flustra foliacea</i> , <i>Alcyonidium diaphanum</i>), starfish (<i>Asterias rubens</i>), spider crab (Inachidae), ?soft coral (<i>Alcyonium digitatum</i>). Faunal burrows
		05:30:58	315 929.3	5 998 982.3				
07/08/22	ST183	07:27:12	320 827.6	6 002 817.0	104	01-18	Gravelly sand/sandy gravel with pebbles, cobbles, boulders and shell fragments	Fauna dominated by soft coral (<i>Alcyonium digitatum</i>) and bryozoan (Flustridae: <i>Flustra foliacea</i>). Faunal turf (Bryozoa/Hydrozoa inc. <i>Halecium</i> sp., ?Tubulariidae, ?Horneridae), brittlestars (Ophiuroidea inc. <i>Ophiothrix fragilis</i>), starfish (Asteroidea inc. <i>Astropecten irregularis</i> , ? <i>Asterias rubens</i> , ? <i>Crossaster papposus</i>), spider crab (Inachidae), topshell

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
		07:30:37	320 745.7	6 002 753.0				(Vetigastropodida), squat lobster (Galathea inc. ? <i>Munida rugosa</i>), ?hermit crab (Paguridae) with associated hydrozoan (<i>Hydractinia</i> sp.), ?anemone (Actiniaria), ?shrimp (Caridea), gadoid fish (Gadidae), flatfish (Pleuronectiformes), worm tubes (Polychaeta inc. Sabellidae, ?Serpulidae). Possible anthropogenic debris (?metal)
08/08/22	ST184	16:14:45	349 368.2	6 034 767.0	103	01-22	Rippled muddy sand/sandy mud with shell fragments	Fauna generally sparse. Starfish (Asteroidea inc. <i>Asterias rubens</i>), faunal turf (Bryozoa/Hydrozoa inc. Tubulariidae), soft coral (<i>Alcyonium digitatum</i>), hermit crab (Paguridae) with associated hydrozoan (<i>Hydractinia</i> sp.), brittlestars (<i>Ophiothrix fragilis</i>), flatfish (Pleuronectiformes). Faunal tubes, tracks, mounds and burrows. Anthropogenic debris (net)
		16:22:26	349 362.0	6 034 664.6				
12/08/22	ST185	08:58:22	371 600.2	6 049 319.4	89	01-17	Rippled gravelly sand with shell fragments, pebbles and cobbles	Fauna dominated by soft coral (<i>Alcyonium digitatum</i>). Faunal turf (Bryozoa/Hydrozoa inc. Flustridae: <i>Flustra foliacea</i>), brittlestar (Ophiuroidea), ?sponge (<i>Haliclona oculata</i>), ?anemone (Anthozoa), flatfish (Pleuronectiformes), gadoid fish (Gadidae), unidentified fish (Gnathostomata)
		09:04:29	371 685.0	6 049 291.3				
12/08/22	ST186	06:59:44	383 005.7	6 049 536.0	113	01-14	Rippled sand/muddy sand with shell fragments	Fauna sparse. Soft coral (<i>Alcyonium digitatum</i>), ?scallop (Pectenidae), faunal turf (Bryozoa/Hydrozoa), flatfish (Pleuronectiformes), unidentified fish (Gnathostomata)
		07:05:10	382 900.4	6 049 495.0				
12/08/22	ST187	05:51:08	385 056.8	6 048 304.4	116	01-11	Rippled sand/muddy sand with shell fragments	Fauna sparse. ?Crab (Brachyura), hermit crab (Paguridae) with associated hydrozoan (<i>Hydractinia</i> sp.), starfish (Asteroidea inc. <i>Astropecten irregularis</i>)
		05:55:17	385 063.0	6 048 420.5				
11/08/22	ST188	18:26:52	414 005.2	6 036 323.5	124	01-18	Rippled sand with a varying proportion of shell fragments	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa inc. Flustridae: <i>Flustra foliacea</i>), starfish (<i>Astropecten irregularis</i>), sandeels (Ammodytidae)

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
		18:30:50	413 906.0	6 036 397.2				
11/08/22	ST189	03:52:11	423 848.8	6 038 035.6	96	01-16	Rippled sand with shell fragments and pebbles	Starfish (<i>Astropecten irregularis</i>), flatfish (Pleuronectiformes), unidentified fish (Gnathostomata)
		04:02:51	423 923.0	6 038 096.0				
10/08/22	ST190	21:58:38	423 746.5	6 046 612.9	105	01-15	Rippled sand with shell fragments and pebbles	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa ?inc. Flustridae: <i>Flustra foliacea</i>), brittlestar (Ophiuroidea), hermit crab (<i>Pagurus bernhardus</i>) with associated hydrozoan (<i>Hydractinia</i> sp.), flatfish (Pleuronectiformes inc. Soleidae), unidentified fish (Gnathostomata)
		22:02:19	423 760.2	6 046 508.7				
14/08/22	ST200	15:17:04	408 820.7	6 045 478.7	110	01-03	Rippled sand with shell fragments	Fauna sparse. Starfish (Asteroidea inc. <i>Astropecten irregularis</i> , ? <i>Asterias rubens</i>), crab (Brachyura), unidentified fish (Gnathostomata)
		15:19:40	408 883.4	6 045 388.0				
14/08/22	ST201	07:24:53	404 772.3	6 055 344.0	112	01-07	Rippled sand with shell fragments	Fauna sparse. Starfish (Asteroidea inc. <i>Astropecten irregularis</i> , <i>Asterias rubens</i>), ?hermit crab (Paguridae), ?crabs (Brachyura), unidentified fish (Gnathostomata), ?flatfish (Pleuronectiformes)
		07:27:58	404 681.6	6 055 409.6				
13/08/22	ST202	14:57:19	395 108.6	6 047 537.6	22	None	Sandy gravel with cobbles, pebbles and shell fragments and a patch of gravelly sand	Fauna sparse. ?Soft coral (<i>Alcyonium digitatum</i>), starfish (Asteroidea)
		14:57:35	395 125.3	6 047 523.3				
				14:57:35	395 125.3	6 047 523.3	28	01-07

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
		14:58:38	395 152.8	6 047 523.7	38	08-13	Coarse sediment (Sandy gravel/gravelly sand with pebbles and shell fragments)	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa)
		14:58:38	395 152.8	6 047 523.7				
		14:59:47	395 188.4	6 047 537.2				
		14:59:47	395 188.4	6 047 537.2	31	14-21	Rippled (gravelly) sand with shell fragments and patches of coarser sediment (pebbles)	Fauna sparse. Soft coral (<i>Alcyonium digitatum</i>), starfish (Asteroidea)
		15:01:26	395 218.4	6 047 545.7				
13/08/22	ST203	10:06:18	394 537.0	6 055 674.5	34	01-02	Rippled sand/slightly gravelly sand with a varying proportion of shell fragments and pebbles	Fauna sparse. Faunal turf (Bryozoa/Hydrozoa inc. Flustridae: <i>Flustra foliacea</i>)
		10:06:32	394 565.0	6 055 693.1				
		10:06:32	394 565.0	6 055 693.1	90	03-09	Coarse sediment (Sandy gravel/gravelly sand with pebbles and shell fragments)	Fauna sparse. Starfish (Asteroidea inc. <i>Asterias rubens</i>), flatfish (Pleuronectiformes), soft coral (<i>Alcyonium digitatum</i>), faunal turf (Bryozoa/Hydrozoa)
		10:10:01	394 635.0	6 055 749.4				
13/08/22	ST204	03:56:10	393 121.0	6 062 317.2	111	01-13	Rippled sand with shell fragments	Fauna sparse. Starfish (<i>Astropecten irregularis</i>)
		03:58:45	393 202.2	6 062 393.6				
12/08/22	ST205	15:23:11	387 893.8	6 051 517.2	30	01-04		Fauna sparse. Unidentified fish (Gnathostomata)

Geodetic Parameters: WGS 84, UTM Zone 31 N [m]								
Date	Station	Time [UTC]	Video coordinates		Length [m]	Still Nos.	Sediment Description	Fauna / Bioturbation / Debris
			Easting	Northing				
		15:23:43	387 899.4	6 051 546.3			Rippled sand with shell fragments and patches of pebbles	
		15:23:43	387 899.4	6 051 546.3	77	05-20	Coarse sediment (Sandy gravel with cobbles, pebbles and shell fragments)	Fauna sparse. Hermit crab (Paguridae), crab (<i>Liocarcinus</i> sp.), starfish (Asteroidea inc. <i>Asterias rubens</i>), soft coral (<i>Alcyonium digitatum</i>)
		15:28:06	387 892.7	6 051 623.5				
		15:28:06	387 892.7	6 051 623.5	14	21-23	Rippled sand with shell fragments and patches of coarse sediment (pebbles)	Fauna sparse. Soft coral (<i>Alcyonium digitatum</i>), crab (<i>Liocarcinus</i> sp.)
		15:29:31	387 891.1	6 051 636.9				
Notes UTC = Coordinated Universal Time ? = Faunal identification uncertain								

Appendix D

Sediment Particle Size and Grab Sample Photographs

D.1 Sediment Particle Size Certificates

Certificate of Analysis



Certificate Number	EP/22/5030	Revision Number	0
Job Number	210761		
Job Reference	RWE Dogger Bank South		
Prepared For	Prepared By		
RWE	Adam Burtonshaw Fugro GB Marine Limited Trafalgar Wharf (Unit 16) Hamilton Road Portchester Portsmouth PO6 4PX United Kingdom		
	Phone: +44 (0) 2392 205500 Email: sediment@fugro.com Web: www.fugro.com		

Sampling Undertaken By	FGBML	Sampling Date	06/08/2022 – 19/08/2022
Date of Receipt	25/08/2022	Date of Analysis	06/10/2022 – 15/11/2022
Sample Matrix	Marine Sediments		
Method Reference	Particle Size Distribution by Dry Sieving – EUAF-FGBM-SED-TM-001 based on NMBAQC's Best Practice Guidance - Particle Size Analysis (PSA) for Supporting Biological Analysis 2016 and EUAF-FGBM-SED-TM-002 based on BS 1377: Part 1: 2016 and Part 2: 1990 (withdrawn). Particle Size Distribution by Laser Diffraction using a Malvern Mastersizer 2000 and Hydro 2000G Dispersion Unit – EUAF-FGBM-SED-TM-006 based on NMBAQC's Best Practice Guidance - Particle Size Analysis (PSA) for Supporting Biological Analysis 2016 and BS ISO 13320: 2020.		
Test Results	Refer to pages 2-16 of 16 Refer to Excel results file for laser diffraction metadata.		
Laboratory Comments	Deviating Codes: None		
Authorised Signature			
Name	James Hutchinson		
Position	Sediment Laboratory Manager		
Issue Date	22/11/2022		

- Further information on methods of analysis may be obtained from the above address - Options and interpretations expressed herein are outside the scope of UKAS accreditation - Test results reported relate only to those items tested - Test results reported specifically refer to samples tested as received unless otherwise stated ¹Indicates subcontracted test ²Indicates relevant Deviating Code applies to test results	A UKAS TESTING LABORATORY 
Registered in England: Fugro House, Hithercroft Road, Wellingford, Oxfordshire, OX10 9RB, UK. Registered in England No. 1135456 VAT No. GB 579 3499 84	

Certificate of Analysis



Certificate Number	EP/22/5030	Revision Number	0
Job Number	210761		
Job Reference	RWE Dogger Bank South		
Prepared For	Prepared By		
RWE	Adam Burtonshaw Fugro GB Marine Limited Trafalgar Wharf (Unit 16) Hamilton Road Portchester Portsmouth PO6 4PX United Kingdom		
	Phone: +44 (0) 2392 205500 Email: sediment@fugro.com Web: www.fugro.com		

Sampling Undertaken By	FGBML	Sampling Date	06/08/2022 – 19/08/2022
Date of Receipt	25/08/2022	Date of Analysis	06/10/2022 – 15/11/2022
Sample Matrix	Marine Sediments		
Method Reference	Particle Size Distribution by Dry Sieving – EUAF-FGBM-SED-TM-001 based on NMBAQC's Best Practice Guidance - Particle Size Analysis (PSA) for Supporting Biological Analysis 2016 and EUAF-FGBM-SED-TM-002 based on BS 1377: Part 1: 2016 and Part 2: 1990 (withdrawn). Particle Size Distribution by Laser Diffraction using a Malvern Mastersizer 2000 and Hydro 2000G Dispersion Unit – EUAF-FGBM-SED-TM-006 based on NMBAQC's Best Practice Guidance - Particle Size Analysis (PSA) for Supporting Biological Analysis 2016 and BS ISO 13320: 2020.		
Test Results	Refer to pages 2-16 of 16 Refer to Excel results file for laser diffraction metadata.		
Laboratory Comments	Deviating Codes: None		
Authorised Signature			
Name	James Hutchinson		
Position	Sediment Laboratory Manager		
Issue Date	22/11/2022		

- Further information on methods of analysis may be obtained from the above address - Opinions and interpretations expressed herein are outside the scope of UKAS accreditation - Test results reported relate only to those items tested - Test results reported specifically refer to sample(s) tested as received unless otherwise stated ^(M)Indicates subcontracted test ^(D)Indicates relevant Deviating Code applies to test results	A UKAS TESTING LABORATORY 0319
Registered in England: Fugro House, Hithercroft Road, Wellingford, Oxfordshire, OX10 9RB, UK Registered in England No. 1135456 VAT No. GB 579 3499 84	

D.2 Sediment Particle Size Data

TEST RESULTS

Test Results:	Fluorescein Swab (Distribution by QTY: Growing 303000 + 1000 µm) and Leafy (Distribution by QTY: Growing 303000 + 1000 µm) @ 0.1 Pp (Interval 27000)
Job Number:	27000
Job Reference:	WAT - Digging Earth South

[illegible]

Test Results:	Particle Size Distribution by Dry Sieving: 60000 - 1000 µm and Laser Diffraction: < 1000 = + 0.04 µm @ 0.5 µm interval
Job Number:	210761
Job Reference:	RW, Dugger Bank South

[illegible]

Test Results:	Particle Size Distribution by Dry Sieving: 60000 - 1000 µm and Laser Diffraction: < 1000 = + 0.04 µm @ 0.5 µm interval
Job Number:	210761
Job Reference:	RW, Dogger Bank South

[illegible]



TEST RESULTS

Test Result: Particle Size Distribution by Dry Sieving 80000 - 1000 µm and Laser Diffraction (< 1000 - < 0.04 µm) @ 0.5 Phm intervals
Job Number: 210761
Job Reference: RWE Dogger Bank South

SAMPLE ID:	07048	07047	07048
LAB ID:	W041611	W041612	W041613
Aperture (µm)	Fractional (%)	Fractional (%)	Fractional (%)
80000	0.00	0.00	0.00
40000	0.00	0.00	0.00
31500	0.00	0.00	0.00
25000	0.00	0.00	0.00
16000	0.00	0.00	0.00
11200	0.00	0.00	0.00
9000	0.00	0.00	0.44
7500	0.20	0.90	0.62
6000	0.16	0.00	0.91
5000	0.27	0.19	0.15
4000	0.18	0.73	0.39
3000	0.16	0.19	0.15
2500	0.17	0.15	0.31
2000	0.00	0.00	0.00
1500	0.67	0.30	0.66
1250	0.00	0.00	0.00
1000	0.00	0.00	0.00
750	0.00	0.00	0.00
600	0.00	0.00	0.00
500	0.00	0.00	0.00
400	0.00	0.00	0.00
300	0.00	0.00	0.00
250	0.00	0.00	0.00
200	0.00	0.00	0.00
150	0.00	0.00	0.00
125	0.00	0.00	0.00
100	0.00	0.00	0.00
75	0.00	0.00	0.00
60	0.00	0.00	0.00
50	0.00	0.00	0.00
40	0.00	0.00	0.00
30	0.00	0.00	0.00
25	0.00	0.00	0.00
20	0.00	0.00	0.00
15	0.00	0.00	0.00
12.5	0.00	0.00	0.00
10	0.00	0.00	0.00
7.5	0.00	0.00	0.00
6	0.00	0.00	0.00
5	0.00	0.00	0.00
4	0.00	0.00	0.00
3	0.00	0.00	0.00
2.5	0.00	0.00	0.00
2	0.00	0.00	0.00
1.5	0.00	0.00	0.00
1.25	0.00	0.00	0.00
1	0.00	0.00	0.00
0.75	0.00	0.00	0.00
0.6	0.00	0.00	0.00
0.5	0.00	0.00	0.00
0.4	0.00	0.00	0.00
0.3	0.00	0.00	0.00
0.25	0.00	0.00	0.00
0.2	0.00	0.00	0.00
0.15	0.00	0.00	0.00
0.125	0.00	0.00	0.00
0.1	0.00	0.00	0.00
0.075	0.00	0.00	0.00
0.06	0.00	0.00	0.00
0.05	0.00	0.00	0.00
0.04	0.00	0.00	0.00
0.03	0.00	0.00	0.00
0.025	0.00	0.00	0.00
0.02	0.00	0.00	0.00
0.015	0.00	0.00	0.00
0.0125	0.00	0.00	0.00
0.01	0.00	0.00	0.00
0.0075	0.00	0.00	0.00
0.006	0.00	0.00	0.00
0.005	0.00	0.00	0.00
0.004	0.00	0.00	0.00
0.003	0.00	0.00	0.00
0.0025	0.00	0.00	0.00
0.002	0.00	0.00	0.00
0.0015	0.00	0.00	0.00
0.00125	0.00	0.00	0.00
0.001	0.00	0.00	0.00
0.00075	0.00	0.00	0.00
0.0006	0.00	0.00	0.00
0.0005	0.00	0.00	0.00
0.0004	0.00	0.00	0.00
0.0003	0.00	0.00	0.00
0.00025	0.00	0.00	0.00
0.0002	0.00	0.00	0.00
0.00015	0.00	0.00	0.00
0.000125	0.00	0.00	0.00
0.0001	0.00	0.00	0.00
0.000075	0.00	0.00	0.00
0.00006	0.00	0.00	0.00
0.00005	0.00	0.00	0.00
0.00004	0.00	0.00	0.00
0.00003	0.00	0.00	0.00
0.000025	0.00	0.00	0.00
0.00002	0.00	0.00	0.00
0.000015	0.00	0.00	0.00
0.0000125	0.00	0.00	0.00
0.00001	0.00	0.00	0.00
0.0000075	0.00	0.00	0.00
0.000006	0.00	0.00	0.00
0.000005	0.00	0.00	0.00
0.000004	0.00	0.00	0.00
0.000003	0.00	0.00	0.00
0.0000025	0.00	0.00	0.00
0.000002	0.00	0.00	0.00
0.0000015	0.00	0.00	0.00
0.00000125	0.00	0.00	0.00
0.000001	0.00	0.00	0.00
0.00000075	0.00	0.00	0.00
0.0000006	0.00	0.00	0.00
0.0000005	0.00	0.00	0.00
0.0000004	0.00	0.00	0.00
0.0000003	0.00	0.00	0.00
0.00000025	0.00	0.00	0.00
0.0000002	0.00	0.00	0.00
0.00000015	0.00	0.00	0.00
0.000000125	0.00	0.00	0.00
0.0000001	0.00	0.00	0.00
0.000000075	0.00	0.00	0.00
0.00000006	0.00	0.00	0.00
0.00000005	0.00	0.00	0.00
0.00000004	0.00	0.00	0.00
0.00000003	0.00	0.00	0.00
0.000000025	0.00	0.00	0.00
0.00000002	0.00	0.00	0.00
0.000000015	0.00	0.00	0.00
0.0000000125	0.00	0.00	0.00
0.00000001	0.00	0.00	0.00
0.0000000075	0.00	0.00	0.00
0.000000006	0.00	0.00	0.00
0.000000005	0.00	0.00	0.00
0.000000004	0.00	0.00	0.00
0.000000003	0.00	0.00	0.00
0.0000000025	0.00	0.00	0.00
0.000000002	0.00	0.00	0.00
0.0000000015	0.00	0.00	0.00
0.00000000125	0.00	0.00	0.00
0.000000001	0.00	0.00	0.00
0.00000000075	0.00	0.00	0.00
0.0000000006	0.00	0.00	0.00
0.0000000005	0.00	0.00	0.00
0.0000000004	0.00	0.00	0.00
0.0000000003	0.00	0.00	0.00
0.00000000025	0.00	0.00	0.00
0.0000000002	0.00	0.00	0.00
0.00000000015	0.00	0.00	0.00
0.000000000125	0.00	0.00	0.00
0.0000000001	0.00	0.00	0.00
0.000000000075	0.00	0.00	0.00
0.00000000006	0.00	0.00	0.00
0.00000000005	0.00	0.00	0.00
0.00000000004	0.00	0.00	0.00
0.00000000003	0.00	0.00	0.00
0.000000000025	0.00	0.00	0.00
0.00000000002	0.00	0.00	0.00
0.000000000015	0.00	0.00	0.00
0.0000000000125	0.00	0.00	0.00
0.00000000001	0.00	0.00	0.00
0.0000000000075	0.00	0.00	0.00
0.000000000006	0.00	0.00	0.00
0.000000000005	0.00	0.00	0.00
0.000000000004	0.00	0.00	0.00
0.000000000003	0.00	0.00	0.00
0.0000000000025	0.00	0.00	0.00
0.000000000002	0.00	0.00	0.00
0.0000000000015	0.00	0.00	0.00
0.00000000000125	0.00	0.00	0.00
0.000000000001	0.00	0.00	0.00
0.00000000000075	0.00	0.00	0.00
0.0000000000006	0.00	0.00	0.00
0.0000000000005	0.00	0.00	0.00
0.0000000000004	0.00	0.00	0.00
0.0000000000003	0.00	0.00	0.00
0.00000000000025	0.00	0.00	0.00
0.0000000000002	0.00	0.00	0.00
0.00000000000015	0.00	0.00	0.00
0.000000000000125	0.00	0.00	0.00
0.0000000000001	0.00	0.00	0.00
0.000000000000075	0.00	0.00	0.00
0.00000000000006	0.00	0.00	0.00
0.00000000000005	0.00	0.00	0.00
0.00000000000004	0.00	0.00	0.00
0.00000000000003	0.00	0.00	0.00
0.000000000000025	0.00	0.00	0.00
0.00000000000002	0.00	0.00	0.00
0.000000000000015	0.00	0.00	0.00
0.0000000000000125	0.00	0.00	0.00
0.00000000000001	0.00	0.00	0.00
0.0000000000000075	0.00	0.00	0.00
0.000000000000006	0.00	0.00	0.00
0.000000000000005	0.00	0.00	0.00
0.000000000000004	0.00	0.00	0.00
0.000000000000003	0.00	0.00	0.00
0.0000000000000025	0.00	0.00	0.00
0.000000000000002	0.00	0.00	0.00
0.0000000000000015	0.00	0.00	0.00
0.00000000000000125	0.00	0.00	0.00
0.000000000000001	0.00	0.00	0.00
0.00000000000000075	0.00	0.00	0.00
0.0000000000000006	0.00	0.00	0.00
0.0000000000000005	0.00	0.00	0.00
0.0000000000000004	0.00	0.00	0.00
0.0000000000000003	0.00	0.00	0.00
0.00000000000000025	0.00	0.00	0.00
0.0000000000000002	0.00	0.00	0.00
0.00000000000000015	0.00	0.00	0.00
0.000000000000000125	0.00	0.00	0.00
0.0000000000000001	0.00	0.00	0.00
0.000000000000000075	0.00	0.00	0.00
0.00000000000000006	0.00	0.00	0.00
0.00000000000000005	0.00	0.00	0.00
0.00000000000000004	0.00	0.00	0.00
0.00000000000000003	0.00	0.00	0.00
0.000000000000000025	0.00	0.00	0.00
0.00000000000000002	0.00	0.00	0.00
0.000000000000000015	0.00	0.00	0.00
0.0000000000000000125	0.00	0.00	0.00
0.00000000000000001	0.00	0.00	0.00
0.0000000000000000075	0.00	0.00	0.00
0.000000000000000006	0.00	0.00	0.00
0.000000000000000005	0.00	0.00	0.00
0.000000000000000004	0.00	0.00	0.00
0.000000000000000003	0.00	0.00	0.00
0.0000000000000000025	0.00	0.00	0.00
0.000000000000000002	0.00	0.00	0.00
0.0000000000000000015	0.00	0.00	0.00
0.00000000000000000125	0.00	0.00	0.00
0.000000000000000001	0.00	0.00	0.00
0.00000000000000000075	0.00	0.00	0.00
0.0000000000000000006	0.00	0.00	0.00
0.0000000000000000005	0.00	0.00	0.00
0.0000000000000000004	0.00	0.00	0.00
0.0000000000000000003	0.00	0.00	0.00
0.00000000000000000025	0.00	0.00	0.00
0.0000000000000000002	0.00	0.00	0.00
0.00000000000000000015	0.00	0.00	0.00
0.000000000000000000125	0.00	0.00	0.00
0.0000000000000000001	0.00	0.00	0.00
0.000000000000000000075	0.00	0.00	0.00
0.00000000000000000006	0.00	0.00	0.00
0.00000000000000000005	0.00	0.00	0.00
0.00000000000000000004	0.00	0.00	0.00
0.00000000000000000003	0.00	0.00	0.00
0.000000000000000000025	0.00	0.00	0.00
0.00000000000000000002	0.00	0.00	0.00
0.000000000000000000015	0.00	0.00	0.00
0.0000000000000000000125	0.00	0.00	0.00
0.00000000000000000001	0.00	0.00	0.00
0.0000000000000000000075	0.00	0.00	0.00
0.000000000000000000006	0.00	0.00	0.00
0.000000000000000000005	0.00	0.00	0.00
0.000000000000000000004	0.00	0.00	0.00
0.000000000000000000003	0.00	0.00	0.00
0.0000000000000000000025	0.00	0.00	0.00
0.000000000			



TEST RESULTS

Test Results: Particle Size Distribution by Dry Sieving (8000 - 1000 µm and Laser Diffraction (< 1000 - < 0.04 µm @ 0.5 % intervals)
 Job Number: 21076
 Job Reference: 4991 Dogger Bank South

SAMPLE ID:	ST048	ST050	ST051	ST052	ST053	ST054	ST055	ST056	ST057	ST058	ST059	ST060	ST061	ST062	ST063
LAB ID:	WL041614	WL041615	WL041616	WL041617	WL041618	WL041619	WL041620	WL041621	WL041622	WL041623	WL041624	WL041625	WL041626	WL041627	WL041628
Aperture (µm)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)
40000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31500	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.04	0.00	0.00	0.00	0.00	0.00	0.00
25000	13.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.31	12.71
16000	4.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11200	3.66	0.00	1.72	1.25	0.00	0.00	0.00	0.00	1.78	0.00	0.00	0.00	0.00	0.00	1.62
9000	7.11	0.00	0.00	0.00	1.28	0.14	0.76	0.90	1.42	0.00	0.00	0.00	4.41	0.00	0.00
5000	9.29	0.00	0.28	0.00	0.07	0.12	0.14	0.00	1.17	1.02	0.16	0.00	0.11	0.00	0.00
4000	9.64	0.00	0.11	0.00	0.07	0.12	0.04	0.04	0.17	0.06	0.07	0.00	0.16	0.00	0.00
3000	9.82	0.00	0.06	0.12	0.09	0.09	0.26	0.06	0.06	0.12	0.14	0.15	0.02	0.18	0.73
2000	9.87	0.02	0.00	0.14	0.04	0.00	0.16	0.19	0.14	0.15	0.05	0.00	0.00	0.18	0.00
1400	9.85	0.08	0.22	0.11	0.02	0.08	0.22	0.27	0.48	0.15	0.12	0.00	0.00	0.25	0.00
1000	9.94	0.18	0.67	0.34	0.05	0.14	0.14	0.32	0.89	0.37	0.14	0.00	0.00	0.14	0.00
707.00	7.82	0.14	14.42	0.00	0.00	0.00	0.00	0.12	1.61	0.00	0.00	0.00	7.44	12.25	11.17
500.00	4.74	0.35	18.28	0.96	1.18	0.23	0.15	0.89	0.42	0.19	0.10	0.00	18.09	14.80	
353.00	7.42	17.49	30.11	30.42	11.32	0.00	1.14	12.18	2.14	0.10	0.01	0.00	3.29	19.12	
250.00	9.94	20.66	18.36	29.62	29.56	20.22	14.03	21.08	2.22	0.00	0.16	0.00	30.19	4.64	
175.00	20.25	20.62	15.93	15.93	14.71	14.02	15.72	11.09	2.06	0.10	0.12	0.00	12.15	0.58	
125.00	0.76	14.90	0.11	10.40	10.66	11.75	11.94	10.04	1.62	0.47	0.48	0.00	4.24	0.00	0.00
88.00	0.15	2.45	0.00	2.82	3.21	3.11	1.85	4.69	1.00	0.00	0.00	0.00	0.00	0.00	0.00
63.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.50	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7.80	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.75	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.425	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.250	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.106	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.075	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.063	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.053	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.045	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.018	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.016	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.015	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.014	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.013	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.009	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.008	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.007	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.006	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.005	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.003	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Test Results: Parton Soil Distributed by City Sewing (8000 - 1000 psi) and Last 10/1000 (1 - 1000 - 1000 and 1000 - 1000) intervals

[illegible]

Test Results:	Particulate Discharged by Dry Swept (8000 - 1000 gms) and Lave (10/Sec) = 1000 - x 0.04 and 45-55 Ph Interval
Job Number:	21091
Job Reference:	WGL Dogger Bank South

[illegible]



TEST RESULTS

Test Result: Particle Size Distribution by Dry Sieving (63000 - 1000 μm) and Laser Diffraction (< 5000 μm) @ 0.5 μm Interval
 Job Number: 210761
 Job Reference: 4001 Dragger Bank Silt

SAMPLE ID:	ST094	ST095	ST096
LAB ID:	WU041819	WU041600	WU041601
Aperture [μm]	Fractional (%)	Fractional (%)	Fractional (%)
63000	0.00	0.00	0.00
49000	0.00	0.00	0.00
35500	0.00	0.00	0.00
25000	0.00	0.00	0.00
18000	0.00	0.00	0.00
12500	0.00	0.00	0.00
9000	0.00	0.00	0.00
6300	0.00	0.00	0.00
4500	0.00	0.00	0.00
3200	0.00	0.00	0.00
2200	0.00	0.00	0.00
1500	0.00	0.00	0.00
1000	0.00	0.00	0.00
750	0.00	0.00	0.00
500	0.00	0.00	0.00
355	0.00	0.00	0.00
250	0.00	0.00	0.00
180	0.00	0.00	0.00
125	0.00	0.00	0.00
90	0.00	0.00	0.00
63	0.00	0.00	0.00
45	0.00	0.00	0.00
32	0.00	0.00	0.00
22	0.00	0.00	0.00
15	0.00	0.00	0.00
10	0.00	0.00	0.00
7.5	0.00	0.00	0.00
5	0.00	0.00	0.00
3.55	0.00	0.00	0.00
2.5	0.00	0.00	0.00
1.8	0.00	0.00	0.00
1.25	0.00	0.00	0.00
0.9	0.00	0.00	0.00
0.63	0.00	0.00	0.00
0.45	0.00	0.00	0.00
0.32	0.00	0.00	0.00
0.22	0.00	0.00	0.00
0.15	0.00	0.00	0.00
0.1	0.00	0.00	0.00
0.075	0.00	0.00	0.00
0.05	0.00	0.00	0.00
0.0375	0.00	0.00	0.00
0.025	0.00	0.00	0.00
0.018	0.00	0.00	0.00
0.0125	0.00	0.00	0.00
0.009	0.00	0.00	0.00
0.0063	0.00	0.00	0.00
0.0045	0.00	0.00	0.00
0.0032	0.00	0.00	0.00
0.0022	0.00	0.00	0.00
0.0015	0.00	0.00	0.00
0.001	0.00	0.00	0.00
0.00075	0.00	0.00	0.00
0.0005	0.00	0.00	0.00
0.000375	0.00	0.00	0.00
0.00025	0.00	0.00	0.00
0.00018	0.00	0.00	0.00
0.000125	0.00	0.00	0.00
0.00009	0.00	0.00	0.00
0.000063	0.00	0.00	0.00
0.000045	0.00	0.00	0.00
0.000032	0.00	0.00	0.00
0.000022	0.00	0.00	0.00
0.000015	0.00	0.00	0.00
0.00001	0.00	0.00	0.00
0.0000075	0.00	0.00	0.00
0.000005	0.00	0.00	0.00
0.00000375	0.00	0.00	0.00
0.0000025	0.00	0.00	0.00
0.0000018	0.00	0.00	0.00
0.00000125	0.00	0.00	0.00
0.0000009	0.00	0.00	0.00
0.00000063	0.00	0.00	0.00
0.00000045	0.00	0.00	0.00
0.00000032	0.00	0.00	0.00
0.00000022	0.00	0.00	0.00
0.00000015	0.00	0.00	0.00
0.0000001	0.00	0.00	0.00
0.000000075	0.00	0.00	0.00
0.00000005	0.00	0.00	0.00
0.0000000375	0.00	0.00	0.00
0.000000025	0.00	0.00	0.00
0.000000018	0.00	0.00	0.00
0.0000000125	0.00	0.00	0.00
0.000000009	0.00	0.00	0.00
0.0000000063	0.00	0.00	0.00
0.0000000045	0.00	0.00	0.00
0.0000000032	0.00	0.00	0.00
0.0000000022	0.00	0.00	0.00
0.0000000015	0.00	0.00	0.00
0.000000001	0.00	0.00	0.00
0.00000000075	0.00	0.00	0.00
0.0000000005	0.00	0.00	0.00
0.000000000375	0.00	0.00	0.00
0.00000000025	0.00	0.00	0.00
0.00000000018	0.00	0.00	0.00
0.000000000125	0.00	0.00	0.00
0.00000000009	0.00	0.00	0.00
0.000000000063	0.00	0.00	0.00
0.000000000045	0.00	0.00	0.00
0.000000000032	0.00	0.00	0.00
0.000000000022	0.00	0.00	0.00
0.000000000015	0.00	0.00	0.00
0.00000000001	0.00	0.00	0.00
0.0000000000075	0.00	0.00	0.00
0.000000000005	0.00	0.00	0.00
0.00000000000375	0.00	0.00	0.00
0.0000000000025	0.00	0.00	0.00
0.0000000000018	0.00	0.00	0.00
0.00000000000125	0.00	0.00	0.00
0.0000000000009	0.00	0.00	0.00
0.00000000000063	0.00	0.00	0.00
0.00000000000045	0.00	0.00	0.00
0.00000000000032	0.00	0.00	0.00
0.00000000000022	0.00	0.00	0.00
0.00000000000015	0.00	0.00	0.00
0.0000000000001	0.00	0.00	0.00
0.000000000000075	0.00	0.00	0.00
0.00000000000005	0.00	0.00	0.00
0.0000000000000375	0.00	0.00	0.00
0.000000000000025	0.00	0.00	0.00
0.000000000000018	0.00	0.00	0.00
0.0000000000000125	0.00	0.00	0.00
0.000000000000009	0.00	0.00	0.00
0.0000000000000063	0.00	0.00	0.00
0.0000000000000045	0.00	0.00	0.00
0.0000000000000032	0.00	0.00	0.00
0.0000000000000022	0.00	0.00	0.00
0.0000000000000015	0.00	0.00	0.00
0.000000000000001	0.00	0.00	0.00
0.00000000000000075	0.00	0.00	0.00
0.0000000000000005	0.00	0.00	0.00
0.000000000000000375	0.00	0.00	0.00
0.00000000000000025	0.00	0.00	0.00
0.00000000000000018	0.00	0.00	0.00
0.000000000000000125	0.00	0.00	0.00
0.00000000000000009	0.00	0.00	0.00
0.000000000000000063	0.00	0.00	0.00
0.000000000000000045	0.00	0.00	0.00
0.000000000000000032	0.00	0.00	0.00
0.000000000000000022	0.00	0.00	0.00
0.000000000000000015	0.00	0.00	0.00
0.00000000000000001	0.00	0.00	0.00
0.0000000000000000075	0.00	0.00	0.00
0.000000000000000005	0.00	0.00	0.00
0.00000000000000000375	0.00	0.00	0.00
0.0000000000000000025	0.00	0.00	0.00
0.0000000000000000018	0.00	0.00	0.00
0.00000000000000000125	0.00	0.00	0.00
0.0000000000000000009	0.00	0.00	0.00
0.00000000000000000063	0.00	0.00	0.00
0.00000000000000000045	0.00	0.00	0.00
0.00000000000000000032	0.00	0.00	0.00
0.00000000000000000022	0.00	0.00	0.00
0.00000000000000000015	0.00	0.00	0.00
0.0000000000000000001	0.00	0.00	0.00
0.000000000000000000075	0.00	0.00	0.00
0.00000000000000000005	0.00	0.00	0.00
0.0000000000000000000375	0.00	0.00	0.00
0.000000000000000000025	0.00	0.00	0.00
0.000000000000000000018	0.00	0.00	0.00
0.0000000000000000000125	0.00	0.00	0.00
0.000000000000000000009	0.00	0.00	0.00
0.0000000000000000000063	0.00	0.00	0.00
0.0000000000000000000045	0.00	0.00	0.00
0.0000000000000000000032	0.00	0.00	0.00
0.0000000000000000000022	0.00	0.00	0.00
0.0000000000000000000015	0.00	0.00	0.00
0.000000000000000000001	0.00	0.00	0.00
0.00000000000000000000075	0.00	0.00	0.00
0.0000000000000000000005	0.00	0.00	0.00
0.000000000000000000000375	0.00	0.00	0.00
0.00000000000000000000025	0.00	0.00	0.00
0.00000000000000000000018	0.00	0.00	0.00
0.000000000000000000000125	0.00	0.00	0.00
0.00000000000000000000009	0.00	0.00	0.00
0.000000000000000000000063	0.00	0.00	0.00
0.000000000000000000000045	0.00	0.00	0.00
0.000000000000000000000032	0.00	0.00	0.00
0.000000000000000000000022	0.00	0.00	0.00
0.000000000000000000000015	0.00	0.00	0.00
0.00000000000000000000001	0.00	0.00	0.00
0.0000000000000000000000075	0.00	0.00	0.00
0.000000000000000000000005	0.00	0.00	0.00
0.00000000000000000000000375	0.00	0.00	0.00
0.0000000000000000000000025	0.00	0.00	0.00
0.0000000000000000000000018	0.00	0.00	0.00
0.00000000000000000000000125	0.00	0.00	0.00
0.0000000000000000000000009	0.00	0.00	0.00
0.00000000000000000000000063	0.00	0.00	0.00
0.00000000000000000000000045	0.00	0.00	0.00
0.00000000000000000000000032	0.00	0.00	0.00
0.00000000000000000000000022	0.00	0.00	0.00
0.00000000000000000000000015	0.00	0.00	0.00
0.0000000000000000000000001	0.00	0.00	0.00
0.000000000000000000000000075	0.00	0.00	0.00
0.00000000000000000000000005	0.00	0.00	0.00
0.0000000000000000000000000375	0.00	0.00	0.00
0.000000000000000000000000025	0.00	0.00	0.00
0.000000000000000000000000018	0.00	0.00	0.00
0.0000000000000000000000000125	0.00	0.00	0.00
0.000000000000000000000000009	0.00	0.00	0.00
0.0000000000000000000000000063	0.00	0.00	0.00
0.0000000000000000000000000045	0.00	0.00	0.00
0.0000000000000000000000000032	0.00	0.00	0.00
0.0000000000000000000000000022	0.00	0.00	0.00
0.0000000000000000000000000015	0.00	0.00	0.00
0.000000000000000000000000001	0.00	0.00	0.00
0.00000000000000000000000000075	0.00	0.00	0.00
0.0000000000000000000000000005	0.00	0.00	0.00
0.000000000000000000000000000375	0.00	0.00	0.00
0.00000000000000000000000000025	0.00	0.00	0.00
0.00000000000000000000000000018	0.00	0.00	0.00
0.000000000000000000000000000125	0.00	0.00	0.00
0.00000000000000000000000000009	0.00	0.00	0.00
0.000000000000000000000000000063	0.00	0.00	0.00
0.000000000000000000000000000045	0.00	0.00	0.00
0.000000000000000000000000000032	0.00	0.00	0.00
0.000000000000000000000000000022	0.00	0.00	0.00
0.000000000000000000000000000015	0.00	0.00	0.00
0.00000000000000000000000000001	0.00	0.00	0.00
0.0000000000000000000000000000075	0.00	0.00	0.00
0.000000000000000000000000000005	0.00	0.00	0.00
0.00000000000000000000000000000375	0.00	0.00	0.00
0.0000000000000000000000000000025	0.00	0.00	0.00



TEST RESULTS

Test Result: Particle Size Distribution by Dry Sieving (63000 - 1000 µm) and Laser Diffraction (< 1000 < 0.04 µm) @ 0.5 Ph (nominal)
 Job Number: 230761
 Job Reference: RWE Bigger Bank South

SAMPLE ID:	UT008	UT009	UT008	UT101	UT102	UT105	UT104	UT105	UT106	UT107	UT108	UT109	UT110	UT111	UT112
JAB ID:	WLS01663	WLS01663	WLS01664	WLS01665	WLS01666	WLS01667	WLS01668	WLS01669	WLS01670	WLS01671	WLS01672	WLS01673	WLS01674	WLS01675	WLS01676
Aperture (µm)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)
63000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
707.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
355.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
63.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
< 0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00



Test Results:	Particle Size Distribution by Dry Sieving: 60000 - 1000 µm and Laser Diffraction: < 1000 = + 0.04 µm @ 0.5 µm interval
Job Number:	210761
Job Reference:	RW, Dugger Bank South

[illegible]

Test Results:	Particle Size Distribution by Dry Sieving: 60000 - 1000 µm and Laser Diffraction: < 1000 - + 0.04 µm @ 0.4 µm nominal
Job Number:	210761
Job Reference:	RW, Dugger Bank South

[illegible]

Test Results:	Particle Size Distribution by Dry Sieving 60000 - 1000 µm and Laser Diffraction (< 1000 - < 0.04 µm) @ 0.5 µm intervals
Job Number:	210167
Job Reference:	Waterlogging Bank South

SAMPLE ID	ST143	ST148	ST145	ST146	ST147
LAB ID	W041707	W041708	W041709	W041710	W041711
Aperture (um)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)	Fractional (%)
63000	0.00	0.00	0.00	0.00	0.00
45000	0.00	0.00	0.00	0.00	0.00
31500	0.00	0.00	0.00	0.00	0.00
22400	0.00	0.00	0.00	0.00	0.00
16000	0.00	0.00	0.00	0.00	0.00
11200	0.00	0.00	0.00	0.00	0.00
8000	0.00	0.00	0.00	0.00	0.00
5600	0.00	0.00	0.00	0.00	0.00
4000	0.00	0.00	0.00	0.00	0.00
2800	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00
707.80	0.10	0.00	0.00	0.00	0.10
500.00	0.10	0.00	0.00	0.00	0.10
355.60	0.10	0.00	0.00	0.00	0.10
250.00	0.10	0.00	0.00	0.00	0.10
175.00	0.10	0.00	0.00	0.00	0.10
125.00	0.10	0.00	0.00	0.00	0.10
88.39	0.10	0.00	0.00	0.00	0.10
63.00	0.10	0.00	0.00	0.00	0.10
44.28	0.10	0.00	0.00	0.00	0.10
31.50	0.10	0.00	0.00	0.00	0.10
22.40	0.10	0.00	0.00	0.00	0.10
16.00	0.10	0.00	0.00	0.00	0.10
11.20	0.10	0.00	0.00	0.00	0.10
8.00	0.10	0.00	0.00	0.00	0.10
5.60	0.10	0.00	0.00	0.00	0.10
4.00	0.10	0.00	0.00	0.00	0.10
2.80	0.10	0.00	0.00	0.00	0.10
2.00	0.10	0.00	0.00	0.00	0.10
1.40	0.10	0.00	0.00	0.00	0.10
1.00	0.10	0.00	0.00	0.00	0.10
0.7078	0.10	0.00	0.00	0.00	0.10
0.5000	0.10	0.00	0.00	0.00	0.10
0.3556	0.10	0.00	0.00	0.00	0.10
0.2500	0.10	0.00	0.00	0.00	0.10
0.1750	0.10	0.00	0.00	0.00	0.10
0.1250	0.10	0.00	0.00	0.00	0.10
0.0884	0.10	0.00	0.00	0.00	0.10
0.0630	0.10	0.00	0.00	0.00	0.10
0.0443	0.10	0.00	0.00	0.00	0.10
0.0315	0.10	0.00	0.00	0.00	0.10
0.0224	0.10	0.00	0.00	0.00	0.10
0.0160	0.10	0.00	0.00	0.00	0.10
0.0112	0.10	0.00	0.00	0.00	0.10
0.0080	0.10	0.00	0.00	0.00	0.10
0.0056	0.10	0.00	0.00	0.00	0.10
0.0040	0.10	0.00	0.00	0.00	0.10
0.0028	0.10	0.00	0.00	0.00	0.10
0.0020	0.10	0.00	0.00	0.00	0.10
0.0014	0.10	0.00	0.00	0.00	0.10
0.0010	0.10	0.00	0.00	0.00	0.10
0.0007	0.10	0.00	0.00	0.00	0.10
0.0005	0.10	0.00	0.00	0.00	0.10
0.0004	0.10	0.00	0.00	0.00	0.10
0.0003	0.10	0.00	0.00	0.00	0.10
0.0002	0.10	0.00	0.00	0.00	0.10
0.0001	0.10	0.00	0.00	0.00	0.10

Test Results:	Particle Size Distribution by Dry Sieving: 60000 - 1000 µm and Laser Diffraction: < 1000 - + 0.04 µm @ 0.4 µm nominal
Job Number:	210761
Job Reference:	RW, Dugger Bank South

[illegible]

Test Results:	Particle Size Distribution by Dry Sieving: 60000 - 1000 µm and Laser Diffraction: < 1000 - + 0.04 µm @ 0.4 µm nominal
Job Number:	210761
Job Reference:	RW, Dugger Bank South

[illegible]



TEST RESULTS

Test Results: Particle Size Distribution by Dry Sieving 80000 - 1000 µm and Laser Diffraction (< 1000 - < 0.04 µm) @ 0.5 Phos intervals
Job Number: 210761
Job Reference: RWE Digger Bank South

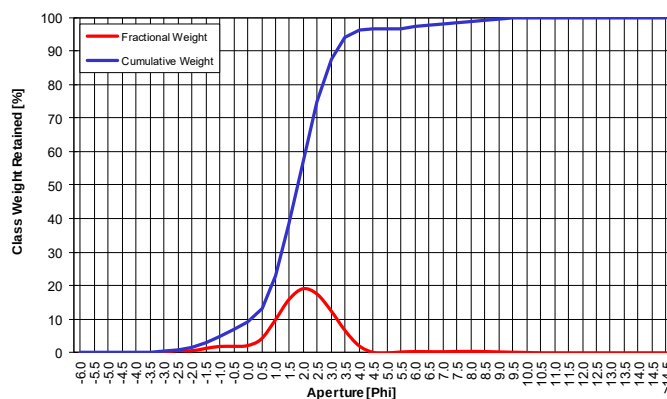
SAMPLE ID:	07178	07179	07180
LAB ID:	W0417362	W0417363	W0417364
Aperture (µm)	Fractional (%)	Fractional (%)	Fractional (%)
80000	0.00	0.00	0.00
40000	0.00	0.00	0.00
31500	0.00	0.00	0.00
25000	0.00	0.00	0.00
16000	0.00	0.00	0.00
11200	0.00	0.00	0.00
9000	0.00	0.00	0.00
5400	0.00	0.00	0.00
4000	0.00	0.00	0.01
3000	0.04	0.06	0.11
2000	0.17	0.00	0.03
1400	0.69	0.02	0.02
1000	0.12	0.00	0.00
751.00	0.00	0.00	0.00
500.00	0.15	0.15	0.00
250.00	0.156	0.34	0.58
150.00	12.88	36.68	20.16
106.00	34.99	41.39	49.09
75.00	74.64	12.96	23.16
55.00	5.37	0.44	2.47
40.00	0.40	0.00	0.09
30.00	0.01	0.00	0.00
22.50	0.17	0.00	0.11
18.00	0.44	0.00	0.18
15.00	0.26	0.00	0.17
12.50	0.17	0.00	0.15
10.00	0.49	0.00	0.03
7.50	0.47	0.00	0.11
6.00	0.27	0.00	0.47
5.00	0.00	0.00	0.21
4.00	0.00	0.00	0.00
3.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00
0.75	0.00	0.00	0.00
0.60	0.00	0.00	0.00
0.50	0.00	0.00	0.00
0.40	0.00	0.00	0.00
0.30	0.00	0.00	0.00
0.25	0.00	0.00	0.00
0.20	0.00	0.00	0.00
0.15	0.00	0.00	0.00
0.12	0.00	0.00	0.00
0.10	0.00	0.00	0.00
0.08	0.00	0.00	0.00
0.06	0.00	0.00	0.00
0.04	0.00	0.00	0.00
0.03	0.00	0.00	0.00
0.02	0.00	0.00	0.00
0.01	0.00	0.00	0.00
TOTAL	100.00	100.00	100.00



ST001

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.26	0.26
5600	-2.5	0.71	0.97
4000	-2.0	0.65	1.62
2800	-1.5	1.34	2.95
2000	-1.0	1.93	4.88
1400	-0.5	1.97	6.84
1000	0.0	2.17	9.01
707.00	0.5	4.09	13.10
500.00	1.0	9.67	22.77
353.60	1.5	15.80	38.57
250.00	2.0	18.93	57.50
176.80	2.5	17.37	74.87
125.00	3.0	12.50	87.37
88.39	3.5	6.68	94.05
63.00	4.0	2.18	96.23
44.20	4.5	0.21	96.44
31.30	5.0	0.02	96.46
22.10	5.5	0.29	96.75
15.60	6.0	0.42	97.17
11.00	6.5	0.38	97.55
7.80	7.0	0.37	97.93
5.50	7.5	0.44	98.37
3.90	8.0	0.46	98.83
2.75	8.5	0.43	99.26
1.95	9.0	0.32	99.58
1.38	9.5	0.23	99.81
0.98	10.0	0.16	99.97
0.69	10.5	0.03	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.26	Poorly Sorted
Skewness	-0.11	Coarse Skewed
Kurtosis	1.34	Leptokurtic
Mean [μm]	292.73	Medium Sand
Mean [phi]	1.77	
Median [μm]	286.81	Medium Sand
Median [phi]	1.80	
Gravel [%]	4.88	Slightly Gravelly Sand
Sand [%]	91.35	
Mud [%]	3.77	

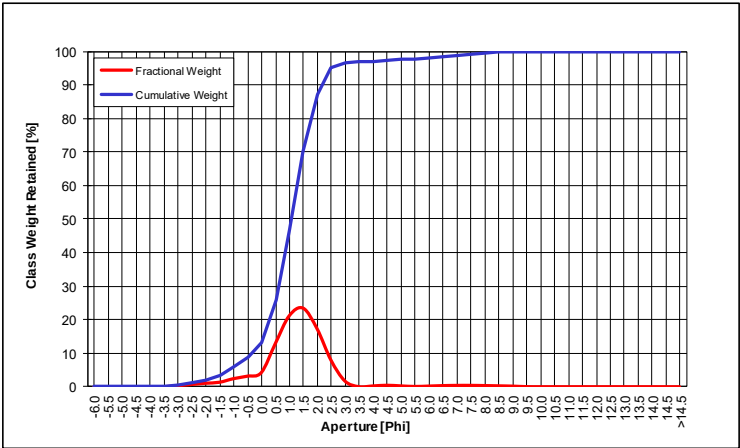


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST002

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.32	0.32
5600	-2.5	0.69	1.00
4000	-2.0	1.05	2.05
2800	-1.5	1.33	3.39
2000	-1.0	2.40	5.79
1400	-0.5	3.13	8.92
1000	0.0	4.19	13.11
707.00	0.5	12.72	25.83
500.00	1.0	20.98	46.82
353.60	1.5	23.25	70.07
250.00	2.0	17.18	87.25
176.80	2.5	7.84	95.08
125.00	3.0	1.69	96.77
88.39	3.5	0.02	96.80
63.00	4.0	0.24	97.03
44.20	4.5	0.44	97.47
31.30	5.0	0.26	97.73
22.10	5.5	0.09	97.82
15.60	6.0	0.20	98.02
11.00	6.5	0.33	98.35
7.80	7.0	0.40	98.75
5.50	7.5	0.41	99.16
3.90	8.0	0.35	99.51
2.75	8.5	0.27	99.78
1.95	9.0	0.19	99.97
1.38	9.5	0.03	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.00	Poorly Sorted
Skewness	-0.14	Coarse Skewed
Kurtosis	1.27	Leptokurtic
Mean [µm]	490.00	Medium Sand
Mean [phi]	1.03	
Median [µm]	476.85	Medium Sand
Median [phi]	1.07	
Gravel [%]	5.79	Gravelly Sand
Sand [%]	91.25	
Mud [%]	2.97	



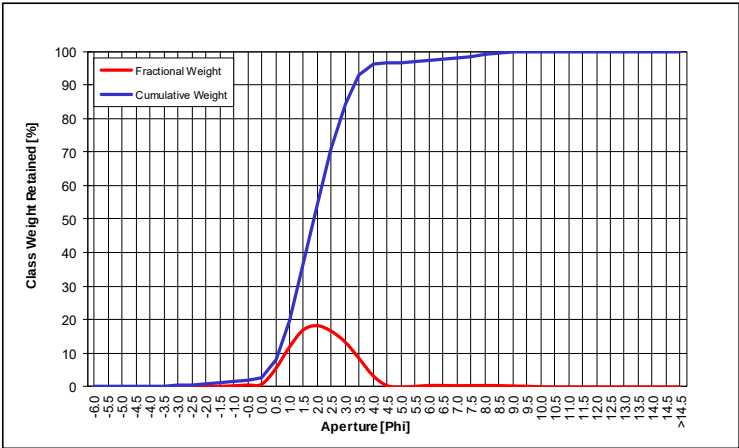
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST003

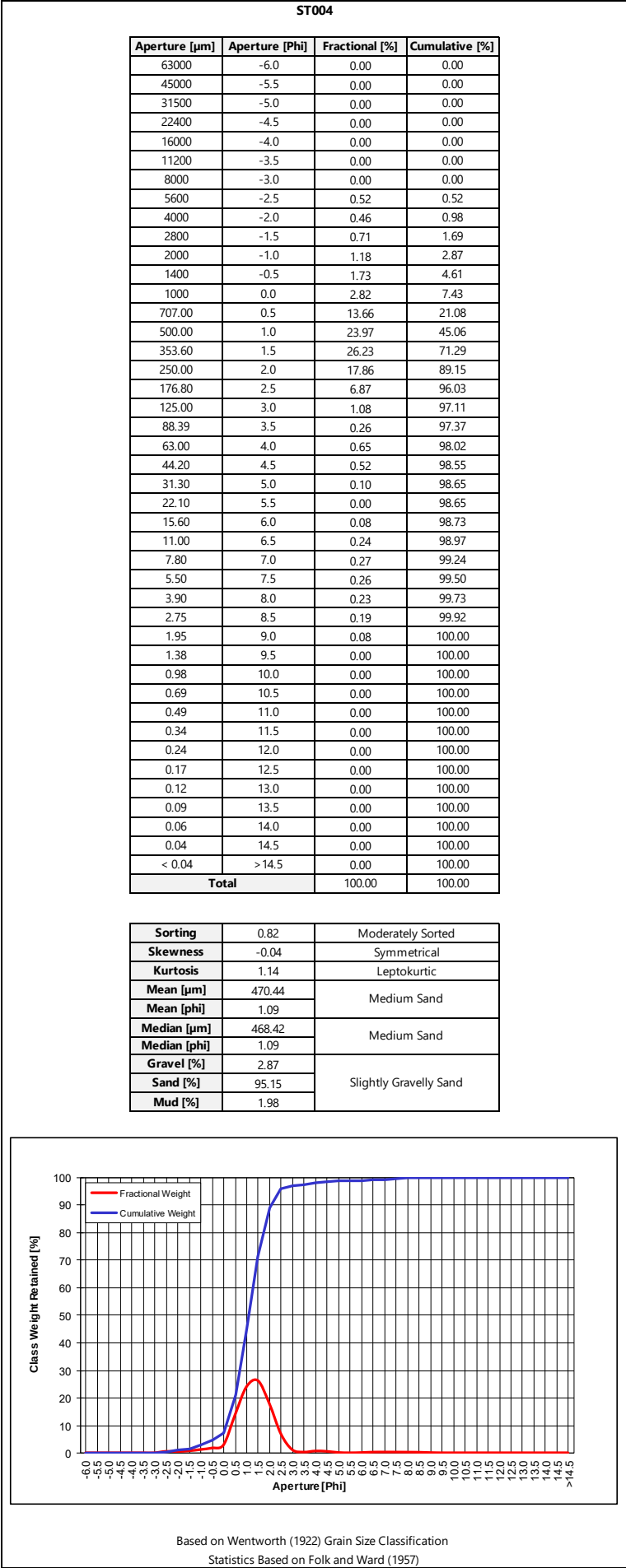
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.41	0.41
5600	-2.5	0.13	0.54
4000	-2.0	0.22	0.76
2800	-1.5	0.23	0.99
2000	-1.0	0.35	1.34
1400	-0.5	0.60	1.94
1000	0.0	0.75	2.70
707.00	0.5	5.19	7.89
500.00	1.0	11.66	19.55
353.60	1.5	16.80	36.35
250.00	2.0	18.11	54.46
176.80	2.5	16.51	70.97
125.00	3.0	13.33	84.30
88.39	3.5	8.52	92.82
63.00	4.0	3.41	96.22
44.20	4.5	0.43	96.65
31.30	5.0	0.00	96.65
22.10	5.5	0.18	96.83
15.60	6.0	0.45	97.28
11.00	6.5	0.45	97.73
7.80	7.0	0.39	98.12
5.50	7.5	0.42	98.54
3.90	8.0	0.45	98.98
2.75	8.5	0.42	99.40
1.95	9.0	0.31	99.71
1.38	9.5	0.22	99.93
0.98	10.0	0.07	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.08	Poorly Sorted
Skewness	0.06	Symmetrical
Kurtosis	0.99	Mesokurtic
Mean [µm]	267.12	Medium Sand
Mean [phi]	1.90	
Median [µm]	272.28	Medium Sand
Median [phi]	1.88	
Gravel [%]	1.34	Slightly Gravelly Sand
Sand [%]	94.88	
Mud [%]	3.78	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

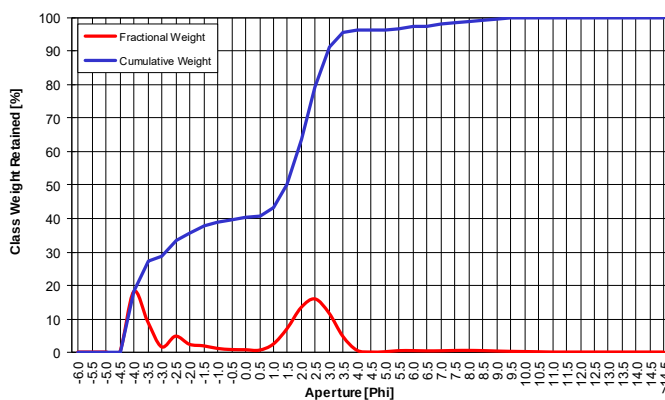




ST005

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	18.03	18.03
11200	-3.5	9.15	27.18
8000	-3.0	1.55	28.74
5600	-2.5	4.75	33.48
4000	-2.0	2.31	35.79
2800	-1.5	1.87	37.66
2000	-1.0	1.09	38.75
1400	-0.5	0.75	39.49
1000	0.0	0.70	40.19
707.00	0.5	0.56	40.76
500.00	1.0	2.35	43.11
353.60	1.5	7.03	50.13
250.00	2.0	13.29	63.42
176.80	2.5	15.88	79.30
125.00	3.0	11.70	91.00
88.39	3.5	4.68	95.68
63.00	4.0	0.55	96.24
44.20	4.5	0.00	96.24
31.30	5.0	0.09	96.32
22.10	5.5	0.41	96.73
15.60	6.0	0.43	97.16
11.00	6.5	0.35	97.51
7.80	7.0	0.37	97.88
5.50	7.5	0.47	98.35
3.90	8.0	0.49	98.84
2.75	8.5	0.43	99.26
1.95	9.0	0.30	99.57
1.38	9.5	0.21	99.77
0.98	10.0	0.15	99.92
0.69	10.5	0.08	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.87	Very Poorly Sorted
Skewness	-0.57	Very Coarse Skewed
Kurtosis	0.53	Very Platykurtic
Mean [μm]	969.02	Coarse Sand
Mean [phi]	0.05	
Median [μm]	355.95	Medium Sand
Median [phi]	1.49	
Gravel [%]	38.75	Sandy Gravel
Sand [%]	57.49	
Mud [%]	3.76	

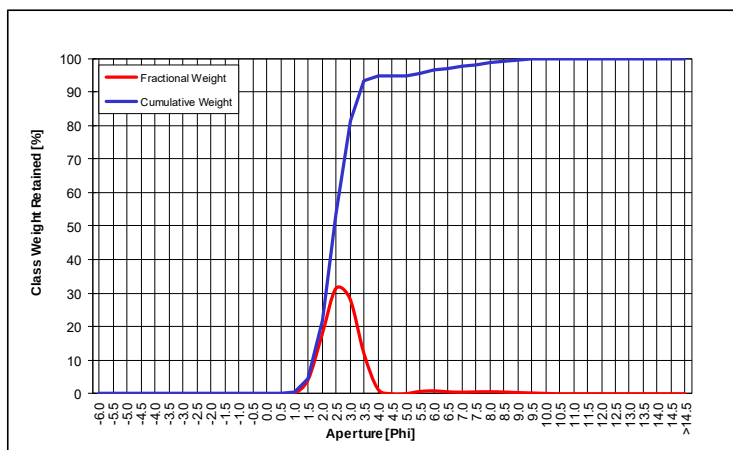


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST006

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.05	0.05
2000	-1.0	0.04	0.09
1400	-0.5	0.02	0.11
1000	0.0	0.06	0.17
707.00	0.5	0.00	0.17
500.00	1.0	0.14	0.31
353.60	1.5	4.19	4.50
250.00	2.0	17.49	21.99
176.80	2.5	31.25	53.24
125.00	3.0	28.19	81.43
88.39	3.5	12.01	93.45
63.00	4.0	1.44	94.89
44.20	4.5	0.00	94.89
31.30	5.0	0.03	94.92
22.10	5.5	0.69	95.61
15.60	6.0	0.87	96.48
11.00	6.5	0.59	97.07
7.80	7.0	0.47	97.55
5.50	7.5	0.57	98.11
3.90	8.0	0.61	98.73
2.75	8.5	0.53	99.26
1.95	9.0	0.37	99.63
1.38	9.5	0.25	99.88
0.98	10.0	0.12	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.86	Moderately Sorted
Skewness	0.25	Fine Skewed
Kurtosis	1.73	Very Leptokurtic
Mean [μm]	181.60	Fine Sand
Mean [phi]	2.46	
Median [μm]	183.27	Fine Sand
Median [phi]	2.45	
Gravel [%]	0.09	Slightly Gravelly Sand
Sand [%]	94.80	
Mud [%]	5.11	

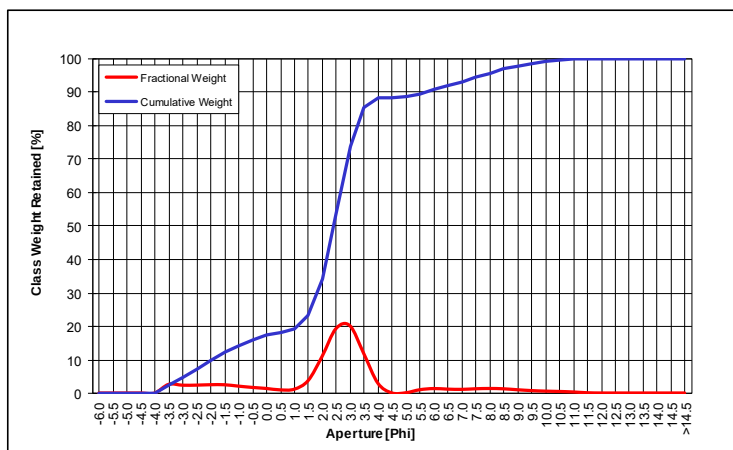


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST007

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	2.60	2.60
8000	-3.0	2.34	4.93
5600	-2.5	2.36	7.30
4000	-2.0	2.48	9.78
2800	-1.5	2.48	12.25
2000	-1.0	2.06	14.32
1400	-0.5	1.67	15.99
1000	0.0	1.36	17.35
707.00	0.5	0.94	18.29
500.00	1.0	1.13	19.42
353.60	1.5	3.72	23.14
250.00	2.0	10.95	34.09
176.80	2.5	19.35	53.44
125.00	3.0	20.19	73.63
88.39	3.5	11.76	85.39
63.00	4.0	2.96	88.36
44.20	4.5	0.03	88.39
31.30	5.0	0.07	88.45
22.10	5.5	0.98	89.43
15.60	6.0	1.33	90.76
11.00	6.5	1.16	91.92
7.80	7.0	1.09	93.01
5.50	7.5	1.27	94.28
3.90	8.0	1.35	95.63
2.75	8.5	1.26	96.89
1.95	9.0	0.98	97.87
1.38	9.5	0.72	98.59
0.98	10.0	0.56	99.15
0.69	10.5	0.46	99.61
0.49	11.0	0.31	99.92
0.34	11.5	0.08	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.61	Very Poorly Sorted
Skewness	-0.24	Coarse Skewed
Kurtosis	2.99	Very Leptokurtic
Mean [μm]	289.17	Medium Sand
Mean [phi]	1.79	
Median [μm]	188.04	Fine Sand
Median [phi]	2.41	
Gravel [%]	14.32	Gravelly Muddy Sand
Sand [%]	74.04	
Mud [%]	11.64	

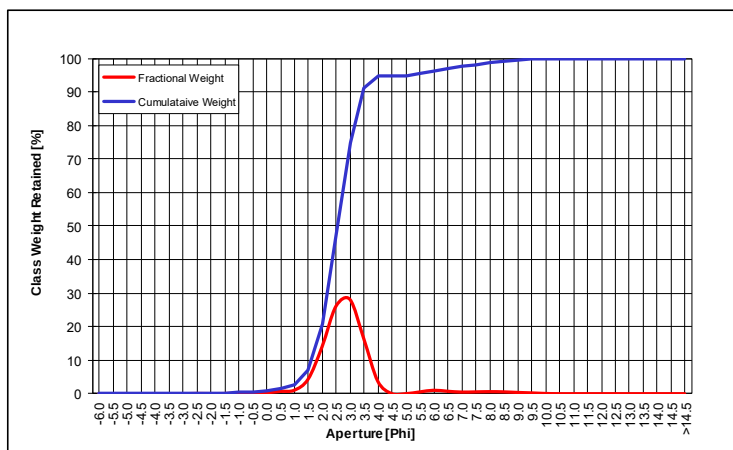


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

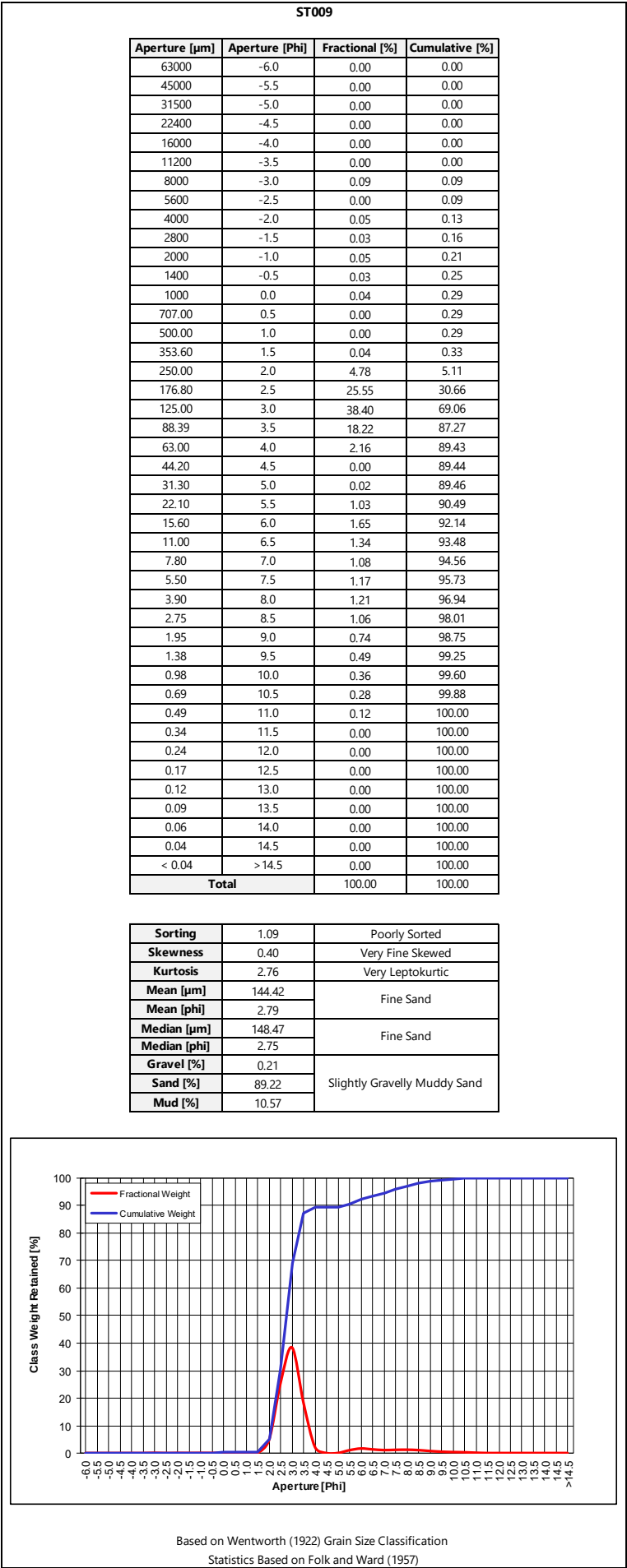
ST008

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.07	0.07
4000	-2.0	0.04	0.11
2800	-1.5	0.05	0.17
2000	-1.0	0.16	0.33
1400	-0.5	0.17	0.49
1000	0.0	0.28	0.78
707.00	0.5	0.70	1.47
500.00	1.0	1.03	2.51
353.60	1.5	4.33	6.83
250.00	2.0	13.94	20.77
176.80	2.5	26.04	46.81
125.00	3.0	28.04	74.85
88.39	3.5	16.26	91.11
63.00	4.0	3.68	94.79
44.20	4.5	0.02	94.81
31.30	5.0	0.00	94.81
22.10	5.5	0.53	95.34
15.60	6.0	1.03	96.36
11.00	6.5	0.73	97.10
7.80	7.0	0.49	97.58
5.50	7.5	0.54	98.13
3.90	8.0	0.61	98.74
2.75	8.5	0.55	99.30
1.95	9.0	0.38	99.68
1.38	9.5	0.25	99.92
0.98	10.0	0.08	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.95	Moderately Sorted
Skewness	0.17	Fine Skewed
Kurtosis	1.73	Very Leptokurtic
Mean [μm]	170.08	Fine Sand
Mean [phi]	2.56	
Median [μm]	169.95	Fine Sand
Median [phi]	2.56	
Gravel [%]	0.33	Slightly Gravelly Sand
Sand [%]	94.29	
Mud [%]	5.19	



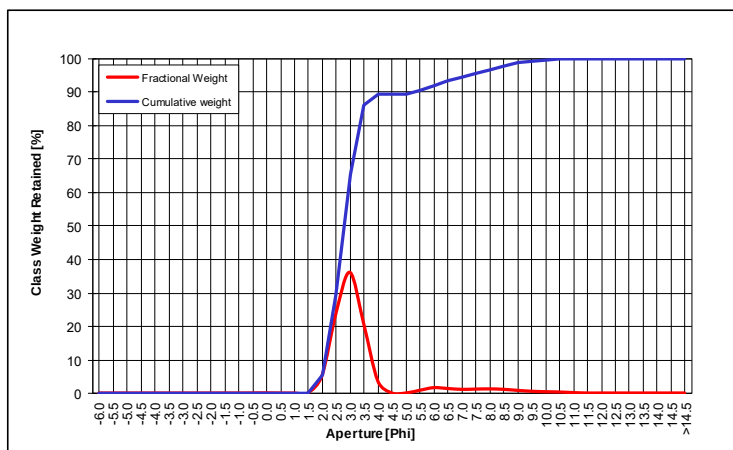
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST010

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.01	0.01
2000	-1.0	0.00	0.02
1400	-0.5	0.03	0.04
1000	0.0	0.05	0.09
707.00	0.5	0.00	0.09
500.00	1.0	0.00	0.09
353.60	1.5	0.06	0.16
250.00	2.0	5.27	5.42
176.80	2.5	23.89	29.31
125.00	3.0	36.10	65.41
88.39	3.5	20.50	85.90
63.00	4.0	3.58	89.48
44.20	4.5	0.02	89.50
31.30	5.0	0.00	89.50
22.10	5.5	0.81	90.31
15.60	6.0	1.60	91.91
11.00	6.5	1.36	93.26
7.80	7.0	1.09	94.36
5.50	7.5	1.17	95.53
3.90	8.0	1.23	96.76
2.75	8.5	1.11	97.87
1.95	9.0	0.79	98.66
1.38	9.5	0.53	99.19
0.98	10.0	0.38	99.57
0.69	10.5	0.31	99.88
0.49	11.0	0.12	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.11	Poorly Sorted
Skewness	0.39	Very Fine Skewed
Kurtosis	2.64	Very Leptokurtic
Mean [μm]	141.57	Fine Sand
Mean [phi]	2.82	
Median [μm]	144.94	Fine Sand
Median [phi]	2.79	
Gravel [%]	0.02	Slightly Gravelly Muddy Sand
Sand [%]	89.46	
Mud [%]	10.52	

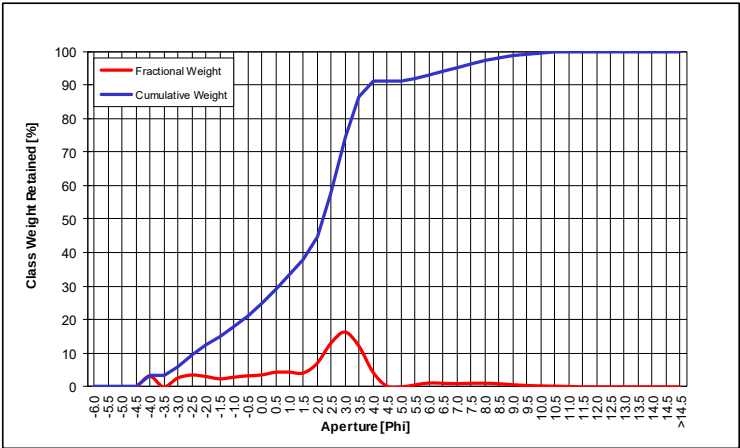


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST011

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	3.26	3.26
11200	-3.5	0.00	3.26
8000	-3.0	2.64	5.90
5600	-2.5	3.55	9.45
4000	-2.0	3.13	12.59
2800	-1.5	2.43	15.01
2000	-1.0	2.88	17.89
1400	-0.5	3.32	21.21
1000	0.0	3.56	24.77
707.00	0.5	4.36	29.13
500.00	1.0	4.42	33.55
353.60	1.5	4.17	37.72
250.00	2.0	7.03	44.75
176.80	2.5	13.13	57.88
125.00	3.0	16.43	74.31
88.39	3.5	12.23	86.54
63.00	4.0	4.51	91.04
44.20	4.5	0.24	91.28
31.30	5.0	0.00	91.28
22.10	5.5	0.58	91.86
15.60	6.0	1.17	93.03
11.00	6.5	1.08	94.11
7.80	7.0	0.98	95.09
5.50	7.5	1.08	96.17
3.90	8.0	1.10	97.26
2.75	8.5	0.96	98.22
1.95	9.0	0.67	98.89
1.38	9.5	0.44	99.33
0.98	10.0	0.30	99.63
0.69	10.5	0.23	99.87
0.49	11.0	0.13	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.71	Very Poorly Sorted
Skewness	-0.28	Coarse Skewed
Kurtosis	1.38	Leptokurtic
Mean [µm]	372.19	Medium Sand
Mean [phi]	1.43	
Median [µm]	217.64	Fine Sand
Median [phi]	2.20	
Gravel [%]	17.89	Gravelly Muddy Sand
Sand [%]	73.16	
Mud [%]	8.96	

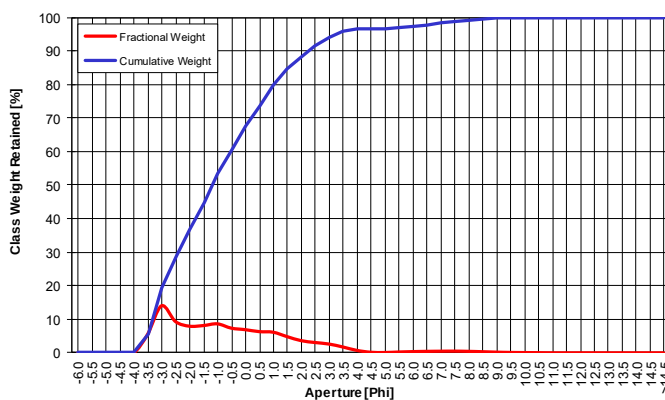


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST012

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	5.51	5.51
8000	-3.0	13.96	19.48
5600	-2.5	9.27	28.74
4000	-2.0	7.91	36.65
2800	-1.5	8.09	44.74
2000	-1.0	8.60	53.34
1400	-0.5	7.32	60.66
1000	0.0	6.88	67.53
707.00	0.5	6.29	73.82
500.00	1.0	6.12	79.94
353.60	1.5	4.81	84.75
250.00	2.0	3.62	88.37
176.80	2.5	3.06	91.43
125.00	3.0	2.61	94.04
88.39	3.5	1.73	95.77
63.00	4.0	0.73	96.50
44.20	4.5	0.17	96.67
31.30	5.0	0.10	96.77
22.10	5.5	0.24	97.01
15.60	6.0	0.36	97.37
11.00	6.5	0.43	97.80
7.80	7.0	0.48	98.28
5.50	7.5	0.50	98.78
3.90	8.0	0.44	99.22
2.75	8.5	0.33	99.55
1.95	9.0	0.20	99.76
1.38	9.5	0.12	99.88
0.98	10.0	0.08	99.95
0.69	10.5	0.05	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.17	Very Poorly Sorted
Skewness	0.23	Fine Skewed
Kurtosis	0.85	Platykurtic
Mean [μm]	1948.61	Very Coarse Sand
Mean [phi]	-0.96	
Median [μm]	2279.10	Granule
Median [phi]	-1.19	
Gravel [%]	53.34	Sandy Gravel
Sand [%]	43.16	
Mud [%]	3.50	

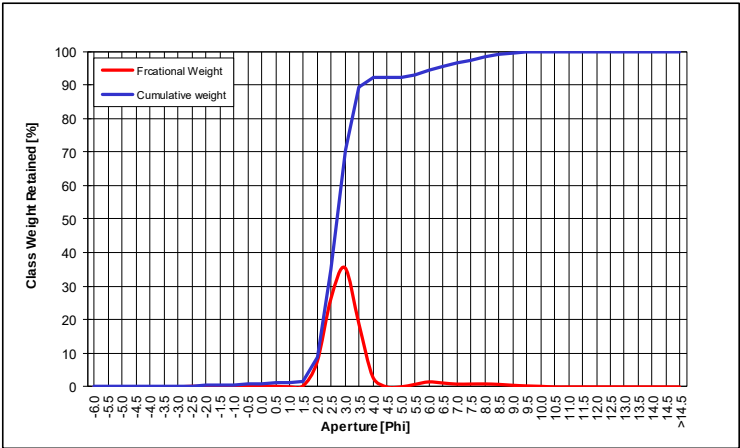


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST013

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.21	0.21
4000	-2.0	0.12	0.33
2800	-1.5	0.08	0.41
2000	-1.0	0.06	0.47
1400	-0.5	0.15	0.62
1000	0.0	0.25	0.87
707.00	0.5	0.19	1.06
500.00	1.0	0.02	1.08
353.60	1.5	0.33	1.41
250.00	2.0	7.35	8.75
176.80	2.5	26.30	35.06
125.00	3.0	35.46	70.52
88.39	3.5	18.80	89.32
63.00	4.0	2.95	92.27
44.20	4.5	0.01	92.27
31.30	5.0	0.00	92.27
22.10	5.5	0.74	93.01
15.60	6.0	1.49	94.50
11.00	6.5	1.17	95.67
7.80	7.0	0.84	96.51
5.50	7.5	0.86	97.37
3.90	8.0	0.89	98.26
2.75	8.5	0.76	99.02
1.95	9.0	0.50	99.51
1.38	9.5	0.30	99.81
0.98	10.0	0.19	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.98	Moderately Sorted
Skewness	0.31	Very Fine Skewed
Kurtosis	2.26	Very Leptokurtic
Mean [µm]	150.14	Fine Sand
Mean [phi]	2.74	
Median [µm]	152.77	Fine Sand
Median [phi]	2.71	
Gravel [%]	0.47	Slightly Gravelly Sand
Sand [%]	91.80	
Mud [%]	7.73	



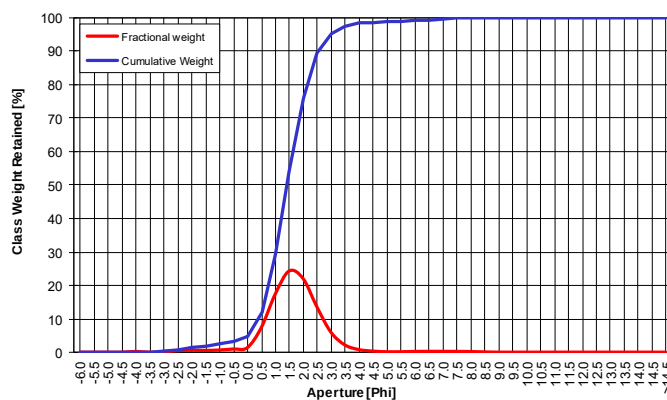
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



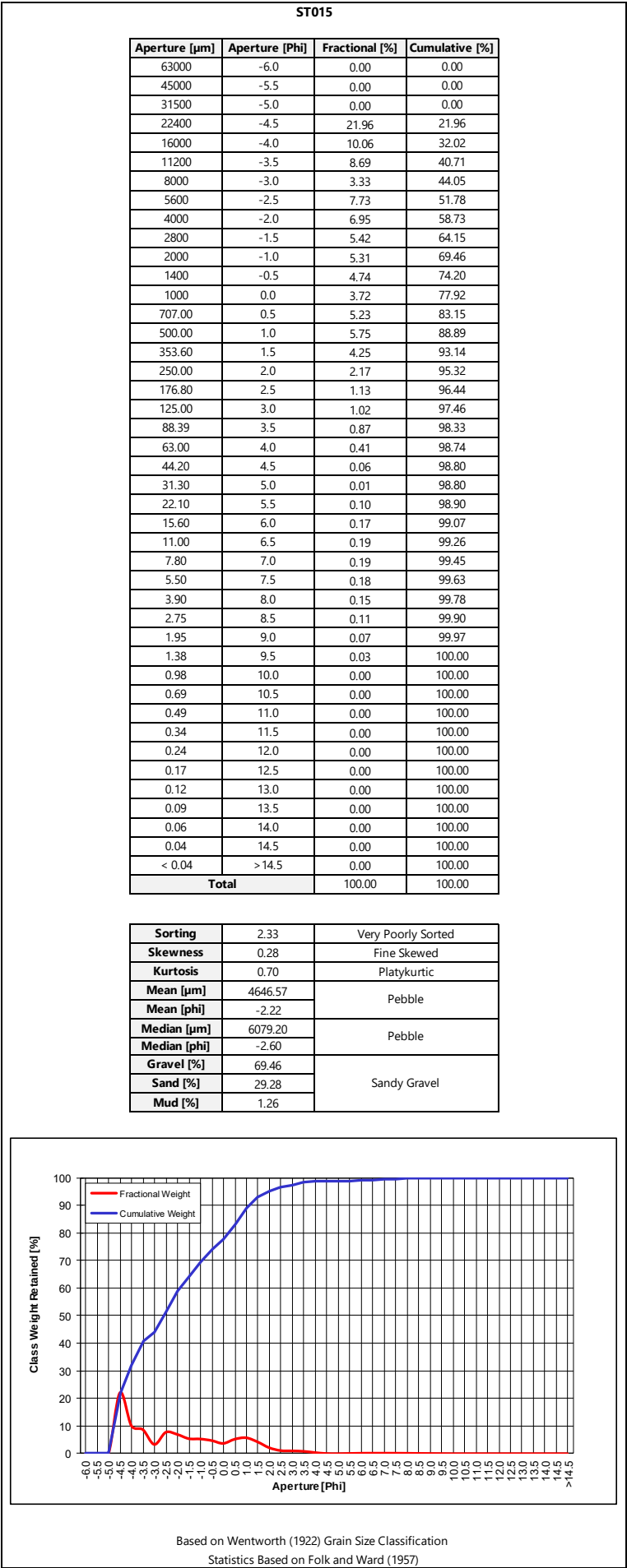
ST014

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.21	0.21
11200	-3.5	0.00	0.21
8000	-3.0	0.13	0.33
5600	-2.5	0.46	0.79
4000	-2.0	0.58	1.37
2800	-1.5	0.53	1.90
2000	-1.0	0.65	2.55
1400	-0.5	0.95	3.50
1000	0.0	1.34	4.84
707.00	0.5	7.31	12.15
500.00	1.0	17.33	29.47
353.60	1.5	24.30	53.78
250.00	2.0	22.06	75.83
176.80	2.5	13.51	89.34
125.00	3.0	5.97	95.31
88.39	3.5	2.17	97.47
63.00	4.0	0.77	98.25
44.20	4.5	0.31	98.56
31.30	5.0	0.12	98.68
22.10	5.5	0.13	98.81
15.60	6.0	0.21	99.02
11.00	6.5	0.25	99.27
7.80	7.0	0.25	99.52
5.50	7.5	0.22	99.74
3.90	8.0	0.18	99.92
2.75	8.5	0.08	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.87	Moderately Sorted
Skewness	0.04	Symmetrical
Kurtosis	1.09	Mesokurtic
Mean [μm]	367.22	Medium Sand
Mean [phi]	1.45	
Median [μm]	373.15	Medium Sand
Median [phi]	1.42	
Gravel [%]	2.55	Slightly Gravelly Sand
Sand [%]	95.70	
Mud [%]	1.75	



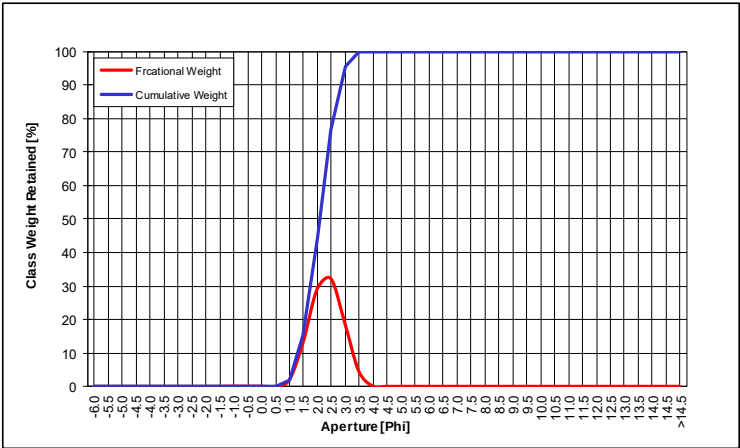
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST016

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.02	0.02
2000	-1.0	0.06	0.07
1400	-0.5	0.05	0.12
1000	0.0	0.06	0.18
707.00	0.5	0.00	0.18
500.00	1.0	1.85	2.03
353.60	1.5	13.22	15.25
250.00	2.0	29.08	44.32
176.80	2.5	32.28	76.60
125.00	3.0	18.85	95.45
88.39	3.5	4.50	99.95
63.00	4.0	0.05	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.58	Moderately Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	0.95	Mesokurtic
Mean [µm]	233.43	Fine Sand
Mean [phi]	2.10	
Median [µm]	235.22	Fine Sand
Median [phi]	2.09	
Gravel [%]	0.07	Slightly Gravelly Sand
Sand [%]	99.93	
Mud [%]	0.00	



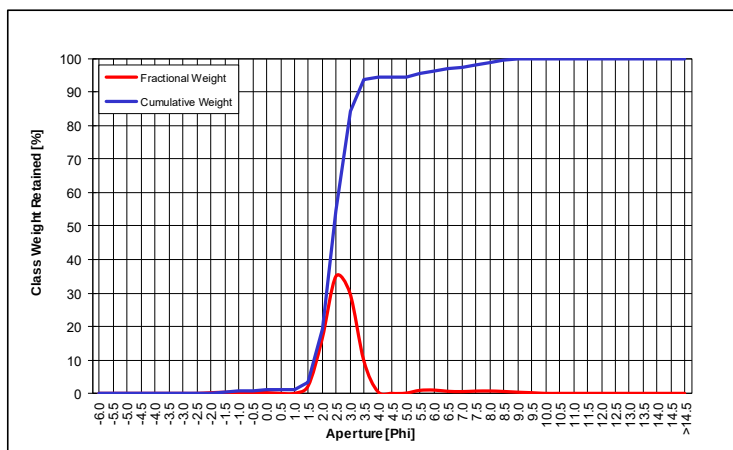
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



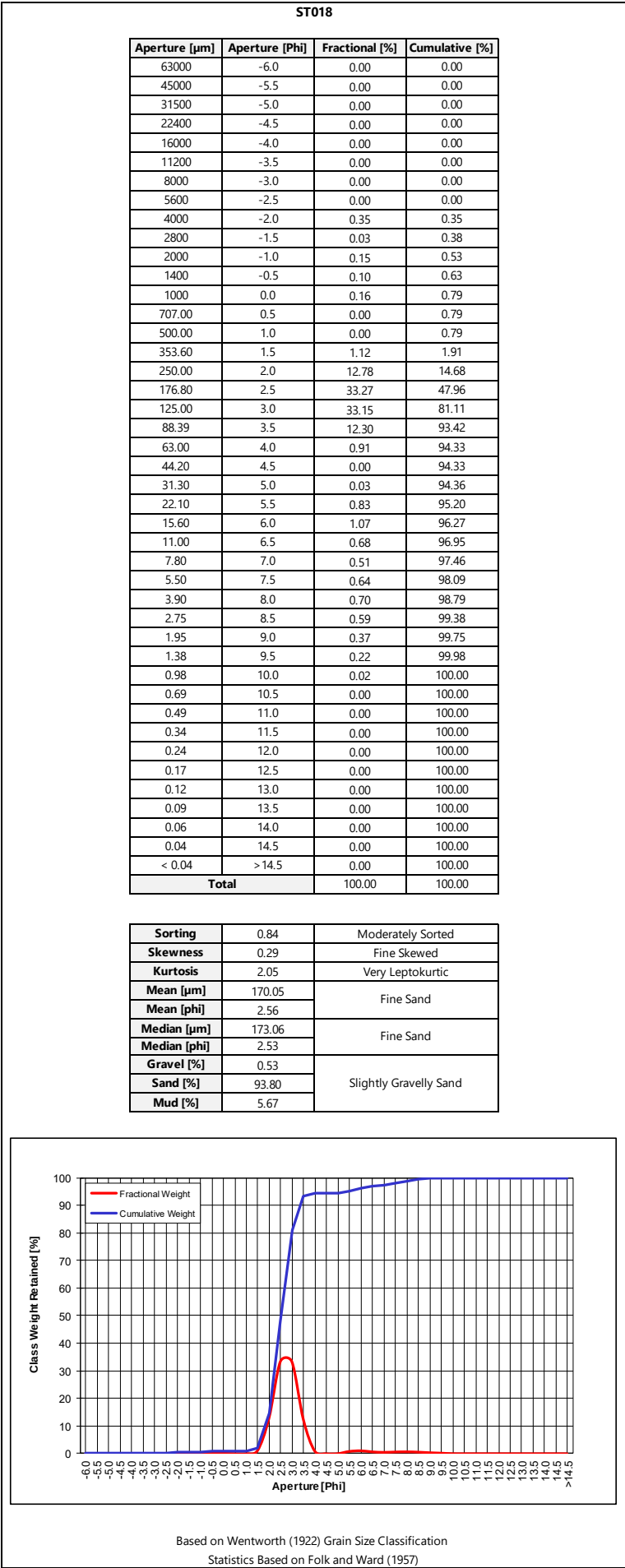
ST017

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.18	0.18
2800	-1.5	0.33	0.51
2000	-1.0	0.22	0.73
1400	-0.5	0.20	0.93
1000	0.0	0.23	1.16
707.00	0.5	0.00	1.16
500.00	1.0	0.01	1.18
353.60	1.5	2.18	3.36
250.00	2.0	16.10	19.46
176.80	2.5	34.90	54.36
125.00	3.0	29.86	84.22
88.39	3.5	9.66	93.88
63.00	4.0	0.53	94.41
44.20	4.5	0.00	94.41
31.30	5.0	0.06	94.47
22.10	5.5	0.89	95.36
15.60	6.0	0.99	96.35
11.00	6.5	0.62	96.97
7.80	7.0	0.52	97.49
5.50	7.5	0.67	98.16
3.90	8.0	0.71	98.87
2.75	8.5	0.57	99.45
1.95	9.0	0.35	99.80
1.38	9.5	0.20	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.84	Moderately Sorted
Skewness	0.27	Fine Skewed
Kurtosis	2.00	Very Leptokurtic
Mean [μm]	184.01	Fine Sand
Mean [phi]	2.44	
Median [μm]	184.61	Fine Sand
Median [phi]	2.44	
Gravel [%]	0.73	Slightly Gravelly Sand
Sand [%]	93.68	
Mud [%]	5.59	



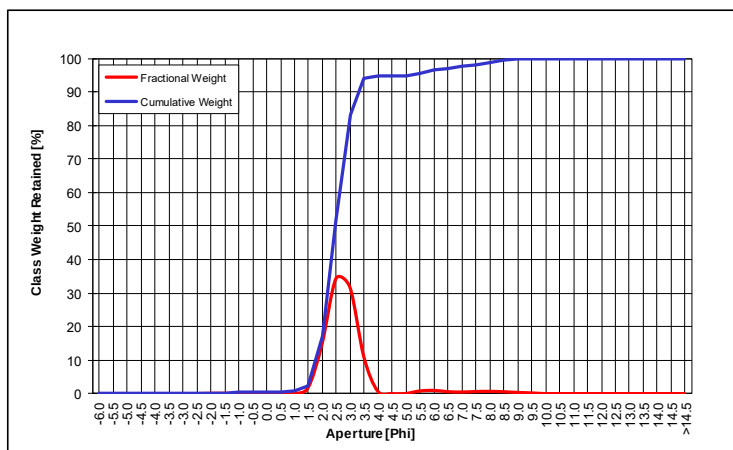
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST019

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.09	0.09
2800	-1.5	0.11	0.20
2000	-1.0	0.10	0.30
1400	-0.5	0.15	0.45
1000	0.0	0.16	0.61
707.00	0.5	0.00	0.61
500.00	1.0	0.01	0.61
353.60	1.5	1.77	2.38
250.00	2.0	14.77	17.16
176.80	2.5	34.30	51.46
125.00	3.0	31.71	83.17
88.39	3.5	10.92	94.09
63.00	4.0	0.69	94.78
44.20	4.5	0.00	94.78
31.30	5.0	0.03	94.82
22.10	5.5	0.78	95.60
15.60	6.0	0.95	96.55
11.00	6.5	0.58	97.13
7.80	7.0	0.46	97.60
5.50	7.5	0.61	98.21
3.90	8.0	0.67	98.88
2.75	8.5	0.56	99.44
1.95	9.0	0.35	99.79
1.38	9.5	0.21	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.80	Moderately Sorted
Skewness	0.27	Fine Skewed
Kurtosis	1.91	Very Leptokurtic
Mean [μm]	177.71	Fine Sand
Mean [phi]	2.49	
Median [μm]	179.43	Fine Sand
Median [phi]	2.48	
Gravel [%]	0.30	Slightly Gravelly Sand
Sand [%]	94.48	
Mud [%]	5.22	

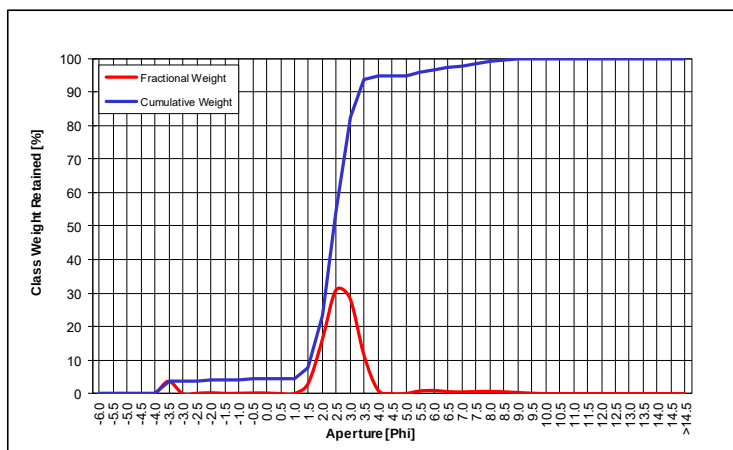


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST020

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	3.68	3.68
8000	-3.0	0.00	3.68
5600	-2.5	0.08	3.76
4000	-2.0	0.26	4.02
2800	-1.5	0.07	4.08
2000	-1.0	0.09	4.18
1400	-0.5	0.18	4.36
1000	0.0	0.18	4.54
707.00	0.5	0.00	4.54
500.00	1.0	0.03	4.57
353.60	1.5	2.98	7.55
250.00	2.0	15.69	23.24
176.80	2.5	30.75	53.99
125.00	3.0	28.32	82.31
88.39	3.5	11.50	93.82
63.00	4.0	1.12	94.93
44.20	4.5	0.00	94.93
31.30	5.0	0.04	94.97
22.10	5.5	0.77	95.74
15.60	6.0	0.93	96.67
11.00	6.5	0.59	97.26
7.80	7.0	0.48	97.74
5.50	7.5	0.62	98.36
3.90	8.0	0.65	99.01
2.75	8.5	0.53	99.54
1.95	9.0	0.32	99.86
1.38	9.5	0.14	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.92	Moderately Sorted
Skewness	0.14	Fine Skewed
Kurtosis	1.92	Very Leptokurtic
Mean [μm]	186.11	Fine Sand
Mean [phi]	2.43	
Median [μm]	184.93	Fine Sand
Median [phi]	2.43	
Gravel [%]	4.18	Slightly Gravelly Sand
Sand [%]	90.75	
Mud [%]	5.07	

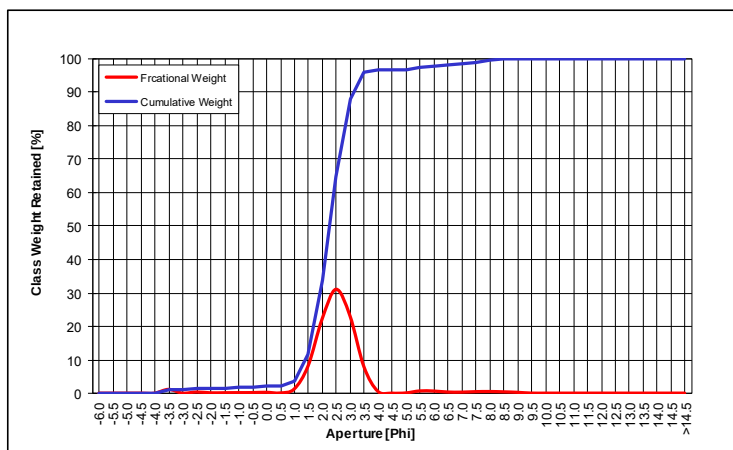


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

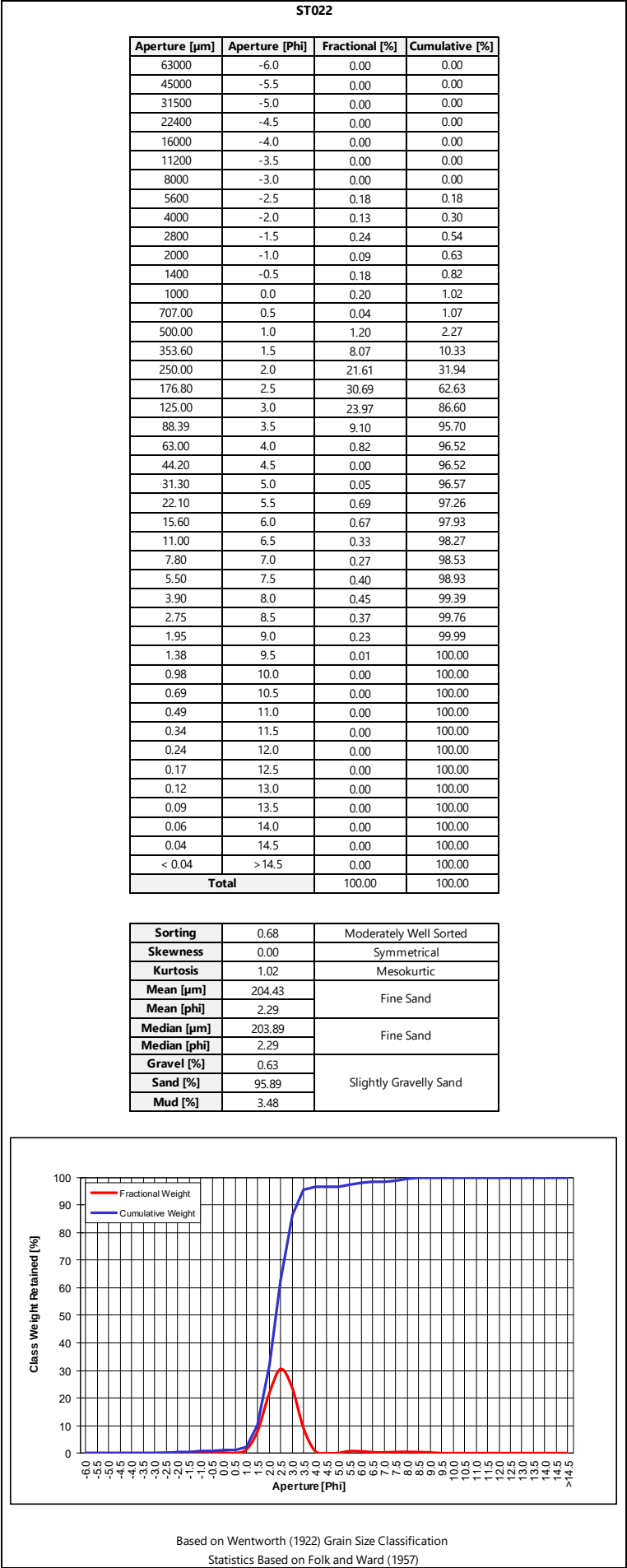
ST021

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	1.12	1.12
8000	-3.0	0.00	1.12
5600	-2.5	0.34	1.46
4000	-2.0	0.09	1.55
2800	-1.5	0.12	1.67
2000	-1.0	0.15	1.82
1400	-0.5	0.16	1.98
1000	0.0	0.25	2.23
707.00	0.5	0.06	2.29
500.00	1.0	1.23	3.52
353.60	1.5	8.16	11.68
250.00	2.0	22.10	33.78
176.80	2.5	31.05	64.83
125.00	3.0	23.15	87.98
88.39	3.5	7.93	95.91
63.00	4.0	0.55	96.46
44.20	4.5	0.00	96.46
31.30	5.0	0.06	96.52
22.10	5.5	0.66	97.18
15.60	6.0	0.62	97.80
11.00	6.5	0.33	98.13
7.80	7.0	0.30	98.43
5.50	7.5	0.44	98.87
3.90	8.0	0.49	99.35
2.75	8.5	0.39	99.75
1.95	9.0	0.24	99.99
1.38	9.5	0.01	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.69	Moderately Well Sorted
Skewness	0.00	Symmetrical
Kurtosis	1.05	Mesokurtic
Mean [μm]	209.12	Fine Sand
Mean [phi]	2.26	
Median [μm]	208.61	Fine Sand
Median [phi]	2.26	
Gravel [%]	1.82	Slightly Gravelly Sand
Sand [%]	94.64	
Mud [%]	3.54	



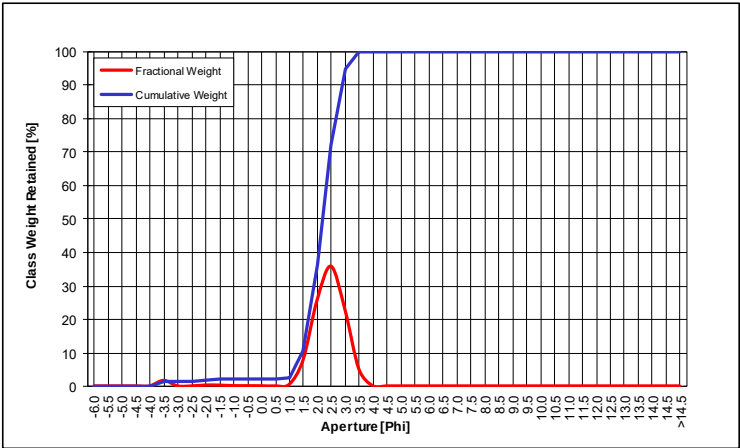
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST023

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	1.65	1.65
8000	-3.0	0.00	1.65
5600	-2.5	0.00	1.65
4000	-2.0	0.26	1.90
2800	-1.5	0.24	2.14
2000	-1.0	0.07	2.21
1400	-0.5	0.07	2.28
1000	0.0	0.04	2.32
707.00	0.5	0.00	2.32
500.00	1.0	0.47	2.78
353.60	1.5	7.81	10.60
250.00	2.0	25.65	36.25
176.80	2.5	35.80	72.05
125.00	3.0	22.88	94.93
88.39	3.5	5.04	99.97
63.00	4.0	0.03	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.57	Moderately Well Sorted
Skewness	-0.07	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [µm]	219.75	Fine Sand
Mean [phi]	2.19	
Median [µm]	218.85	Fine Sand
Median [phi]	2.19	
Gravel [%]	2.21	Slightly Gravelly Sand
Sand [%]	97.72	
Mud [%]	0.00	



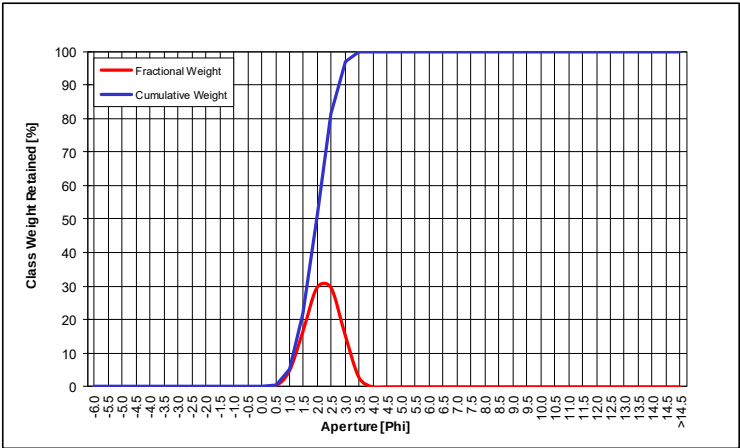
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST024

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.02	0.02
2000	-1.0	0.08	0.10
1400	-0.5	0.05	0.15
1000	0.0	0.06	0.20
707.00	0.5	0.28	0.48
500.00	1.0	4.69	5.17
353.60	1.5	16.76	21.93
250.00	2.0	29.70	51.63
176.80	2.5	29.67	81.29
125.00	3.0	15.79	97.08
88.39	3.5	2.92	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.61	Moderately Well Sorted
Skewness	-0.02	Symmetrical
Kurtosis	0.95	Mesokurtic
Mean [µm]	256.97	Medium Sand
Mean [phi]	1.96	
Median [µm]	254.80	Medium Sand
Median [phi]	1.97	
Gravel [%]	0.10	Slightly Gravelly Sand
Sand [%]	99.90	
Mud [%]	0.00	



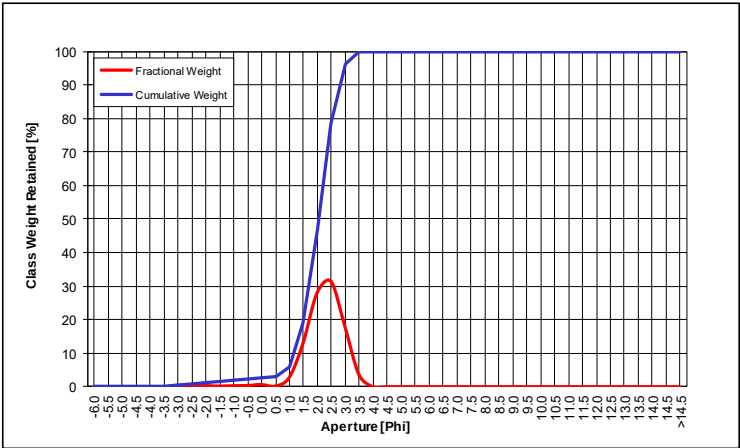
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST025

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.46	0.46
5600	-2.5	0.40	0.85
4000	-2.0	0.36	1.21
2800	-1.5	0.20	1.41
2000	-1.0	0.33	1.74
1400	-0.5	0.37	2.11
1000	0.0	0.66	2.76
707.00	0.5	0.20	2.96
500.00	1.0	2.74	5.70
353.60	1.5	13.06	18.77
250.00	2.0	28.05	46.81
176.80	2.5	31.49	78.30
125.00	3.0	17.98	96.28
88.39	3.5	3.68	99.96
63.00	4.0	0.04	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.63	Moderately Well Sorted
Skewness	-0.08	Symmetrical
Kurtosis	1.03	Mesokurtic
Mean [µm]	244.13	Fine Sand
Mean [phi]	2.03	
Median [µm]	241.38	Fine Sand
Median [phi]	2.05	
Gravel [%]	1.74	Slightly Gravelly Sand
Sand [%]	98.26	
Mud [%]	0.00	



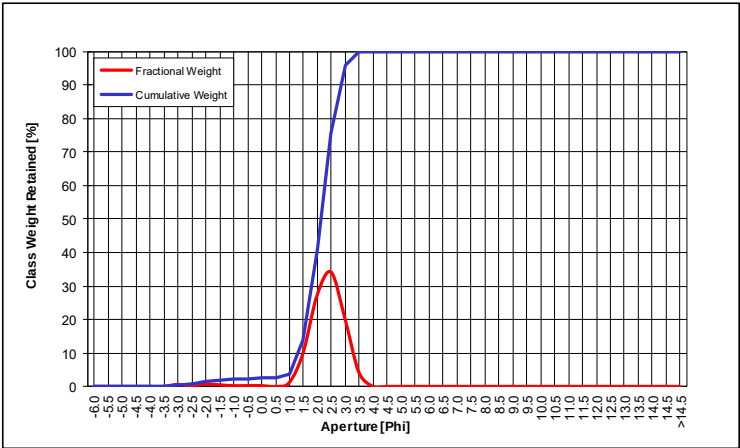
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST026

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.60	0.60
5600	-2.5	0.20	0.80
4000	-2.0	0.69	1.49
2800	-1.5	0.47	1.97
2000	-1.0	0.21	2.18
1400	-0.5	0.24	2.42
1000	0.0	0.23	2.65
707.00	0.5	0.00	2.65
500.00	1.0	1.12	3.77
353.60	1.5	10.05	13.83
250.00	2.0	27.28	41.10
176.80	2.5	34.29	75.39
125.00	3.0	20.39	95.78
88.39	3.5	4.20	99.98
63.00	4.0	0.02	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.58	Moderately Well Sorted
Skewness	-0.06	Symmetrical
Kurtosis	1.00	Mesokurtic
Mean [µm]	228.96	Fine Sand
Mean [phi]	2.13	
Median [µm]	228.51	Fine Sand
Median [phi]	2.13	
Gravel [%]	2.18	Slightly Gravelly Sand
Sand [%]	97.82	
Mud [%]	0.00	



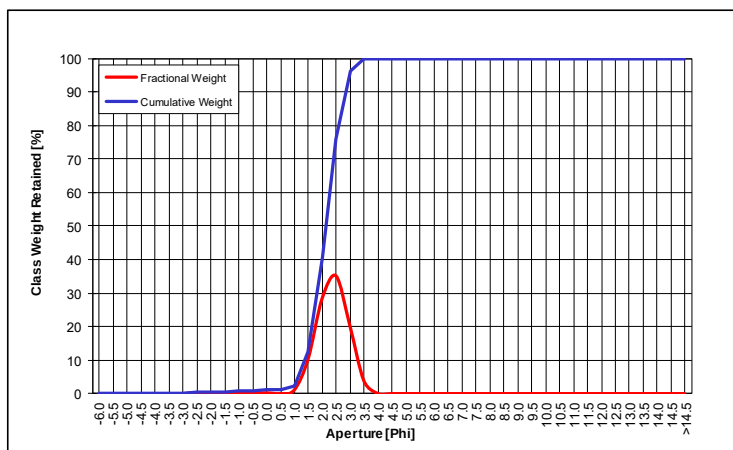
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST027

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.34	0.34
4000	-2.0	0.11	0.46
2800	-1.5	0.12	0.57
2000	-1.0	0.10	0.67
1400	-0.5	0.14	0.80
1000	0.0	0.23	1.03
707.00	0.5	0.00	1.03
500.00	1.0	1.05	2.08
353.60	1.5	10.32	12.41
250.00	2.0	28.34	40.75
176.80	2.5	35.16	75.91
125.00	3.0	20.23	96.14
88.39	3.5	3.83	99.96
63.00	4.0	0.04	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.56	Moderately Well Sorted
Skewness	-0.04	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [μm]	228.21	Fine Sand
Mean [phi]	2.13	
Median [μm]	228.22	Fine Sand
Median [phi]	2.13	
Gravel [%]	0.67	Slightly Gravelly Sand
Sand [%]	99.33	
Mud [%]	0.00	

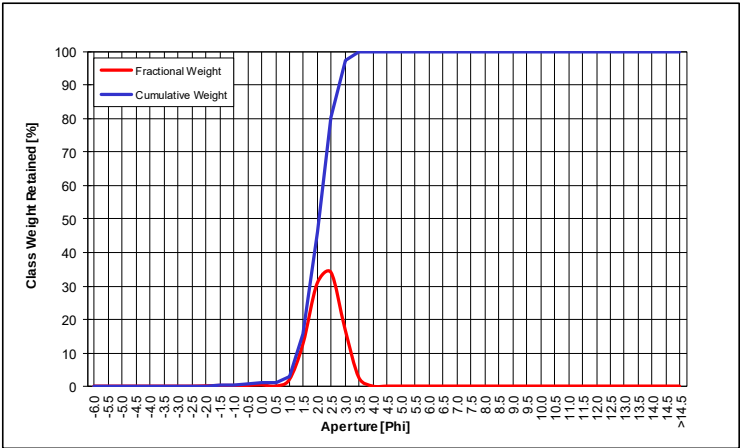


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST028

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.08	0.08
2800	-1.5	0.19	0.27
2000	-1.0	0.20	0.47
1400	-0.5	0.22	0.68
1000	0.0	0.39	1.07
707.00	0.5	0.01	1.08
500.00	1.0	1.85	2.93
353.60	1.5	12.78	15.71
250.00	2.0	30.62	46.33
176.80	2.5	33.98	80.31
125.00	3.0	17.16	97.47
88.39	3.5	2.53	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.56	Moderately Well Sorted
Skewness	-0.03	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [µm]	240.60	Fine Sand
Mean [phi]	2.06	
Median [µm]	240.82	Fine Sand
Median [phi]	2.05	
Gravel [%]	0.47	Slightly Gravelly Sand
Sand [%]	99.53	
Mud [%]	0.00	



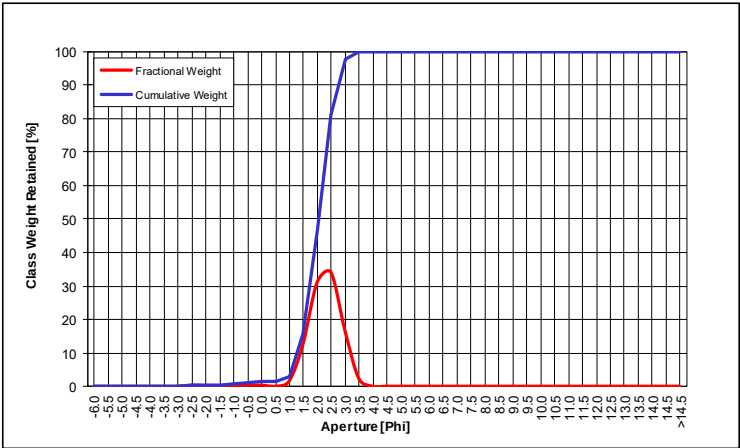
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST029

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.31	0.31
4000	-2.0	0.16	0.47
2800	-1.5	0.05	0.52
2000	-1.0	0.20	0.72
1400	-0.5	0.30	1.02
1000	0.0	0.34	1.37
707.00	0.5	0.00	1.37
500.00	1.0	1.57	2.93
353.60	1.5	12.77	15.70
250.00	2.0	31.13	46.83
176.80	2.5	34.15	80.98
125.00	3.0	16.75	97.74
88.39	3.5	2.26	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.55	Moderately Well Sorted
Skewness	-0.02	Symmetrical
Kurtosis	0.99	Mesokurtic
Mean [µm]	242.00	Fine Sand
Mean [phi]	2.05	
Median [µm]	242.09	Fine Sand
Median [phi]	2.05	
Gravel [%]	0.72	Slightly Gravelly Sand
Sand [%]	99.28	
Mud [%]	0.00	



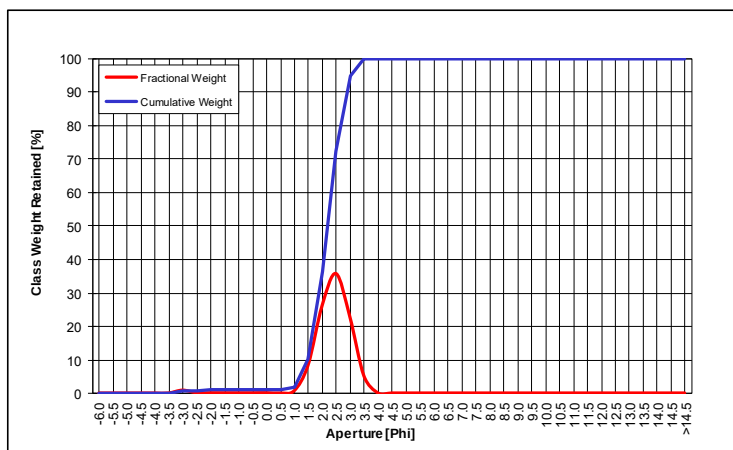
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST030

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.84	0.84
5600	-2.5	0.09	0.94
4000	-2.0	0.08	1.02
2800	-1.5	0.07	1.09
2000	-1.0	0.07	1.15
1400	-0.5	0.07	1.22
1000	0.0	0.10	1.31
707.00	0.5	0.00	1.31
500.00	1.0	0.67	1.99
353.60	1.5	8.38	10.37
250.00	2.0	26.07	36.44
176.80	2.5	35.70	72.14
125.00	3.0	22.69	94.83
88.39	3.5	5.13	99.96
63.00	4.0	0.04	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.57	Moderately Well Sorted
Skewness	-0.05	Symmetrical
Kurtosis	0.96	Mesokurtic
Mean [μm]	219.70	Fine Sand
Mean [phi]	2.19	
Median [μm]	219.17	Fine Sand
Median [phi]	2.19	
Gravel [%]	1.15	Slightly Gravelly Sand
Sand [%]	98.85	
Mud [%]	0.00	

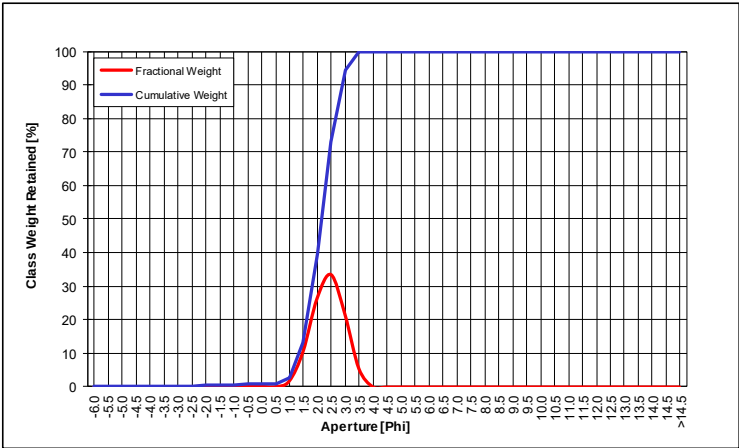


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST031

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.11	0.11
4000	-2.0	0.22	0.34
2800	-1.5	0.11	0.45
2000	-1.0	0.13	0.58
1400	-0.5	0.11	0.69
1000	0.0	0.17	0.87
707.00	0.5	0.07	0.93
500.00	1.0	1.74	2.68
353.60	1.5	10.58	13.26
250.00	2.0	26.27	39.53
176.80	2.5	33.36	72.90
125.00	3.0	21.58	94.48
88.39	3.5	5.46	99.94
63.00	4.0	0.06	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.59	Moderately Well Sorted
Skewness	-0.04	Symmetrical
Kurtosis	0.96	Mesokurtic
Mean [µm]	224.49	Fine Sand
Mean [phi]	2.16	
Median [µm]	224.25	Fine Sand
Median [phi]	2.16	
Gravel [%]	0.58	Slightly Gravelly Sand
Sand [%]	99.42	
Mud [%]	0.00	



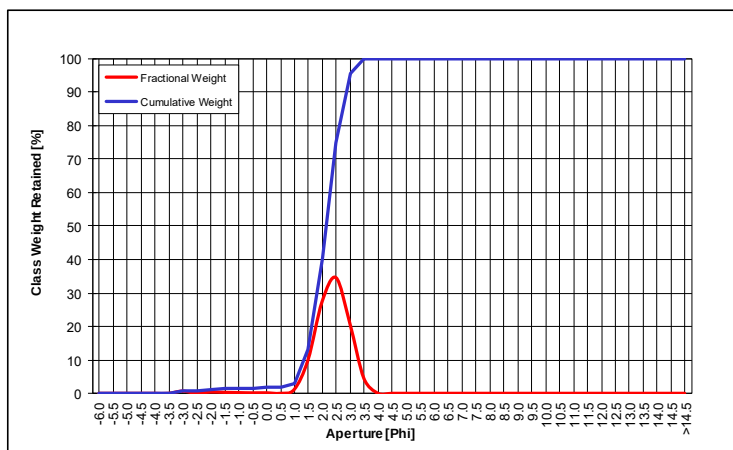
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST032

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.66	0.66
5600	-2.5	0.00	0.66
4000	-2.0	0.39	1.05
2800	-1.5	0.29	1.34
2000	-1.0	0.21	1.55
1400	-0.5	0.13	1.68
1000	0.0	0.15	1.83
707.00	0.5	0.00	1.83
500.00	1.0	1.13	2.96
353.60	1.5	10.04	12.99
250.00	2.0	27.28	40.28
176.80	2.5	34.47	74.75
125.00	3.0	20.77	95.52
88.39	3.5	4.45	99.97
63.00	4.0	0.03	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.58	Moderately Well Sorted
Skewness	-0.05	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [μm]	226.96	Fine Sand
Mean [phi]	2.14	
Median [μm]	226.73	Fine Sand
Median [phi]	2.14	
Gravel [%]	1.55	Slightly Gravelly Sand
Sand [%]	98.45	
Mud [%]	0.00	

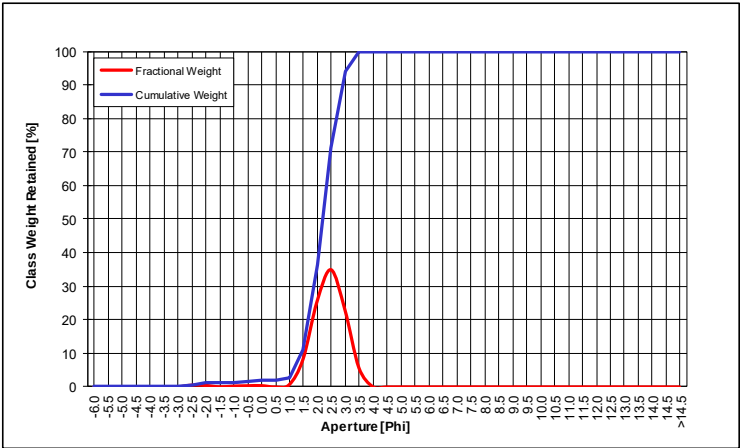


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST033

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.53	0.53
4000	-2.0	0.46	0.99
2800	-1.5	0.03	1.02
2000	-1.0	0.25	1.28
1400	-0.5	0.35	1.63
1000	0.0	0.39	2.02
707.00	0.5	0.00	2.02
500.00	1.0	0.65	2.67
353.60	1.5	8.32	10.99
250.00	2.0	25.41	36.40
176.80	2.5	34.87	71.27
125.00	3.0	22.94	94.21
88.39	3.5	5.71	99.93
63.00	4.0	0.07	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.59	Moderately Well Sorted
Skewness	-0.05	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [µm]	219.11	Fine Sand
Mean [phi]	2.19	
Median [µm]	218.40	Fine Sand
Median [phi]	2.19	
Gravel [%]	1.28	Slightly Gravelly Sand
Sand [%]	98.72	
Mud [%]	0.00	



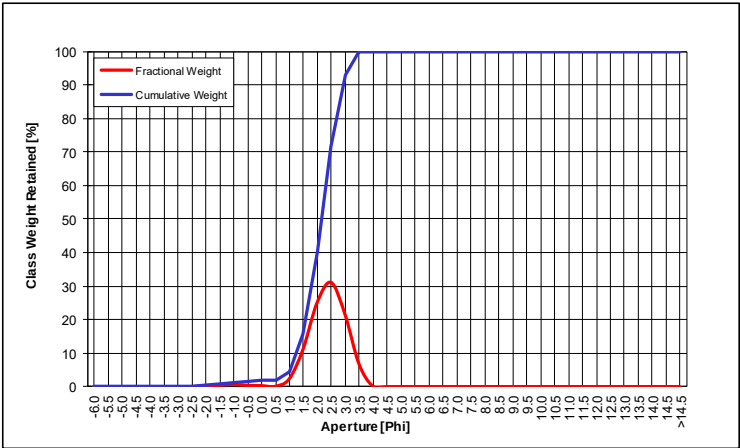
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST034

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.30	0.30
2800	-1.5	0.39	0.69
2000	-1.0	0.62	1.31
1400	-0.5	0.36	1.67
1000	0.0	0.29	1.97
707.00	0.5	0.09	2.05
500.00	1.0	2.27	4.32
353.60	1.5	11.18	15.50
250.00	2.0	24.93	40.43
176.80	2.5	31.02	71.45
125.00	3.0	21.59	93.03
88.39	3.5	6.82	99.85
63.00	4.0	0.15	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.64	Moderately Well Sorted
Skewness	-0.03	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [µm]	225.07	Fine Sand
Mean [phi]	2.15	
Median [µm]	224.66	Fine Sand
Median [phi]	2.15	
Gravel [%]	1.31	Slightly Gravelly Sand
Sand [%]	98.69	
Mud [%]	0.00	



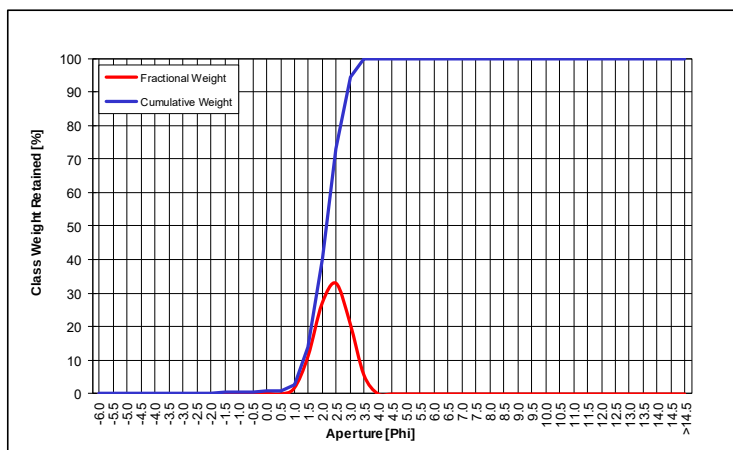
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST035

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.13	0.13
4000	-2.0	0.08	0.21
2800	-1.5	0.10	0.31
2000	-1.0	0.11	0.42
1400	-0.5	0.13	0.55
1000	0.0	0.19	0.74
707.00	0.5	0.00	0.74
500.00	1.0	1.71	2.45
353.60	1.5	11.23	13.69
250.00	2.0	26.75	40.44
176.80	2.5	32.75	73.19
125.00	3.0	21.08	94.27
88.39	3.5	5.65	99.91
63.00	4.0	0.09	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.60	Moderately Well Sorted
Skewness	-0.03	Symmetrical
Kurtosis	0.96	Mesokurtic
Mean [μm]	225.56	Fine Sand
Mean [phi]	2.15	
Median [μm]	225.95	Fine Sand
Median [phi]	2.15	
Gravel [%]	0.42	Slightly Gravelly Sand
Sand [%]	99.58	
Mud [%]	0.00	

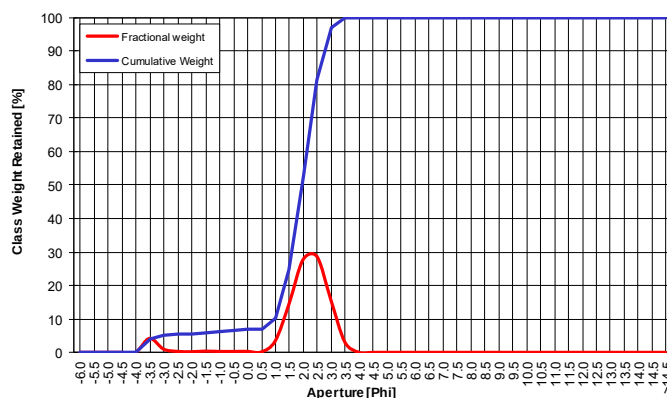


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST036

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	4.18	4.18
8000	-3.0	0.97	5.15
5600	-2.5	0.29	5.44
4000	-2.0	0.19	5.63
2800	-1.5	0.37	6.00
2000	-1.0	0.27	6.27
1400	-0.5	0.27	6.53
1000	0.0	0.30	6.83
707.00	0.5	0.12	6.95
500.00	1.0	3.38	10.33
353.60	1.5	14.56	24.89
250.00	2.0	27.74	52.63
176.80	2.5	28.64	81.27
125.00	3.0	15.66	96.93
88.39	3.5	3.06	99.99
63.00	4.0	0.01	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.26	Poorly Sorted
Skewness	-0.38	Very Coarse Skewed
Kurtosis	2.77	Very Leptokurtic
Mean [μm]	265.83	Medium Sand
Mean [phi]	1.91	
Median [μm]	258.35	Medium Sand
Median [phi]	1.95	
Gravel [%]	6.27	Gravelly Sand
Sand [%]	93.73	
Mud [%]	0.00	

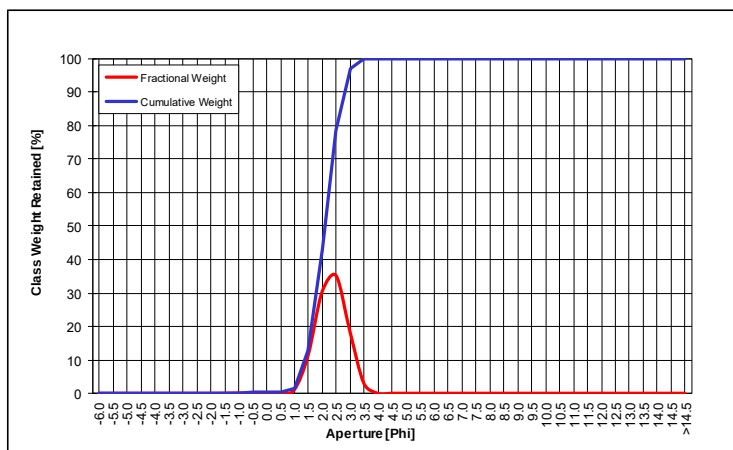


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST037

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.04	0.04
2000	-1.0	0.11	0.15
1400	-0.5	0.11	0.26
1000	0.0	0.15	0.41
707.00	0.5	0.00	0.41
500.00	1.0	1.00	1.41
353.60	1.5	11.37	12.78
250.00	2.0	30.38	43.16
176.80	2.5	35.32	78.48
125.00	3.0	18.55	97.03
88.39	3.5	2.97	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.54	Moderately Well Sorted
Skewness	-0.02	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [μm]	233.35	Fine Sand
Mean [phi]	2.10	
Median [μm]	233.78	Fine Sand
Median [phi]	2.10	
Gravel [%]	0.15	Slightly Gravelly Sand
Sand [%]	99.85	
Mud [%]	0.00	

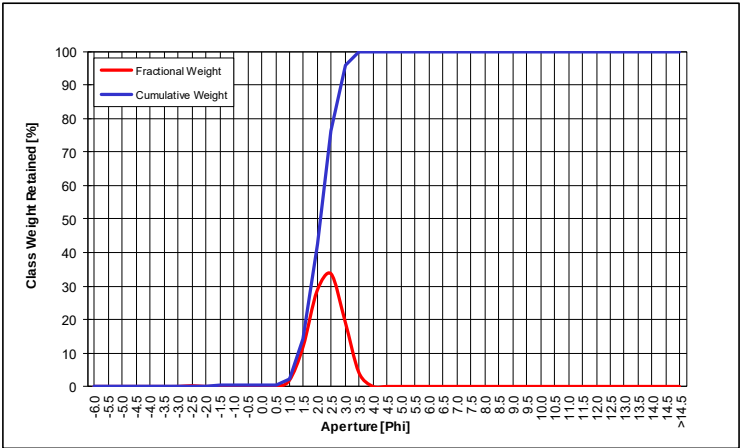


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST038

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.23	0.23
4000	-2.0	0.00	0.23
2800	-1.5	0.06	0.28
2000	-1.0	0.04	0.33
1400	-0.5	0.05	0.37
1000	0.0	0.11	0.48
707.00	0.5	0.00	0.48
500.00	1.0	1.74	2.23
353.60	1.5	11.90	14.13
250.00	2.0	28.51	42.64
176.80	2.5	33.61	76.25
125.00	3.0	19.59	95.84
88.39	3.5	4.14	99.98
63.00	4.0	0.02	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.57	Moderately Well Sorted
Skewness	-0.03	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [µm]	231.12	Fine Sand
Mean [phi]	2.11	
Median [µm]	231.74	Fine Sand
Median [phi]	2.11	
Gravel [%]	0.33	Slightly Gravelly Sand
Sand [%]	99.67	
Mud [%]	0.00	



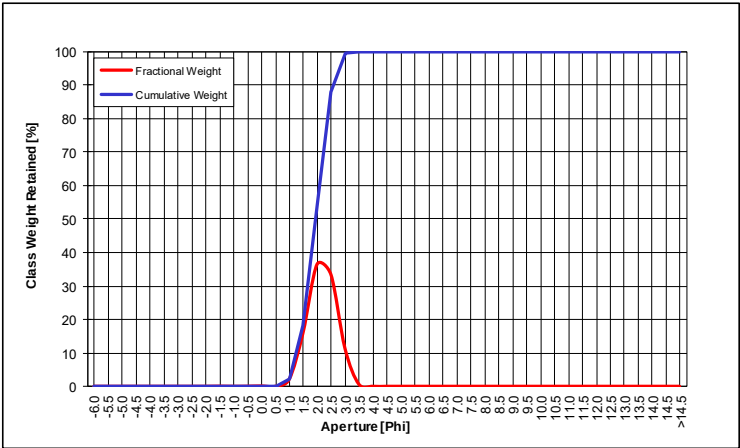
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST039

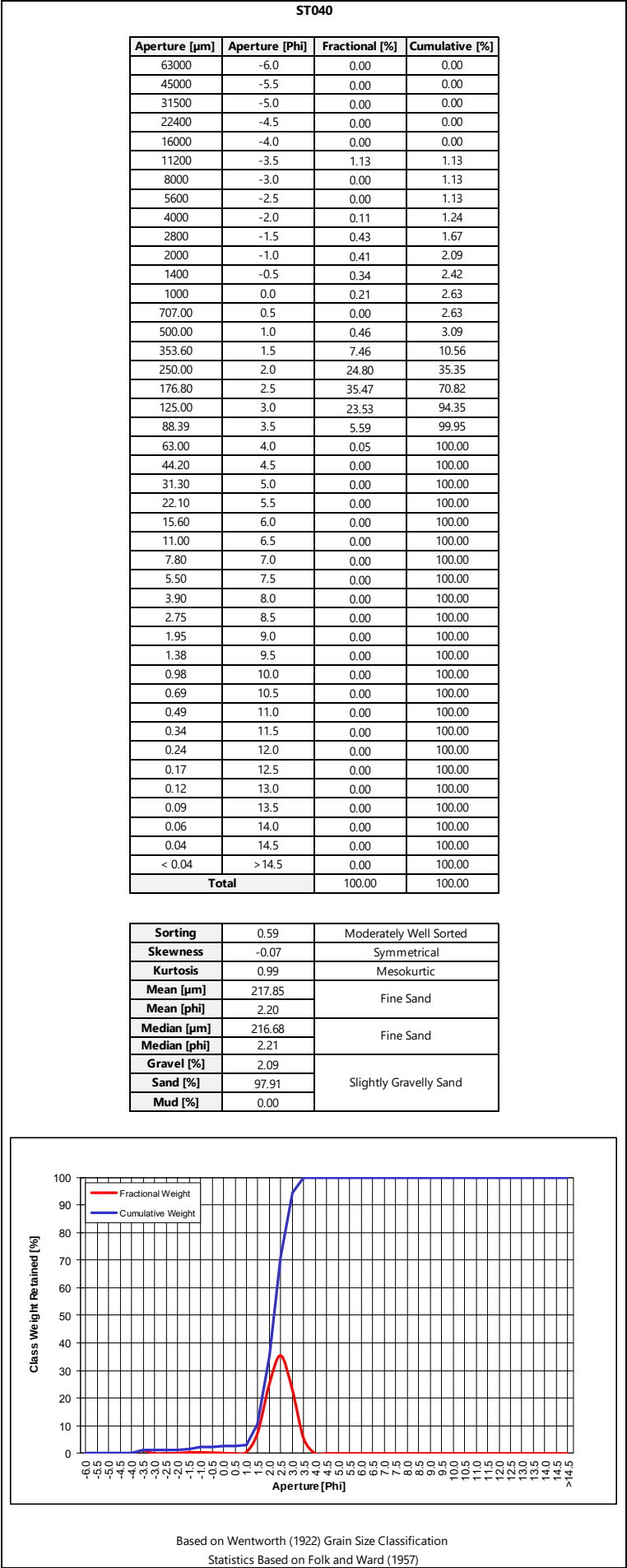
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.05	0.05
2000	-1.0	0.00	0.05
1400	-0.5	0.03	0.08
1000	0.0	0.11	0.18
707.00	0.5	0.00	0.18
500.00	1.0	2.07	2.25
353.60	1.5	16.06	18.31
250.00	2.0	36.42	54.73
176.80	2.5	33.30	88.03
125.00	3.0	11.36	99.39
88.39	3.5	0.61	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.51	Moderately Well Sorted
Skewness	0.01	Symmetrical
Kurtosis	0.99	Mesokurtic
Mean [µm]	261.69	Medium Sand
Mean [phi]	1.93	
Median [µm]	261.52	Medium Sand
Median [phi]	1.94	
Gravel [%]	0.05	Slightly Gravelly Sand
Sand [%]	99.95	
Mud [%]	0.00	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

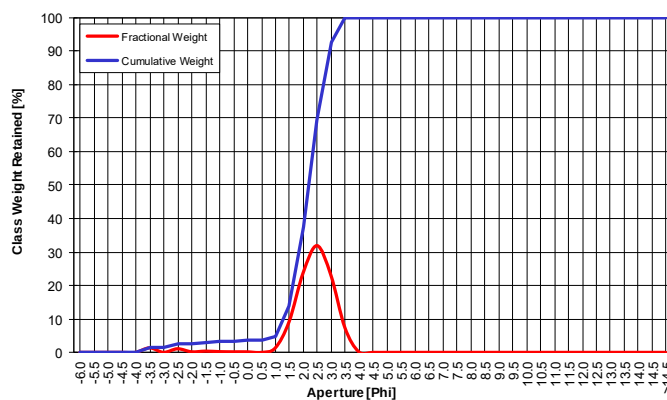




ST041

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	1.36	1.36
8000	-3.0	0.00	1.36
5600	-2.5	1.08	2.44
4000	-2.0	0.17	2.61
2800	-1.5	0.37	2.98
2000	-1.0	0.22	3.20
1400	-0.5	0.16	3.36
1000	0.0	0.16	3.52
707.00	0.5	0.00	3.52
500.00	1.0	1.29	4.81
353.60	1.5	9.15	13.96
250.00	2.0	23.65	37.61
176.80	2.5	31.84	69.45
125.00	3.0	23.00	92.45
88.39	3.5	7.38	99.83
63.00	4.0	0.17	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.65	Moderately Well Sorted
Skewness	-0.06	Symmetrical
Kurtosis	1.00	Mesokurtic
Mean [μm]	219.98	Fine Sand
Mean [phi]	2.18	
Median [μm]	218.48	Fine Sand
Median [phi]	2.19	
Gravel [%]	3.20	Slightly Gravelly Sand
Sand [%]	96.80	
Mud [%]	0.00	

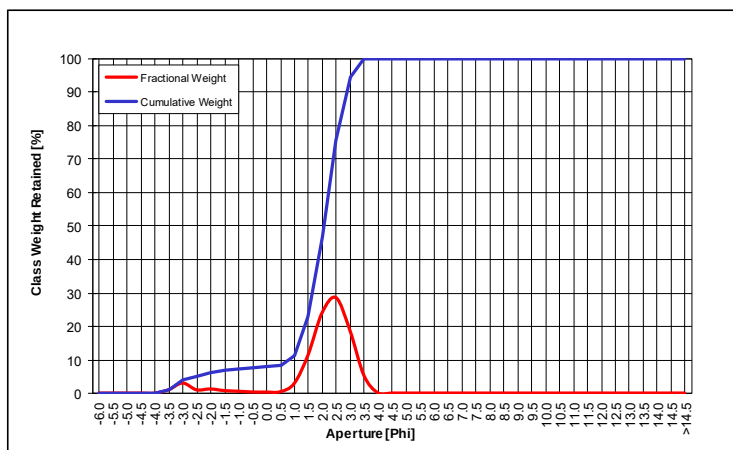


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST042

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.98	0.98
8000	-3.0	3.02	4.00
5600	-2.5	0.97	4.98
4000	-2.0	1.24	6.21
2800	-1.5	0.73	6.94
2000	-1.0	0.55	7.49
1400	-0.5	0.32	7.81
1000	0.0	0.30	8.11
707.00	0.5	0.39	8.50
500.00	1.0	2.87	11.37
353.60	1.5	11.51	22.88
250.00	2.0	24.13	47.02
176.80	2.5	28.71	75.73
125.00	3.0	18.86	94.59
88.39	3.5	5.32	99.92
63.00	4.0	0.08	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.22	Poorly Sorted
Skewness	-0.38	Very Coarse Skewed
Kurtosis	2.40	Very Leptokurtic
Mean [μm]	251.63	Medium Sand
Mean [phi]	1.99	
Median [μm]	241.16	Fine Sand
Median [phi]	2.05	
Gravel [%]	7.49	Gravelly Sand
Sand [%]	92.51	
Mud [%]	0.00	

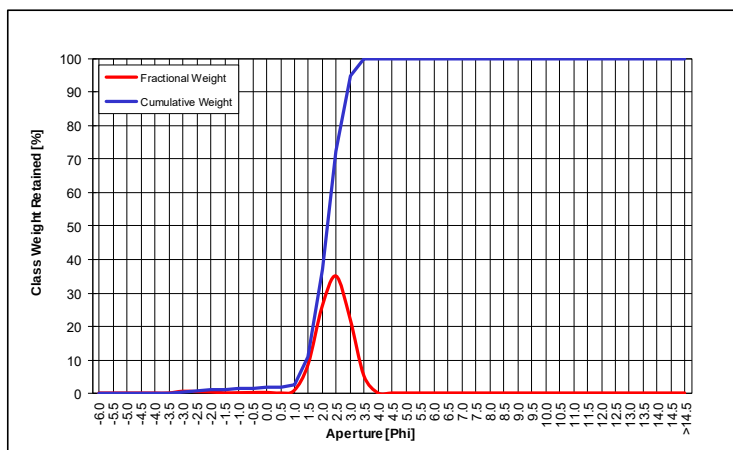


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST043

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.53	0.53
5600	-2.5	0.42	0.95
4000	-2.0	0.31	1.26
2800	-1.5	0.05	1.32
2000	-1.0	0.08	1.40
1400	-0.5	0.14	1.54
1000	0.0	0.17	1.71
707.00	0.5	0.00	1.71
500.00	1.0	0.76	2.48
353.60	1.5	8.61	11.09
250.00	2.0	25.95	37.04
176.80	2.5	35.21	72.24
125.00	3.0	22.52	94.76
88.39	3.5	5.20	99.95
63.00	4.0	0.05	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.58	Moderately Well Sorted
Skewness	-0.06	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [μm]	220.70	Fine Sand
Mean [phi]	2.18	
Median [μm]	220.06	Fine Sand
Median [phi]	2.18	
Gravel [%]	1.40	Slightly Gravelly Sand
Sand [%]	98.60	
Mud [%]	0.00	

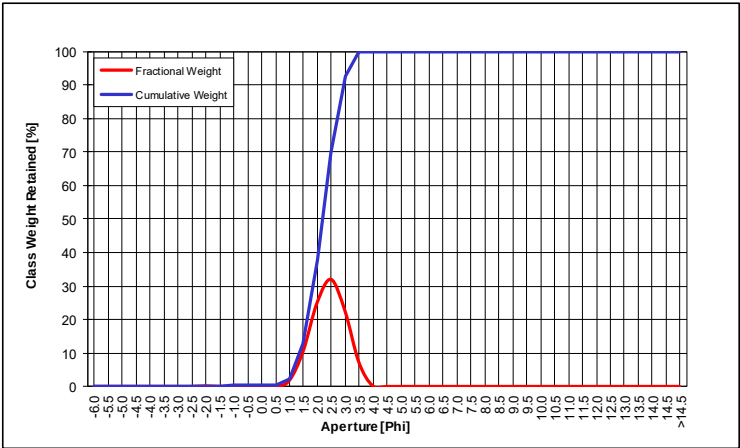


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST044

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.17	0.17
2800	-1.5	0.01	0.19
2000	-1.0	0.07	0.26
1400	-0.5	0.10	0.36
1000	0.0	0.15	0.50
707.00	0.5	0.00	0.50
500.00	1.0	1.72	2.22
353.60	1.5	10.54	12.76
250.00	2.0	25.06	37.82
176.80	2.5	32.09	69.91
125.00	3.0	22.69	92.60
88.39	3.5	7.23	99.84
63.00	4.0	0.16	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.62	Moderately Well Sorted
Skewness	-0.02	Symmetrical
Kurtosis	0.96	Mesokurtic
Mean [µm]	219.43	Fine Sand
Mean [phi]	2.19	
Median [µm]	219.19	Fine Sand
Median [phi]	2.19	
Gravel [%]	0.26	Slightly Gravelly Sand
Sand [%]	99.74	
Mud [%]	0.00	



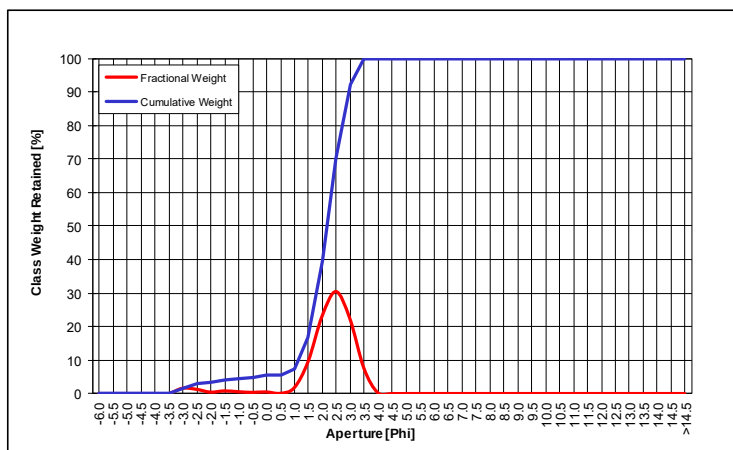
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST045

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	1.59	1.59
5600	-2.5	1.26	2.85
4000	-2.0	0.42	3.27
2800	-1.5	0.79	4.05
2000	-1.0	0.54	4.59
1400	-0.5	0.35	4.94
1000	0.0	0.48	5.42
707.00	0.5	0.07	5.49
500.00	1.0	1.70	7.18
353.60	1.5	9.51	16.69
250.00	2.0	22.99	39.68
176.80	2.5	30.32	69.99
125.00	3.0	22.22	92.21
88.39	3.5	7.54	99.75
63.00	4.0	0.25	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.88	Moderately Sorted
Skewness	-0.24	Coarse Skewed
Kurtosis	1.59	Very Leptokurtic
Mean [μm]	225.36	Fine Sand
Mean [phi]	2.15	
Median [μm]	222.18	Fine Sand
Median [phi]	2.17	
Gravel [%]	4.59	Slightly Gravelly Sand
Sand [%]	95.41	
Mud [%]	0.00	

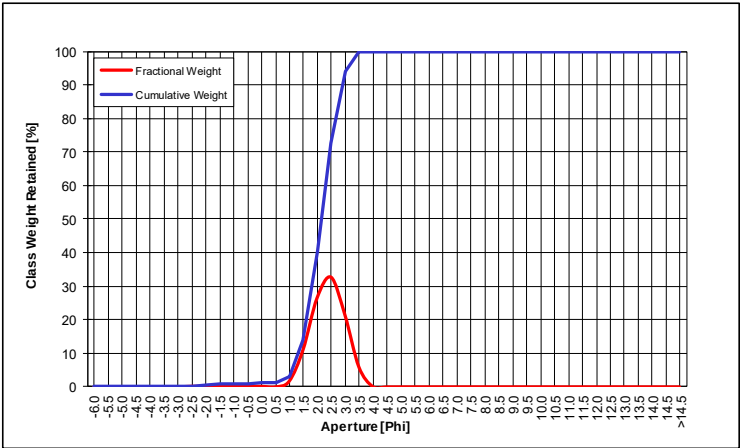


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST046

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.20	0.20
4000	-2.0	0.16	0.36
2800	-1.5	0.27	0.63
2000	-1.0	0.18	0.81
1400	-0.5	0.16	0.97
1000	0.0	0.17	1.14
707.00	0.5	0.00	1.14
500.00	1.0	1.67	2.82
353.60	1.5	11.05	13.87
250.00	2.0	26.34	40.20
176.80	2.5	32.51	72.71
125.00	3.0	21.31	94.01
88.39	3.5	5.89	99.91
63.00	4.0	0.09	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.61	Moderately Well Sorted
Skewness	-0.03	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [µm]	225.01	Fine Sand
Mean [phi]	2.15	
Median [µm]	225.21	Fine Sand
Median [phi]	2.15	
Gravel [%]	0.81	Slightly Gravelly Sand
Sand [%]	99.19	
Mud [%]	0.00	



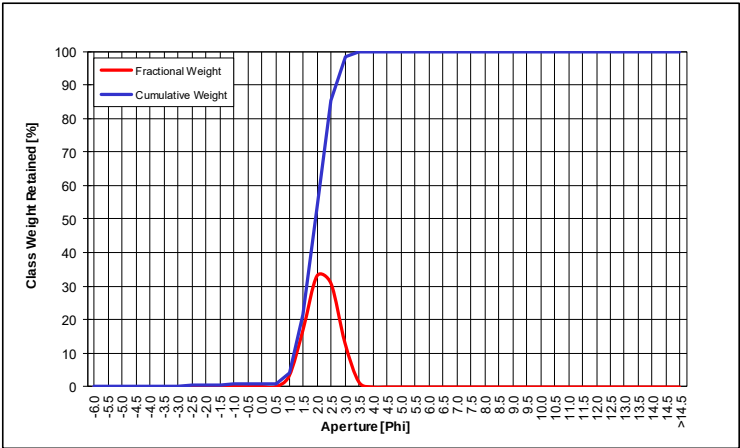
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST047

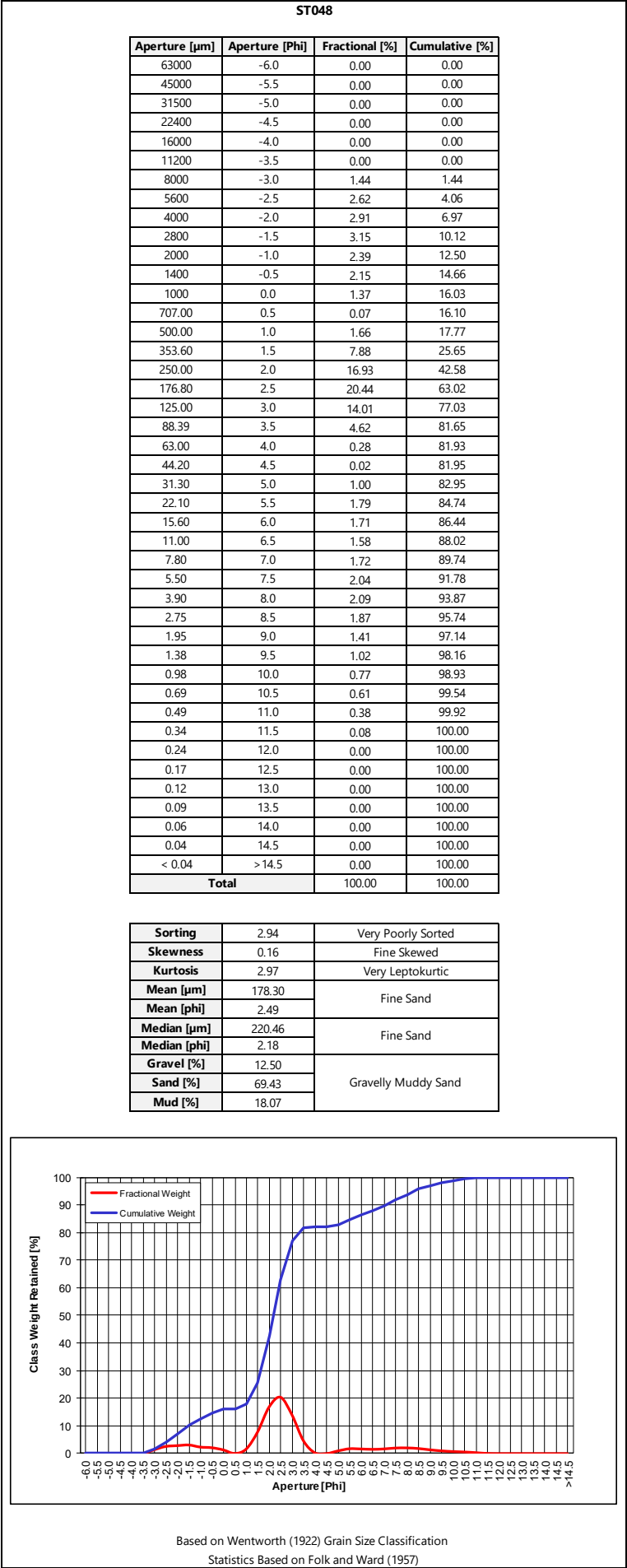
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.30	0.30
4000	-2.0	0.00	0.30
2800	-1.5	0.18	0.49
2000	-1.0	0.13	0.62
1400	-0.5	0.10	0.71
1000	0.0	0.15	0.86
707.00	0.5	0.03	0.90
500.00	1.0	3.30	4.20
353.60	1.5	17.12	21.32
250.00	2.0	33.14	54.47
176.80	2.5	30.86	85.33
125.00	3.0	13.18	98.50
88.39	3.5	1.50	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.56	Moderately Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [µm]	264.54	Medium Sand
Mean [phi]	1.92	
Median [µm]	261.96	Medium Sand
Median [phi]	1.93	
Gravel [%]	0.62	Slightly Gravelly Sand
Sand [%]	99.38	
Mud [%]	0.00	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

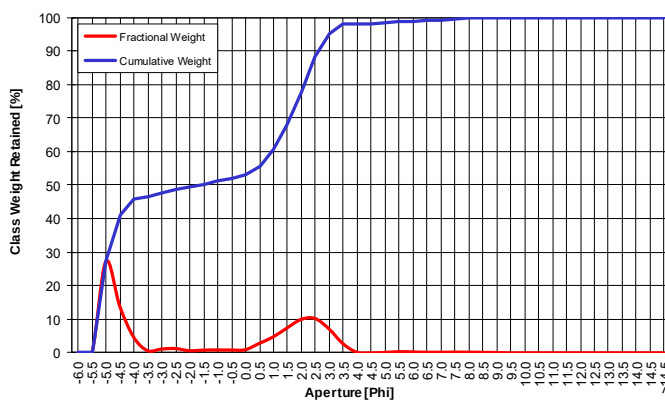




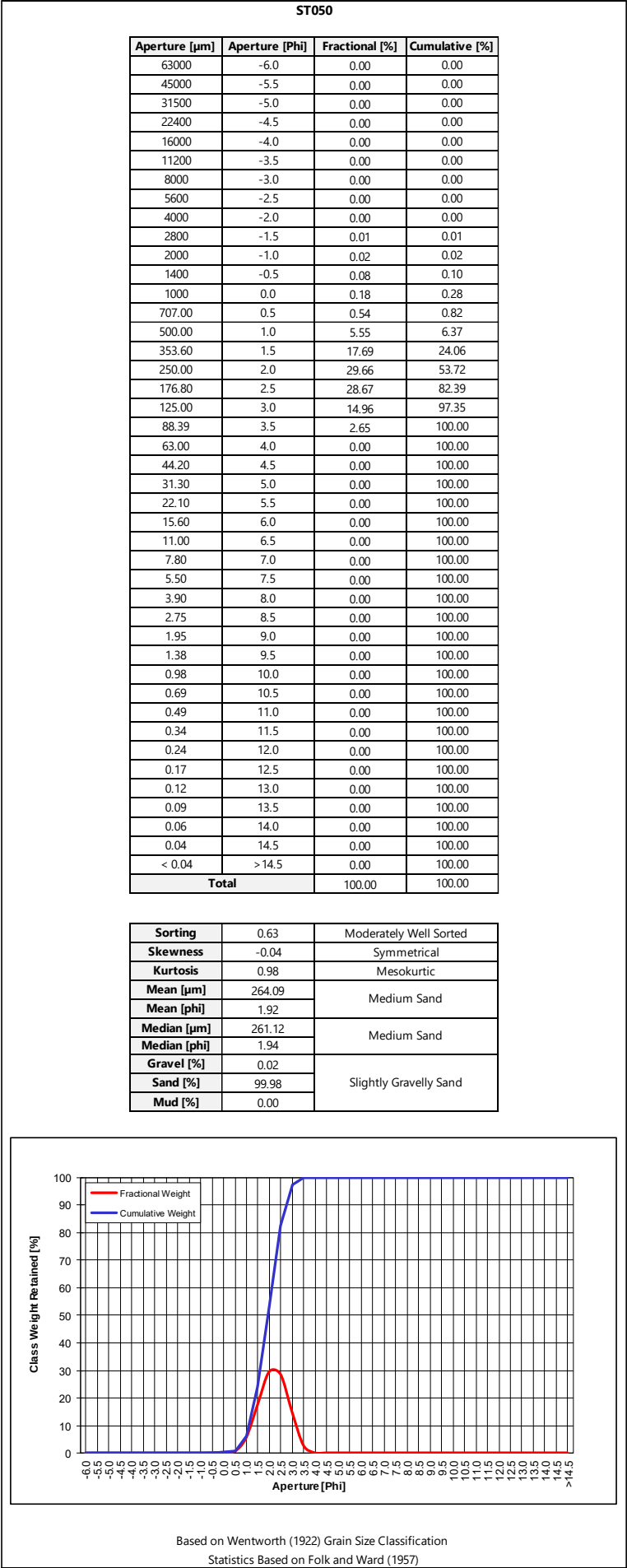
ST049

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	27.16	27.16
22400	-4.5	13.91	41.07
16000	-4.0	4.66	45.73
11200	-3.5	0.66	46.39
8000	-3.0	1.15	47.54
5600	-2.5	1.29	48.83
4000	-2.0	0.64	49.47
2800	-1.5	0.82	50.29
2000	-1.0	0.87	51.16
1400	-0.5	0.85	52.01
1000	0.0	0.94	52.95
707.00	0.5	2.82	55.77
500.00	1.0	4.74	60.51
353.60	1.5	7.42	67.93
250.00	2.0	9.94	77.88
176.80	2.5	10.23	88.11
125.00	3.0	7.16	95.26
88.39	3.5	2.75	98.01
63.00	4.0	0.19	98.21
44.20	4.5	0.00	98.21
31.30	5.0	0.12	98.33
22.10	5.5	0.35	98.68
15.60	6.0	0.28	98.96
11.00	6.5	0.18	99.15
7.80	7.0	0.18	99.33
5.50	7.5	0.21	99.54
3.90	8.0	0.20	99.74
2.75	8.5	0.15	99.90
1.95	9.0	0.10	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	3.14	Very Poorly Sorted
Skewness	0.08	Symmetrical
Kurtosis	0.50	Very Platykurtic
Mean [μm]	2864.80	Granule
Mean [phi]	-1.52	
Median [μm]	3172.56	Granule
Median [phi]	-1.67	
Gravel [%]	51.16	Sandy Gravel
Sand [%]	47.05	
Mud [%]	1.79	



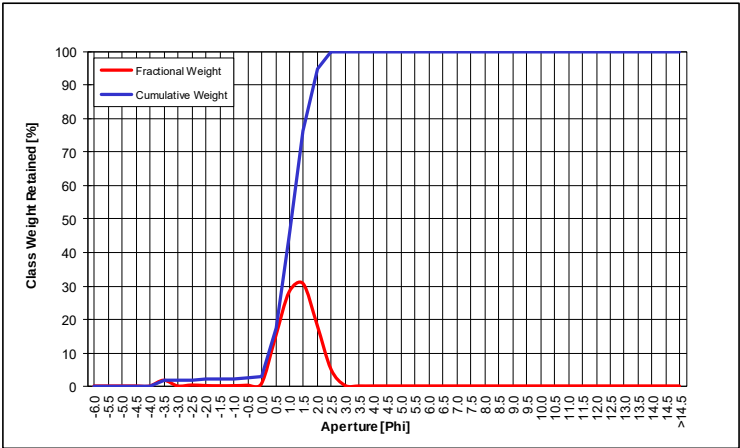
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST051

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	1.72	1.72
8000	-3.0	0.00	1.72
5600	-2.5	0.28	2.00
4000	-2.0	0.11	2.10
2800	-1.5	0.06	2.16
2000	-1.0	0.09	2.24
1400	-0.5	0.22	2.46
1000	0.0	0.61	3.07
707.00	0.5	14.42	17.49
500.00	1.0	28.26	45.75
353.60	1.5	30.71	76.46
250.00	2.0	18.36	94.82
176.80	2.5	5.00	99.83
125.00	3.0	0.17	100.00
88.39	3.5	0.00	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.61	Moderately Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	0.95	Mesokurtic
Mean [µm]	474.90	Medium Sand
Mean [phi]	1.07	
Median [µm]	476.59	Medium Sand
Median [phi]	1.07	
Gravel [%]	2.24	Slightly Gravelly Sand
Sand [%]	97.76	
Mud [%]	0.00	



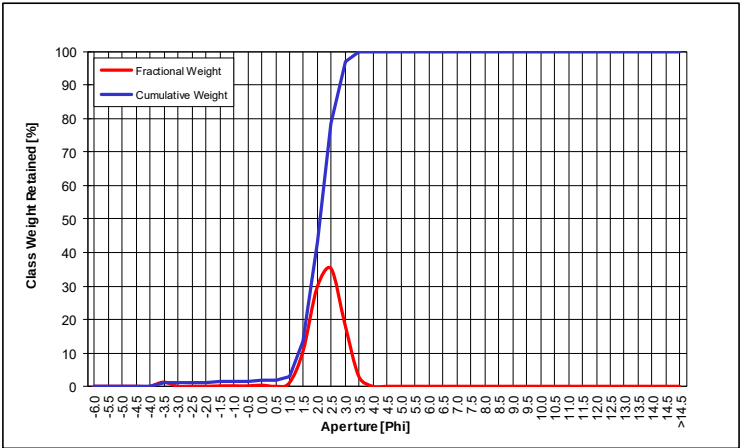
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST052

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	1.25	1.25
8000	-3.0	0.00	1.25
5600	-2.5	0.00	1.25
4000	-2.0	0.00	1.25
2800	-1.5	0.12	1.36
2000	-1.0	0.14	1.51
1400	-0.5	0.11	1.62
1000	0.0	0.34	1.95
707.00	0.5	0.00	1.95
500.00	1.0	0.96	2.91
353.60	1.5	10.62	13.54
250.00	2.0	29.62	43.16
176.80	2.5	35.33	78.49
125.00	3.0	18.60	97.08
88.39	3.5	2.92	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.56	Moderately Well Sorted
Skewness	-0.04	Symmetrical
Kurtosis	1.00	Mesokurtic
Mean [µm]	234.00	Fine Sand
Mean [phi]	2.10	
Median [µm]	233.77	Fine Sand
Median [phi]	2.10	
Gravel [%]	1.51	Slightly Gravelly Sand
Sand [%]	98.49	
Mud [%]	0.00	



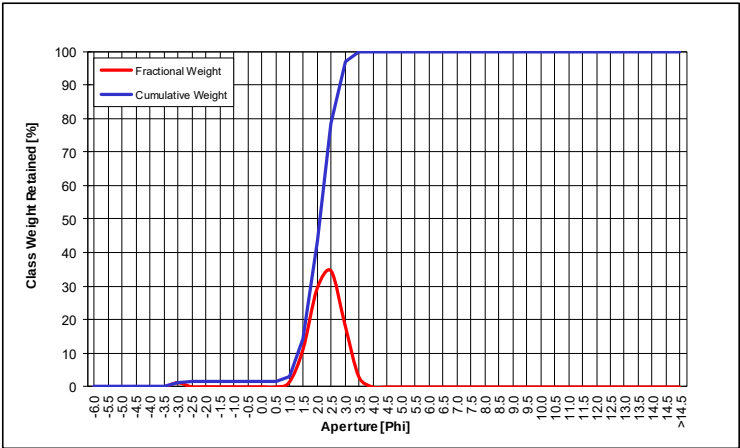
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST053

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	1.29	1.29
5600	-2.5	0.07	1.36
4000	-2.0	0.07	1.43
2800	-1.5	0.03	1.46
2000	-1.0	0.04	1.50
1400	-0.5	0.02	1.52
1000	0.0	0.05	1.57
707.00	0.5	0.00	1.57
500.00	1.0	1.38	2.95
353.60	1.5	11.32	14.27
250.00	2.0	29.34	43.61
176.80	2.5	34.71	78.32
125.00	3.0	18.66	96.99
88.39	3.5	3.01	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.56	Moderately Well Sorted
Skewness	-0.04	Symmetrical
Kurtosis	0.99	Mesokurtic
Mean [µm]	234.70	Fine Sand
Mean [phi]	2.09	
Median [µm]	234.55	Fine Sand
Median [phi]	2.09	
Gravel [%]	1.50	Slightly Gravelly Sand
Sand [%]	98.50	
Mud [%]	0.00	



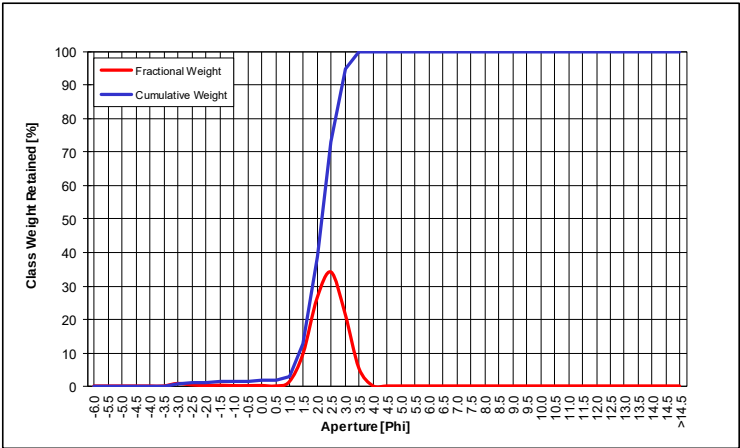
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST054

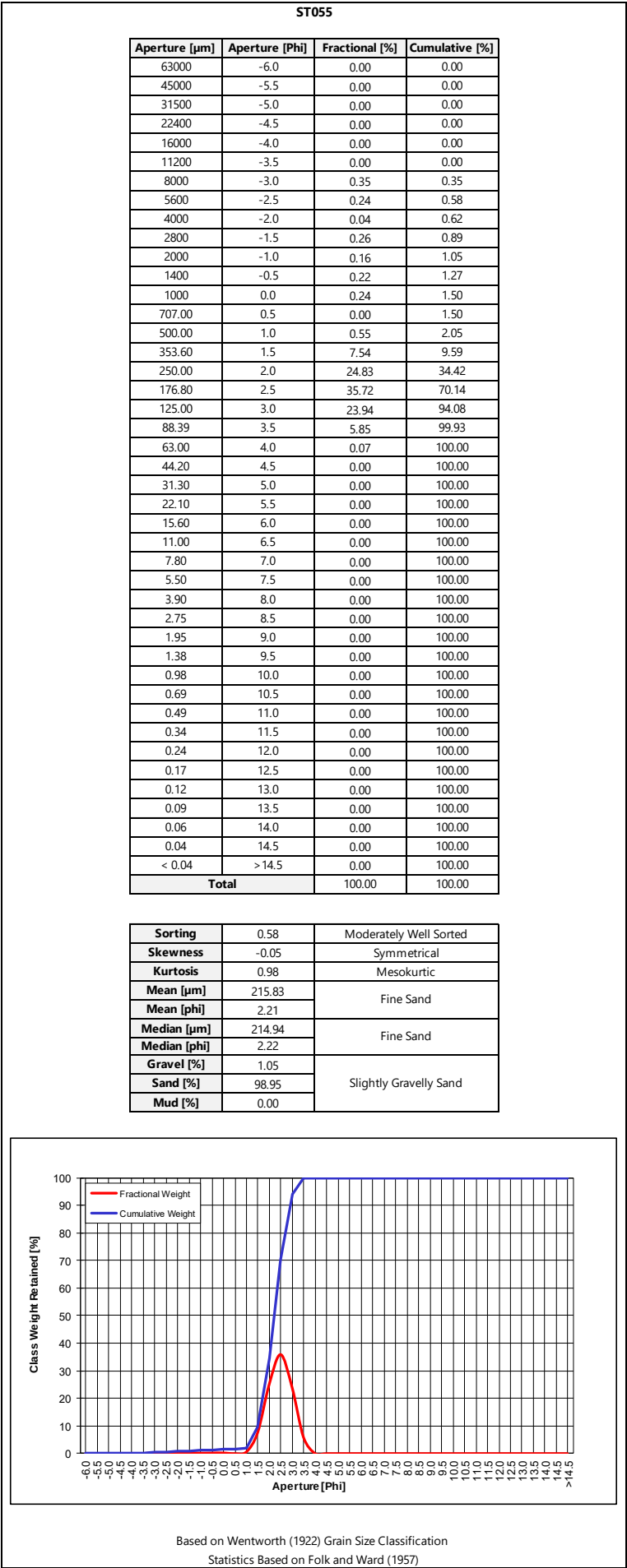
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.74	0.74
5600	-2.5	0.32	1.06
4000	-2.0	0.12	1.18
2800	-1.5	0.22	1.40
2000	-1.0	0.09	1.49
1400	-0.5	0.09	1.58
1000	0.0	0.14	1.72
707.00	0.5	0.00	1.72
500.00	1.0	1.22	2.94
353.60	1.5	9.70	12.64
250.00	2.0	26.22	38.87
176.80	2.5	34.02	72.88
125.00	3.0	21.75	94.64
88.39	3.5	5.31	99.94
63.00	4.0	0.06	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.59	Moderately Well Sorted
Skewness	-0.05	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [µm]	223.61	Fine Sand
Mean [phi]	2.16	
Median [µm]	223.20	Fine Sand
Median [phi]	2.16	
Gravel [%]	1.49	Slightly Gravelly Sand
Sand [%]	98.51	
Mud [%]	0.00	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

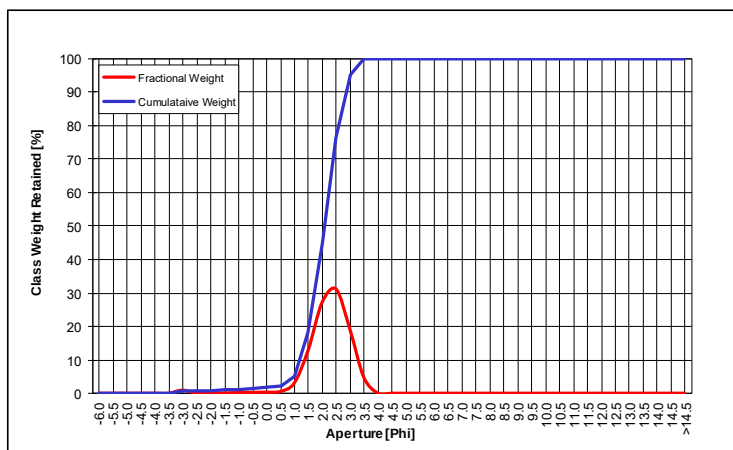




ST056

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.90	0.90
5600	-2.5	0.00	0.90
4000	-2.0	0.04	0.94
2800	-1.5	0.08	1.02
2000	-1.0	0.19	1.21
1400	-0.5	0.27	1.48
1000	0.0	0.32	1.80
707.00	0.5	0.52	2.32
500.00	1.0	2.99	5.31
353.60	1.5	12.78	18.09
250.00	2.0	27.04	45.13
176.80	2.5	31.09	76.22
125.00	3.0	19.04	95.26
88.39	3.5	4.69	99.95
63.00	4.0	0.05	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.63	Moderately Well Sorted
Skewness	-0.07	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [μm]	238.68	Fine Sand
Mean [phi]	2.07	
Median [μm]	236.80	Fine Sand
Median [phi]	2.08	
Gravel [%]	1.21	Slightly Gravelly Sand
Sand [%]	98.52	
Mud [%]	0.00	

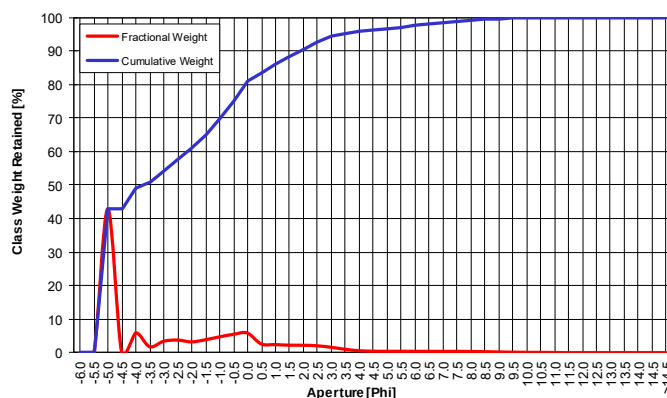


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST057

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	43.04	43.04
22400	-4.5	0.00	43.04
16000	-4.0	5.89	48.92
11200	-3.5	1.78	50.70
8000	-3.0	3.42	54.12
5600	-2.5	3.77	57.90
4000	-2.0	3.23	61.13
2800	-1.5	3.86	64.99
2000	-1.0	4.73	69.72
1400	-0.5	5.48	75.20
1000	0.0	5.89	81.09
707.00	0.5	2.61	83.70
500.00	1.0	2.42	86.11
353.60	1.5	2.24	88.36
250.00	2.0	2.22	90.58
176.80	2.5	2.06	92.64
125.00	3.0	1.62	94.26
88.39	3.5	1.03	95.28
63.00	4.0	0.59	95.87
44.20	4.5	0.44	96.32
31.30	5.0	0.41	96.73
22.10	5.5	0.42	97.15
15.60	6.0	0.41	97.56
11.00	6.5	0.40	97.96
7.80	7.0	0.39	98.35
5.50	7.5	0.39	98.74
3.90	8.0	0.36	99.10
2.75	8.5	0.30	99.40
1.95	9.0	0.21	99.61
1.38	9.5	0.15	99.76
0.98	10.0	0.10	99.86
0.69	10.5	0.08	99.95
0.49	11.0	0.05	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.80	Very Poorly Sorted
Skewness	0.53	Very Fine Skewed
Kurtosis	0.77	Platykurtic
Mean [μm]	7006.97	Pebble
Mean [phi]	-2.81	
Median [μm]	12897.30	Pebble
Median [phi]	-3.69	
Gravel [%]	69.72	Muddy Sandy Gravel
Sand [%]	26.16	
Mud [%]	4.13	

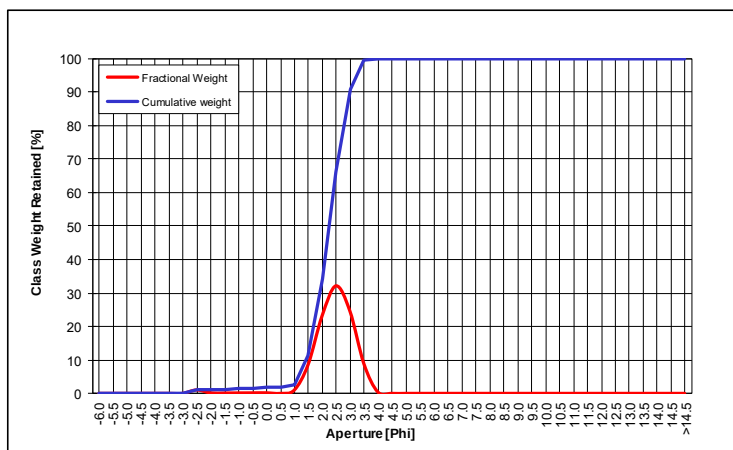


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST058

Aperture [μ m]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	1.02	1.02
4000	-2.0	0.17	1.19
2800	-1.5	0.12	1.32
2000	-1.0	0.14	1.45
1400	-0.5	0.15	1.61
1000	0.0	0.17	1.77
707.00	0.5	0.00	1.77
500.00	1.0	0.95	2.72
353.60	1.5	8.55	11.27
250.00	2.0	23.03	34.30
176.80	2.5	31.99	66.29
125.00	3.0	24.47	90.76
88.39	3.5	8.82	99.58
63.00	4.0	0.42	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.63	Moderately Well Sorted
Skewness	-0.04	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [μm]	212.20	Fine Sand
Mean [phi]	2.24	
Median [μm]	210.92	Fine Sand
Median [phi]	2.25	
Gravel [%]	1.45	Slightly Gravelly Sand
Sand [%]	98.55	
Mud [%]	0.00	

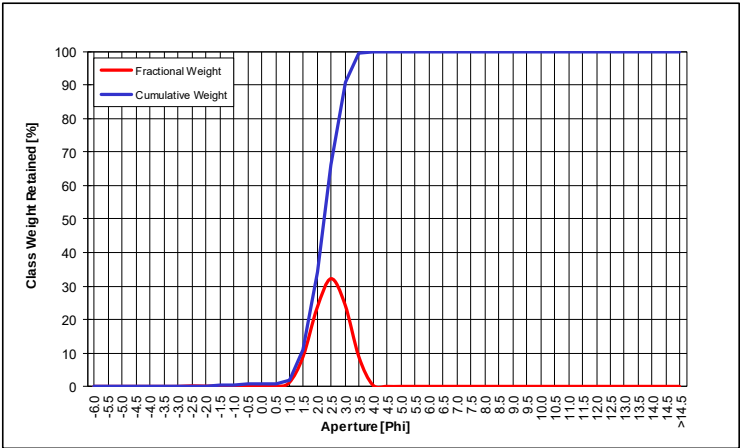


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST059

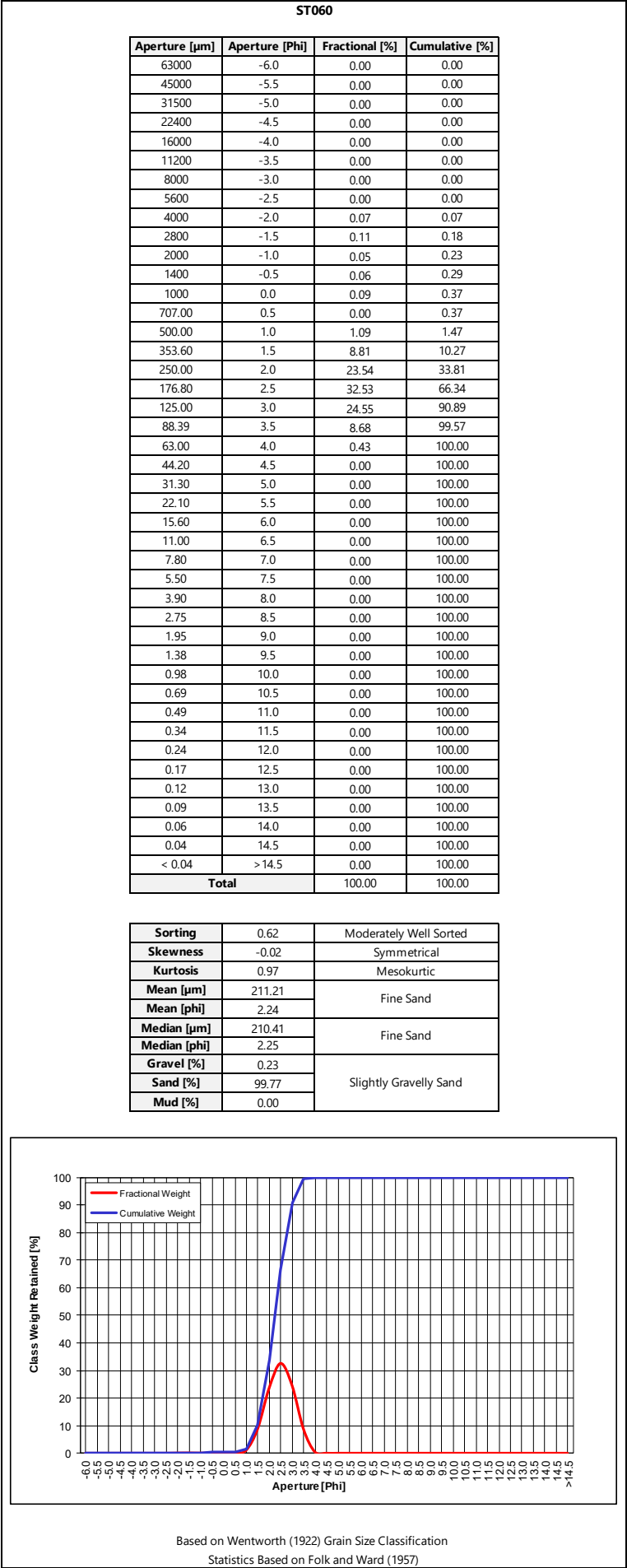
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.16	0.16
4000	-2.0	0.08	0.25
2800	-1.5	0.14	0.38
2000	-1.0	0.15	0.53
1400	-0.5	0.12	0.65
1000	0.0	0.14	0.78
707.00	0.5	0.00	0.78
500.00	1.0	1.10	1.88
353.60	1.5	8.91	10.79
250.00	2.0	23.36	34.16
176.80	2.5	32.12	66.28
125.00	3.0	24.48	90.76
88.39	3.5	8.82	99.58
63.00	4.0	0.42	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.63	Moderately Well Sorted
Skewness	-0.03	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [µm]	211.70	Fine Sand
Mean [phi]	2.24	
Median [µm]	210.73	Fine Sand
Median [phi]	2.25	
Gravel [%]	0.53	Slightly Gravelly Sand
Sand [%]	99.47	
Mud [%]	0.00	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

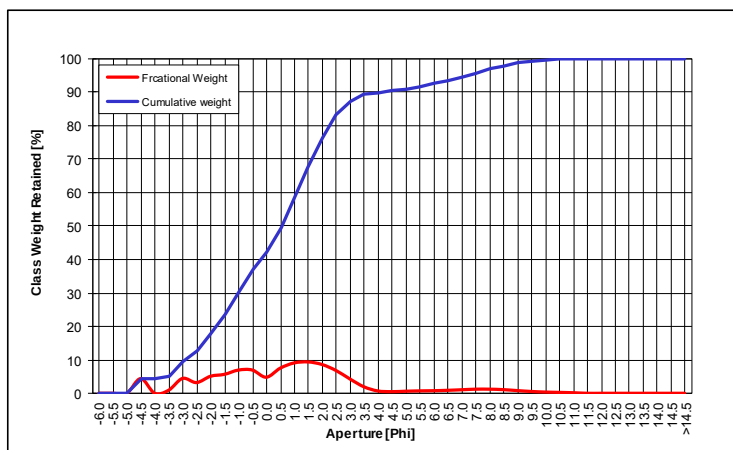




ST061

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	4.35	4.35
16000	-4.0	0.00	4.35
11200	-3.5	0.90	5.24
8000	-3.0	4.41	9.65
5600	-2.5	3.17	12.83
4000	-2.0	5.05	17.87
2800	-1.5	5.62	23.49
2000	-1.0	6.88	30.37
1400	-0.5	6.89	37.26
1000	0.0	4.76	42.02
707.00	0.5	7.44	49.46
500.00	1.0	9.00	58.46
353.60	1.5	9.29	67.76
250.00	2.0	8.53	76.28
176.80	2.5	6.76	83.04
125.00	3.0	4.24	87.28
88.39	3.5	1.92	89.20
63.00	4.0	0.69	89.89
44.20	4.5	0.48	90.37
31.30	5.0	0.61	90.98
22.10	5.5	0.71	91.69
15.60	6.0	0.76	92.45
11.00	6.5	0.88	93.33
7.80	7.0	1.04	94.37
5.50	7.5	1.21	95.59
3.90	8.0	1.22	96.80
2.75	8.5	1.08	97.88
1.95	9.0	0.79	98.67
1.38	9.5	0.54	99.21
0.98	10.0	0.36	99.57
0.69	10.5	0.27	99.84
0.49	11.0	0.16	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.85	Very Poorly Sorted
Skewness	0.05	Symmetrical
Kurtosis	1.35	Leptokurtic
Mean [μm]	800.50	Coarse Sand
Mean [phi]	0.32	
Median [μm]	692.52	Coarse Sand
Median [phi]	0.53	
Gravel [%]	30.37	Muddy Sandy Gravel
Sand [%]	59.52	
Mud [%]	10.11	

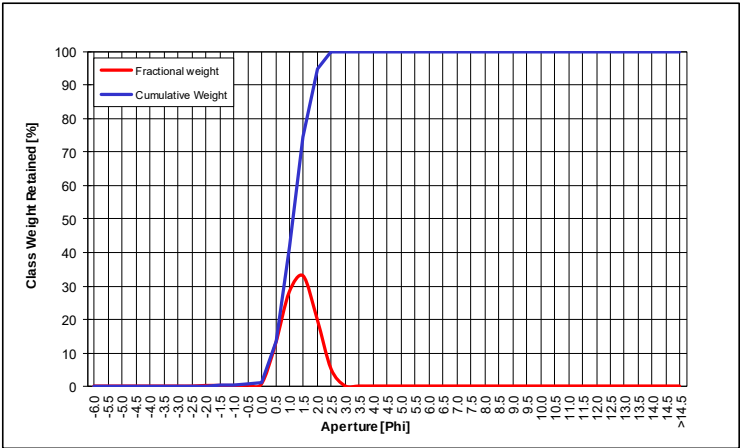


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST062

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.16	0.16
2800	-1.5	0.18	0.34
2000	-1.0	0.16	0.50
1400	-0.5	0.25	0.75
1000	0.0	0.54	1.30
707.00	0.5	12.25	13.55
500.00	1.0	28.09	41.64
353.60	1.5	32.98	74.61
250.00	2.0	20.15	94.77
176.80	2.5	5.15	99.92
125.00	3.0	0.08	100.00
88.39	3.5	0.00	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.58	Moderately Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	0.95	Mesokurtic
Mean [µm]	455.50	Medium Sand
Mean [phi]	1.13	
Median [µm]	457.94	Medium Sand
Median [phi]	1.13	
Gravel [%]	0.50	Slightly Gravelly Sand
Sand [%]	99.50	
Mud [%]	0.00	



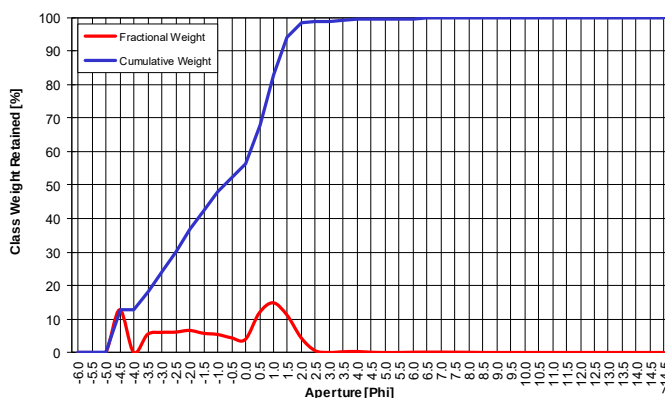
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST063

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	12.75	12.75
16000	-4.0	0.00	12.75
11200	-3.5	5.42	18.17
8000	-3.0	6.00	24.16
5600	-2.5	6.08	30.24
4000	-2.0	6.58	36.83
2800	-1.5	5.73	42.56
2000	-1.0	5.38	47.95
1400	-0.5	4.39	52.33
1000	0.0	3.88	56.21
707.00	0.5	11.77	67.98
500.00	1.0	14.82	82.80
353.60	1.5	11.12	93.91
250.00	2.0	4.44	98.35
176.80	2.5	0.58	98.93
125.00	3.0	0.01	98.94
88.39	3.5	0.22	99.16
63.00	4.0	0.30	99.45
44.20	4.5	0.08	99.53
31.30	5.0	0.00	99.53
22.10	5.5	0.00	99.53
15.60	6.0	0.08	99.62
11.00	6.5	0.11	99.73
7.80	7.0	0.11	99.84
5.50	7.5	0.09	99.93
3.90	8.0	0.06	99.99
2.75	8.5	0.01	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.16	Very Poorly Sorted
Skewness	-0.25	Coarse Skewed
Kurtosis	0.72	Platykurtic
Mean [μm]	2191.77	Granule
Mean [phi]	-1.13	
Median [μm]	1692.55	Very Coarse Sand
Median [phi]	-0.76	
Gravel [%]	47.95	Sandy Gravel
Sand [%]	51.50	
Mud [%]	0.55	

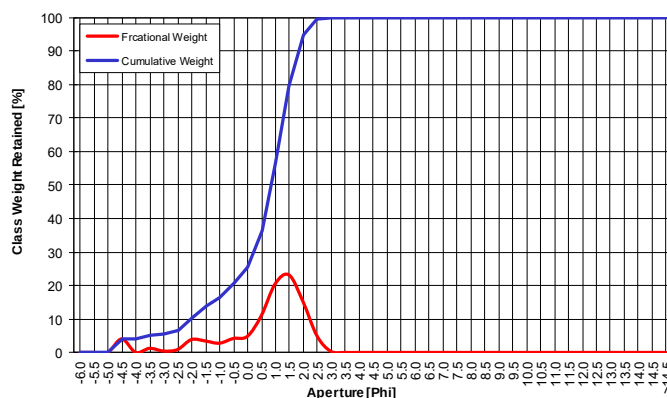


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

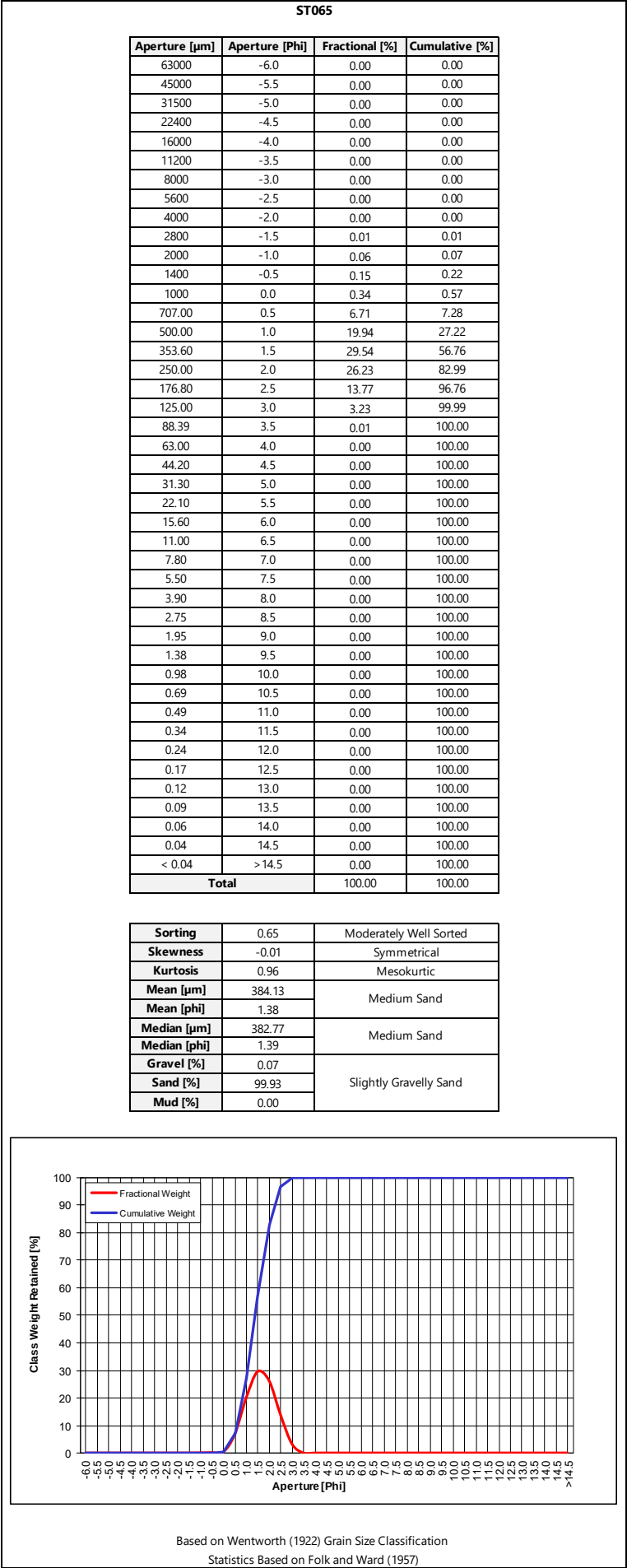
ST064

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	4.02	4.02
16000	-4.0	0.00	4.02
11200	-3.5	1.23	5.24
8000	-3.0	0.41	5.66
5600	-2.5	0.87	6.52
4000	-2.0	3.83	10.35
2800	-1.5	3.40	13.76
2000	-1.0	2.75	16.51
1400	-0.5	4.16	20.67
1000	0.0	4.77	25.44
707.00	0.5	10.86	36.29
500.00	1.0	20.38	56.68
353.60	1.5	23.01	79.69
250.00	2.0	15.08	94.77
176.80	2.5	4.91	99.68
125.00	3.0	0.32	100.00
88.39	3.5	0.00	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.53	Poorly Sorted
Skewness	-0.49	Very Coarse Skewed
Kurtosis	1.59	Very Leptokurtic
Mean [μm]	725.39	Coarse Sand
Mean [phi]	0.46	
Median [μm]	560.09	Coarse Sand
Median [phi]	0.84	
Gravel [%]	16.51	Gravelly Sand
Sand [%]	83.49	
Mud [%]	0.00	



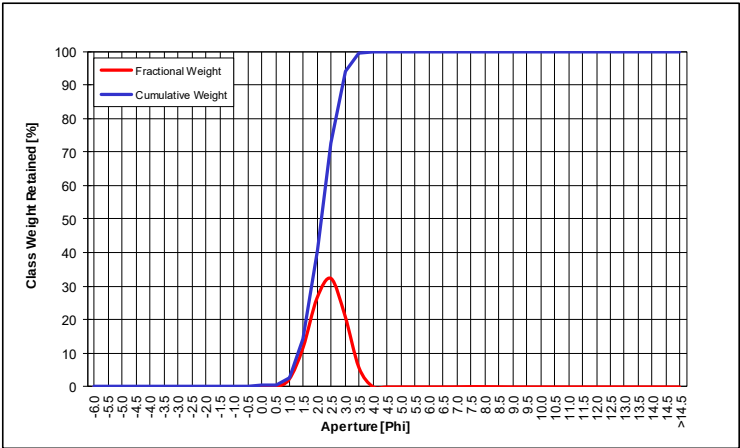
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST066

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.04	0.04
2000	-1.0	0.07	0.12
1400	-0.5	0.07	0.19
1000	0.0	0.14	0.34
707.00	0.5	0.06	0.39
500.00	1.0	2.27	2.66
353.60	1.5	11.68	14.34
250.00	2.0	26.32	40.66
176.80	2.5	32.10	72.76
125.00	3.0	21.14	93.89
88.39	3.5	5.77	99.67
63.00	4.0	0.09	99.76
44.20	4.5	0.00	99.76
31.30	5.0	0.00	99.76
22.10	5.5	0.00	99.76
15.60	6.0	0.00	99.76
11.00	6.5	0.00	99.76
7.80	7.0	0.02	99.78
5.50	7.5	0.09	99.87
3.90	8.0	0.09	99.95
2.75	8.5	0.05	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.61	Moderately Well Sorted
Skewness	-0.02	Symmetrical
Kurtosis	0.96	Mesokurtic
Mean [µm]	225.69	Fine Sand
Mean [phi]	2.15	
Median [µm]	226.02	Fine Sand
Median [phi]	2.15	
Gravel [%]	0.12	Slightly Gravelly Sand
Sand [%]	99.64	
Mud [%]	0.24	

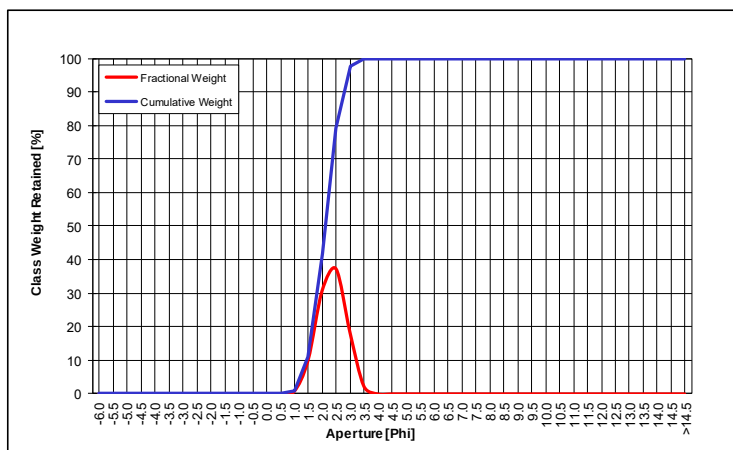


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST067

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.04	0.04
2800	-1.5	0.00	0.04
2000	-1.0	0.05	0.09
1400	-0.5	0.02	0.11
1000	0.0	0.10	0.20
707.00	0.5	0.00	0.20
500.00	1.0	0.76	0.96
353.60	1.5	10.13	11.09
250.00	2.0	30.78	41.87
176.80	2.5	37.39	79.25
125.00	3.0	18.44	97.70
88.39	3.5	2.30	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.52	Moderately Well Sorted
Skewness	-0.03	Symmetrical
Kurtosis	0.99	Mesokurtic
Mean [μm]	232.35	Fine Sand
Mean [phi]	2.11	
Median [μm]	231.85	Fine Sand
Median [phi]	2.11	
Gravel [%]	0.09	Slightly Gravelly Sand
Sand [%]	99.91	
Mud [%]	0.00	

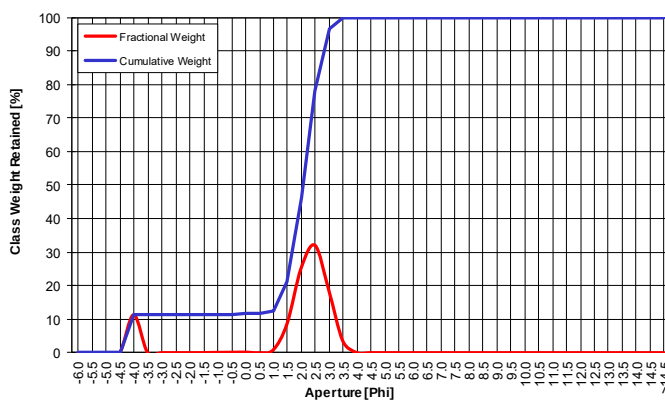


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST068

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	11.26	11.26
11200	-3.5	0.00	11.26
8000	-3.0	0.00	11.26
5600	-2.5	0.00	11.26
4000	-2.0	0.00	11.26
2800	-1.5	0.02	11.28
2000	-1.0	0.09	11.37
1400	-0.5	0.12	11.49
1000	0.0	0.17	11.65
707.00	0.5	0.00	11.65
500.00	1.0	0.82	12.47
353.60	1.5	8.66	21.13
250.00	2.0	25.07	46.19
176.80	2.5	31.92	78.11
125.00	3.0	18.42	96.53
88.39	3.5	3.43	99.97
63.00	4.0	0.03	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.46	Poorly Sorted
Skewness	-0.46	Very Coarse Skewed
Kurtosis	3.39	Extremely Leptokurtic
Mean [μm]	254.49	Medium Sand
Mean [phi]	1.97	
Median [μm]	239.88	Fine Sand
Median [phi]	2.06	
Gravel [%]	11.37	Gravelly Sand
Sand [%]	88.63	
Mud [%]	0.00	

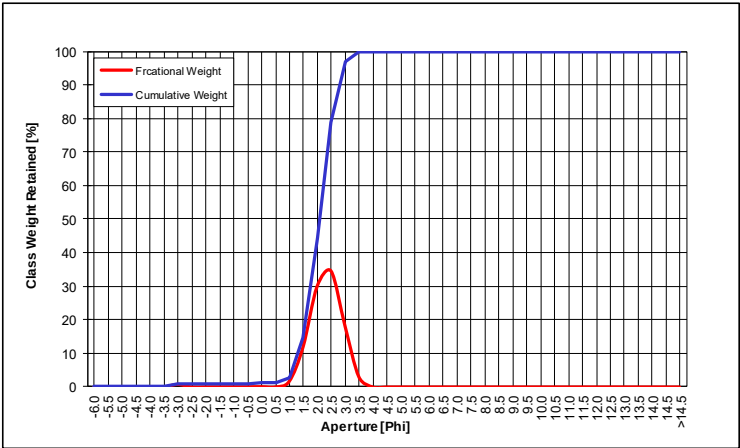


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST069

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.78	0.78
5600	-2.5	0.00	0.78
4000	-2.0	0.03	0.81
2800	-1.5	0.03	0.84
2000	-1.0	0.05	0.89
1400	-0.5	0.05	0.94
1000	0.0	0.10	1.04
707.00	0.5	0.01	1.05
500.00	1.0	1.66	2.70
353.60	1.5	11.92	14.63
250.00	2.0	29.78	44.41
176.80	2.5	34.40	78.80
125.00	3.0	18.18	96.98
88.39	3.5	3.00	99.99
63.00	4.0	0.01	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.56	Moderately Well Sorted
Skewness	-0.03	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [µm]	236.13	Fine Sand
Mean [phi]	2.08	
Median [µm]	236.30	Fine Sand
Median [phi]	2.08	
Gravel [%]	0.89	Slightly Gravelly Sand
Sand [%]	99.11	
Mud [%]	0.00	



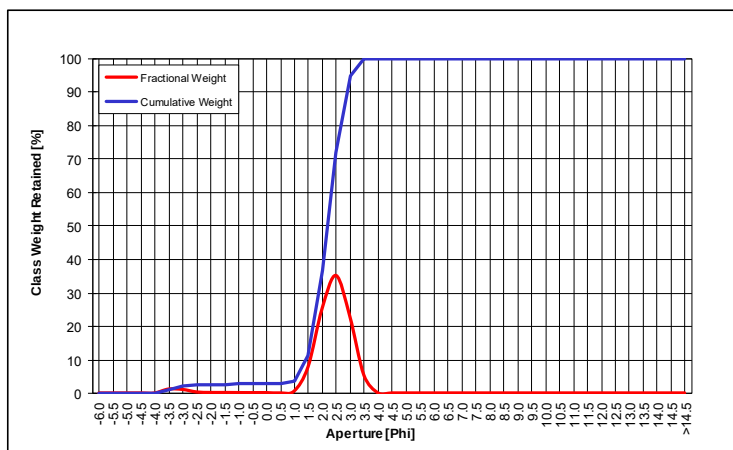
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST070

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	1.17	1.17
8000	-3.0	1.04	2.21
5600	-2.5	0.29	2.50
4000	-2.0	0.14	2.64
2800	-1.5	0.13	2.77
2000	-1.0	0.10	2.88
1400	-0.5	0.09	2.96
1000	0.0	0.09	3.06
707.00	0.5	0.00	3.06
500.00	1.0	0.56	3.62
353.60	1.5	7.87	11.48
250.00	2.0	25.20	36.69
176.80	2.5	35.15	71.84
125.00	3.0	22.80	94.63
88.39	3.5	5.32	99.95
63.00	4.0	0.05	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.59	Moderately Well Sorted
Skewness	-0.08	Symmetrical
Kurtosis	1.00	Mesokurtic
Mean [μm]	220.40	Fine Sand
Mean [phi]	2.18	
Median [μm]	219.26	Fine Sand
Median [phi]	2.19	
Gravel [%]	2.88	Slightly Gravelly Sand
Sand [%]	97.12	
Mud [%]	0.00	

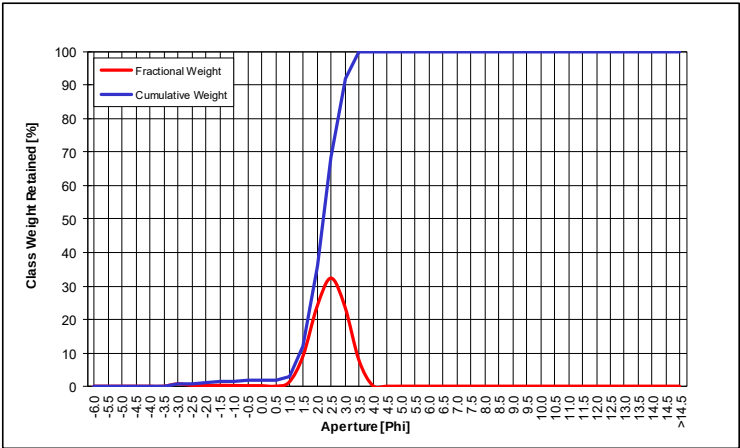


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST071

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.69	0.69
5600	-2.5	0.28	0.96
4000	-2.0	0.19	1.16
2800	-1.5	0.25	1.41
2000	-1.0	0.21	1.62
1400	-0.5	0.14	1.77
1000	0.0	0.14	1.91
707.00	0.5	0.00	1.91
500.00	1.0	1.21	3.12
353.60	1.5	9.07	12.19
250.00	2.0	23.77	35.97
176.80	2.5	32.31	68.27
125.00	3.0	23.73	92.00
88.39	3.5	7.81	99.82
63.00	4.0	0.18	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.63	Moderately Well Sorted
Skewness	-0.04	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [µm]	216.22	Fine Sand
Mean [phi]	2.21	
Median [µm]	215.07	Fine Sand
Median [phi]	2.22	
Gravel [%]	1.62	Slightly Gravelly Sand
Sand [%]	98.23	
Mud [%]	0.00	



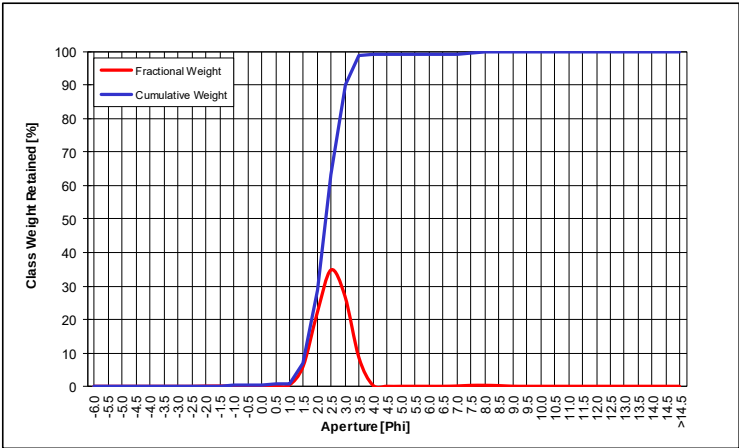
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST072

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.08	0.08
2800	-1.5	0.09	0.17
2000	-1.0	0.10	0.27
1400	-0.5	0.15	0.42
1000	0.0	0.19	0.61
707.00	0.5	0.01	0.62
500.00	1.0	0.33	0.95
353.60	1.5	5.93	6.88
250.00	2.0	21.69	28.57
176.80	2.5	34.71	63.28
125.00	3.0	26.90	90.18
88.39	3.5	8.59	98.77
63.00	4.0	0.34	99.12
44.20	4.5	0.00	99.12
31.30	5.0	0.00	99.12
22.10	5.5	0.00	99.12
15.60	6.0	0.00	99.12
11.00	6.5	0.00	99.12
7.80	7.0	0.08	99.20
5.50	7.5	0.27	99.47
3.90	8.0	0.29	99.76
2.75	8.5	0.21	99.98
1.95	9.0	0.02	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.59	Moderately Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	0.99	Mesokurtic
Mean [µm]	202.89	Fine Sand
Mean [phi]	2.30	
Median [µm]	201.86	Fine Sand
Median [phi]	2.31	
Gravel [%]	0.27	Slightly Gravelly Sand
Sand [%]	98.85	
Mud [%]	0.88	



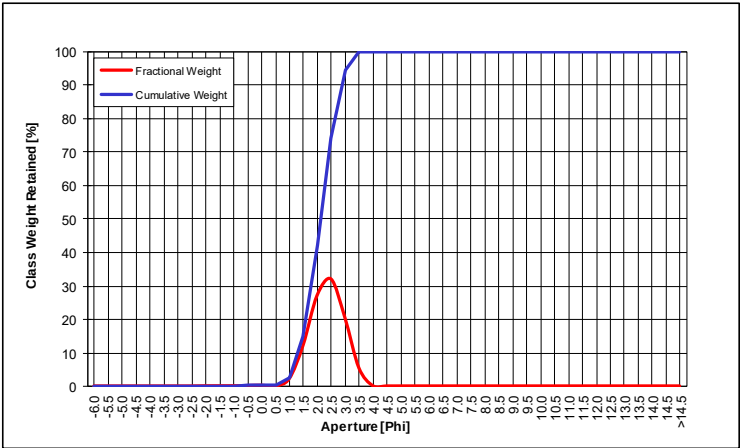
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST073

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.05	0.05
2800	-1.5	0.06	0.11
2000	-1.0	0.06	0.17
1400	-0.5	0.11	0.28
1000	0.0	0.22	0.50
707.00	0.5	0.00	0.50
500.00	1.0	2.16	2.65
353.60	1.5	12.24	14.89
250.00	2.0	27.13	42.02
176.80	2.5	32.06	74.08
125.00	3.0	20.44	94.52
88.39	3.5	5.41	99.93
63.00	4.0	0.07	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.60	Moderately Well Sorted
Skewness	-0.02	Symmetrical
Kurtosis	0.95	Mesokurtic
Mean [µm]	228.60	Fine Sand
Mean [phi]	2.13	
Median [µm]	229.34	Fine Sand
Median [phi]	2.12	
Gravel [%]	0.17	Slightly Gravelly Sand
Sand [%]	99.83	
Mud [%]	0.00	



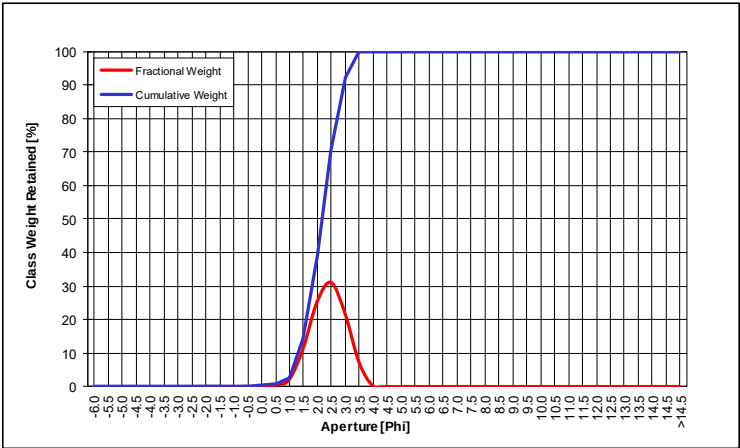
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST074

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.07	0.07
2800	-1.5	0.05	0.12
2000	-1.0	0.01	0.14
1400	-0.5	0.06	0.19
1000	0.0	0.08	0.27
707.00	0.5	0.41	0.68
500.00	1.0	2.07	2.76
353.60	1.5	11.35	14.11
250.00	2.0	25.26	39.37
176.80	2.5	31.10	70.48
125.00	3.0	21.91	92.38
88.39	3.5	7.38	99.77
63.00	4.0	0.23	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.63	Moderately Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	0.96	Mesokurtic
Mean [µm]	221.87	Fine Sand
Mean [phi]	2.17	
Median [µm]	222.09	Fine Sand
Median [phi]	2.17	
Gravel [%]	0.14	Slightly Gravelly Sand
Sand [%]	99.86	
Mud [%]	0.00	



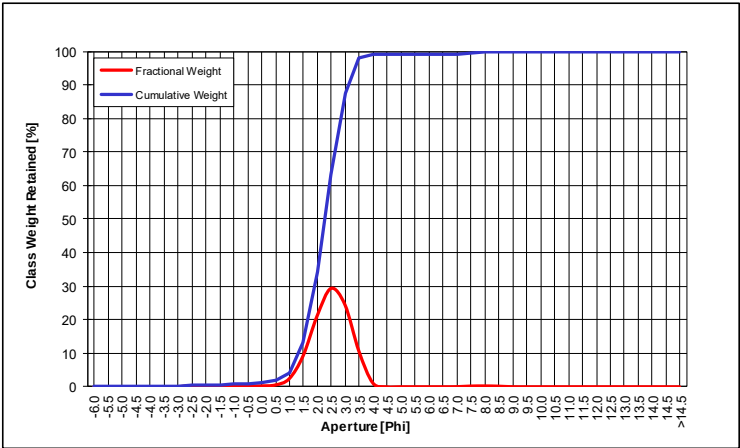
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST075

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.38	0.38
4000	-2.0	0.08	0.46
2800	-1.5	0.01	0.47
2000	-1.0	0.19	0.66
1400	-0.5	0.24	0.90
1000	0.0	0.28	1.18
707.00	0.5	0.54	1.71
500.00	1.0	2.38	4.09
353.60	1.5	9.16	13.25
250.00	2.0	20.91	34.16
176.80	2.5	29.13	63.28
125.00	3.0	24.31	87.60
88.39	3.5	10.56	98.16
63.00	4.0	1.14	99.30
44.20	4.5	0.00	99.30
31.30	5.0	0.00	99.30
22.10	5.5	0.00	99.30
15.60	6.0	0.00	99.30
11.00	6.5	0.00	99.30
7.80	7.0	0.03	99.33
5.50	7.5	0.22	99.54
3.90	8.0	0.26	99.80
2.75	8.5	0.19	99.99
1.95	9.0	0.01	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.69	Moderately Well Sorted
Skewness	-0.05	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [µm]	209.57	Fine Sand
Mean [phi]	2.25	
Median [µm]	207.06	Fine Sand
Median [phi]	2.27	
Gravel [%]	0.66	Slightly Gravelly Sand
Sand [%]	98.64	
Mud [%]	0.70	



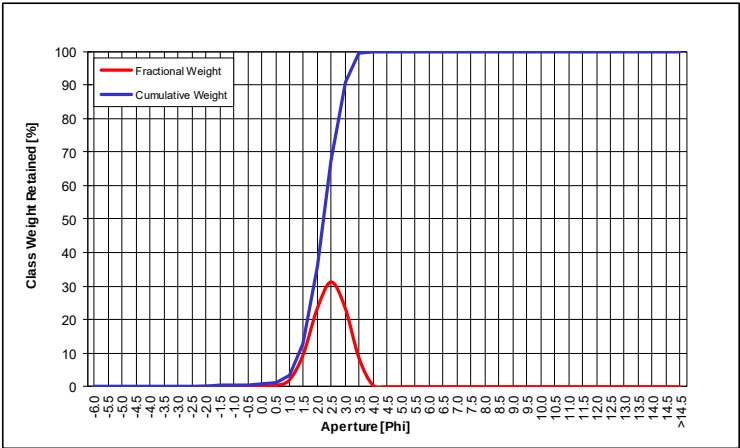
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST076

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.18	0.18
2800	-1.5	0.12	0.30
2000	-1.0	0.14	0.44
1400	-0.5	0.16	0.61
1000	0.0	0.32	0.93
707.00	0.5	0.39	1.32
500.00	1.0	1.95	3.27
353.60	1.5	9.50	12.77
250.00	2.0	23.10	35.87
176.80	2.5	31.22	67.09
125.00	3.0	23.72	90.81
88.39	3.5	8.69	99.49
63.00	4.0	0.51	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.65	Moderately Well Sorted
Skewness	-0.04	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [µm]	215.02	Fine Sand
Mean [phi]	2.22	
Median [µm]	213.72	Fine Sand
Median [phi]	2.23	
Gravel [%]	0.44	Slightly Gravelly Sand
Sand [%]	99.56	
Mud [%]	0.00	



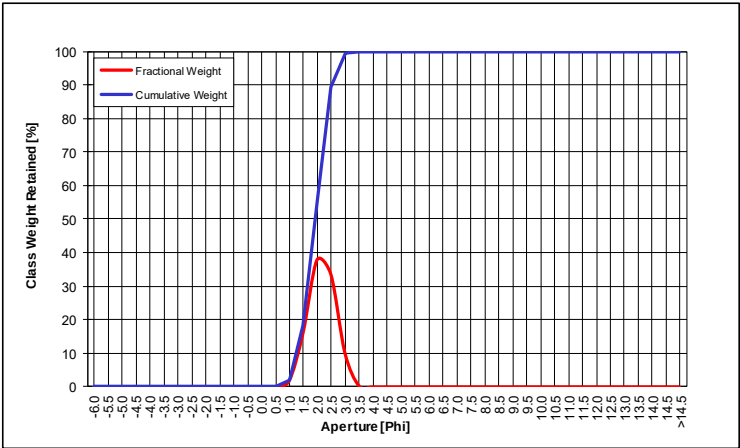
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST077

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.00	0.00
2000	-1.0	0.00	0.00
1400	-0.5	0.00	0.00
1000	0.0	0.04	0.04
707.00	0.5	0.00	0.04
500.00	1.0	1.84	1.88
353.60	1.5	16.22	18.10
250.00	2.0	37.93	56.03
176.80	2.5	33.46	89.49
125.00	3.0	10.13	99.63
88.39	3.5	0.37	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.50	Well Sorted
Skewness	0.01	Symmetrical
Kurtosis	0.99	Mesokurtic
Mean [µm]	263.43	Medium Sand
Mean [phi]	1.92	
Median [µm]	264.17	Medium Sand
Median [phi]	1.92	
Gravel [%]	0.00	Slightly Gravelly Sand
Sand [%]	100.00	
Mud [%]	0.00	



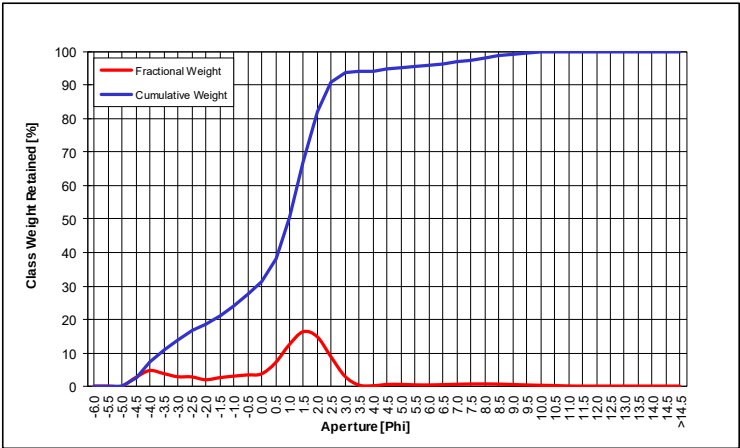
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST078

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	2.61	2.61
16000	-4.0	4.70	7.30
11200	-3.5	3.78	11.09
8000	-3.0	2.82	13.91
5600	-2.5	2.78	16.69
4000	-2.0	1.92	18.60
2800	-1.5	2.54	21.14
2000	-1.0	2.99	24.13
1400	-0.5	3.37	27.50
1000	0.0	3.66	31.16
707.00	0.5	6.95	38.11
500.00	1.0	12.47	50.59
353.60	1.5	16.44	67.02
250.00	2.0	14.96	81.99
176.80	2.5	8.86	90.84
125.00	3.0	2.97	93.81
88.39	3.5	0.31	94.12
63.00	4.0	0.09	94.21
44.20	4.5	0.48	94.69
31.30	5.0	0.51	95.20
22.10	5.5	0.37	95.57
15.60	6.0	0.34	95.91
11.00	6.5	0.43	96.34
7.80	7.0	0.54	96.88
5.50	7.5	0.63	97.51
3.90	8.0	0.64	98.15
2.75	8.5	0.60	98.75
1.95	9.0	0.47	99.23
1.38	9.5	0.34	99.57
0.98	10.0	0.24	99.80
0.69	10.5	0.16	99.97
0.49	11.0	0.03	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.55	Very Poorly Sorted
Skewness	-0.34	Very Coarse Skewed
Kurtosis	1.41	Leptokurtic
Mean [µm]	895.62	Coarse Sand
Mean [phi]	0.16	
Median [µm]	508.20	Coarse Sand
Median [phi]	0.98	
Gravel [%]	24.13	Gravelly Sand
Sand [%]	70.08	
Mud [%]	5.79	



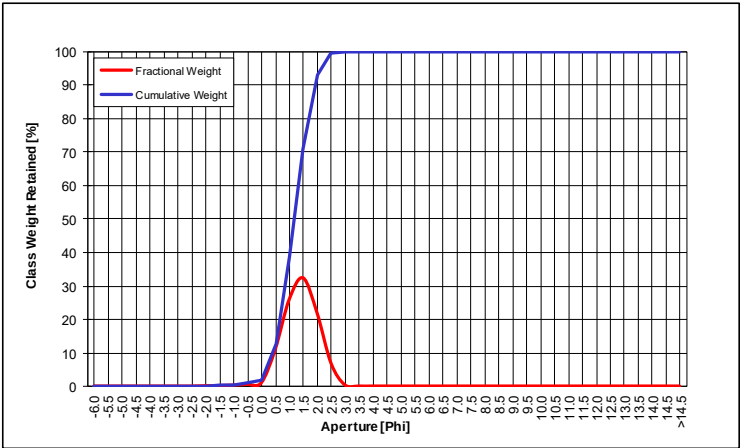
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST079

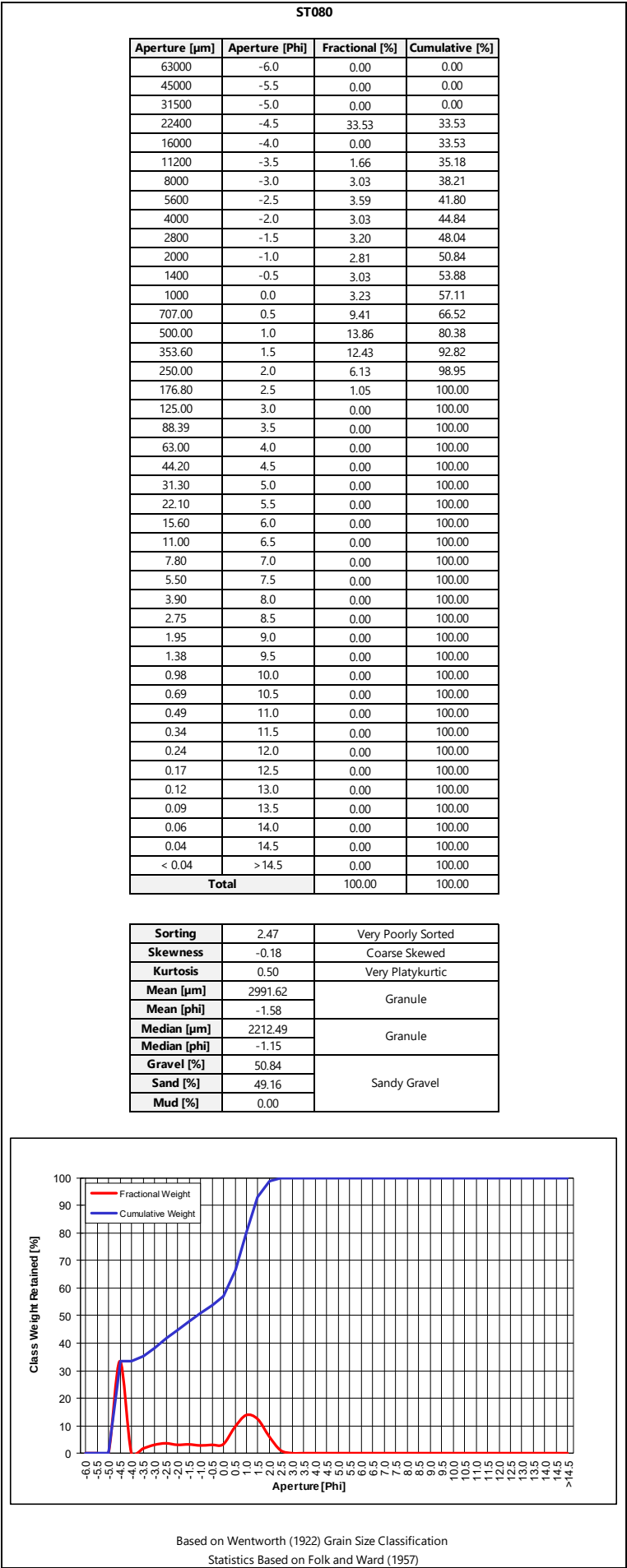
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.10	0.10
2800	-1.5	0.15	0.25
2000	-1.0	0.29	0.54
1400	-0.5	0.52	1.06
1000	0.0	0.96	2.02
707.00	0.5	10.92	12.94
500.00	1.0	25.80	38.74
353.60	1.5	32.26	71.00
250.00	2.0	21.83	92.83
176.80	2.5	6.83	99.66
125.00	3.0	0.34	100.00
88.39	3.5	0.00	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.62	Moderately Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [µm]	442.21	Medium Sand
Mean [phi]	1.18	
Median [µm]	443.06	Medium Sand
Median [phi]	1.17	
Gravel [%]	0.54	Slightly Gravelly Sand
Sand [%]	99.46	
Mud [%]	0.00	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

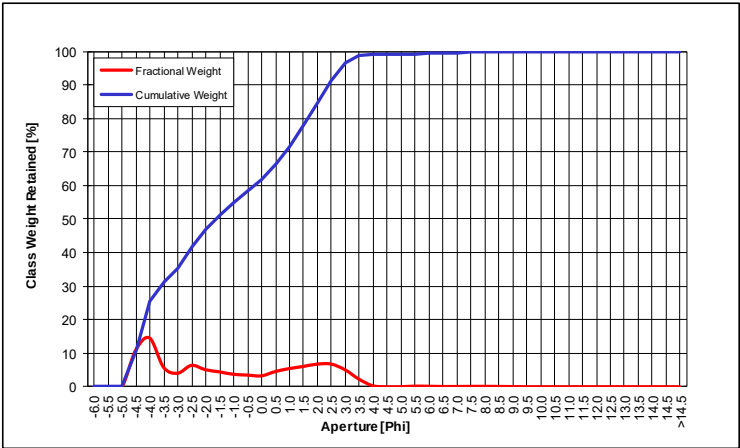




ST081

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	10.97	10.97
16000	-4.0	14.54	25.51
11200	-3.5	5.78	31.29
8000	-3.0	4.05	35.34
5600	-2.5	6.39	41.73
4000	-2.0	5.09	46.82
2800	-1.5	4.46	51.28
2000	-1.0	3.73	55.01
1400	-0.5	3.51	58.52
1000	0.0	3.26	61.78
707.00	0.5	4.54	66.32
500.00	1.0	5.43	71.75
353.60	1.5	6.06	77.81
250.00	2.0	6.75	84.56
176.80	2.5	6.78	91.35
125.00	3.0	5.10	96.44
88.39	3.5	2.30	98.74
63.00	4.0	0.30	99.04
44.20	4.5	0.00	99.04
31.30	5.0	0.02	99.06
22.10	5.5	0.19	99.25
15.60	6.0	0.16	99.41
11.00	6.5	0.09	99.50
7.80	7.0	0.09	99.58
5.50	7.5	0.12	99.71
3.90	8.0	0.13	99.84
2.75	8.5	0.11	99.94
1.95	9.0	0.06	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.72	Very Poorly Sorted
Skewness	0.16	Fine Skewed
Kurtosis	0.59	Very Platykurtic
Mean [µm]	2515.45	Granule
Mean [phi]	-1.33	
Median [µm]	3102.10	Granule
Median [phi]	-1.63	
Gravel [%]	55.01	Sandy Gravel
Sand [%]	44.03	
Mud [%]	0.96	



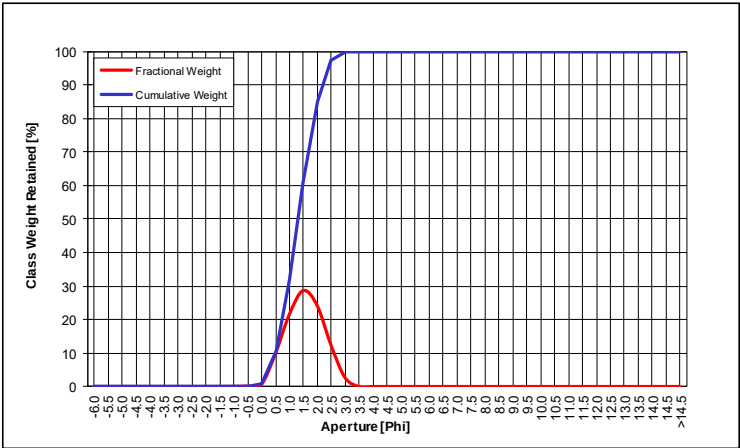
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST082

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.01	0.01
2000	-1.0	0.05	0.06
1400	-0.5	0.15	0.21
1000	0.0	0.55	0.76
707.00	0.5	9.65	10.42
500.00	1.0	21.44	31.86
353.60	1.5	28.72	60.58
250.00	2.0	24.33	84.90
176.80	2.5	12.39	97.30
125.00	3.0	2.70	100.00
88.39	3.5	0.00	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.67	Moderately Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	0.94	Mesokurtic
Mean [µm]	403.56	Medium Sand
Mean [phi]	1.31	
Median [µm]	401.73	Medium Sand
Median [phi]	1.32	
Gravel [%]	0.06	Slightly Gravelly Sand
Sand [%]	99.94	
Mud [%]	0.00	



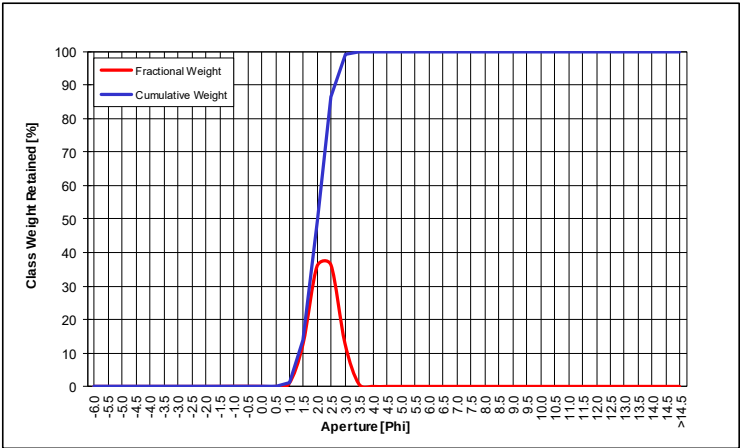
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST083

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.02	0.02
2000	-1.0	0.04	0.06
1400	-0.5	0.04	0.10
1000	0.0	0.03	0.13
707.00	0.5	0.00	0.13
500.00	1.0	0.89	1.02
353.60	1.5	12.82	13.84
250.00	2.0	36.06	49.90
176.80	2.5	36.42	86.33
125.00	3.0	12.95	99.27
88.39	3.5	0.73	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.49	Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	1.00	Mesokurtic
Mean [µm]	250.05	Medium Sand
Mean [phi]	2.00	
Median [µm]	249.76	Fine Sand
Median [phi]	2.00	
Gravel [%]	0.06	Slightly Gravelly Sand
Sand [%]	99.94	
Mud [%]	0.00	



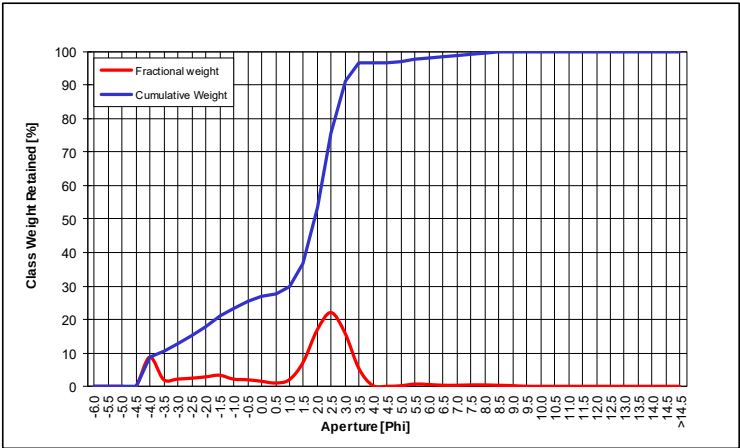
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST084

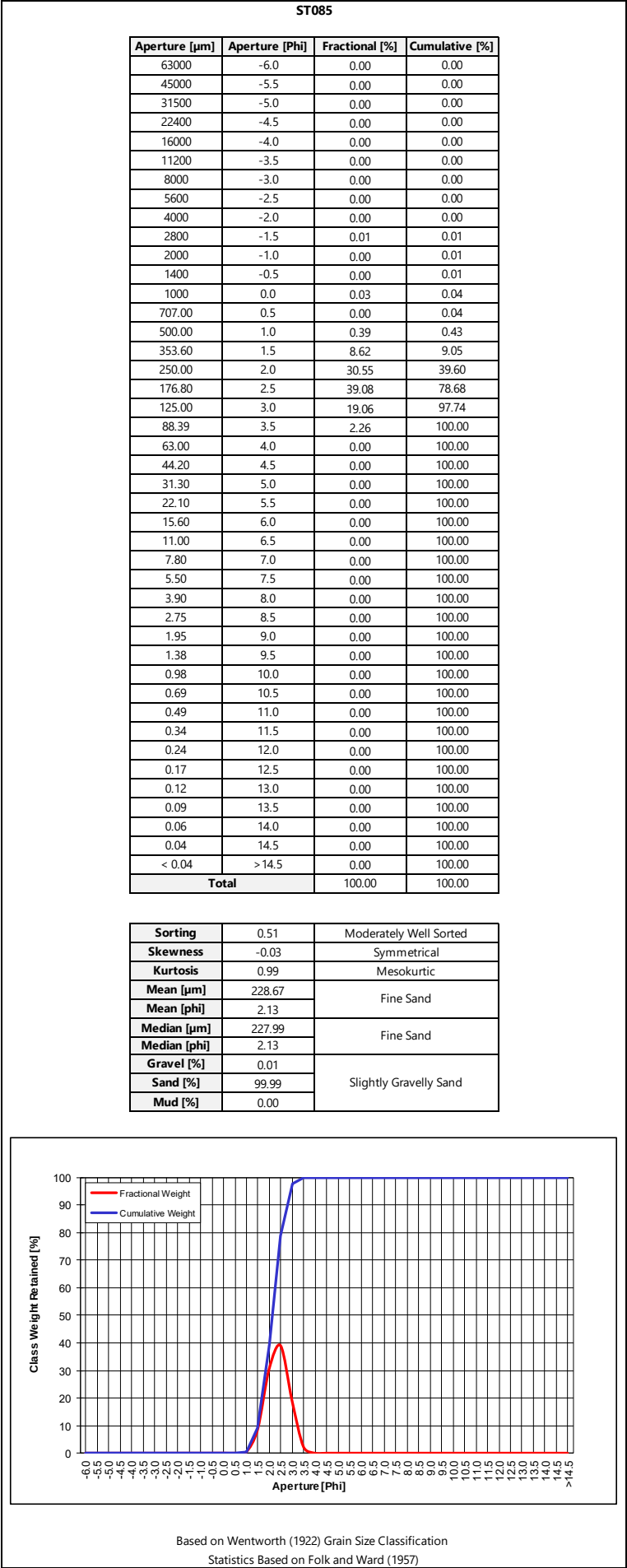
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	8.66	8.66
11200	-3.5	1.98	10.64
8000	-3.0	2.15	12.79
5600	-2.5	2.40	15.19
4000	-2.0	2.79	17.98
2800	-1.5	3.29	21.27
2000	-1.0	2.13	23.40
1400	-0.5	1.94	25.34
1000	0.0	1.49	26.84
707.00	0.5	0.98	27.82
500.00	1.0	1.92	29.73
353.60	1.5	7.11	36.84
250.00	2.0	16.64	53.48
176.80	2.5	21.90	75.39
125.00	3.0	15.86	91.25
88.39	3.5	5.28	96.53
63.00	4.0	0.22	96.75
44.20	4.5	0.00	96.75
31.30	5.0	0.16	96.90
22.10	5.5	0.66	97.56
15.60	6.0	0.53	98.09
11.00	6.5	0.31	98.40
7.80	7.0	0.30	98.70
5.50	7.5	0.40	99.10
3.90	8.0	0.40	99.50
2.75	8.5	0.31	99.81
1.95	9.0	0.19	99.99
1.38	9.5	0.01	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.42	Very Poorly Sorted
Skewness	-0.64	Very Coarse Skewed
Kurtosis	1.01	Mesokurtic
Mean [µm]	584.68	Coarse Sand
Mean [phi]	0.77	
Median [µm]	268.82	Medium Sand
Median [phi]	1.90	
Gravel [%]	23.40	Gravelly Sand
Sand [%]	73.35	
Mud [%]	3.25	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

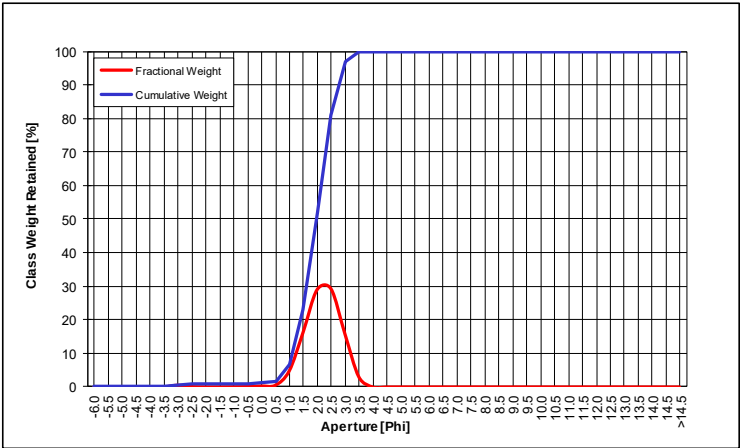




ST086

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.53	0.53
5600	-2.5	0.11	0.64
4000	-2.0	0.00	0.64
2800	-1.5	0.00	0.64
2000	-1.0	0.06	0.70
1400	-0.5	0.13	0.83
1000	0.0	0.32	1.14
707.00	0.5	0.51	1.65
500.00	1.0	4.77	6.43
353.60	1.5	16.34	22.77
250.00	2.0	29.05	51.82
176.80	2.5	29.33	81.15
125.00	3.0	15.86	97.01
88.39	3.5	2.99	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.64	Moderately Well Sorted
Skewness	-0.06	Symmetrical
Kurtosis	1.00	Mesokurtic
Mean [µm]	258.74	Medium Sand
Mean [phi]	1.95	
Median [µm]	255.49	Medium Sand
Median [phi]	1.97	
Gravel [%]	0.70	Slightly Gravelly Sand
Sand [%]	99.30	
Mud [%]	0.00	



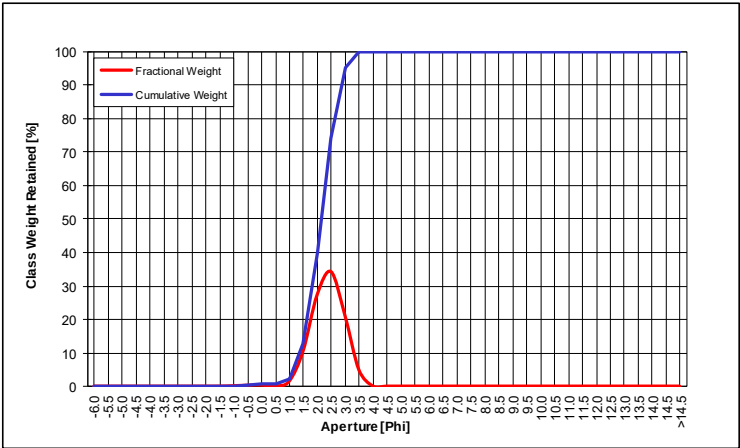
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST087

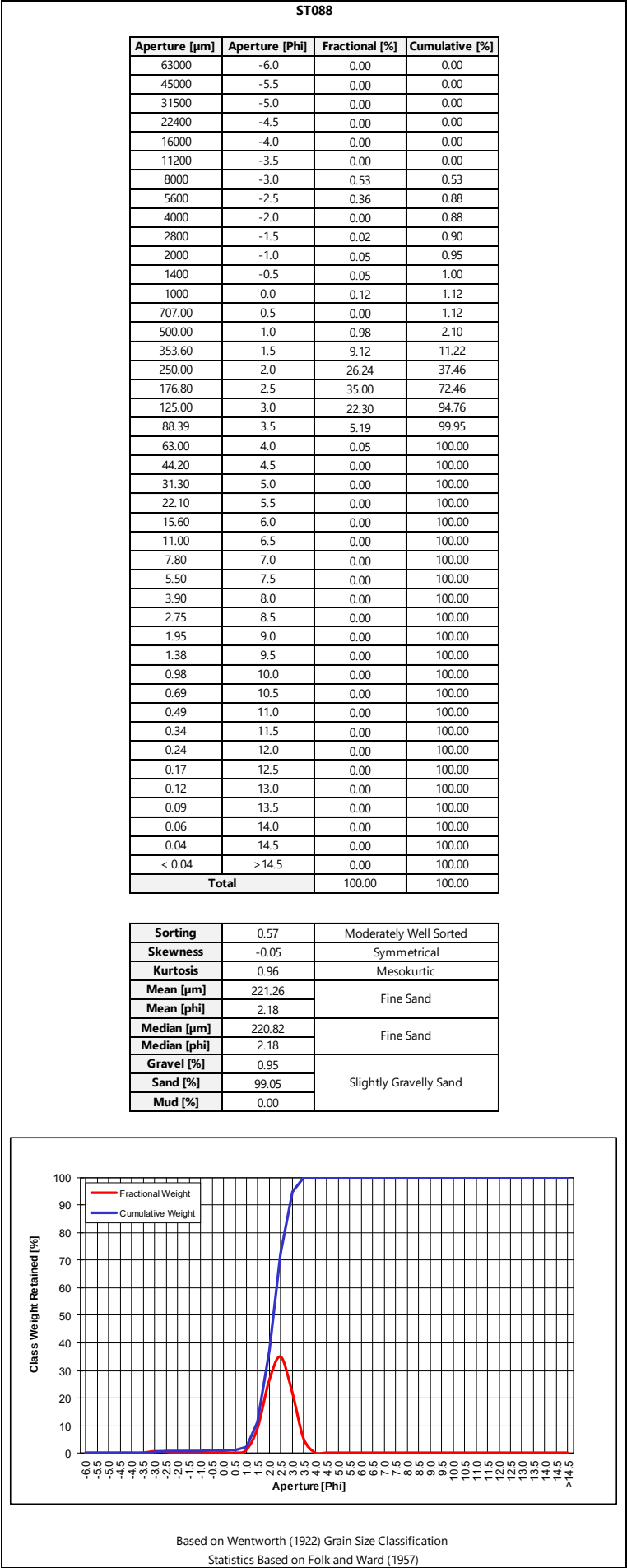
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.01	0.01
2000	-1.0	0.11	0.13
1400	-0.5	0.27	0.40
1000	0.0	0.33	0.72
707.00	0.5	0.02	0.74
500.00	1.0	1.46	2.20
353.60	1.5	10.50	12.70
250.00	2.0	27.17	39.87
176.80	2.5	34.14	74.01
125.00	3.0	21.10	95.11
88.39	3.5	4.86	99.96
63.00	4.0	0.04	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.58	Moderately Well Sorted
Skewness	-0.04	Symmetrical
Kurtosis	0.96	Mesokurtic
Mean [µm]	225.55	Fine Sand
Mean [phi]	2.15	
Median [µm]	225.58	Fine Sand
Median [phi]	2.15	
Gravel [%]	0.13	Slightly Gravelly Sand
Sand [%]	99.87	
Mud [%]	0.00	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

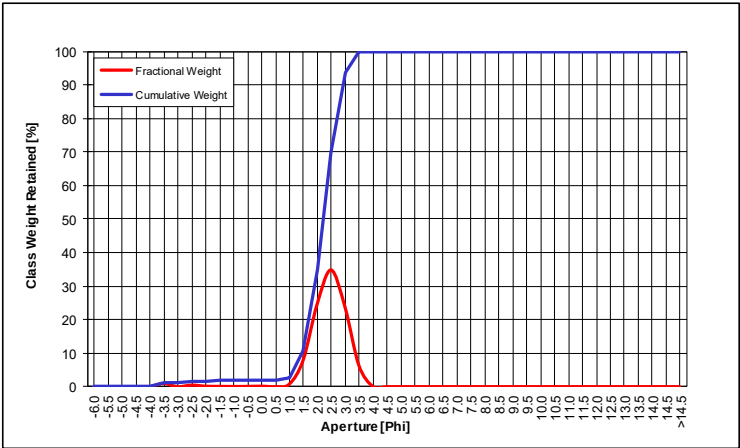




ST089

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.98	0.98
8000	-3.0	0.00	0.98
5600	-2.5	0.47	1.45
4000	-2.0	0.15	1.60
2800	-1.5	0.10	1.70
2000	-1.0	0.06	1.76
1400	-0.5	0.09	1.85
1000	0.0	0.15	2.00
707.00	0.5	0.02	2.02
500.00	1.0	0.73	2.75
353.60	1.5	7.86	10.61
250.00	2.0	24.46	35.07
176.80	2.5	34.74	69.81
125.00	3.0	23.77	93.58
88.39	3.5	6.32	99.90
63.00	4.0	0.10	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.60	Moderately Well Sorted
Skewness	-0.05	Symmetrical
Kurtosis	0.99	Mesokurtic
Mean [µm]	216.47	Fine Sand
Mean [phi]	2.21	
Median [µm]	215.42	Fine Sand
Median [phi]	2.21	
Gravel [%]	1.76	Slightly Gravelly Sand
Sand [%]	98.24	
Mud [%]	0.00	



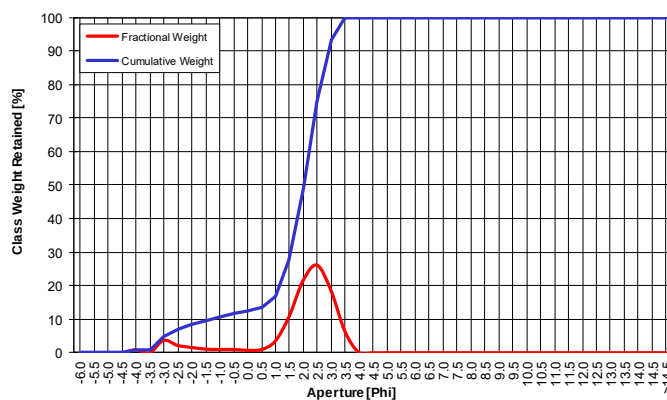
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST090

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.94	0.94
11200	-3.5	0.00	0.94
8000	-3.0	3.72	4.65
5600	-2.5	2.22	6.88
4000	-2.0	1.61	8.49
2800	-1.5	1.14	9.63
2000	-1.0	1.00	10.63
1400	-0.5	1.02	11.65
1000	0.0	0.77	12.42
707.00	0.5	0.98	13.40
500.00	1.0	3.44	16.85
353.60	1.5	10.77	27.62
250.00	2.0	21.34	48.96
176.80	2.5	25.96	74.92
125.00	3.0	18.52	93.45
88.39	3.5	6.38	99.83
63.00	4.0	0.17	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.38	Poorly Sorted
Skewness	-0.43	Very Coarse Skewed
Kurtosis	2.20	Very Leptokurtic
Mean [μm]	271.55	Medium Sand
Mean [phi]	1.88	
Median [μm]	246.56	Fine Sand
Median [phi]	2.02	
Gravel [%]	10.63	Gravelly Sand
Sand [%]	89.37	
Mud [%]	0.00	

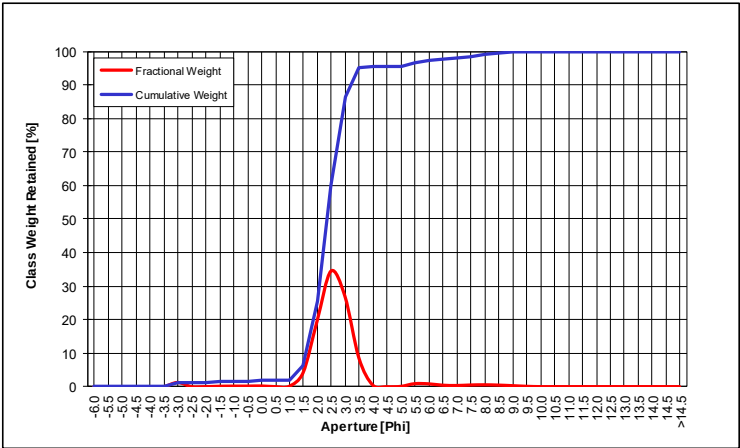


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST091

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	1.24	1.24
5600	-2.5	0.00	1.24
4000	-2.0	0.00	1.24
2800	-1.5	0.11	1.35
2000	-1.0	0.15	1.51
1400	-0.5	0.16	1.67
1000	0.0	0.20	1.87
707.00	0.5	0.00	1.87
500.00	1.0	0.10	1.96
353.60	1.5	4.14	6.10
250.00	2.0	19.39	25.49
176.80	2.5	34.29	59.78
125.00	3.0	26.81	86.59
88.39	3.5	8.52	95.11
63.00	4.0	0.45	95.56
44.20	4.5	0.00	95.56
31.30	5.0	0.08	95.64
22.10	5.5	0.88	96.51
15.60	6.0	0.83	97.35
11.00	6.5	0.43	97.78
7.80	7.0	0.34	98.11
5.50	7.5	0.49	98.60
3.90	8.0	0.55	99.15
2.75	8.5	0.46	99.61
1.95	9.0	0.29	99.90
1.38	9.5	0.10	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

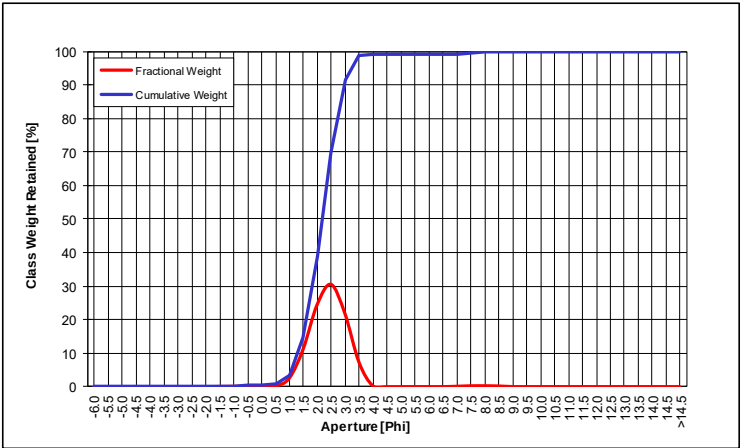
Sorting	0.62	Moderately Well Sorted
Skewness	0.03	Symmetrical
Kurtosis	1.09	Mesokurtic
Mean [µm]	195.51	Fine Sand
Mean [phi]	2.35	
Median [µm]	195.17	Fine Sand
Median [phi]	2.36	
Gravel [%]	1.51	Slightly Gravelly Sand
Sand [%]	94.05	
Mud [%]	4.44	



ST092

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.05	0.05
2000	-1.0	0.11	0.16
1400	-0.5	0.15	0.31
1000	0.0	0.24	0.55
707.00	0.5	0.19	0.74
500.00	1.0	2.49	3.23
353.60	1.5	11.21	14.44
250.00	2.0	24.51	38.96
176.80	2.5	30.65	69.61
125.00	3.0	21.90	91.51
88.39	3.5	7.39	98.89
63.00	4.0	0.26	99.15
44.20	4.5	0.00	99.15
31.30	5.0	0.00	99.15
22.10	5.5	0.00	99.15
15.60	6.0	0.00	99.15
11.00	6.5	0.00	99.15
7.80	7.0	0.11	99.26
5.50	7.5	0.25	99.51
3.90	8.0	0.26	99.78
2.75	8.5	0.20	99.98
1.95	9.0	0.02	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.65	Moderately Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [µm]	220.66	Fine Sand
Mean [phi]	2.18	
Median [µm]	220.66	Fine Sand
Median [phi]	2.18	
Gravel [%]	0.16	Slightly Gravelly Sand
Sand [%]	98.99	
Mud [%]	0.85	



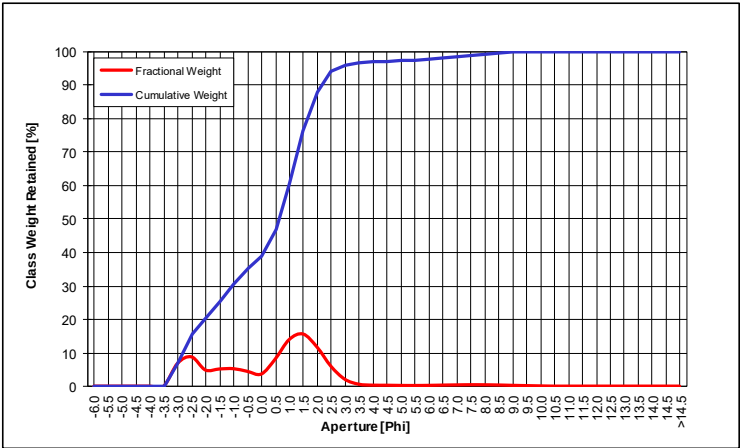
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST093

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	6.82	6.82
5600	-2.5	8.74	15.57
4000	-2.0	4.81	20.38
2800	-1.5	5.13	25.51
2000	-1.0	5.22	30.72
1400	-0.5	4.42	35.14
1000	0.0	3.61	38.76
707.00	0.5	8.09	46.84
500.00	1.0	13.92	60.76
353.60	1.5	15.57	76.33
250.00	2.0	11.67	87.99
176.80	2.5	5.91	93.91
125.00	3.0	2.04	95.95
88.39	3.5	0.57	96.52
63.00	4.0	0.29	96.81
44.20	4.5	0.27	97.08
31.30	5.0	0.21	97.28
22.10	5.5	0.19	97.47
15.60	6.0	0.23	97.70
11.00	6.5	0.31	98.01
7.80	7.0	0.37	98.38
5.50	7.5	0.42	98.80
3.90	8.0	0.40	99.20
2.75	8.5	0.34	99.54
1.95	9.0	0.24	99.78
1.38	9.5	0.15	99.93
0.98	10.0	0.07	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.96	Poorly Sorted
Skewness	-0.35	Very Coarse Skewed
Kurtosis	0.81	Platykurtic
Mean [µm]	999.86	Coarse Sand
Mean [phi]	0.00	
Median [µm]	653.59	Coarse Sand
Median [phi]	0.61	
Gravel [%]	30.72	Sandy Gravel
Sand [%]	66.08	
Mud [%]	3.19	



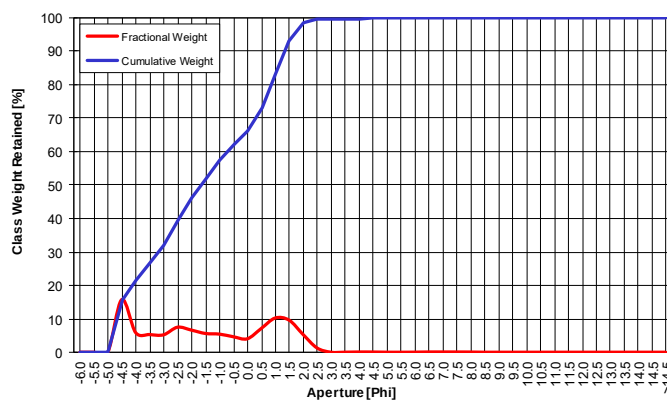
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST094

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	15.77	15.77
16000	-4.0	5.86	21.63
11200	-3.5	5.30	26.93
8000	-3.0	5.22	32.15
5600	-2.5	7.49	39.65
4000	-2.0	6.62	46.27
2800	-1.5	5.62	51.89
2000	-1.0	5.43	57.31
1400	-0.5	4.64	61.95
1000	0.0	4.03	65.98
707.00	0.5	7.11	73.09
500.00	1.0	10.25	83.33
353.60	1.5	9.61	92.94
250.00	2.0	5.32	98.27
176.80	2.5	1.29	99.55
125.00	3.0	0.00	99.56
88.39	3.5	0.01	99.56
63.00	4.0	0.07	99.63
44.20	4.5	0.06	99.70
31.30	5.0	0.01	99.70
22.10	5.5	0.00	99.70
15.60	6.0	0.02	99.72
11.00	6.5	0.07	99.80
7.80	7.0	0.08	99.87
5.50	7.5	0.07	99.94
3.90	8.0	0.06	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.36	Very Poorly Sorted
Skewness	0.00	Symmetrical
Kurtosis	0.63	Very Platykurtic
Mean [μm]	3241.25	Granule
Mean [phi]	-1.70	
Median [μm]	3156.06	Granule
Median [phi]	-1.66	
Gravel [%]	57.31	Sandy Gravel
Sand [%]	42.32	
Mud [%]	0.37	

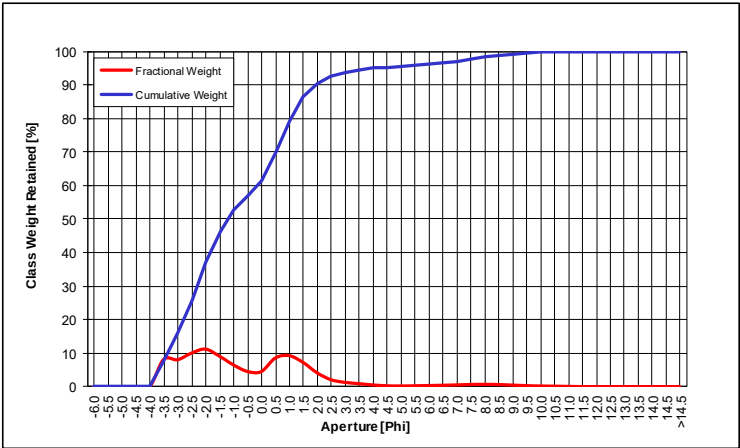


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST095

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	8.05	8.05
8000	-3.0	7.97	16.02
5600	-2.5	9.93	25.95
4000	-2.0	11.12	37.07
2800	-1.5	9.02	46.09
2000	-1.0	6.45	52.54
1400	-0.5	4.50	57.04
1000	0.0	4.45	61.49
707.00	0.5	8.46	69.95
500.00	1.0	9.19	79.13
353.60	1.5	7.16	86.29
250.00	2.0	4.10	90.39
176.80	2.5	2.05	92.44
125.00	3.0	1.26	93.70
88.39	3.5	0.88	94.58
63.00	4.0	0.49	95.07
44.20	4.5	0.25	95.32
31.30	5.0	0.18	95.50
22.10	5.5	0.25	95.75
15.60	6.0	0.32	96.07
11.00	6.5	0.40	96.47
7.80	7.0	0.50	96.97
5.50	7.5	0.63	97.60
3.90	8.0	0.67	98.27
2.75	8.5	0.61	98.88
1.95	9.0	0.45	99.33
1.38	9.5	0.29	99.62
0.98	10.0	0.18	99.80
0.69	10.5	0.13	99.93
0.49	11.0	0.07	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.24	Very Poorly Sorted
Skewness	0.26	Fine Skewed
Kurtosis	0.94	Mesokurtic
Mean [µm]	1932.91	Very Coarse Sand
Mean [phi]	-0.95	
Median [µm]	2283.16	Granule
Median [phi]	-1.19	
Gravel [%]	52.54	Muddy Sandy Gravel
Sand [%]	42.53	
Mud [%]	4.93	



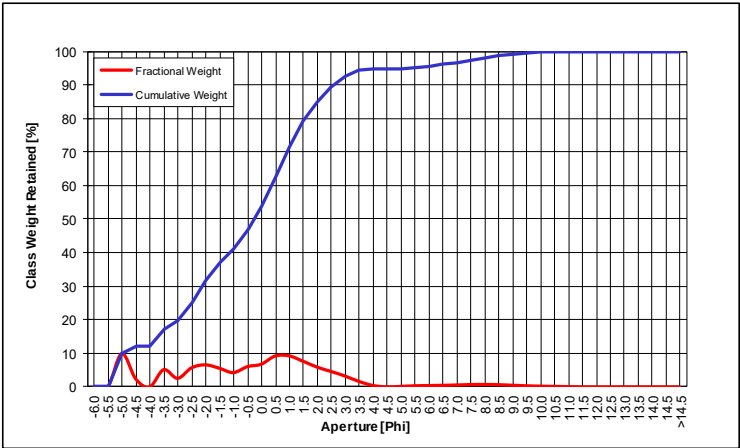
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST096

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	9.72	9.72
22400	-4.5	2.33	12.04
16000	-4.0	0.00	12.04
11200	-3.5	5.03	17.07
8000	-3.0	2.50	19.57
5600	-2.5	5.56	25.13
4000	-2.0	6.43	31.56
2800	-1.5	5.44	36.99
2000	-1.0	4.17	41.17
1400	-0.5	5.89	47.06
1000	0.0	6.62	53.68
707.00	0.5	9.01	62.69
500.00	1.0	9.05	71.74
353.60	1.5	7.48	79.22
250.00	2.0	5.77	84.99
176.80	2.5	4.51	89.50
125.00	3.0	3.18	92.68
88.39	3.5	1.61	94.29
63.00	4.0	0.43	94.72
44.20	4.5	0.02	94.74
31.30	5.0	0.16	94.89
22.10	5.5	0.33	95.22
15.60	6.0	0.40	95.63
11.00	6.5	0.47	96.09
7.80	7.0	0.56	96.65
5.50	7.5	0.68	97.33
3.90	8.0	0.72	98.05
2.75	8.5	0.66	98.71
1.95	9.0	0.49	99.20
1.38	9.5	0.33	99.53
0.98	10.0	0.22	99.75
0.69	10.5	0.16	99.92
0.49	11.0	0.08	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.95	Very Poorly Sorted
Skewness	-0.08	Symmetrical
Kurtosis	1.15	Leptokurtic
Mean [µm]	1569.26	Very Coarse Sand
Mean [phi]	-0.65	
Median [µm]	1205.69	Very Coarse Sand
Median [phi]	-0.27	
Gravel [%]	41.17	Sandy Gravel
Sand [%]	53.55	
Mud [%]	5.28	



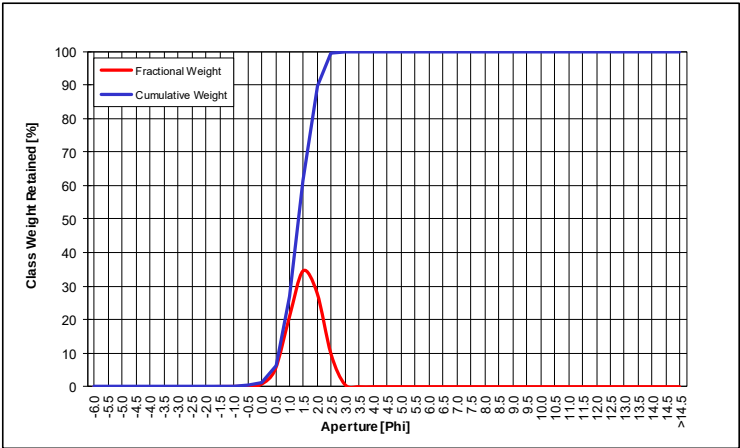
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST098

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.06	0.06
2000	-1.0	0.08	0.14
1400	-0.5	0.24	0.38
1000	0.0	0.73	1.11
707.00	0.5	5.17	6.29
500.00	1.0	20.55	26.84
353.60	1.5	34.64	61.48
250.00	2.0	28.07	89.55
176.80	2.5	9.80	99.35
125.00	3.0	0.65	100.00
88.39	3.5	0.00	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.58	Moderately Well Sorted
Skewness	-0.02	Symmetrical
Kurtosis	0.99	Mesokurtic
Mean [µm]	399.47	Medium Sand
Mean [phi]	1.32	
Median [µm]	396.63	Medium Sand
Median [phi]	1.33	
Gravel [%]	0.14	Slightly Gravelly Sand
Sand [%]	99.86	
Mud [%]	0.00	



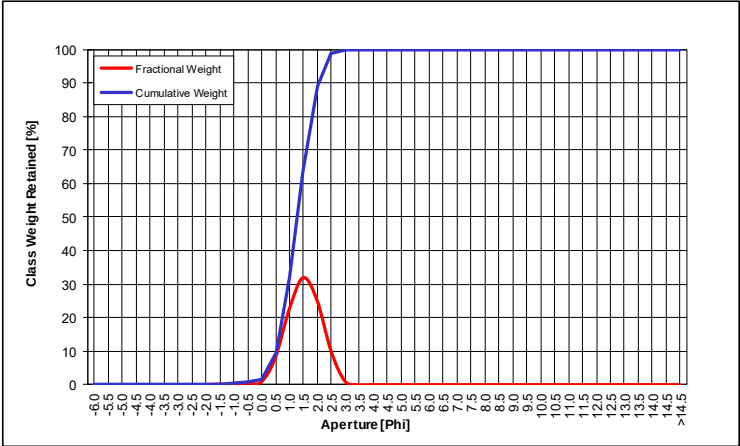
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST099

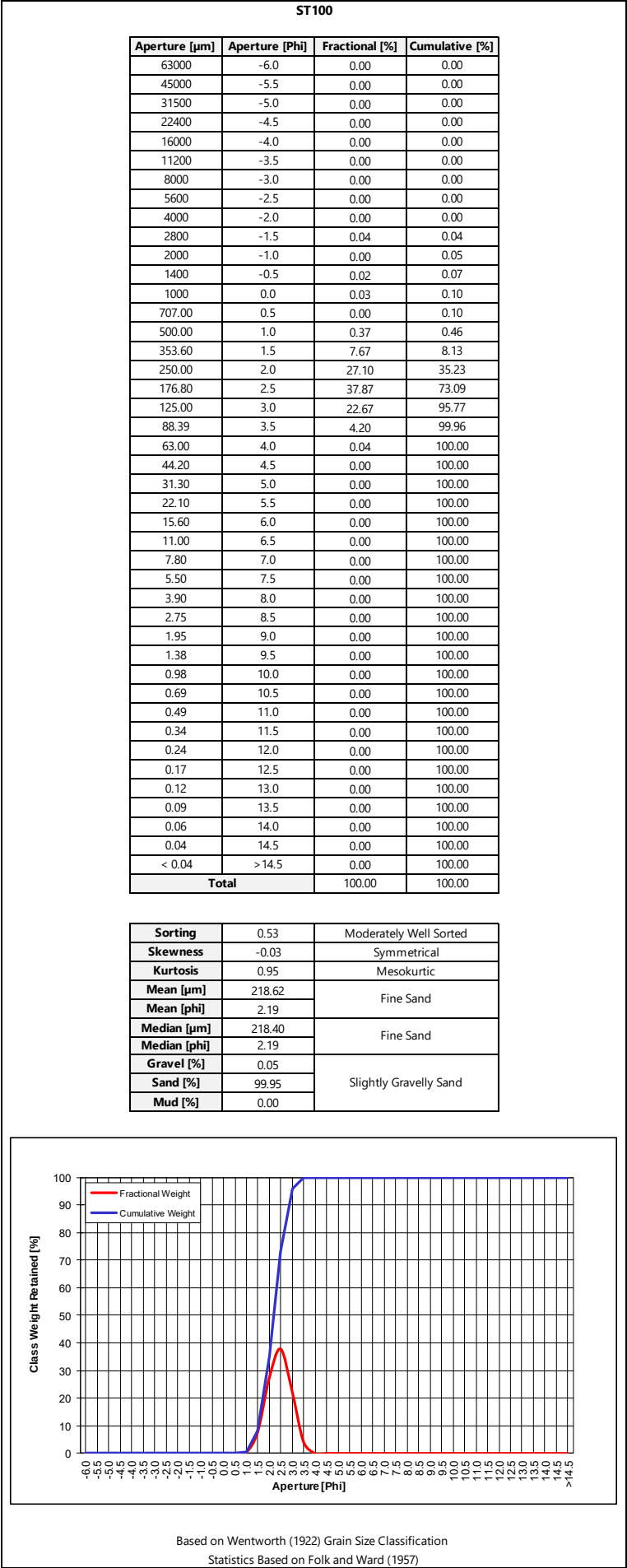
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.03	0.03
2800	-1.5	0.21	0.24
2000	-1.0	0.04	0.28
1400	-0.5	0.53	0.81
1000	0.0	0.81	1.62
707.00	0.5	7.91	9.53
500.00	1.0	22.34	31.87
353.60	1.5	31.85	63.73
250.00	2.0	25.12	88.85
176.80	2.5	10.07	98.92
125.00	3.0	1.08	100.00
88.39	3.5	0.00	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

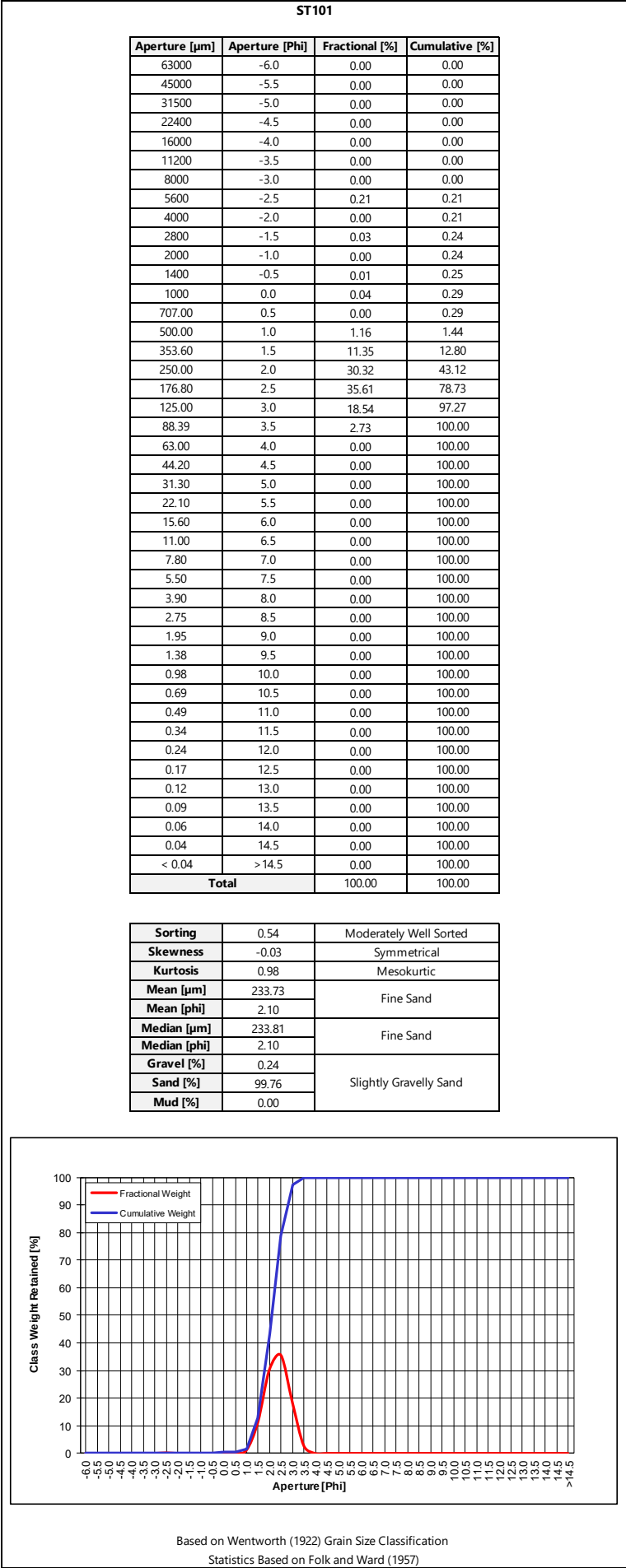
Sorting	0.63	Moderately Well Sorted
Skewness	-0.02	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [µm]	412.48	Medium Sand
Mean [phi]	1.28	
Median [µm]	410.54	Medium Sand
Median [phi]	1.28	
Gravel [%]	0.28	Slightly Gravelly Sand
Sand [%]	99.72	
Mud [%]	0.00	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



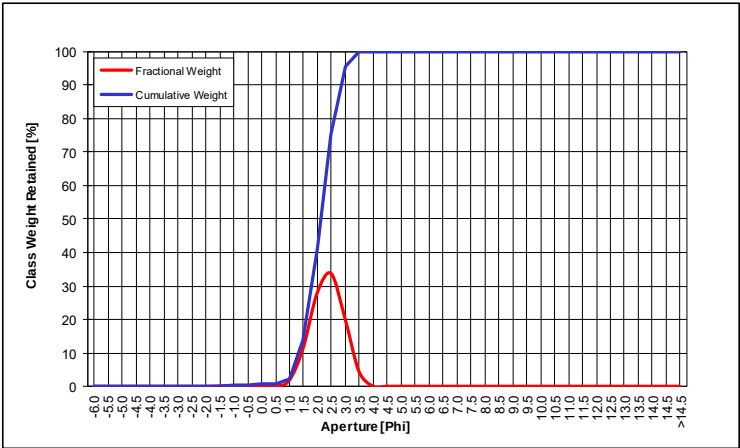




ST102

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.09	0.09
2000	-1.0	0.20	0.30
1400	-0.5	0.15	0.45
1000	0.0	0.17	0.62
707.00	0.5	0.01	0.63
500.00	1.0	1.72	2.34
353.60	1.5	11.34	13.69
250.00	2.0	27.73	41.41
176.80	2.5	33.71	75.13
125.00	3.0	20.37	95.49
88.39	3.5	4.48	99.98
63.00	4.0	0.02	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.58	Moderately Well Sorted
Skewness	-0.04	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [µm]	228.64	Fine Sand
Mean [phi]	2.13	
Median [µm]	228.89	Fine Sand
Median [phi]	2.13	
Gravel [%]	0.30	Slightly Gravelly Sand
Sand [%]	99.70	
Mud [%]	0.00	



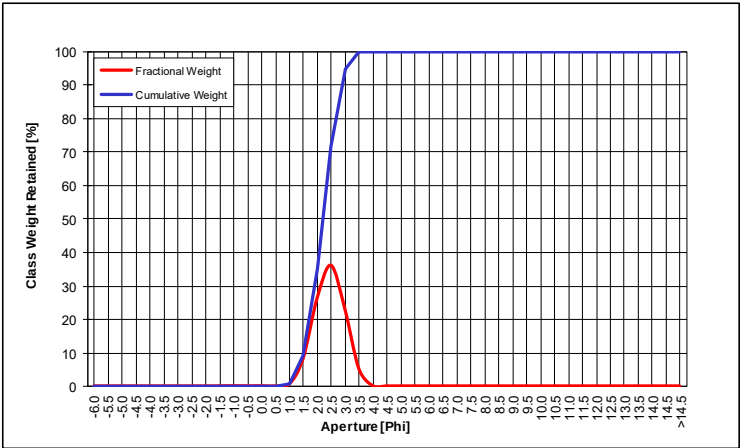
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST103

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.02	0.02
2000	-1.0	0.07	0.10
1400	-0.5	0.03	0.13
1000	0.0	0.06	0.19
707.00	0.5	0.00	0.19
500.00	1.0	0.54	0.73
353.60	1.5	8.26	8.99
250.00	2.0	26.38	35.36
176.80	2.5	36.33	71.70
125.00	3.0	23.12	94.81
88.39	3.5	5.15	99.96
63.00	4.0	0.04	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.55	Moderately Well Sorted
Skewness	-0.04	Symmetrical
Kurtosis	0.94	Mesokurtic
Mean [µm]	217.63	Fine Sand
Mean [phi]	2.20	
Median [µm]	217.44	Fine Sand
Median [phi]	2.20	
Gravel [%]	0.10	Slightly Gravelly Sand
Sand [%]	99.90	
Mud [%]	0.00	



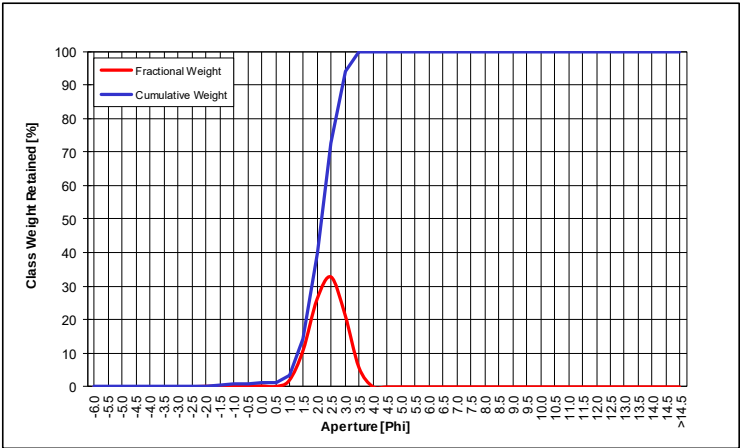
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST104

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.06	0.06
4000	-2.0	0.18	0.24
2800	-1.5	0.23	0.47
2000	-1.0	0.21	0.69
1400	-0.5	0.22	0.90
1000	0.0	0.31	1.21
707.00	0.5	0.12	1.33
500.00	1.0	1.89	3.22
353.60	1.5	10.84	14.05
250.00	2.0	25.98	40.04
176.80	2.5	32.59	72.63
125.00	3.0	21.50	94.12
88.39	3.5	5.80	99.92
63.00	4.0	0.08	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.61	Moderately Well Sorted
Skewness	-0.04	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [µm]	225.08	Fine Sand
Mean [phi]	2.15	
Median [µm]	224.87	Fine Sand
Median [phi]	2.15	
Gravel [%]	0.69	Slightly Gravelly Sand
Sand [%]	99.31	
Mud [%]	0.00	



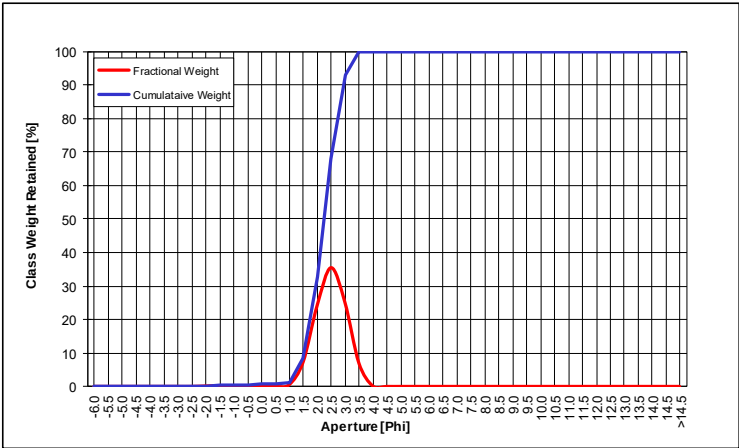
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST105

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.13	0.13
2800	-1.5	0.25	0.38
2000	-1.0	0.09	0.47
1400	-0.5	0.13	0.61
1000	0.0	0.20	0.80
707.00	0.5	0.00	0.80
500.00	1.0	0.53	1.33
353.60	1.5	7.24	8.57
250.00	2.0	23.99	32.56
176.80	2.5	35.35	67.92
125.00	3.0	25.02	92.93
88.39	3.5	6.95	99.88
63.00	4.0	0.12	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.58	Moderately Well Sorted
Skewness	-0.03	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [µm]	211.56	Fine Sand
Mean [phi]	2.24	
Median [µm]	210.73	Fine Sand
Median [phi]	2.25	
Gravel [%]	0.47	Slightly Gravelly Sand
Sand [%]	99.39	
Mud [%]	0.00	



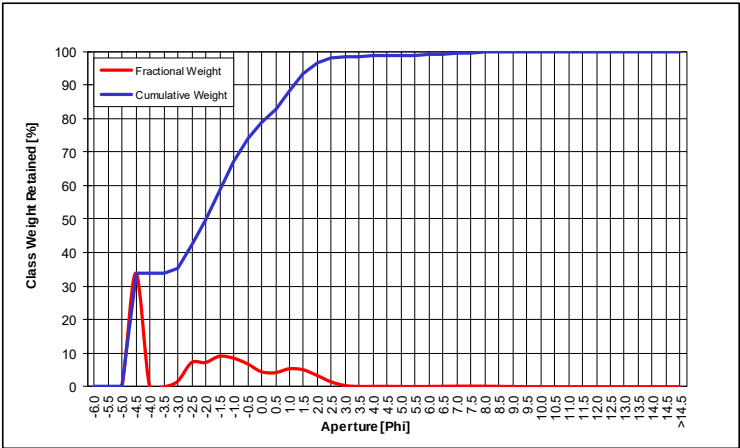
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST106

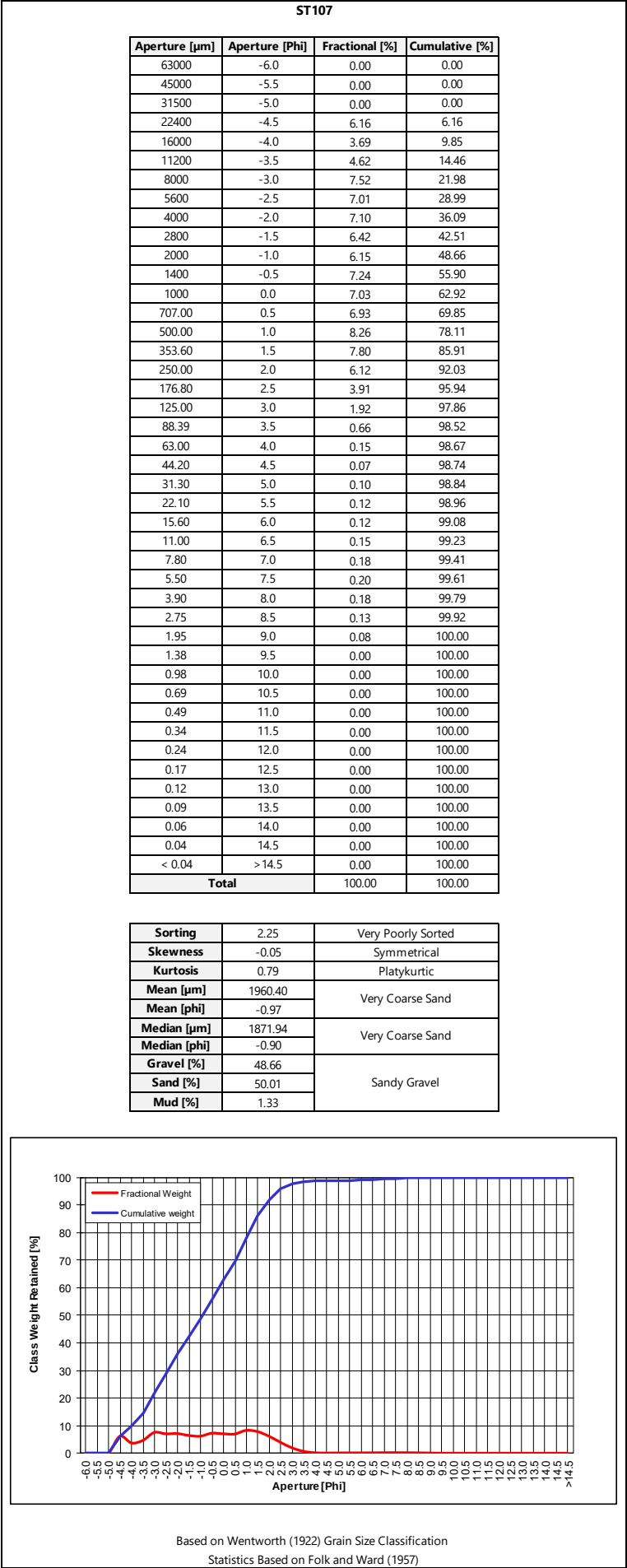
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	33.76	33.76
16000	-4.0	0.00	33.76
11200	-3.5	0.00	33.76
8000	-3.0	1.61	35.37
5600	-2.5	7.17	42.53
4000	-2.0	7.20	49.73
2800	-1.5	9.08	58.81
2000	-1.0	8.50	67.32
1400	-0.5	6.85	74.16
1000	0.0	4.49	78.65
707.00	0.5	4.18	82.84
500.00	1.0	5.34	88.18
353.60	1.5	5.06	93.23
250.00	2.0	3.37	96.61
176.80	2.5	1.47	98.07
125.00	3.0	0.37	98.44
88.39	3.5	0.10	98.54
63.00	4.0	0.13	98.67
44.20	4.5	0.13	98.80
31.30	5.0	0.08	98.88
22.10	5.5	0.07	98.95
15.60	6.0	0.10	99.05
11.00	6.5	0.14	99.20
7.80	7.0	0.18	99.37
5.50	7.5	0.19	99.57
3.90	8.0	0.17	99.74
2.75	8.5	0.13	99.87
1.95	9.0	0.08	99.95
1.38	9.5	0.04	99.99
0.98	10.0	0.01	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.35	Very Poorly Sorted
Skewness	0.05	Symmetrical
Kurtosis	0.65	Very Platykurtic
Mean [µm]	4112.49	Pebble
Mean [phi]	-2.04	
Median [µm]	3958.50	Granule
Median [phi]	-1.98	
Gravel [%]	67.32	Sandy Gravel
Sand [%]	31.35	
Mud [%]	1.33	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

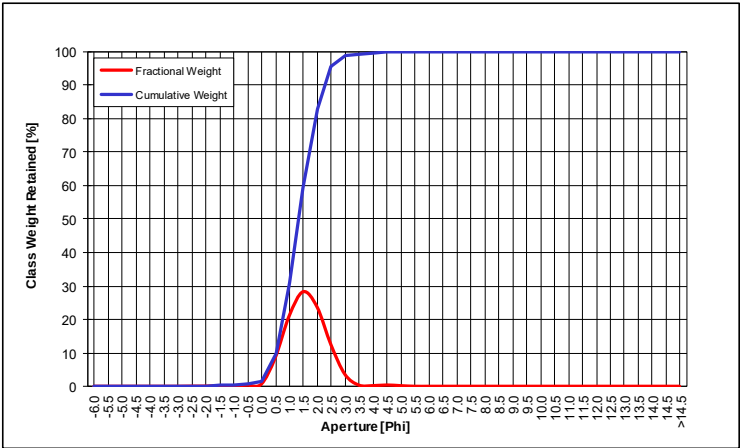




ST108

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.05	0.05
4000	-2.0	0.06	0.11
2800	-1.5	0.19	0.29
2000	-1.0	0.20	0.49
1400	-0.5	0.34	0.83
1000	0.0	0.63	1.46
707.00	0.5	8.51	9.97
500.00	1.0	21.02	30.99
353.60	1.5	28.26	59.26
250.00	2.0	23.72	82.98
176.80	2.5	12.38	95.36
125.00	3.0	3.56	98.92
88.39	3.5	0.34	99.26
63.00	4.0	0.18	99.44
44.20	4.5	0.38	99.83
31.30	5.0	0.17	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.69	Moderately Well Sorted
Skewness	0.01	Symmetrical
Kurtosis	0.96	Mesokurtic
Mean [µm]	394.95	Medium Sand
Mean [phi]	1.34	
Median [µm]	396.08	Medium Sand
Median [phi]	1.34	
Gravel [%]	0.49	Slightly Gravelly Sand
Sand [%]	98.95	
Mud [%]	0.56	



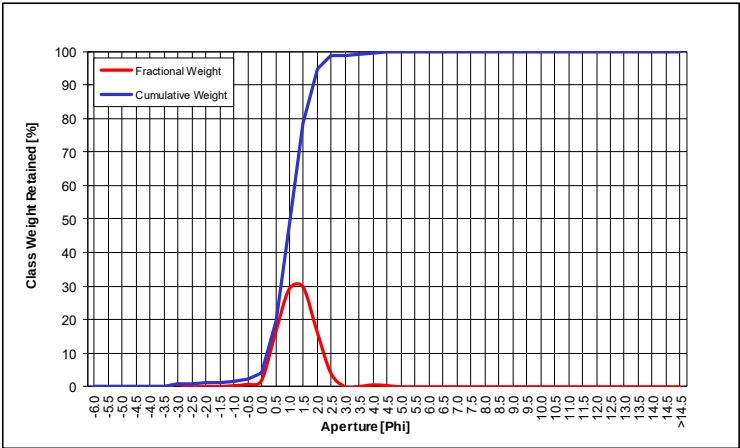
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST109

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.79	0.79
5600	-2.5	0.04	0.83
4000	-2.0	0.16	0.99
2800	-1.5	0.12	1.11
2000	-1.0	0.36	1.47
1400	-0.5	0.74	2.22
1000	0.0	1.77	3.99
707.00	0.5	15.69	19.68
500.00	1.0	29.00	48.68
353.60	1.5	29.61	78.29
250.00	2.0	16.46	94.74
176.80	2.5	4.03	98.77
125.00	3.0	0.12	98.89
88.39	3.5	0.12	99.01
63.00	4.0	0.59	99.60
44.20	4.5	0.40	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.63	Moderately Well Sorted
Skewness	0.01	Symmetrical
Kurtosis	0.96	Mesokurtic
Mean [µm]	491.00	Medium Sand
Mean [phi]	1.03	
Median [µm]	492.34	Medium Sand
Median [phi]	1.02	
Gravel [%]	1.47	Slightly Gravelly Sand
Sand [%]	98.13	
Mud [%]	0.40	



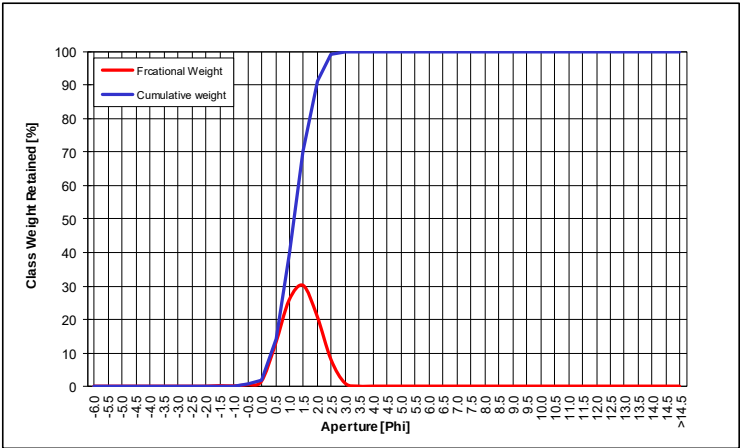
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST110

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.15	0.15
2000	-1.0	0.08	0.23
1400	-0.5	0.44	0.67
1000	0.0	1.37	2.04
707.00	0.5	12.32	14.36
500.00	1.0	25.73	40.10
353.60	1.5	30.08	70.18
250.00	2.0	20.97	91.15
176.80	2.5	7.93	99.08
125.00	3.0	0.92	100.00
88.39	3.5	0.00	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.65	Moderately Well Sorted
Skewness	0.02	Symmetrical
Kurtosis	0.96	Mesokurtic
Mean [µm]	442.78	Medium Sand
Mean [phi]	1.18	
Median [µm]	446.11	Medium Sand
Median [phi]	1.16	
Gravel [%]	0.23	Slightly Gravelly Sand
Sand [%]	99.77	
Mud [%]	0.00	



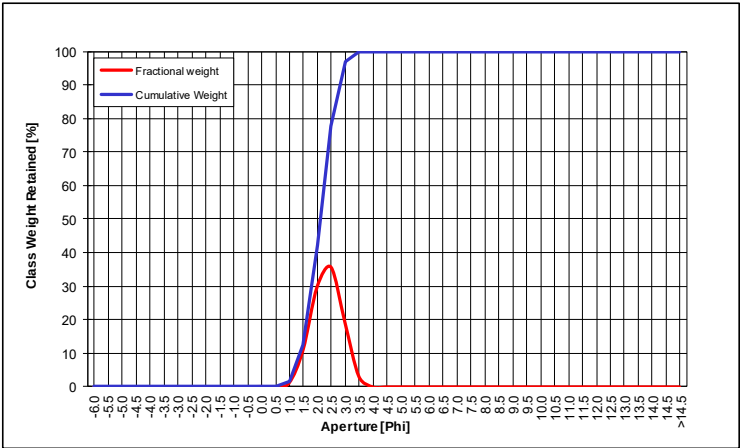
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST111

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.01	0.01
2000	-1.0	0.00	0.01
1400	-0.5	0.04	0.05
1000	0.0	0.13	0.18
707.00	0.5	0.00	0.18
500.00	1.0	1.22	1.40
353.60	1.5	11.06	12.46
250.00	2.0	29.68	42.14
176.80	2.5	35.58	77.72
125.00	3.0	19.18	96.90
88.39	3.5	3.10	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.55	Moderately Well Sorted
Skewness	-0.03	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [µm]	231.47	Fine Sand
Mean [phi]	2.11	
Median [µm]	231.59	Fine Sand
Median [phi]	2.11	
Gravel [%]	0.01	Slightly Gravelly Sand
Sand [%]	99.99	
Mud [%]	0.00	



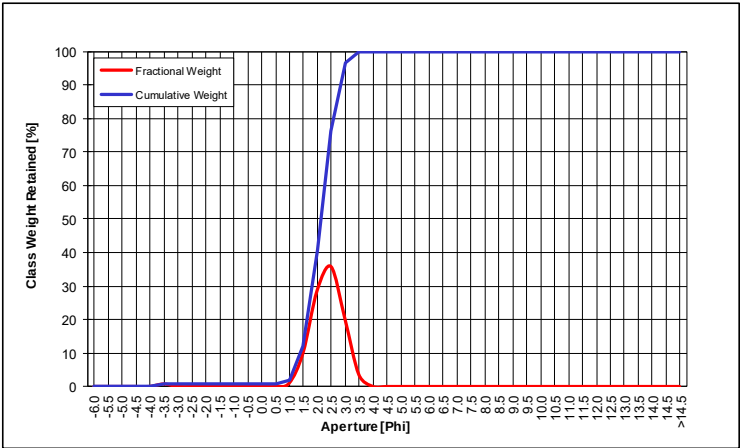
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST112

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.75	0.75
8000	-3.0	0.00	0.75
5600	-2.5	0.00	0.75
4000	-2.0	0.00	0.75
2800	-1.5	0.04	0.79
2000	-1.0	0.03	0.82
1400	-0.5	0.03	0.85
1000	0.0	0.07	0.92
707.00	0.5	0.00	0.92
500.00	1.0	0.99	1.91
353.60	1.5	10.10	12.01
250.00	2.0	28.55	40.56
176.80	2.5	35.74	76.30
125.00	3.0	20.18	96.48
88.39	3.5	3.51	99.99
63.00	4.0	0.01	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.55	Moderately Well Sorted
Skewness	-0.04	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [µm]	228.34	Fine Sand
Mean [phi]	2.13	
Median [µm]	228.14	Fine Sand
Median [phi]	2.13	
Gravel [%]	0.82	Slightly Gravelly Sand
Sand [%]	99.18	
Mud [%]	0.00	



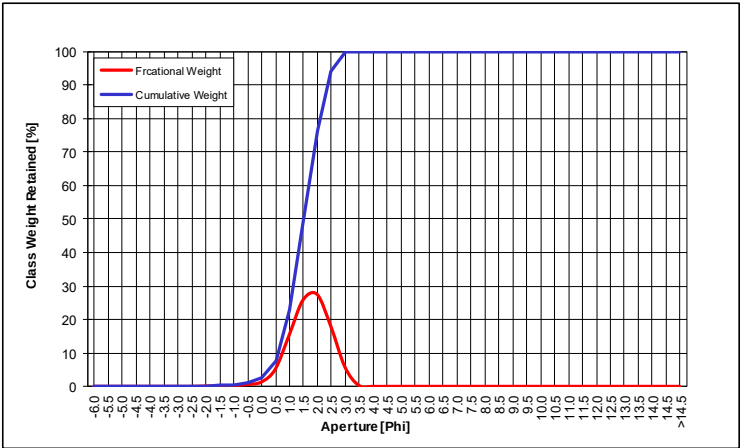
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST113

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.12	0.12
2800	-1.5	0.17	0.29
2000	-1.0	0.28	0.56
1400	-0.5	0.57	1.14
1000	0.0	1.30	2.44
707.00	0.5	5.10	7.53
500.00	1.0	15.28	22.82
353.60	1.5	25.84	48.66
250.00	2.0	27.49	76.15
176.80	2.5	17.80	93.94
125.00	3.0	5.79	99.73
88.39	3.5	0.27	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.72	Moderately Sorted
Skewness	-0.06	Symmetrical
Kurtosis	1.02	Mesokurtic
Mean [µm]	351.78	Medium Sand
Mean [phi]	1.51	
Median [µm]	347.67	Medium Sand
Median [phi]	1.52	
Gravel [%]	0.56	Slightly Gravelly Sand
Sand [%]	99.44	
Mud [%]	0.00	



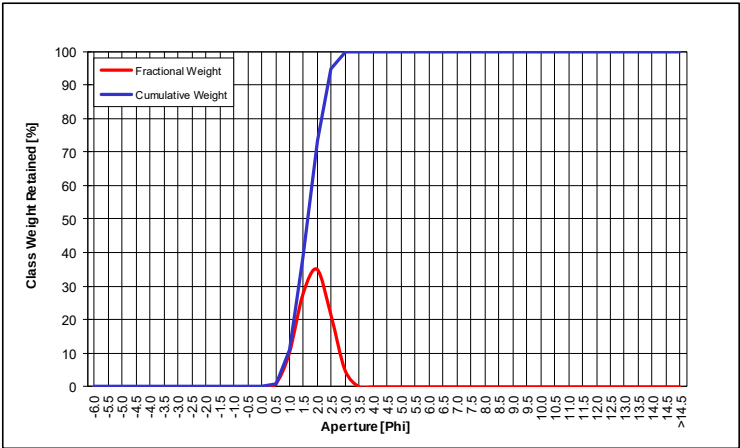
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST114

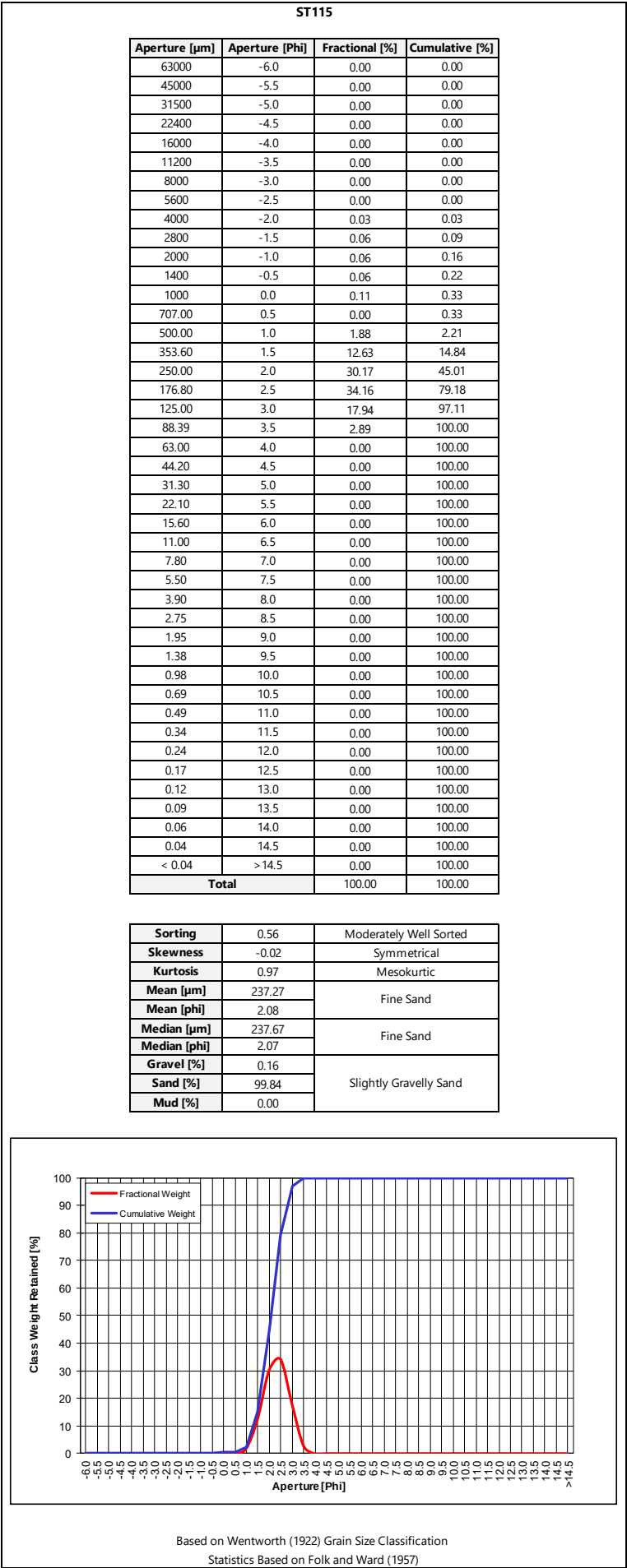
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.00	0.00
2000	-1.0	0.02	0.02
1400	-0.5	0.04	0.06
1000	0.0	0.11	0.17
707.00	0.5	0.73	0.90
500.00	1.0	9.90	10.80
353.60	1.5	27.73	38.53
250.00	2.0	34.98	73.51
176.80	2.5	21.34	94.86
125.00	3.0	5.06	99.91
88.39	3.5	0.09	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.56	Moderately Well Sorted
Skewness	-0.02	Symmetrical
Kurtosis	0.95	Mesokurtic
Mean [µm]	314.76	Medium Sand
Mean [phi]	1.67	
Median [µm]	315.61	Medium Sand
Median [phi]	1.66	
Gravel [%]	0.02	Slightly Gravelly Sand
Sand [%]	99.98	
Mud [%]	0.00	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

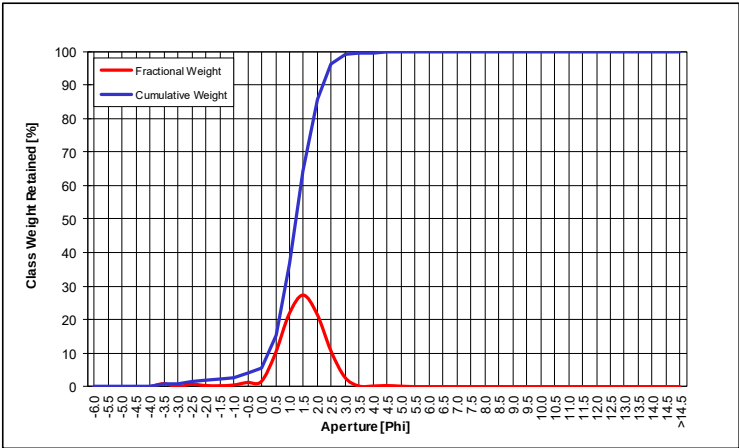




ST116

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.88	0.88
8000	-3.0	0.00	0.88
5600	-2.5	0.72	1.60
4000	-2.0	0.32	1.92
2800	-1.5	0.26	2.19
2000	-1.0	0.48	2.66
1400	-0.5	1.24	3.91
1000	0.0	1.51	5.42
707.00	0.5	9.76	15.18
500.00	1.0	21.67	36.85
353.60	1.5	27.30	64.15
250.00	2.0	21.65	85.80
176.80	2.5	10.62	96.42
125.00	3.0	2.77	99.19
88.39	3.5	0.18	99.37
63.00	4.0	0.17	99.55
44.20	4.5	0.32	99.86
31.30	5.0	0.14	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.75	Moderately Sorted
Skewness	-0.04	Symmetrical
Kurtosis	1.03	Mesokurtic
Mean [µm]	423.54	Medium Sand
Mean [phi]	1.24	
Median [µm]	423.15	Medium Sand
Median [phi]	1.24	
Gravel [%]	2.66	Slightly Gravelly Sand
Sand [%]	96.88	
Mud [%]	0.45	



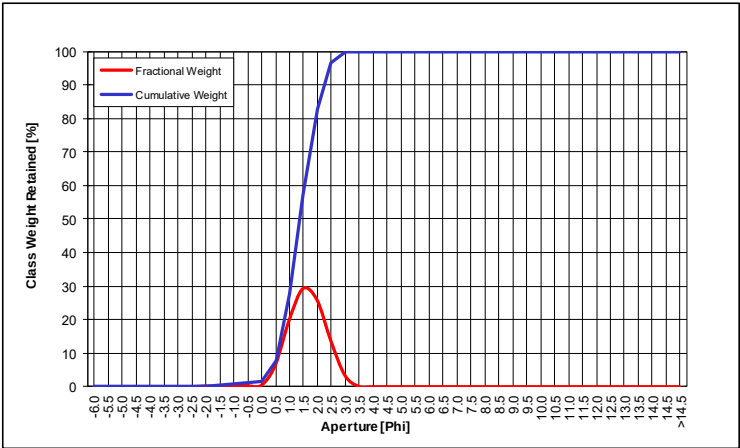
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST117

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.24	0.24
2800	-1.5	0.15	0.39
2000	-1.0	0.33	0.72
1400	-0.5	0.32	1.04
1000	0.0	0.43	1.47
707.00	0.5	6.39	7.86
500.00	1.0	19.86	27.72
353.60	1.5	29.33	57.04
250.00	2.0	25.88	82.93
176.80	2.5	13.59	96.52
125.00	3.0	3.38	99.90
88.39	3.5	0.10	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.66	Moderately Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [µm]	385.61	Medium Sand
Mean [phi]	1.37	
Median [µm]	384.28	Medium Sand
Median [phi]	1.38	
Gravel [%]	0.72	Slightly Gravelly Sand
Sand [%]	99.28	
Mud [%]	0.00	



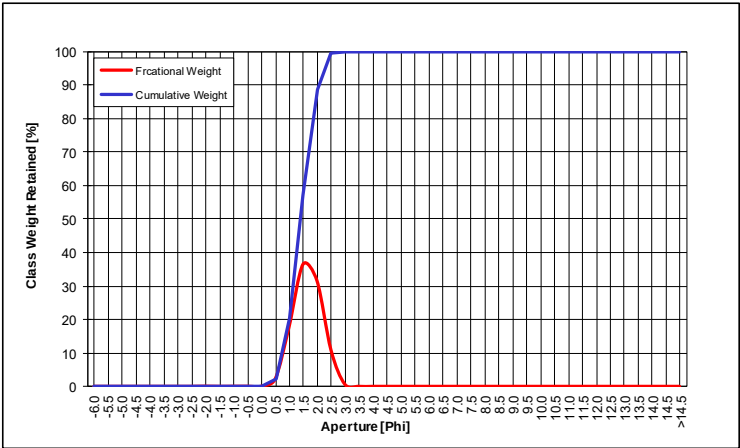
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST118

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.06	0.06
2800	-1.5	0.00	0.06
2000	-1.0	0.03	0.08
1400	-0.5	0.04	0.12
1000	0.0	0.05	0.17
707.00	0.5	2.22	2.39
500.00	1.0	17.97	20.36
353.60	1.5	36.62	56.98
250.00	2.0	31.57	88.55
176.80	2.5	10.85	99.40
125.00	3.0	0.60	100.00
88.39	3.5	0.00	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.52	Moderately Well Sorted
Skewness	0.02	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [µm]	377.95	Medium Sand
Mean [phi]	1.40	
Median [µm]	377.74	Medium Sand
Median [phi]	1.40	
Gravel [%]	0.08	Slightly Gravelly Sand
Sand [%]	99.92	
Mud [%]	0.00	



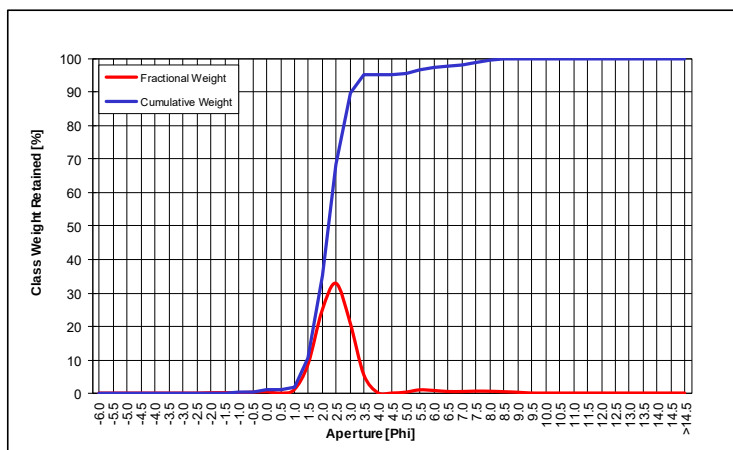
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST119

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.10	0.10
2800	-1.5	0.11	0.21
2000	-1.0	0.11	0.32
1400	-0.5	0.26	0.58
1000	0.0	0.40	0.99
707.00	0.5	0.00	0.99
500.00	1.0	1.00	1.99
353.60	1.5	8.72	10.71
250.00	2.0	24.74	35.44
176.80	2.5	32.95	68.40
125.00	3.0	21.34	89.74
88.39	3.5	5.43	95.17
63.00	4.0	0.11	95.27
44.20	4.5	0.00	95.27
31.30	5.0	0.27	95.55
22.10	5.5	0.96	96.51
15.60	6.0	0.78	97.28
11.00	6.5	0.47	97.76
7.80	7.0	0.46	98.22
5.50	7.5	0.57	98.79
3.90	8.0	0.55	99.33
2.75	8.5	0.41	99.74
1.95	9.0	0.25	99.99
1.38	9.5	0.01	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.66	Moderately Well Sorted
Skewness	0.06	Symmetrical
Kurtosis	1.09	Mesokurtic
Mean [μm]	213.01	Fine Sand
Mean [phi]	2.23	
Median [μm]	214.53	Fine Sand
Median [phi]	2.22	
Gravel [%]	0.32	Slightly Gravelly Sand
Sand [%]	94.95	
Mud [%]	4.73	

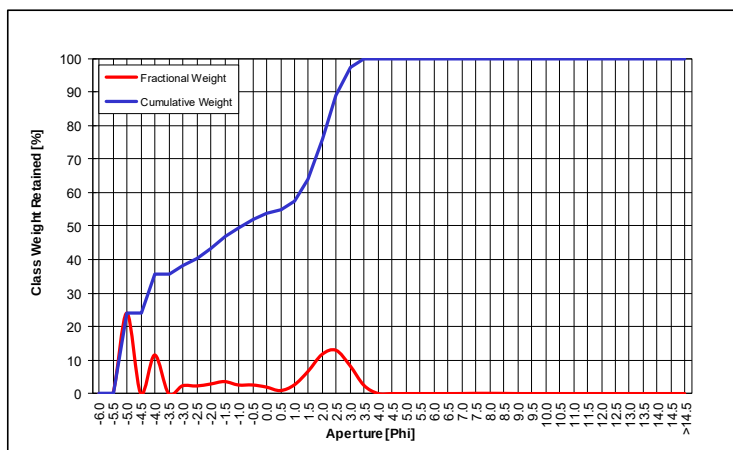


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST120

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	24.15	24.15
22400	-4.5	0.00	24.15
16000	-4.0	11.57	35.72
11200	-3.5	0.00	35.72
8000	-3.0	2.35	38.07
5600	-2.5	2.28	40.35
4000	-2.0	2.86	43.21
2800	-1.5	3.60	46.81
2000	-1.0	2.57	49.38
1400	-0.5	2.58	51.96
1000	0.0	1.96	53.93
707.00	0.5	0.90	54.82
500.00	1.0	2.58	57.40
353.60	1.5	6.68	64.09
250.00	2.0	11.75	75.83
176.80	2.5	12.98	88.81
125.00	3.0	8.42	97.23
88.39	3.5	2.49	99.72
63.00	4.0	0.06	99.78
44.20	4.5	0.00	99.78
31.30	5.0	0.00	99.78
22.10	5.5	0.00	99.78
15.60	6.0	0.00	99.78
11.00	6.5	0.00	99.78
7.80	7.0	0.01	99.79
5.50	7.5	0.07	99.87
3.90	8.0	0.08	99.94
2.75	8.5	0.05	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	3.12	Very Poorly Sorted
Skewness	-0.12	Coarse Skewed
Kurtosis	0.53	Very Platykurtic
Mean [μm]	2358.17	Granule
Mean [phi]	-1.24	
Median [μm]	1836.01	Very Coarse Sand
Median [phi]	-0.88	
Gravel [%]	49.38	Sandy Gravel
Sand [%]	47.81	
Mud [%]	0.22	

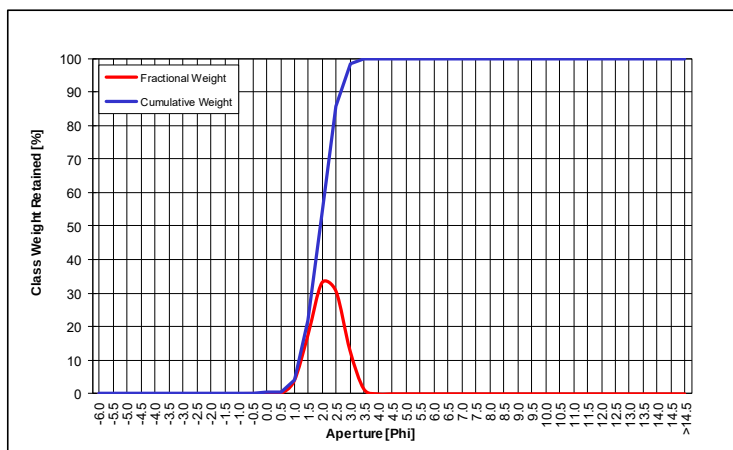


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

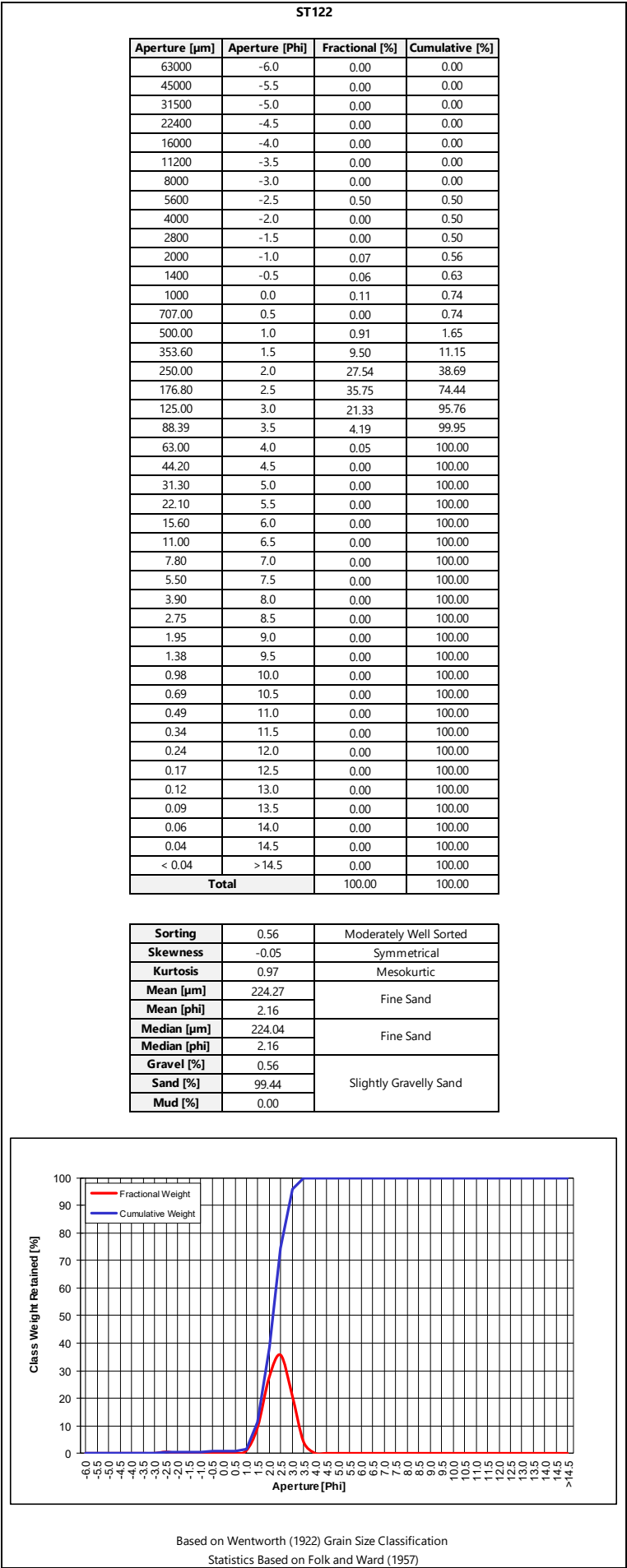
ST121

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.03	0.03
2000	-1.0	0.07	0.10
1400	-0.5	0.12	0.22
1000	0.0	0.06	0.28
707.00	0.5	0.10	0.38
500.00	1.0	3.86	4.24
353.60	1.5	17.69	21.93
250.00	2.0	33.11	55.05
176.80	2.5	30.55	85.59
125.00	3.0	12.97	98.57
88.39	3.5	1.43	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.56	Moderately Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [μm]	266.11	Medium Sand
Mean [phi]	1.91	
Median [μm]	263.56	Medium Sand
Median [phi]	1.92	
Gravel [%]	0.10	Slightly Gravelly Sand
Sand [%]	99.90	
Mud [%]	0.00	



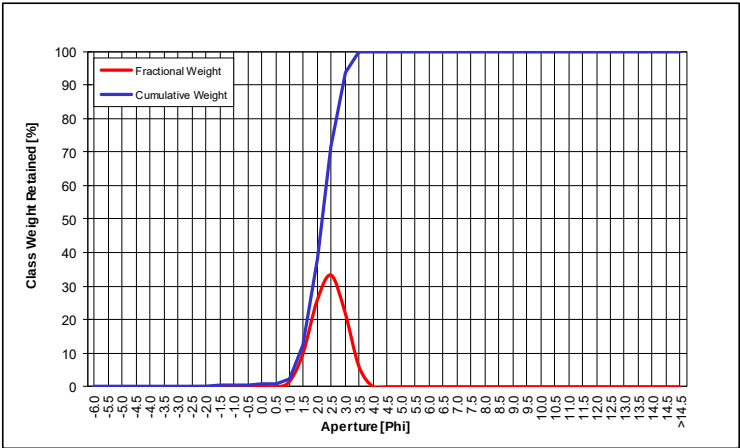
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST123

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.08	0.08
4000	-2.0	0.10	0.17
2800	-1.5	0.12	0.29
2000	-1.0	0.12	0.41
1400	-0.5	0.18	0.59
1000	0.0	0.20	0.79
707.00	0.5	0.00	0.79
500.00	1.0	1.48	2.27
353.60	1.5	10.07	12.34
250.00	2.0	25.71	38.05
176.80	2.5	33.37	71.42
125.00	3.0	22.35	93.77
88.39	3.5	6.13	99.90
63.00	4.0	0.10	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.60	Moderately Well Sorted
Skewness	-0.03	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [µm]	221.12	Fine Sand
Mean [phi]	2.18	
Median [µm]	220.83	Fine Sand
Median [phi]	2.18	
Gravel [%]	0.41	Slightly Gravelly Sand
Sand [%]	99.59	
Mud [%]	0.00	

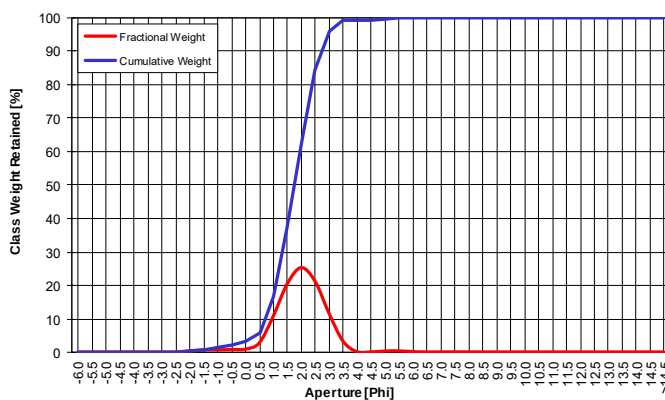


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST124

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.34	0.34
2800	-1.5	0.63	0.97
2000	-1.0	0.62	1.59
1400	-0.5	0.76	2.34
1000	0.0	0.86	3.20
707.00	0.5	2.71	5.91
500.00	1.0	10.74	16.65
353.60	1.5	20.52	37.17
250.00	2.0	25.49	62.66
176.80	2.5	21.44	84.10
125.00	3.0	11.74	95.84
88.39	3.5	3.32	99.16
63.00	4.0	0.09	99.25
44.20	4.5	0.01	99.26
31.30	5.0	0.27	99.52
22.10	5.5	0.32	99.85
15.60	6.0	0.10	99.94
11.00	6.5	0.00	99.94
7.80	7.0	0.01	99.95
5.50	7.5	0.02	99.98
3.90	8.0	0.02	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.78	Moderately Sorted
Skewness	-0.05	Symmetrical
Kurtosis	0.99	Mesokurtic
Mean [μm]	299.47	Medium Sand
Mean [phi]	1.74	
Median [μm]	296.99	Medium Sand
Median [phi]	1.75	
Gravel [%]	1.59	Slightly Gravelly Sand
Sand [%]	97.66	
Mud [%]	0.75	

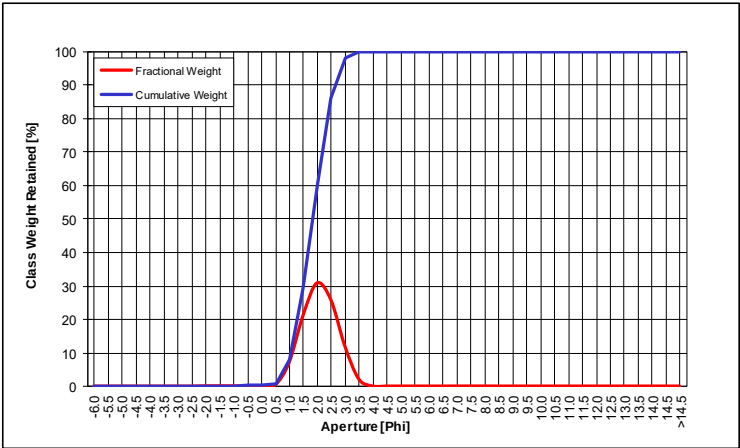


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST125

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.07	0.07
2800	-1.5	0.08	0.16
2000	-1.0	0.07	0.23
1400	-0.5	0.07	0.30
1000	0.0	0.10	0.39
707.00	0.5	0.38	0.78
500.00	1.0	7.13	7.91
353.60	1.5	21.27	29.18
250.00	2.0	30.96	60.14
176.80	2.5	25.81	85.94
125.00	3.0	11.94	97.88
88.39	3.5	2.06	99.94
63.00	4.0	0.01	99.95
44.20	4.5	0.00	99.95
31.30	5.0	0.00	99.95
22.10	5.5	0.00	99.95
15.60	6.0	0.00	99.95
11.00	6.5	0.00	99.95
7.80	7.0	0.01	99.96
5.50	7.5	0.02	99.98
3.90	8.0	0.02	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.63	Moderately Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	0.96	Mesokurtic
Mean [µm]	281.36	Medium Sand
Mean [phi]	1.83	
Median [µm]	280.06	Medium Sand
Median [phi]	1.84	
Gravel [%]	0.23	Slightly Gravelly Sand
Sand [%]	99.72	
Mud [%]	0.05	



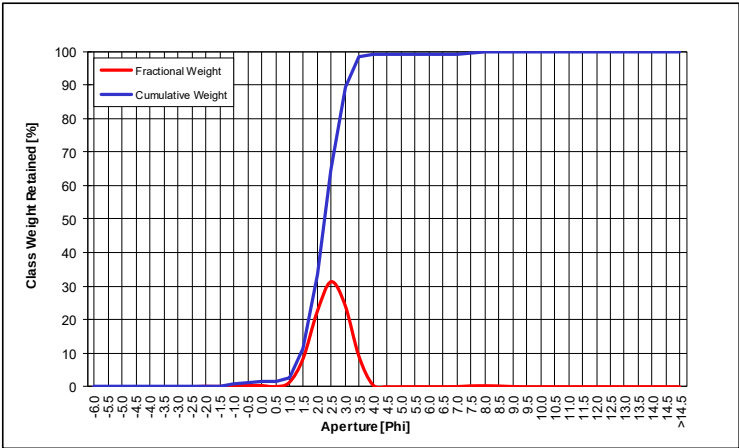
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST126

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.14	0.14
2800	-1.5	0.10	0.24
2000	-1.0	0.43	0.67
1400	-0.5	0.42	1.09
1000	0.0	0.36	1.45
707.00	0.5	0.05	1.50
500.00	1.0	1.26	2.76
353.60	1.5	8.42	11.18
250.00	2.0	22.28	33.46
176.80	2.5	31.39	64.85
125.00	3.0	24.52	89.37
88.39	3.5	9.15	98.52
63.00	4.0	0.58	99.11
44.20	4.5	0.00	99.11
31.30	5.0	0.00	99.11
22.10	5.5	0.00	99.11
15.60	6.0	0.00	99.11
11.00	6.5	0.00	99.11
7.80	7.0	0.04	99.15
5.50	7.5	0.25	99.40
3.90	8.0	0.30	99.70
2.75	8.5	0.23	99.93
1.95	9.0	0.07	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.65	Moderately Well Sorted
Skewness	-0.03	Symmetrical
Kurtosis	0.99	Mesokurtic
Mean [µm]	209.65	Fine Sand
Mean [phi]	2.25	
Median [µm]	208.29	Fine Sand
Median [phi]	2.26	
Gravel [%]	0.67	Slightly Gravelly Sand
Sand [%]	98.43	
Mud [%]	0.89	



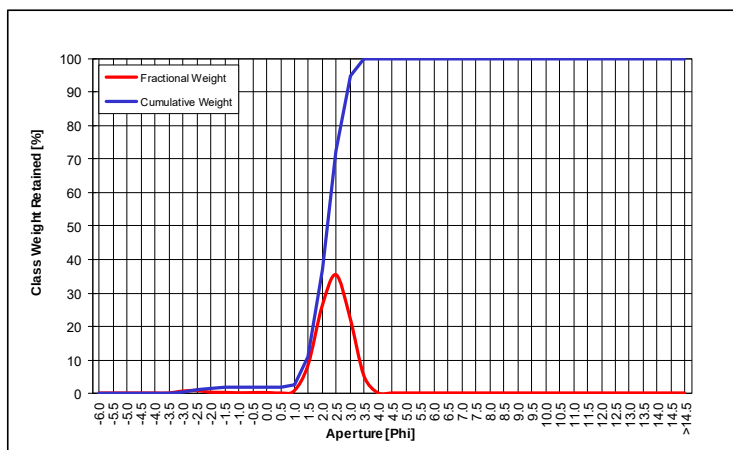
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST127

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.56	0.56
5600	-2.5	0.73	1.29
4000	-2.0	0.24	1.53
2800	-1.5	0.17	1.70
2000	-1.0	0.05	1.75
1400	-0.5	0.10	1.86
1000	0.0	0.13	1.99
707.00	0.5	0.00	1.99
500.00	1.0	0.64	2.64
353.60	1.5	8.41	11.05
250.00	2.0	25.86	36.91
176.80	2.5	35.30	72.21
125.00	3.0	22.59	94.80
88.39	3.5	5.16	99.96
63.00	4.0	0.04	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.58	Moderately Well Sorted
Skewness	-0.06	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [μm]	220.59	Fine Sand
Mean [phi]	2.18	
Median [μm]	219.86	Fine Sand
Median [phi]	2.19	
Gravel [%]	1.75	Slightly Gravelly Sand
Sand [%]	98.25	
Mud [%]	0.00	

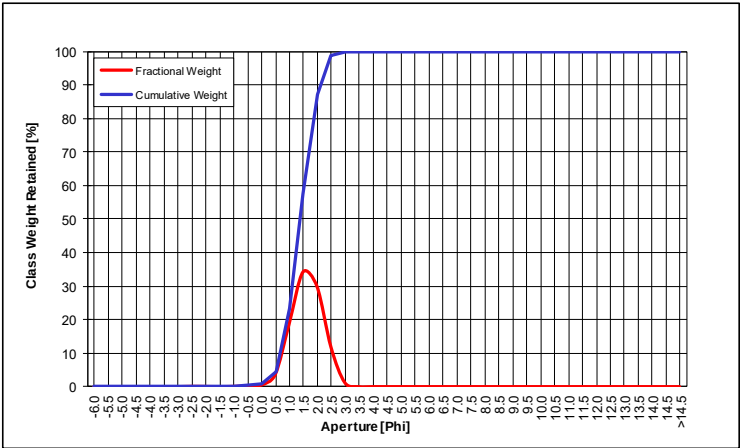


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST128

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.09	0.09
4000	-2.0	0.05	0.14
2800	-1.5	0.01	0.15
2000	-1.0	0.07	0.23
1400	-0.5	0.25	0.47
1000	0.0	0.48	0.96
707.00	0.5	3.59	4.54
500.00	1.0	18.70	23.25
353.60	1.5	34.13	57.38
250.00	2.0	29.76	87.14
176.80	2.5	11.71	98.85
125.00	3.0	1.15	100.00
88.39	3.5	0.00	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.56	Moderately Well Sorted
Skewness	0.00	Symmetrical
Kurtosis	0.97	Mesokurtic
Mean [µm]	383.74	Medium Sand
Mean [phi]	1.38	
Median [µm]	381.10	Medium Sand
Median [phi]	1.39	
Gravel [%]	0.23	Slightly Gravelly Sand
Sand [%]	99.77	
Mud [%]	0.00	



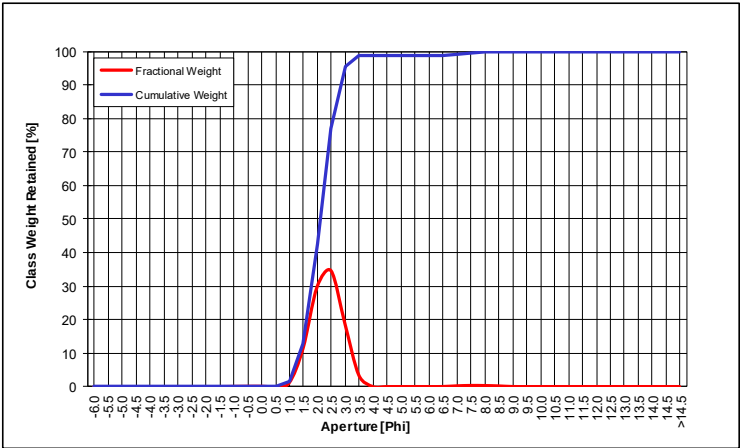
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST129

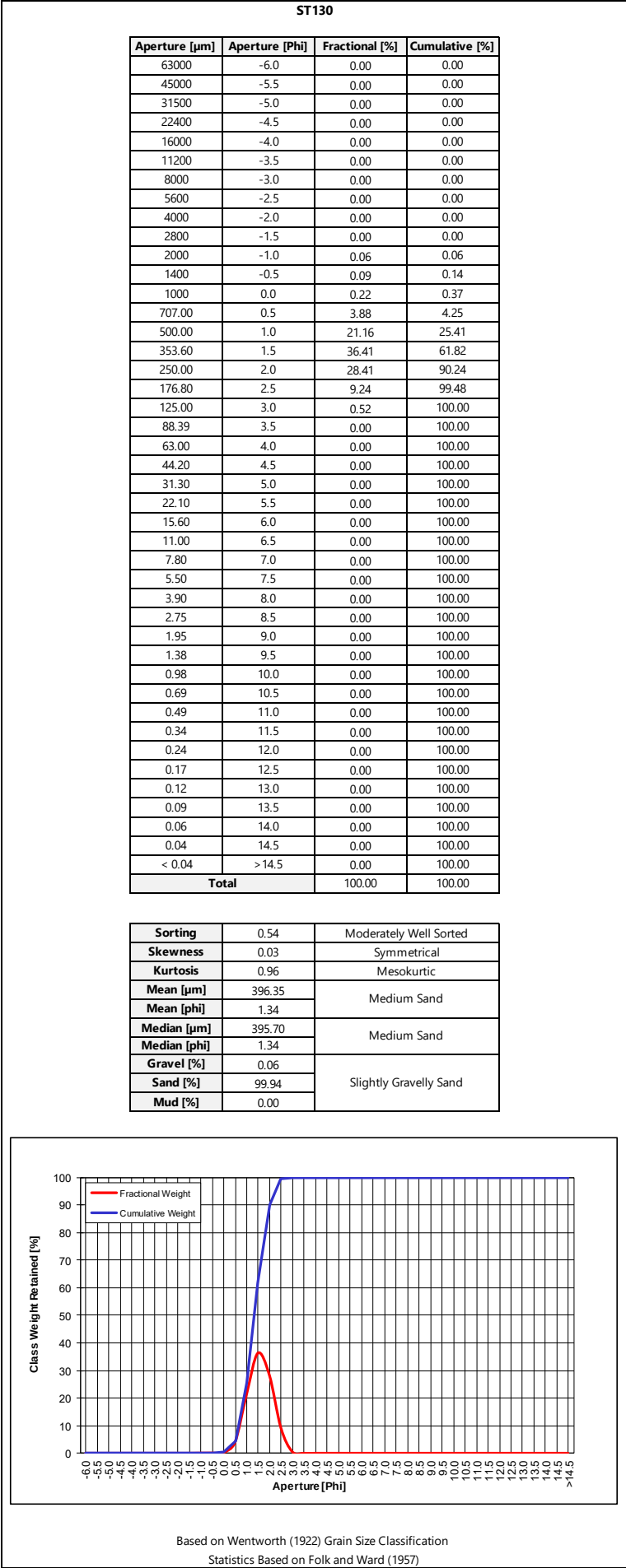
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.00	0.00
2000	-1.0	0.04	0.04
1400	-0.5	0.09	0.13
1000	0.0	0.09	0.22
707.00	0.5	0.00	0.22
500.00	1.0	1.11	1.34
353.60	1.5	11.43	12.77
250.00	2.0	29.63	42.40
176.80	2.5	34.47	76.87
125.00	3.0	18.71	95.58
88.39	3.5	3.35	98.94
63.00	4.0	0.00	98.94
44.20	4.5	0.00	98.94
31.30	5.0	0.00	98.94
22.10	5.5	0.00	98.94
15.60	6.0	0.00	98.94
11.00	6.5	0.01	98.95
7.80	7.0	0.21	99.16
5.50	7.5	0.33	99.49
3.90	8.0	0.30	99.79
2.75	8.5	0.20	99.99
1.95	9.0	0.01	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.56	Moderately Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [µm]	230.31	Fine Sand
Mean [phi]	2.12	
Median [µm]	231.61	Fine Sand
Median [phi]	2.11	
Gravel [%]	0.04	Slightly Gravelly Sand
Sand [%]	98.89	
Mud [%]	1.06	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

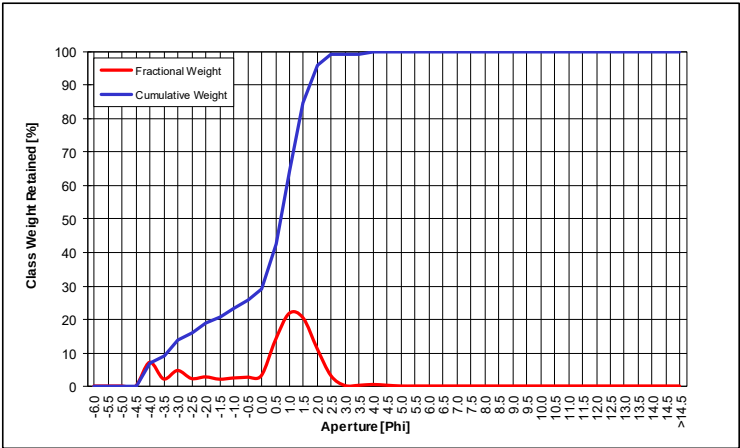




ST131

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	7.10	7.10
11200	-3.5	2.10	9.20
8000	-3.0	4.64	13.84
5600	-2.5	2.23	16.07
4000	-2.0	2.72	18.79
2800	-1.5	2.03	20.82
2000	-1.0	2.40	23.22
1400	-0.5	2.63	25.85
1000	0.0	3.08	28.93
707.00	0.5	13.61	42.53
500.00	1.0	21.73	64.26
353.60	1.5	20.38	84.64
250.00	2.0	11.26	95.90
176.80	2.5	3.07	98.97
125.00	3.0	0.14	99.11
88.39	3.5	0.21	99.32
63.00	4.0	0.46	99.77
44.20	4.5	0.23	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.92	Poorly Sorted
Skewness	-0.59	Very Coarse Skewed
Kurtosis	1.31	Leptokurtic
Mean [µm]	1082.94	Very Coarse Sand
Mean [phi]	-0.11	
Median [µm]	627.65	Coarse Sand
Median [phi]	0.67	
Gravel [%]	23.22	Gravelly Sand
Sand [%]	76.56	
Mud [%]	0.23	



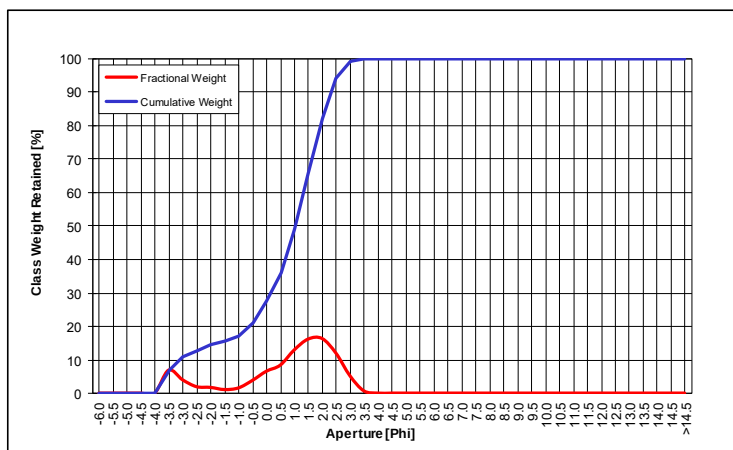
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST132

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	6.95	6.95
8000	-3.0	4.01	10.97
5600	-2.5	1.94	12.91
4000	-2.0	1.73	14.64
2800	-1.5	1.07	15.71
2000	-1.0	1.57	17.28
1400	-0.5	3.82	21.10
1000	0.0	6.60	27.71
707.00	0.5	8.44	36.15
500.00	1.0	13.03	49.18
353.60	1.5	16.33	65.51
250.00	2.0	16.51	82.02
176.80	2.5	12.06	94.09
125.00	3.0	5.24	99.33
88.39	3.5	0.67	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.81	Poorly Sorted
Skewness	-0.44	Very Coarse Skewed
Kurtosis	1.28	Leptokurtic
Mean [μm]	673.48	Coarse Sand
Mean [phi]	0.57	
Median [μm]	491.39	Medium Sand
Median [phi]	1.03	
Gravel [%]	17.28	Gravelly Sand
Sand [%]	82.72	
Mud [%]	0.00	

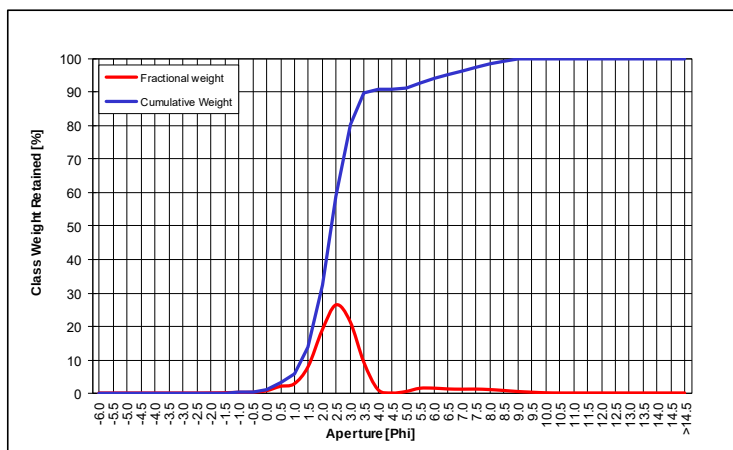


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST133

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.03	0.03
2800	-1.5	0.07	0.10
2000	-1.0	0.19	0.29
1400	-0.5	0.23	0.52
1000	0.0	0.66	1.19
707.00	0.5	1.98	3.17
500.00	1.0	2.73	5.90
353.60	1.5	7.89	13.79
250.00	2.0	18.72	32.51
176.80	2.5	26.40	58.91
125.00	3.0	21.52	80.43
88.39	3.5	9.17	89.60
63.00	4.0	1.07	90.68
44.20	4.5	0.00	90.68
31.30	5.0	0.42	91.10
22.10	5.5	1.40	92.50
15.60	6.0	1.45	93.95
11.00	6.5	1.21	95.16
7.80	7.0	1.14	96.29
5.50	7.5	1.17	97.47
3.90	8.0	1.03	98.49
2.75	8.5	0.76	99.25
1.95	9.0	0.45	99.70
1.38	9.5	0.24	99.94
0.98	10.0	0.06	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.26	Poorly Sorted
Skewness	0.26	Fine Skewed
Kurtosis	2.14	Very Leptokurtic
Mean [μm]	194.58	Fine Sand
Mean [phi]	2.36	
Median [μm]	198.72	Fine Sand
Median [phi]	2.33	
Gravel [%]	0.29	Slightly Gravelly Sand
Sand [%]	90.39	
Mud [%]	9.32	

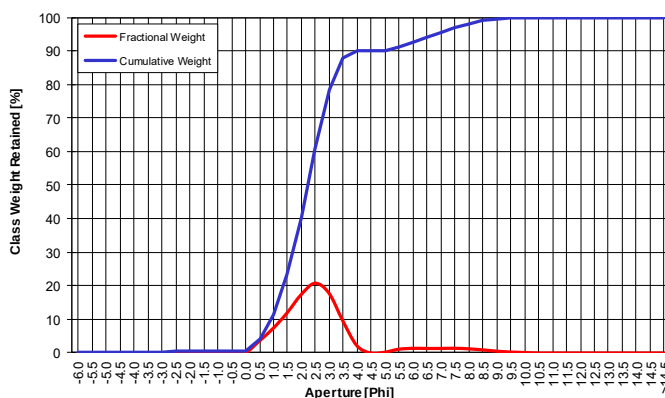


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST134

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.38	0.38
4000	-2.0	0.02	0.40
2800	-1.5	0.01	0.41
2000	-1.0	0.02	0.43
1400	-0.5	0.06	0.49
1000	0.0	0.08	0.57
707.00	0.5	3.51	4.08
500.00	1.0	7.24	11.32
353.60	1.5	11.79	23.12
250.00	2.0	17.12	40.24
176.80	2.5	20.49	60.73
125.00	3.0	17.61	78.34
88.39	3.5	9.42	87.76
63.00	4.0	2.18	89.94
44.20	4.5	0.01	89.96
31.30	5.0	0.24	90.20
22.10	5.5	1.12	91.32
15.60	6.0	1.38	92.70
11.00	6.5	1.34	94.04
7.80	7.0	1.35	95.39
5.50	7.5	1.40	96.79
3.90	8.0	1.24	98.04
2.75	8.5	0.94	98.98
1.95	9.0	0.56	99.54
1.38	9.5	0.30	99.84
0.98	10.0	0.16	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.48	Poorly Sorted
Skewness	0.24	Fine Skewed
Kurtosis	1.91	Very Leptokurtic
Mean [μm]	210.87	Fine Sand
Mean [phi]	2.25	
Median [μm]	211.96	Fine Sand
Median [phi]	2.24	
Gravel [%]	0.43	Slightly Gravelly Muddy Sand
Sand [%]	89.52	
Mud [%]	10.06	

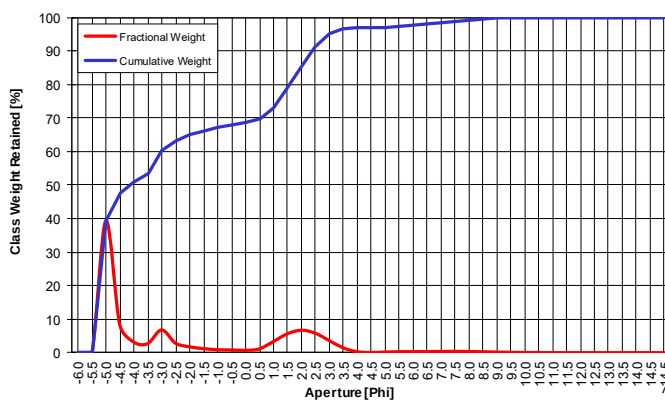


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST135

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	39.36	39.36
22400	-4.5	8.33	47.69
16000	-4.0	3.19	50.88
11200	-3.5	2.71	53.59
8000	-3.0	6.81	60.40
5600	-2.5	2.84	63.24
4000	-2.0	1.77	65.01
2800	-1.5	1.23	66.24
2000	-1.0	0.91	67.16
1400	-0.5	0.83	67.98
1000	0.0	0.73	68.71
707.00	0.5	1.15	69.86
500.00	1.0	3.30	73.16
353.60	1.5	5.61	78.77
250.00	2.0	6.71	85.48
176.80	2.5	5.86	91.34
125.00	3.0	3.67	95.02
88.39	3.5	1.50	96.52
63.00	4.0	0.31	96.83
44.20	4.5	0.08	96.91
31.30	5.0	0.20	97.11
22.10	5.5	0.30	97.41
15.60	6.0	0.32	97.74
11.00	6.5	0.35	98.08
7.80	7.0	0.38	98.46
5.50	7.5	0.41	98.87
3.90	8.0	0.37	99.24
2.75	8.5	0.29	99.53
1.95	9.0	0.20	99.73
1.38	9.5	0.12	99.85
0.98	10.0	0.08	99.93
0.69	10.5	0.06	99.99
0.49	11.0	0.01	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	3.07	Very Poorly Sorted
Skewness	0.69	Very Fine Skewed
Kurtosis	0.55	Very Platykurtic
Mean [μm]	5691.98	Pebble
Mean [phi]	-2.51	
Median [μm]	17553.04	Pebble
Median [phi]	-4.13	
Gravel [%]	67.16	Sandy Gravel
Sand [%]	29.68	
Mud [%]	3.17	

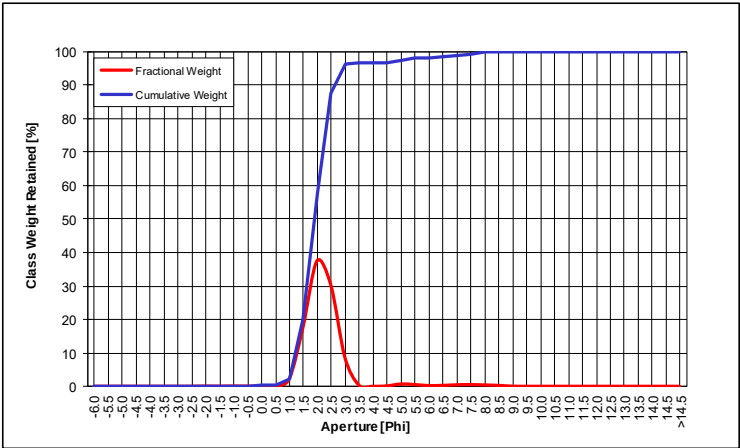


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST136

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.07	0.07
2800	-1.5	0.04	0.10
2000	-1.0	0.08	0.18
1400	-0.5	0.05	0.23
1000	0.0	0.04	0.27
707.00	0.5	0.00	0.27
500.00	1.0	2.14	2.42
353.60	1.5	17.77	20.19
250.00	2.0	37.47	57.66
176.80	2.5	30.05	87.71
125.00	3.0	8.56	96.27
88.39	3.5	0.33	96.61
63.00	4.0	0.00	96.61
44.20	4.5	0.11	96.71
31.30	5.0	0.67	97.39
22.10	5.5	0.51	97.90
15.60	6.0	0.21	98.11
11.00	6.5	0.26	98.37
7.80	7.0	0.44	98.81
5.50	7.5	0.50	99.31
3.90	8.0	0.40	99.71
2.75	8.5	0.26	99.97
1.95	9.0	0.03	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.54	Moderately Well Sorted
Skewness	0.07	Symmetrical
Kurtosis	1.05	Mesokurtic
Mean [µm]	266.84	Medium Sand
Mean [phi]	1.91	
Median [µm]	268.36	Medium Sand
Median [phi]	1.90	
Gravel [%]	0.18	Slightly Gravelly Sand
Sand [%]	96.42	
Mud [%]	3.39	



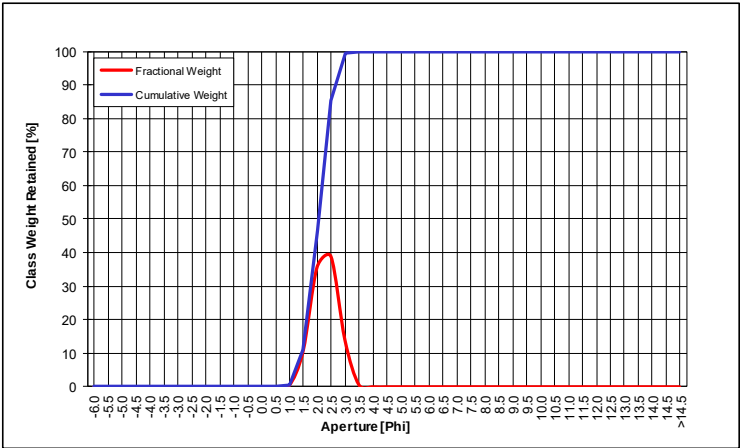
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST137

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.05	0.05
2800	-1.5	0.02	0.07
2000	-1.0	0.01	0.08
1400	-0.5	0.00	0.08
1000	0.0	0.00	0.08
707.00	0.5	0.00	0.08
500.00	1.0	0.37	0.45
353.60	1.5	10.62	11.07
250.00	2.0	35.60	46.67
176.80	2.5	38.77	85.44
125.00	3.0	13.93	99.37
88.39	3.5	0.63	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.47	Well Sorted
Skewness	-0.03	Symmetrical
Kurtosis	1.00	Mesokurtic
Mean [µm]	244.67	Fine Sand
Mean [phi]	2.03	
Median [µm]	242.67	Fine Sand
Median [phi]	2.04	
Gravel [%]	0.08	Slightly Gravelly Sand
Sand [%]	99.92	
Mud [%]	0.00	



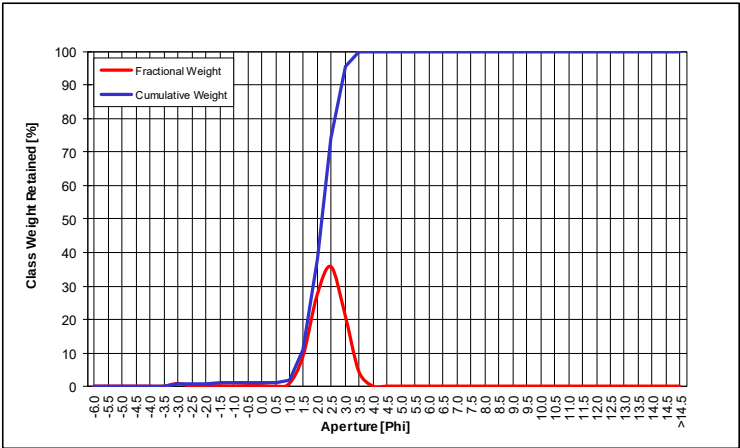
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST138

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.78	0.78
5600	-2.5	0.00	0.78
4000	-2.0	0.09	0.87
2800	-1.5	0.11	0.98
2000	-1.0	0.05	1.03
1400	-0.5	0.14	1.17
1000	0.0	0.14	1.30
707.00	0.5	0.00	1.30
500.00	1.0	0.74	2.04
353.60	1.5	9.08	11.12
250.00	2.0	27.23	38.35
176.80	2.5	35.78	74.13
125.00	3.0	21.53	95.66
88.39	3.5	4.33	99.99
63.00	4.0	0.01	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.56	Moderately Well Sorted
Skewness	-0.05	Symmetrical
Kurtosis	0.98	Mesokurtic
Mean [µm]	223.69	Fine Sand
Mean [phi]	2.16	
Median [µm]	223.33	Fine Sand
Median [phi]	2.16	
Gravel [%]	1.03	Slightly Gravelly Sand
Sand [%]	98.97	
Mud [%]	0.00	

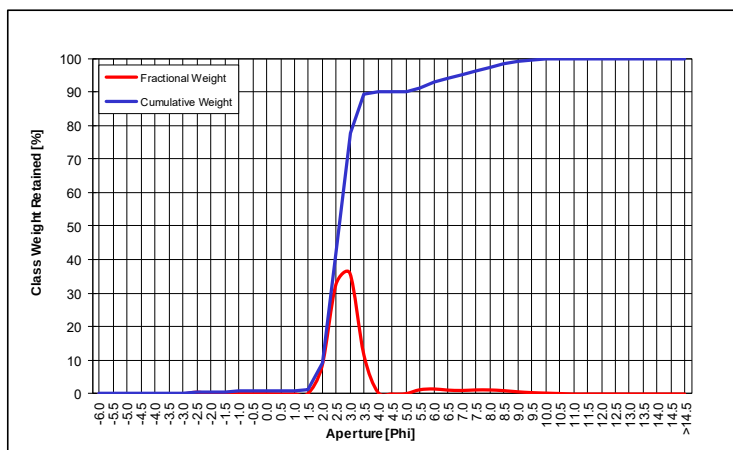


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST139

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.54	0.54
4000	-2.0	0.07	0.61
2800	-1.5	0.00	0.61
2000	-1.0	0.09	0.70
1400	-0.5	0.08	0.78
1000	0.0	0.09	0.87
707.00	0.5	0.00	0.87
500.00	1.0	0.00	0.87
353.60	1.5	0.15	1.02
250.00	2.0	8.27	9.30
176.80	2.5	32.63	41.92
125.00	3.0	35.89	77.81
88.39	3.5	11.63	89.43
63.00	4.0	0.54	89.98
44.20	4.5	0.00	89.98
31.30	5.0	0.10	90.07
22.10	5.5	1.26	91.33
15.60	6.0	1.51	92.84
11.00	6.5	1.17	94.00
7.80	7.0	1.05	95.06
5.50	7.5	1.21	96.27
3.90	8.0	1.21	97.48
2.75	8.5	1.01	98.49
1.95	9.0	0.67	99.16
1.38	9.5	0.42	99.58
0.98	10.0	0.28	99.85
0.69	10.5	0.15	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.08	Poorly Sorted
Skewness	0.40	Very Fine Skewed
Kurtosis	2.98	Very Leptokurtic
Mean [μm]	158.17	Fine Sand
Mean [phi]	2.66	
Median [μm]	163.52	Fine Sand
Median [phi]	2.61	
Gravel [%]	0.70	Slightly Gravelly Muddy Sand
Sand [%]	89.28	
Mud [%]	10.02	

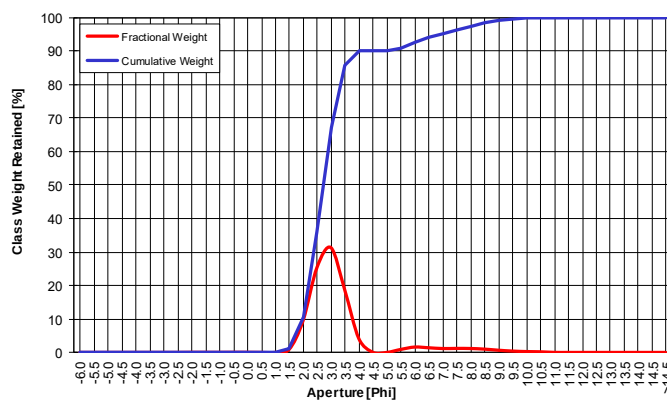


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

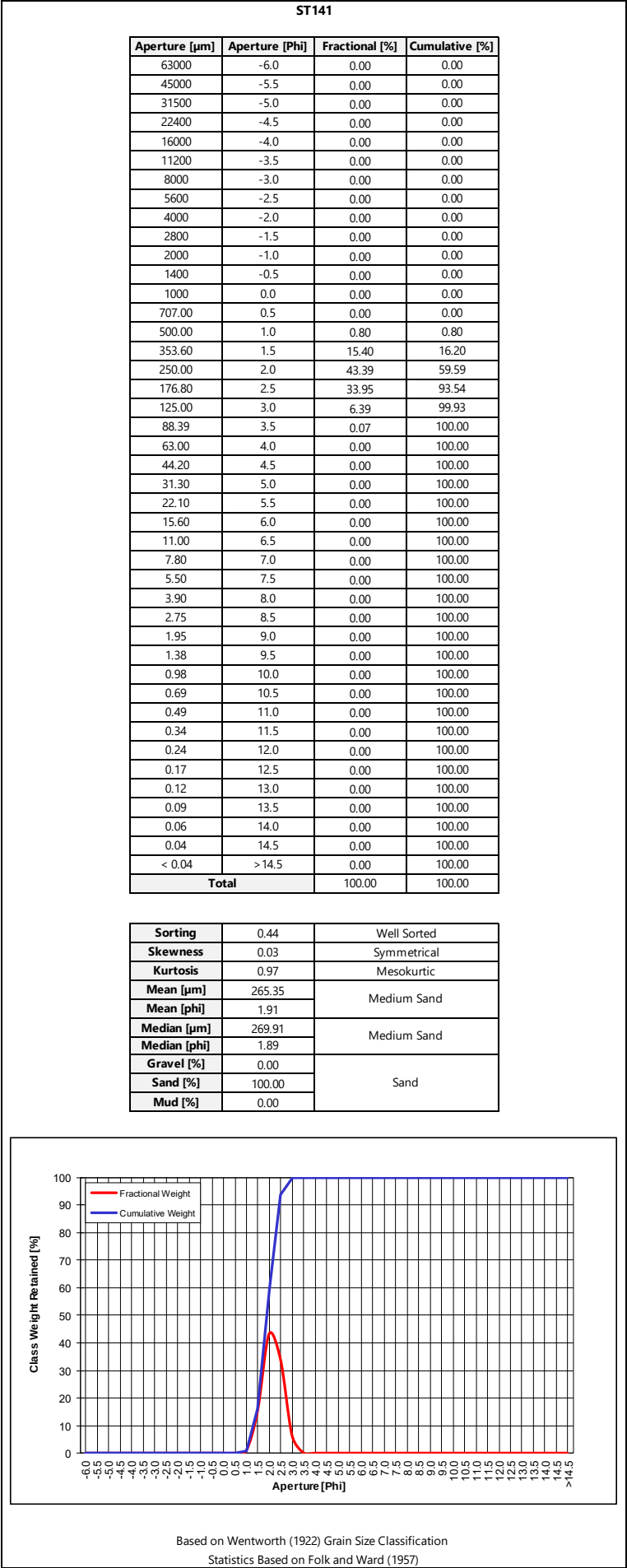
ST140

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.03	0.03
2800	-1.5	0.03	0.06
2000	-1.0	0.02	0.07
1400	-0.5	0.04	0.11
1000	0.0	0.03	0.15
707.00	0.5	0.00	0.15
500.00	1.0	0.00	0.15
353.60	1.5	0.90	1.04
250.00	2.0	9.48	10.52
176.80	2.5	25.44	35.96
125.00	3.0	31.35	67.31
88.39	3.5	18.54	85.85
63.00	4.0	4.13	89.98
44.20	4.5	0.05	90.03
31.30	5.0	0.00	90.03
22.10	5.5	0.89	90.93
15.60	6.0	1.60	92.53
11.00	6.5	1.40	93.93
7.80	7.0	1.17	95.09
5.50	7.5	1.20	96.30
3.90	8.0	1.18	97.47
2.75	8.5	0.99	98.46
1.95	9.0	0.66	99.13
1.38	9.5	0.41	99.53
0.98	10.0	0.26	99.79
0.69	10.5	0.19	99.98
0.49	11.0	0.02	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.13	Poorly Sorted
Skewness	0.35	Very Fine Skewed
Kurtosis	2.33	Very Leptokurtic
Mean [μm]	147.58	Fine Sand
Mean [phi]	2.76	
Median [μm]	151.38	Fine Sand
Median [phi]	2.72	
Gravel [%]	0.07	Slightly Gravelly Muddy Sand
Sand [%]	89.91	
Mud [%]	10.02	



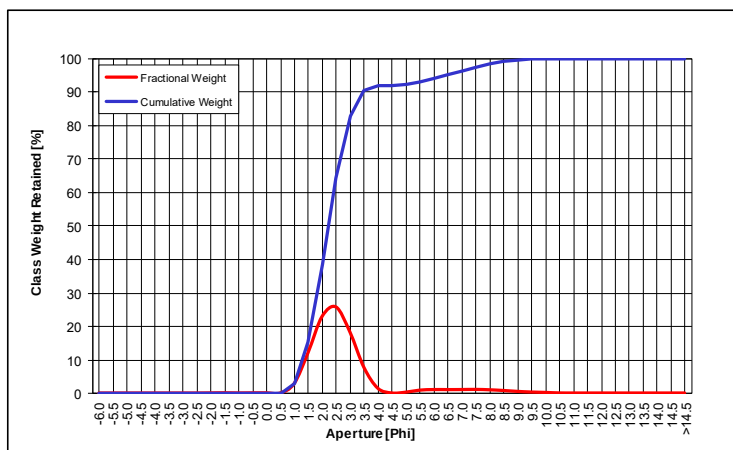
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST142

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.03	0.03
2800	-1.5	0.07	0.10
2000	-1.0	0.02	0.13
1400	-0.5	0.05	0.18
1000	0.0	0.05	0.23
707.00	0.5	0.01	0.24
500.00	1.0	2.86	3.10
353.60	1.5	12.23	15.32
250.00	2.0	23.11	38.43
176.80	2.5	25.98	64.41
125.00	3.0	18.41	82.82
88.39	3.5	7.75	90.57
63.00	4.0	1.43	92.00
44.20	4.5	0.01	92.01
31.30	5.0	0.24	92.25
22.10	5.5	0.86	93.11
15.60	6.0	1.03	94.15
11.00	6.5	1.02	95.17
7.80	7.0	1.04	96.22
5.50	7.5	1.08	97.30
3.90	8.0	0.97	98.27
2.75	8.5	0.76	99.03
1.95	9.0	0.49	99.51
1.38	9.5	0.29	99.80
0.98	10.0	0.17	99.98
0.69	10.5	0.02	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.20	Poorly Sorted
Skewness	0.33	Very Fine Skewed
Kurtosis	2.03	Very Leptokurtic
Mean [μm]	207.18	Fine Sand
Mean [phi]	2.27	
Median [μm]	214.26	Fine Sand
Median [phi]	2.22	
Gravel [%]	0.13	Slightly Gravelly Sand
Sand [%]	91.87	
Mud [%]	8.00	

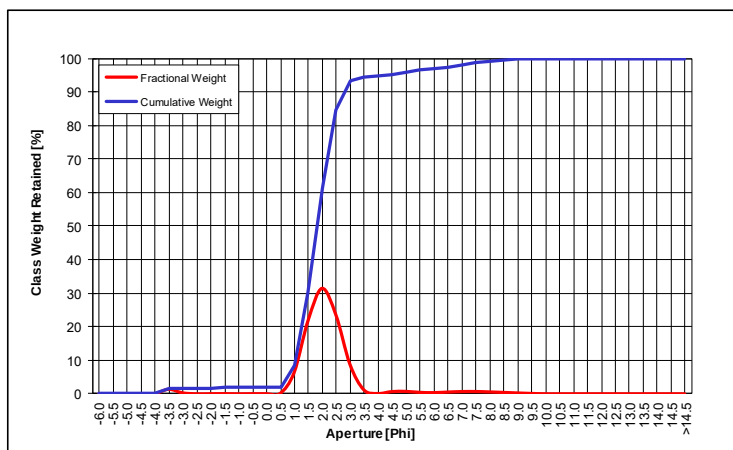


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST143

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	1.36	1.36
8000	-3.0	0.28	1.64
5600	-2.5	0.00	1.64
4000	-2.0	0.02	1.67
2800	-1.5	0.05	1.71
2000	-1.0	0.00	1.71
1400	-0.5	0.03	1.75
1000	0.0	0.03	1.78
707.00	0.5	0.13	1.91
500.00	1.0	6.35	8.26
353.60	1.5	21.77	30.03
250.00	2.0	31.29	61.31
176.80	2.5	23.33	84.64
125.00	3.0	8.75	93.39
88.39	3.5	1.17	94.56
63.00	4.0	0.08	94.65
44.20	4.5	0.65	95.30
31.30	5.0	0.72	96.02
22.10	5.5	0.43	96.45
15.60	6.0	0.35	96.79
11.00	6.5	0.52	97.31
7.80	7.0	0.66	97.97
5.50	7.5	0.68	98.66
3.90	8.0	0.56	99.22
2.75	8.5	0.41	99.63
1.95	9.0	0.26	99.89
1.38	9.5	0.11	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.86	Moderately Sorted
Skewness	0.20	Fine Skewed
Kurtosis	1.59	Very Leptokurtic
Mean [μm]	281.72	Medium Sand
Mean [phi]	1.83	
Median [μm]	283.39	Medium Sand
Median [phi]	1.82	
Gravel [%]	1.71	Slightly Gravelly Sand
Sand [%]	92.93	
Mud [%]	5.35	

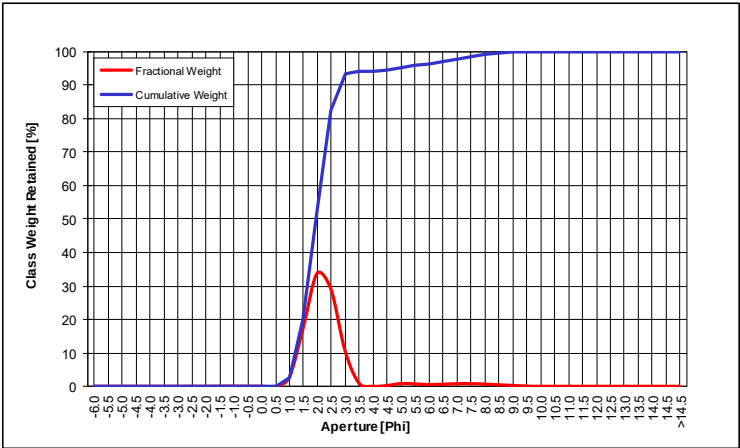


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST144

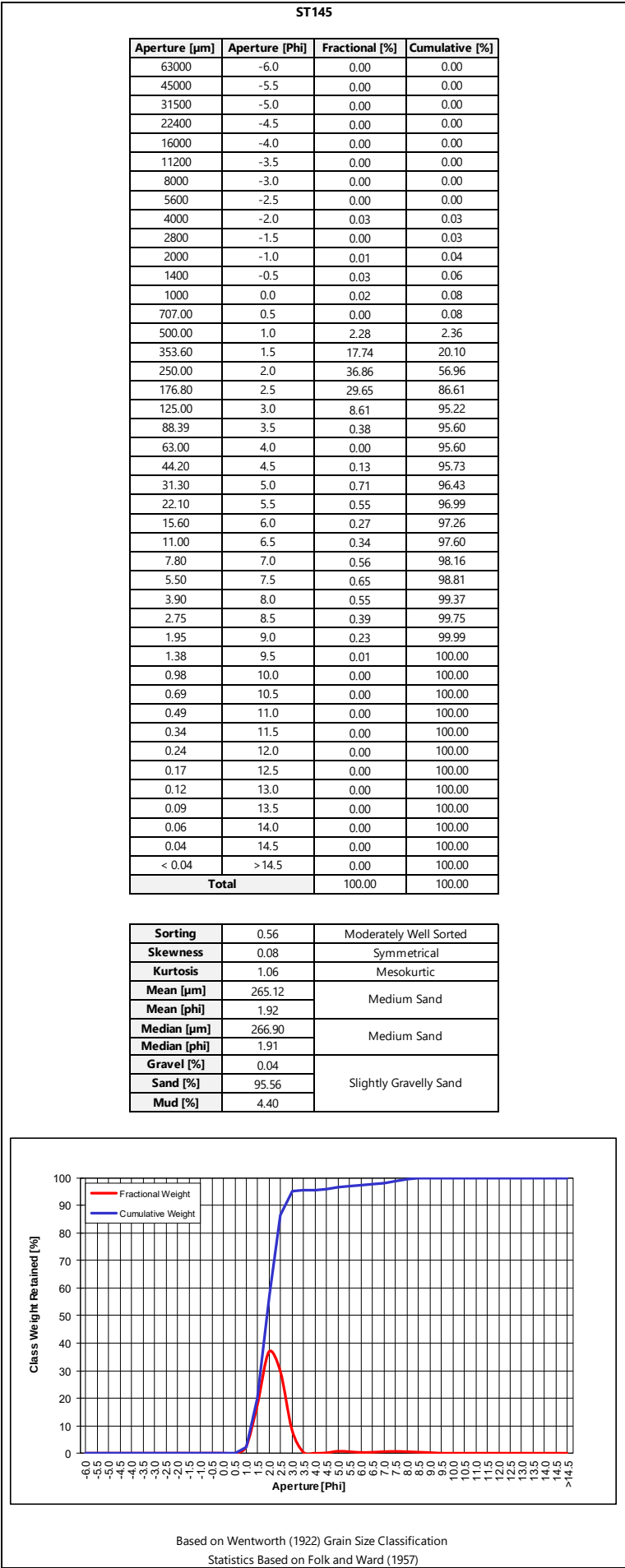
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.04	0.04
2000	-1.0	0.06	0.10
1400	-0.5	0.03	0.13
1000	0.0	0.03	0.16
707.00	0.5	0.00	0.16
500.00	1.0	2.58	2.74
353.60	1.5	17.26	20.01
250.00	2.0	33.59	53.60
176.80	2.5	28.86	82.46
125.00	3.0	10.72	93.18
88.39	3.5	0.97	94.15
63.00	4.0	0.00	94.15
44.20	4.5	0.22	94.37
31.30	5.0	0.81	95.18
22.10	5.5	0.71	95.89
15.60	6.0	0.52	96.41
11.00	6.5	0.61	97.02
7.80	7.0	0.76	97.78
5.50	7.5	0.80	98.58
3.90	8.0	0.65	99.23
2.75	8.5	0.45	99.67
1.95	9.0	0.26	99.94
1.38	9.5	0.06	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.88	Moderately Sorted
Skewness	0.30	Fine Skewed
Kurtosis	1.97	Very Leptokurtic
Mean [µm]	255.73	Medium Sand
Mean [phi]	1.97	
Median [µm]	259.46	Medium Sand
Median [phi]	1.95	
Gravel [%]	0.10	Slightly Gravelly Sand
Sand [%]	94.06	
Mud [%]	5.85	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

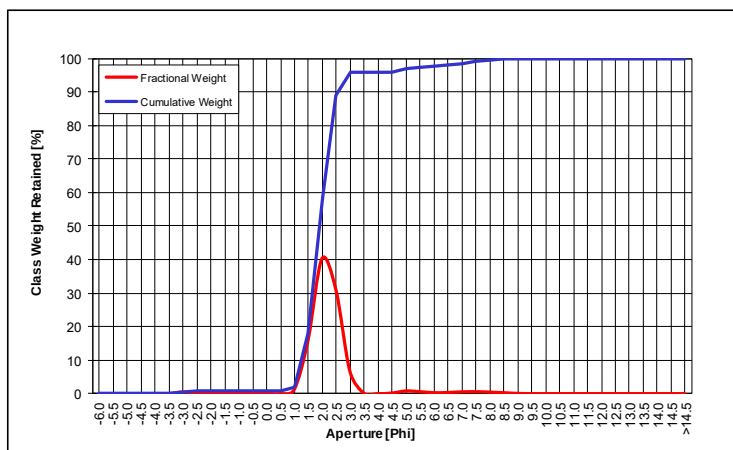




ST146

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.50	0.50
5600	-2.5	0.19	0.69
4000	-2.0	0.06	0.75
2800	-1.5	0.01	0.76
2000	-1.0	0.01	0.77
1400	-0.5	0.03	0.80
1000	0.0	0.02	0.83
707.00	0.5	0.00	0.83
500.00	1.0	1.18	2.01
353.60	1.5	16.00	18.01
250.00	2.0	40.27	58.27
176.80	2.5	30.82	89.10
125.00	3.0	6.62	95.71
88.39	3.5	0.13	95.84
63.00	4.0	0.00	95.84
44.20	4.5	0.17	96.02
31.30	5.0	0.80	96.82
22.10	5.5	0.60	97.42
15.60	6.0	0.29	97.71
11.00	6.5	0.35	98.05
7.80	7.0	0.53	98.59
5.50	7.5	0.59	99.17
3.90	8.0	0.46	99.63
2.75	8.5	0.30	99.93
1.95	9.0	0.07	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.53	Moderately Well Sorted
Skewness	0.10	Symmetrical
Kurtosis	1.11	Mesokurtic
Mean [μm]	264.77	Medium Sand
Mean [phi]	1.92	
Median [μm]	268.46	Medium Sand
Median [phi]	1.90	
Gravel [%]	0.77	Slightly Gravelly Sand
Sand [%]	95.07	
Mud [%]	4.16	

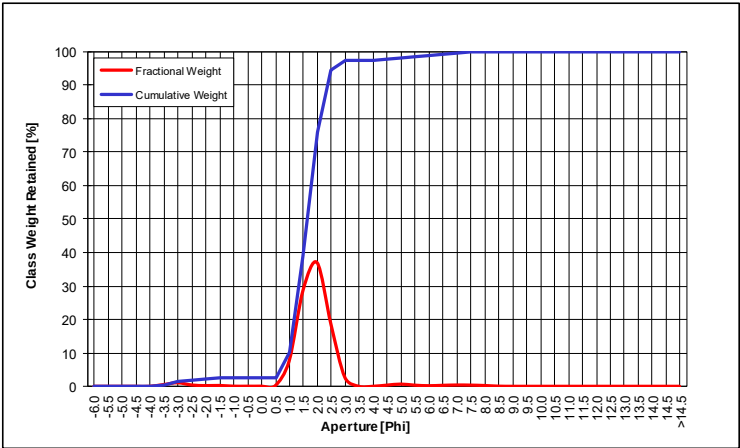


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST147

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.53	0.53
8000	-3.0	1.07	1.59
5600	-2.5	0.39	1.99
4000	-2.0	0.20	2.19
2800	-1.5	0.25	2.44
2000	-1.0	0.04	2.47
1400	-0.5	0.03	2.50
1000	0.0	0.04	2.54
707.00	0.5	0.17	2.71
500.00	1.0	7.57	10.29
353.60	1.5	28.79	39.08
250.00	2.0	36.99	76.07
176.80	2.5	18.49	94.56
125.00	3.0	2.63	97.18
88.39	3.5	0.00	97.18
63.00	4.0	0.00	97.18
44.20	4.5	0.34	97.53
31.30	5.0	0.66	98.18
22.10	5.5	0.34	98.52
15.60	6.0	0.17	98.69
11.00	6.5	0.29	98.98
7.80	7.0	0.39	99.37
5.50	7.5	0.35	99.72
3.90	8.0	0.24	99.96
2.75	8.5	0.04	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.57	No Data
Skewness	-0.01	No Data
Kurtosis	1.08	No Data
Mean [µm]	317.83	Medium Sand
Mean [phi]	1.65	
Median [µm]	319.20	Medium Sand
Median [phi]	1.65	
Gravel [%]	2.47	Slightly Gravelly Sand
Sand [%]	94.71	
Mud [%]	2.82	



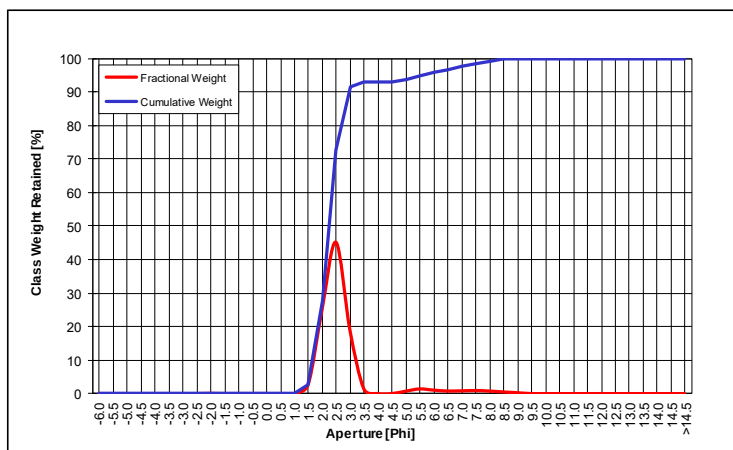
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST148

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.07	0.07
2800	-1.5	0.00	0.07
2000	-1.0	0.01	0.08
1400	-0.5	0.01	0.09
1000	0.0	0.01	0.10
707.00	0.5	0.00	0.10
500.00	1.0	0.00	0.10
353.60	1.5	2.63	2.73
250.00	2.0	24.93	27.66
176.80	2.5	44.96	72.62
125.00	3.0	18.84	91.46
88.39	3.5	1.38	92.84
63.00	4.0	0.00	92.84
44.20	4.5	0.00	92.84
31.30	5.0	0.72	93.56
22.10	5.5	1.39	94.95
15.60	6.0	1.03	95.98
11.00	6.5	0.76	96.75
7.80	7.0	0.82	97.57
5.50	7.5	0.91	98.48
3.90	8.0	0.75	99.23
2.75	8.5	0.49	99.73
1.95	9.0	0.26	99.99
1.38	9.5	0.01	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.86	Moderately Sorted
Skewness	0.36	Very Fine Skewed
Kurtosis	2.65	Very Leptokurtic
Mean [μm]	207.02	Fine Sand
Mean [phi]	2.27	
Median [μm]	210.46	Fine Sand
Median [phi]	2.25	
Gravel [%]	0.08	Slightly Gravelly Sand
Sand [%]	92.76	
Mud [%]	7.16	

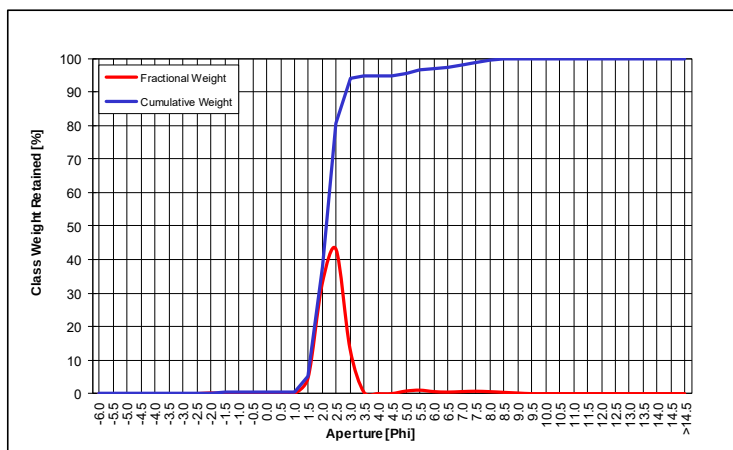


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST149

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.21	0.21
2800	-1.5	0.05	0.26
2000	-1.0	0.04	0.31
1400	-0.5	0.03	0.34
1000	0.0	0.02	0.36
707.00	0.5	0.00	0.36
500.00	1.0	0.00	0.36
353.60	1.5	4.73	5.09
250.00	2.0	32.55	37.64
176.80	2.5	43.05	80.69
125.00	3.0	13.49	94.18
88.39	3.5	0.44	94.62
63.00	4.0	0.00	94.62
44.20	4.5	0.01	94.63
31.30	5.0	0.76	95.39
22.10	5.5	1.04	96.43
15.60	6.0	0.61	97.04
11.00	6.5	0.46	97.50
7.80	7.0	0.61	98.10
5.50	7.5	0.72	98.82
3.90	8.0	0.60	99.42
2.75	8.5	0.39	99.81
1.95	9.0	0.19	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.73	Moderately Sorted
Skewness	0.30	Very Fine Skewed
Kurtosis	2.12	Very Leptokurtic
Mean [μm]	226.17	Fine Sand
Mean [phi]	2.14	
Median [μm]	226.33	Fine Sand
Median [phi]	2.14	
Gravel [%]	0.31	Slightly Gravelly Sand
Sand [%]	94.31	
Mud [%]	5.38	

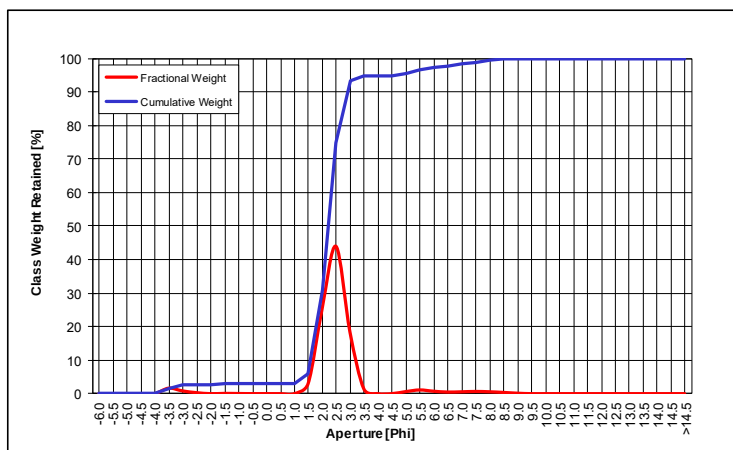


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST150

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	1.64	1.64
8000	-3.0	0.81	2.45
5600	-2.5	0.30	2.75
4000	-2.0	0.00	2.75
2800	-1.5	0.08	2.83
2000	-1.0	0.05	2.88
1400	-0.5	0.01	2.89
1000	0.0	0.01	2.90
707.00	0.5	0.00	2.90
500.00	1.0	0.01	2.90
353.60	1.5	2.98	5.88
250.00	2.0	25.19	31.07
176.80	2.5	43.91	74.98
125.00	3.0	18.39	93.37
88.39	3.5	1.39	94.76
63.00	4.0	0.00	94.77
44.20	4.5	0.00	94.77
31.30	5.0	0.62	95.38
22.10	5.5	1.11	96.49
15.60	6.0	0.73	97.22
11.00	6.5	0.48	97.70
7.80	7.0	0.56	98.26
5.50	7.5	0.66	98.92
3.90	8.0	0.57	99.49
2.75	8.5	0.37	99.86
1.95	9.0	0.14	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.77	Moderately Sorted
Skewness	0.25	Fine Skewed
Kurtosis	2.20	Very Leptokurtic
Mean [μm]	214.57	Fine Sand
Mean [phi]	2.22	
Median [μm]	215.31	Fine Sand
Median [phi]	2.22	
Gravel [%]	2.88	Slightly Gravelly Sand
Sand [%]	91.89	
Mud [%]	5.23	

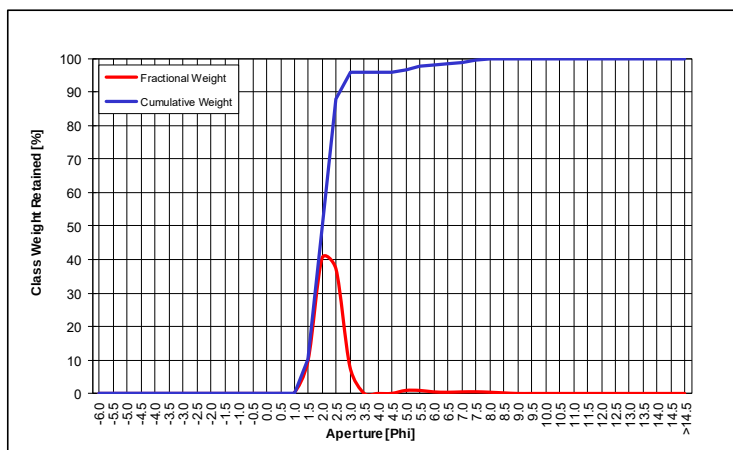


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

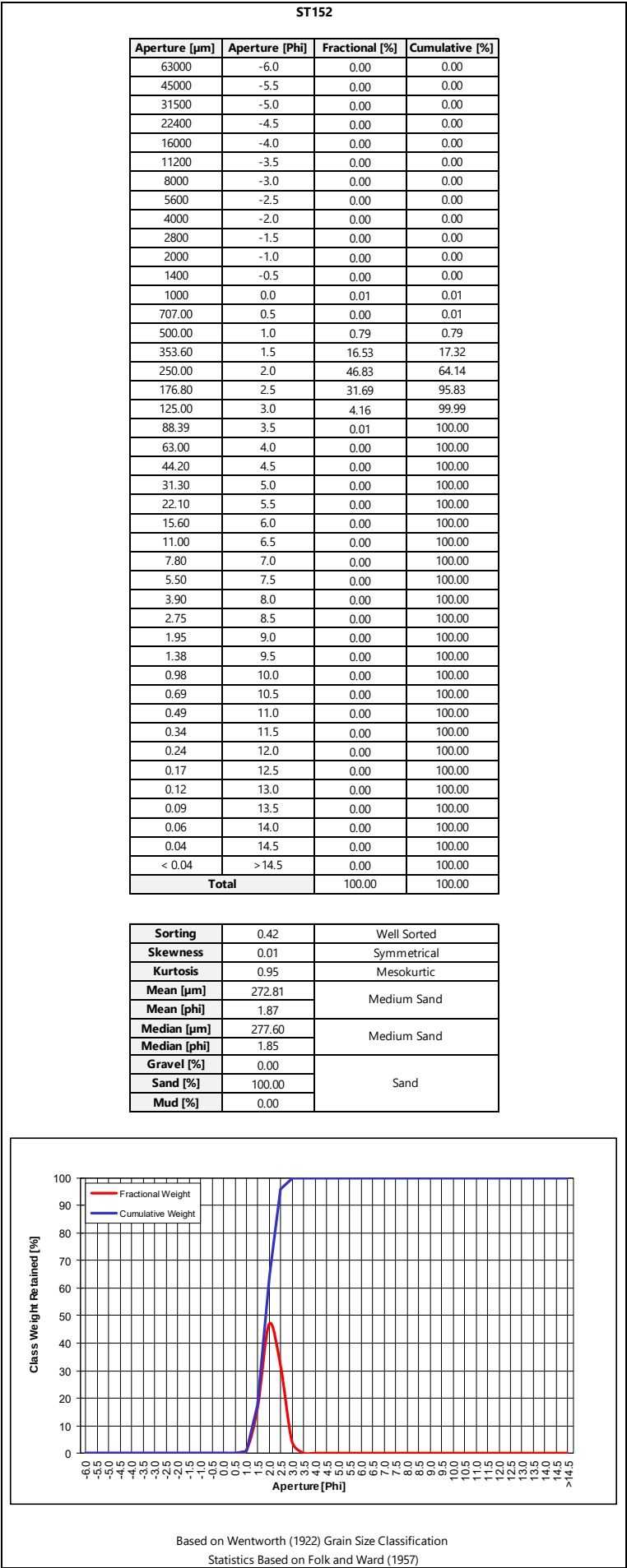
ST151

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.00	0.00
2000	-1.0	0.00	0.00
1400	-0.5	0.00	0.00
1000	0.0	0.00	0.00
707.00	0.5	0.00	0.00
500.00	1.0	0.20	0.20
353.60	1.5	9.91	10.11
250.00	2.0	40.44	50.55
176.80	2.5	37.21	87.76
125.00	3.0	7.95	95.71
88.39	3.5	0.08	95.79
63.00	4.0	0.00	95.79
44.20	4.5	0.03	95.82
31.30	5.0	0.90	96.72
22.10	5.5	0.91	97.63
15.60	6.0	0.47	98.10
11.00	6.5	0.36	98.46
7.80	7.0	0.47	98.93
5.50	7.5	0.51	99.44
3.90	8.0	0.38	99.82
2.75	8.5	0.18	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.48	Well Sorted
Skewness	0.08	Symmetrical
Kurtosis	1.09	Mesokurtic
Mean [μm]	249.12	Fine Sand
Mean [phi]	2.01	
Median [μm]	251.18	Medium Sand
Median [phi]	1.99	
Gravel [%]	0.00	Sand
Sand [%]	95.79	
Mud [%]	4.21	



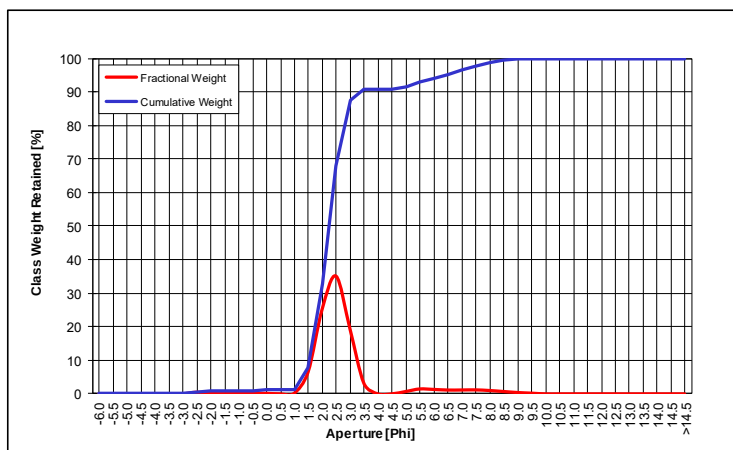
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



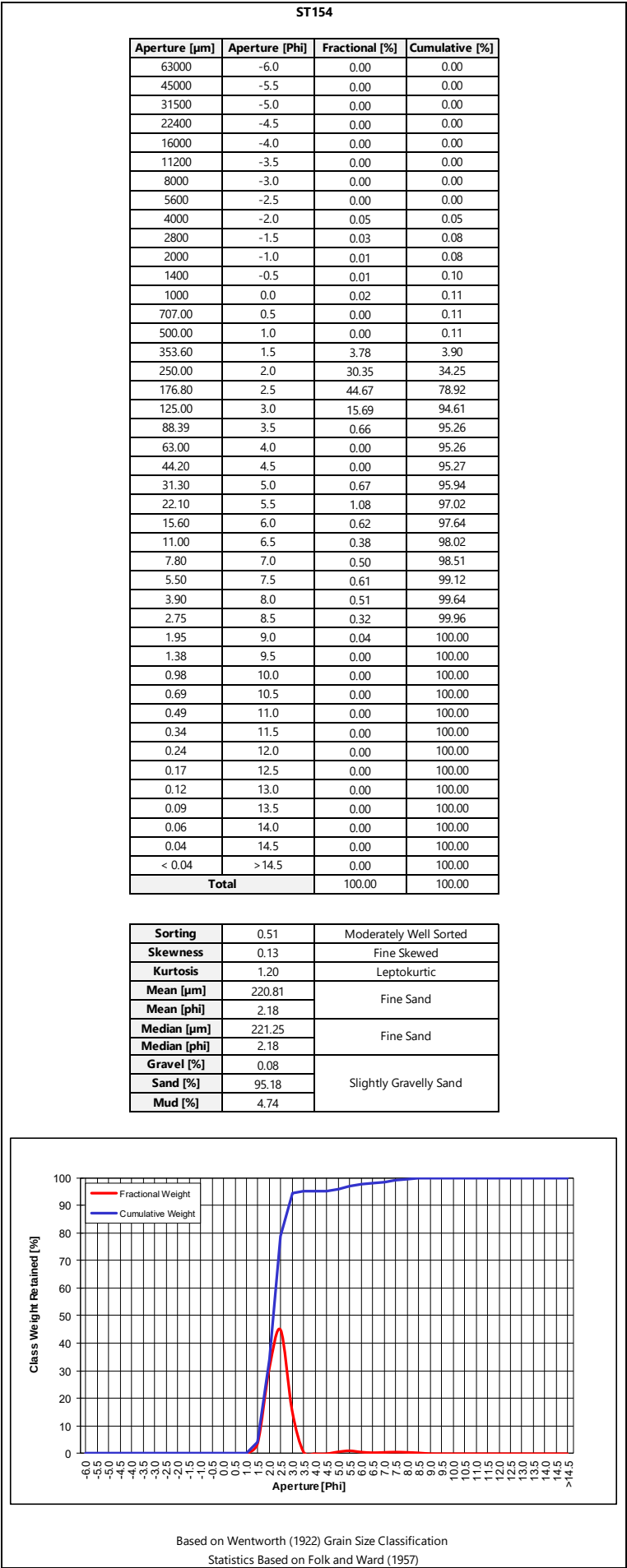
ST153

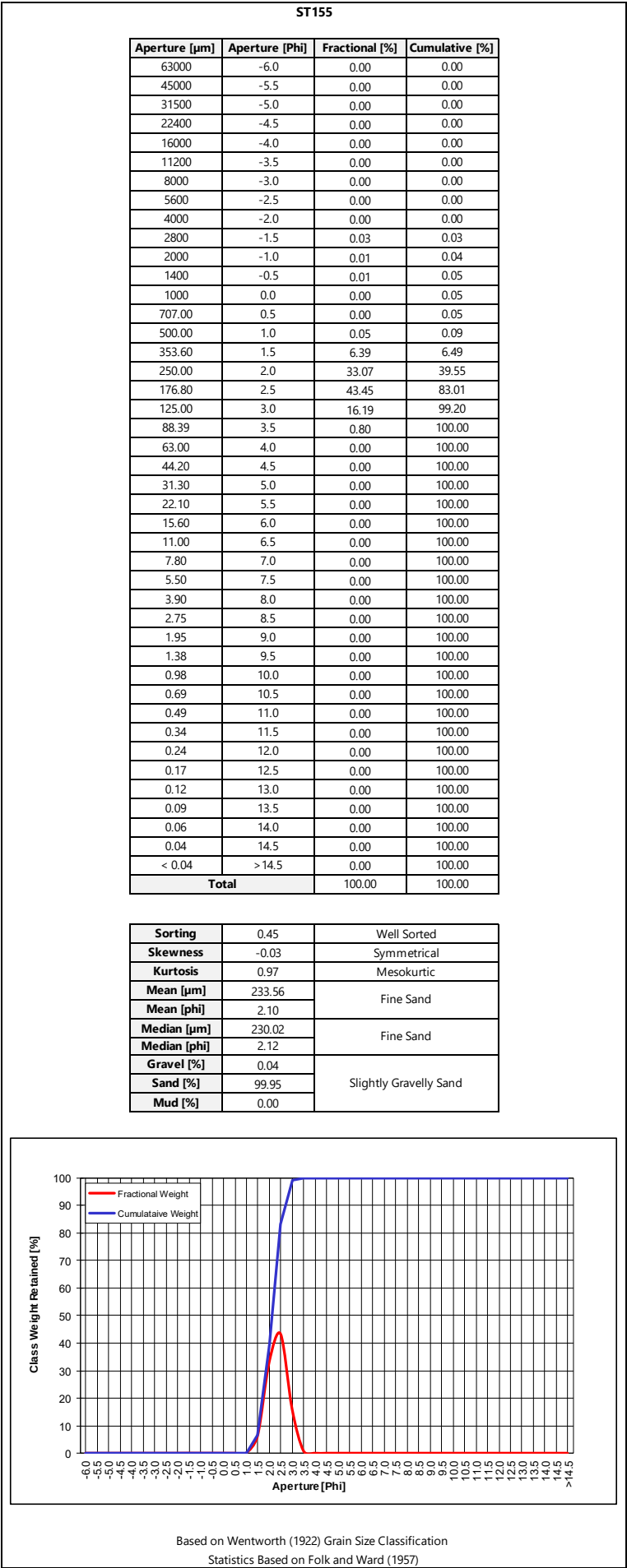
Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.49	0.49
4000	-2.0	0.12	0.62
2800	-1.5	0.07	0.68
2000	-1.0	0.09	0.77
1400	-0.5	0.12	0.89
1000	0.0	0.16	1.05
707.00	0.5	0.00	1.05
500.00	1.0	0.18	1.23
353.60	1.5	6.53	7.75
250.00	2.0	25.15	32.91
176.80	2.5	35.14	68.05
125.00	3.0	19.44	87.48
88.39	3.5	3.16	90.64
63.00	4.0	0.01	90.65
44.20	4.5	0.00	90.65
31.30	5.0	0.70	91.36
22.10	5.5	1.47	92.82
15.60	6.0	1.33	94.15
11.00	6.5	1.15	95.30
7.80	7.0	1.16	96.46
5.50	7.5	1.20	97.66
3.90	8.0	1.01	98.66
2.75	8.5	0.71	99.37
1.95	9.0	0.41	99.78
1.38	9.5	0.22	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

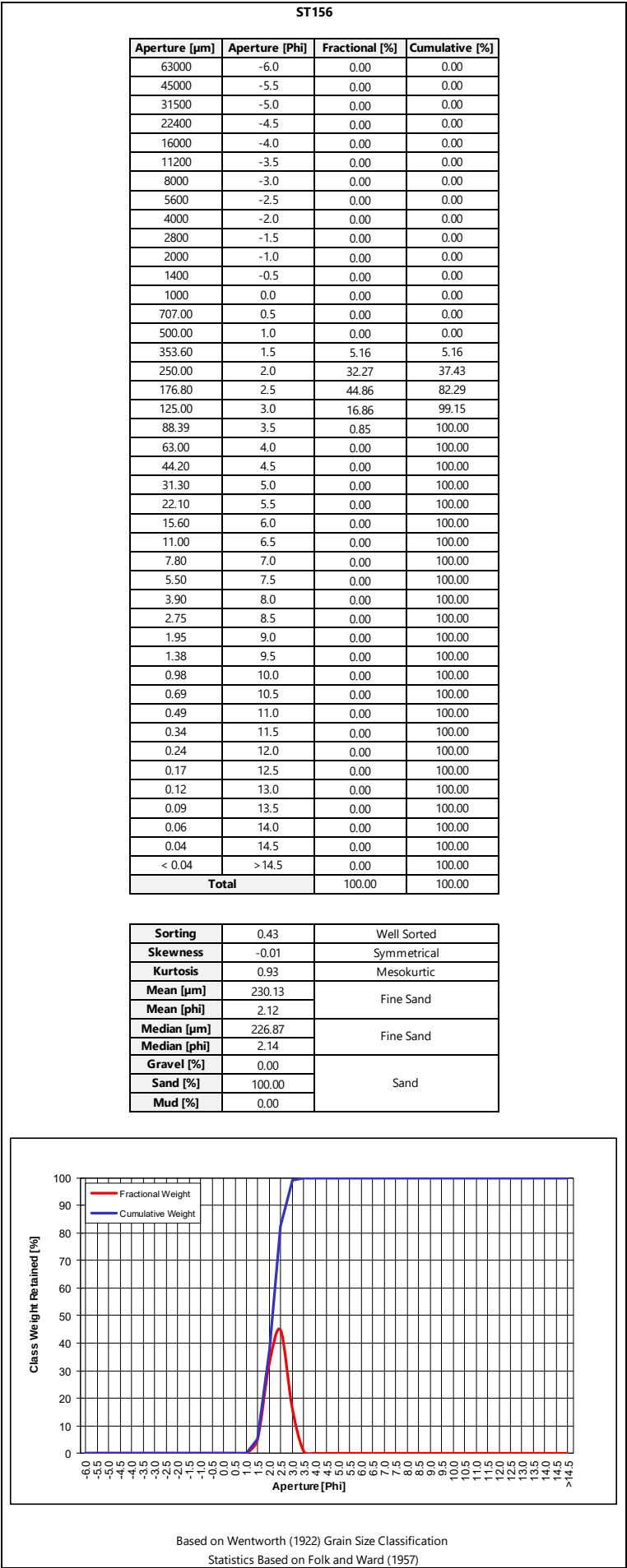
Sorting	1.08	Poorly Sorted
Skewness	0.35	Very Fine Skewed
Kurtosis	2.49	Very Leptokurtic
Mean [μm]	206.98	Fine Sand
Mean [phi]	2.27	
Median [μm]	211.23	Fine Sand
Median [phi]	2.24	
Gravel [%]	0.77	Slightly Gravelly Sand
Sand [%]	89.88	
Mud [%]	9.35	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



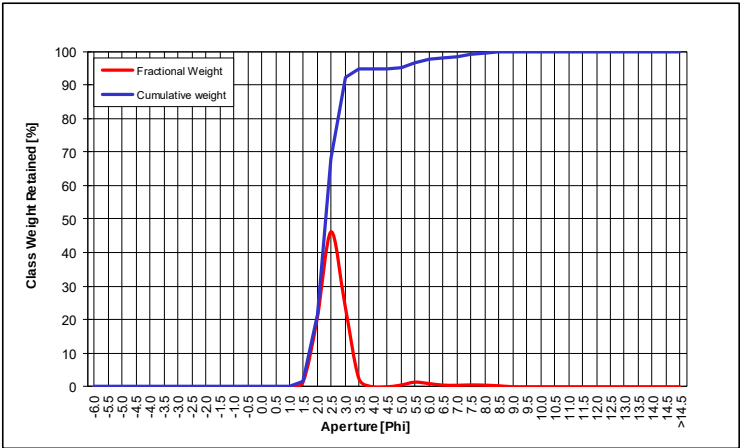




ST157

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.00	0.00
2000	-1.0	0.01	0.01
1400	-0.5	0.01	0.02
1000	0.0	0.01	0.03
707.00	0.5	0.00	0.03
500.00	1.0	0.00	0.03
353.60	1.5	1.48	1.52
250.00	2.0	20.08	21.60
176.80	2.5	46.18	67.78
125.00	3.0	24.44	92.22
88.39	3.5	2.46	94.68
63.00	4.0	0.01	94.69
44.20	4.5	0.00	94.69
31.30	5.0	0.51	95.20
22.10	5.5	1.39	96.59
15.60	6.0	0.99	97.58
11.00	6.5	0.52	98.10
7.80	7.0	0.47	98.57
5.50	7.5	0.57	99.14
3.90	8.0	0.50	99.64
2.75	8.5	0.32	99.96
1.95	9.0	0.04	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.73	Moderately Sorted
Skewness	0.32	Very Fine Skewed
Kurtosis	2.16	Very Leptokurtic
Mean [µm]	198.44	Fine Sand
Mean [phi]	2.33	
Median [µm]	202.03	Fine Sand
Median [phi]	2.31	
Gravel [%]	0.01	Slightly Gravelly Sand
Sand [%]	94.67	
Mud [%]	5.31	



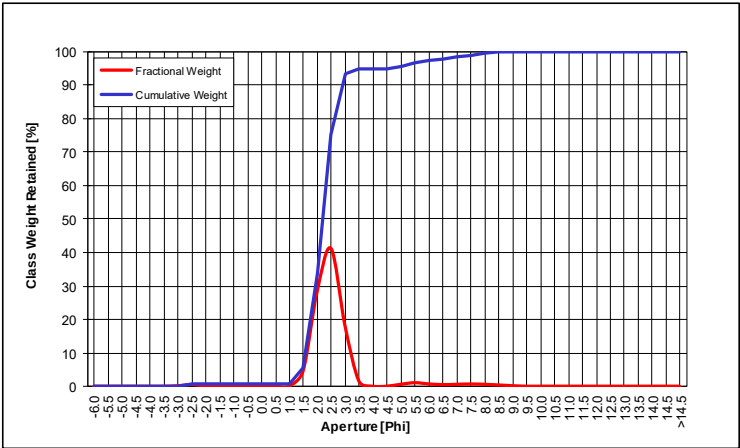
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST158

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.13	0.13
5600	-2.5	0.48	0.61
4000	-2.0	0.10	0.72
2800	-1.5	0.07	0.79
2000	-1.0	0.09	0.87
1400	-0.5	0.02	0.90
1000	0.0	0.03	0.93
707.00	0.5	0.00	0.93
500.00	1.0	0.01	0.93
353.60	1.5	4.59	5.52
250.00	2.0	28.28	33.80
176.80	2.5	41.35	75.14
125.00	3.0	18.24	93.39
88.39	3.5	1.55	94.94
63.00	4.0	0.00	94.94
44.20	4.5	0.00	94.94
31.30	5.0	0.57	95.51
22.10	5.5	1.05	96.55
15.60	6.0	0.69	97.24
11.00	6.5	0.47	97.71
7.80	7.0	0.56	98.27
5.50	7.5	0.66	98.93
3.90	8.0	0.56	99.49
2.75	8.5	0.37	99.86
1.95	9.0	0.14	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.74	Moderately Sorted
Skewness	0.28	Fine Skewed
Kurtosis	1.95	Very Leptokurtic
Mean [µm]	216.45	Fine Sand
Mean [phi]	2.21	
Median [µm]	218.26	Fine Sand
Median [phi]	2.20	
Gravel [%]	0.87	Slightly Gravelly Sand
Sand [%]	94.06	
Mud [%]	5.06	



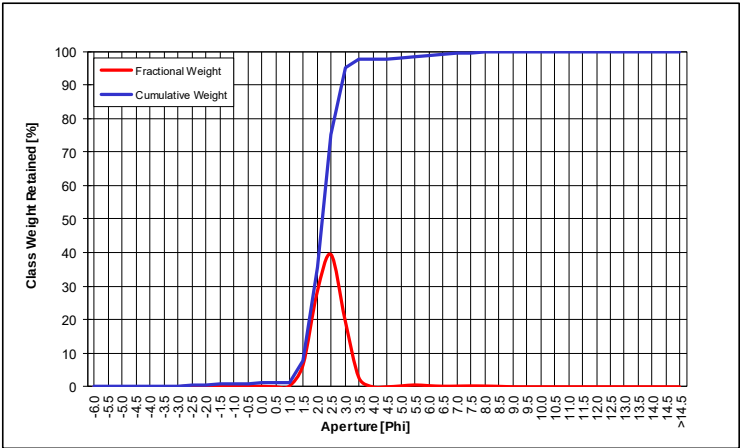
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST159

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.29	0.29
4000	-2.0	0.22	0.51
2800	-1.5	0.10	0.61
2000	-1.0	0.12	0.74
1400	-0.5	0.13	0.87
1000	0.0	0.16	1.03
707.00	0.5	0.00	1.03
500.00	1.0	0.18	1.21
353.60	1.5	6.57	7.78
250.00	2.0	27.95	35.73
176.80	2.5	39.30	75.02
125.00	3.0	20.04	95.07
88.39	3.5	2.71	97.78
63.00	4.0	0.00	97.78
44.20	4.5	0.00	97.78
31.30	5.0	0.26	98.04
22.10	5.5	0.56	98.60
15.60	6.0	0.34	98.95
11.00	6.5	0.18	99.12
7.80	7.0	0.21	99.33
5.50	7.5	0.27	99.60
3.90	8.0	0.23	99.83
2.75	8.5	0.15	99.98
1.95	9.0	0.02	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.53	Moderately Well Sorted
Skewness	-0.02	Symmetrical
Kurtosis	1.01	Mesokurtic
Mean [µm]	220.05	Fine Sand
Mean [phi]	2.18	
Median [µm]	220.44	Fine Sand
Median [phi]	2.18	
Gravel [%]	0.74	Slightly Gravelly Sand
Sand [%]	97.05	
Mud [%]	2.22	



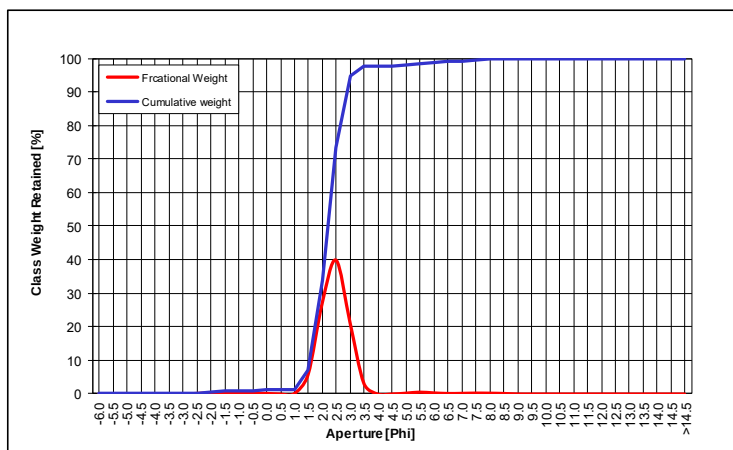
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



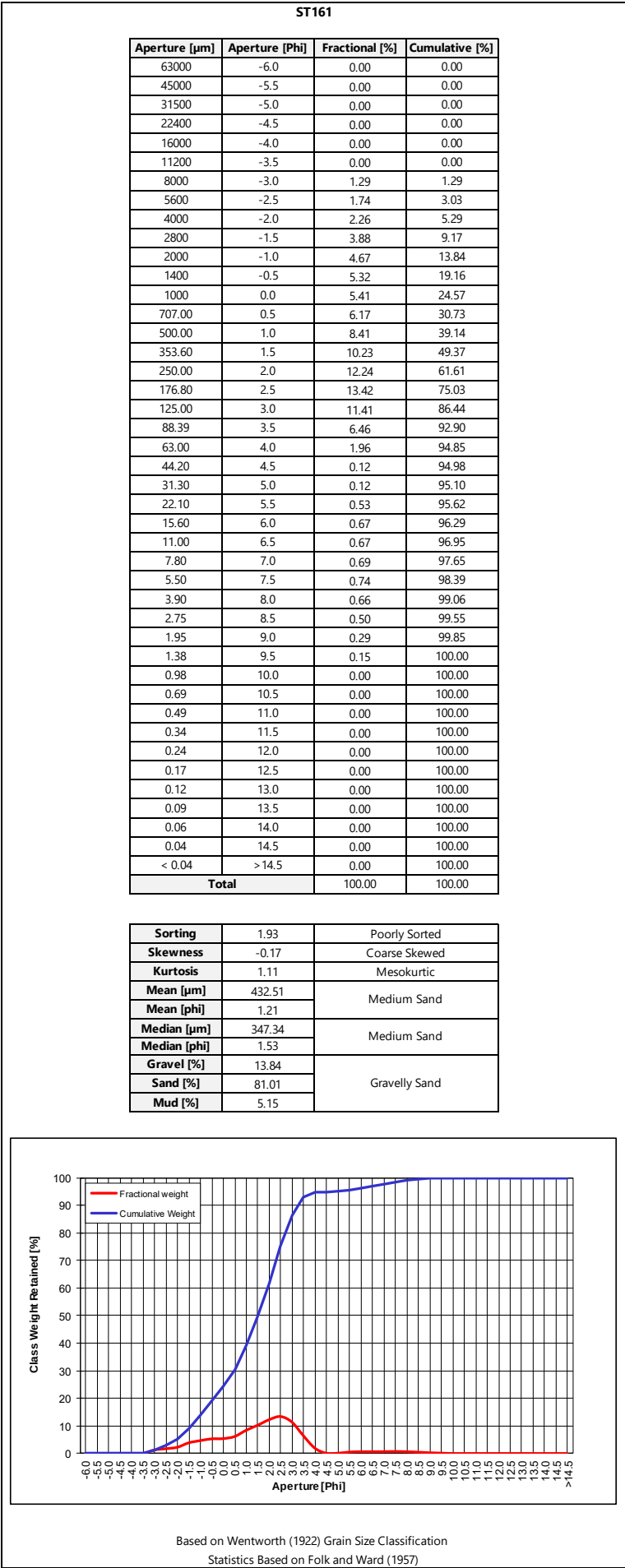
ST160

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.17	0.17
4000	-2.0	0.31	0.48
2800	-1.5	0.17	0.65
2000	-1.0	0.14	0.79
1400	-0.5	0.18	0.97
1000	0.0	0.18	1.15
707.00	0.5	0.00	1.15
500.00	1.0	0.11	1.26
353.60	1.5	5.77	7.03
250.00	2.0	26.68	33.71
176.80	2.5	39.65	73.36
125.00	3.0	21.29	94.65
88.39	3.5	3.16	97.81
63.00	4.0	0.00	97.81
44.20	4.5	0.00	97.81
31.30	5.0	0.24	98.05
22.10	5.5	0.55	98.60
15.60	6.0	0.33	98.93
11.00	6.5	0.16	99.09
7.80	7.0	0.20	99.29
5.50	7.5	0.27	99.57
3.90	8.0	0.25	99.81
2.75	8.5	0.17	99.98
1.95	9.0	0.02	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.53	Moderately Well Sorted
Skewness	-0.01	Symmetrical
Kurtosis	1.01	Mesokurtic
Mean [μm]	216.48	Fine Sand
Mean [phi]	2.21	
Median [μm]	216.84	Fine Sand
Median [phi]	2.21	
Gravel [%]	0.79	Slightly Gravelly Sand
Sand [%]	97.02	
Mud [%]	2.19	



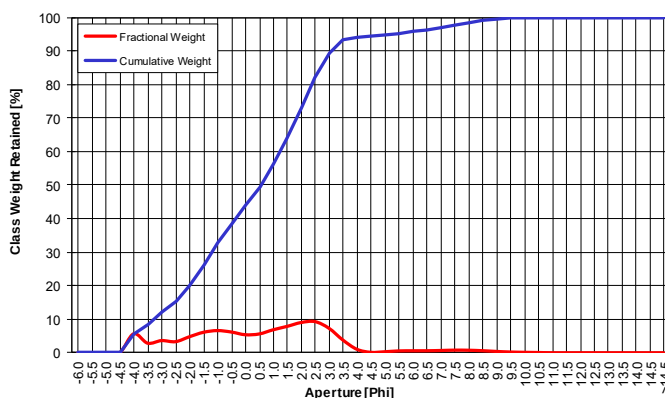
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST162

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	5.60	5.60
11200	-3.5	2.82	8.42
8000	-3.0	3.59	12.01
5600	-2.5	3.27	15.28
4000	-2.0	4.73	20.01
2800	-1.5	6.03	26.04
2000	-1.0	6.54	32.58
1400	-0.5	6.12	38.69
1000	0.0	5.32	44.01
707.00	0.5	5.54	49.55
500.00	1.0	6.78	56.33
353.60	1.5	7.77	64.11
250.00	2.0	8.91	73.02
176.80	2.5	9.18	82.20
125.00	3.0	7.23	89.42
88.39	3.5	3.75	93.18
63.00	4.0	1.04	94.22
44.20	4.5	0.13	94.35
31.30	5.0	0.30	94.64
22.10	5.5	0.54	95.19
15.60	6.0	0.59	95.77
11.00	6.5	0.60	96.37
7.80	7.0	0.67	97.04
5.50	7.5	0.77	97.81
3.90	8.0	0.75	98.56
2.75	8.5	0.61	99.17
1.95	9.0	0.39	99.56
1.38	9.5	0.22	99.79
0.98	10.0	0.13	99.92
0.69	10.5	0.08	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.68	Very Poorly Sorted
Skewness	-0.07	Symmetrical
Kurtosis	1.04	Mesokurtic
Mean [μm]	841.67	Coarse Sand
Mean [phi]	0.25	
Median [μm]	691.02	Coarse Sand
Median [phi]	0.53	
Gravel [%]	32.58	Sandy Gravel
Sand [%]	61.64	
Mud [%]	5.78	

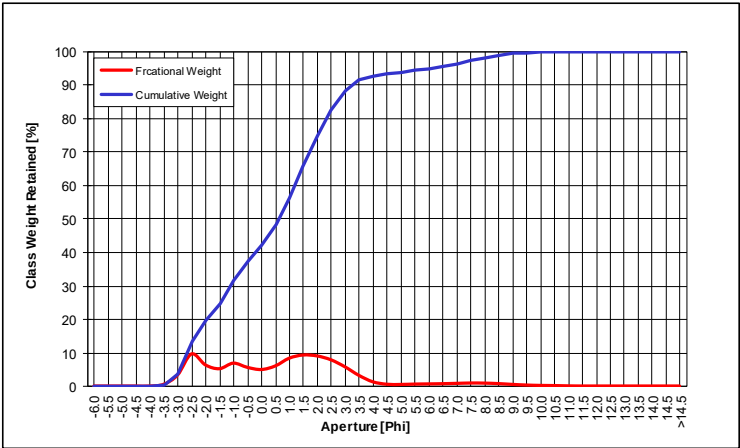


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST163

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.52	0.52
8000	-3.0	3.29	3.81
5600	-2.5	9.59	13.40
4000	-2.0	6.30	19.69
2800	-1.5	5.17	24.87
2000	-1.0	6.83	31.70
1400	-0.5	5.58	37.27
1000	0.0	4.93	42.20
707.00	0.5	5.99	48.19
500.00	1.0	8.31	56.50
353.60	1.5	9.27	65.77
250.00	2.0	8.99	74.76
176.80	2.5	7.83	82.58
125.00	3.0	5.74	88.32
88.39	3.5	3.18	91.50
63.00	4.0	1.26	92.76
44.20	4.5	0.52	93.28
31.30	5.0	0.46	93.74
22.10	5.5	0.57	94.32
15.60	6.0	0.63	94.94
11.00	6.5	0.69	95.63
7.80	7.0	0.79	96.42
5.50	7.5	0.89	97.31
3.90	8.0	0.86	98.17
2.75	8.5	0.72	98.89
1.95	9.0	0.48	99.37
1.38	9.5	0.29	99.65
0.98	10.0	0.17	99.83
0.69	10.5	0.13	99.96
0.49	11.0	0.04	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.59	Very Poorly Sorted
Skewness	0.02	Symmetrical
Kurtosis	1.05	Mesokurtic
Mean [µm]	803.41	Coarse Sand
Mean [phi]	0.32	
Median [µm]	655.71	Coarse Sand
Median [phi]	0.61	
Gravel [%]	31.70	Muddy Sandy Gravel
Sand [%]	61.06	
Mud [%]	7.24	



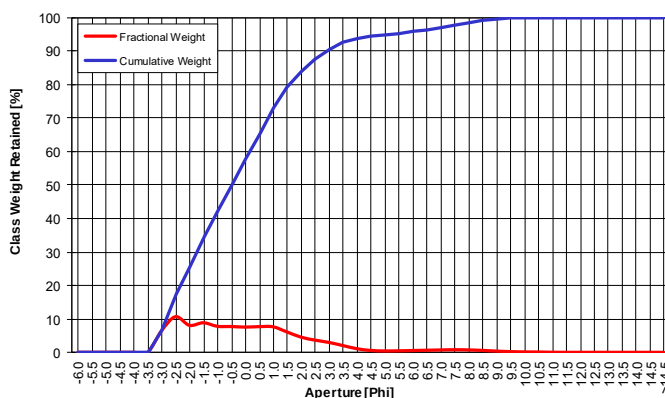
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST164

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	6.55	6.55
5600	-2.5	10.77	17.32
4000	-2.0	8.16	25.48
2800	-1.5	8.94	34.42
2000	-1.0	7.87	42.29
1400	-0.5	7.80	50.09
1000	0.0	7.63	57.72
707.00	0.5	7.77	65.49
500.00	1.0	7.71	73.20
353.60	1.5	6.15	79.35
250.00	2.0	4.59	83.94
176.80	2.5	3.69	87.63
125.00	3.0	2.99	90.62
88.39	3.5	2.05	92.67
63.00	4.0	1.09	93.76
44.20	4.5	0.57	94.33
31.30	5.0	0.41	94.74
22.10	5.5	0.46	95.20
15.60	6.0	0.54	95.73
11.00	6.5	0.63	96.36
7.80	7.0	0.72	97.08
5.50	7.5	0.79	97.87
3.90	8.0	0.73	98.60
2.75	8.5	0.58	99.18
1.95	9.0	0.37	99.55
1.38	9.5	0.21	99.76
0.98	10.0	0.12	99.88
0.69	10.5	0.09	99.97
0.49	11.0	0.03	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	2.41	Very Poorly Sorted
Skewness	0.24	Fine Skewed
Kurtosis	1.08	Mesokurtic
Mean [μm]	1269.11	Very Coarse Sand
Mean [phi]	-0.34	
Median [μm]	1405.68	Very Coarse Sand
Median [phi]	-0.49	
Gravel [%]	42.29	Muddy Sandy Gravel
Sand [%]	51.47	
Mud [%]	6.24	

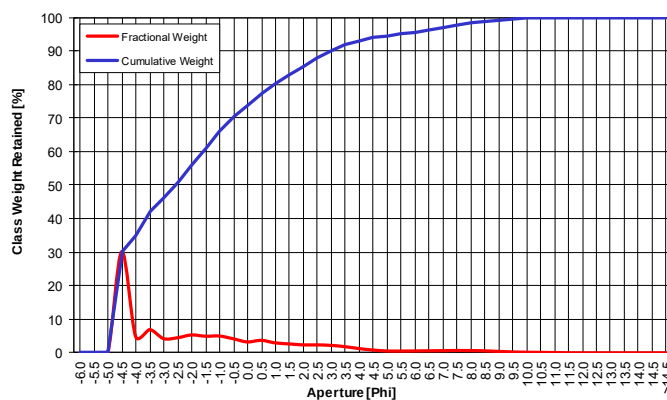


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST165

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	30.24	30.24
16000	-4.0	4.81	35.05
11200	-3.5	6.95	42.00
8000	-3.0	4.26	46.26
5600	-2.5	4.51	50.77
4000	-2.0	5.34	56.12
2800	-1.5	4.97	61.09
2000	-1.0	5.03	66.12
1400	-0.5	4.20	70.32
1000	0.0	3.26	73.58
707.00	0.5	3.73	77.32
500.00	1.0	2.98	80.30
353.60	1.5	2.68	82.97
250.00	2.0	2.37	85.35
176.80	2.5	2.38	87.73
125.00	3.0	2.23	89.96
88.39	3.5	1.85	91.81
63.00	4.0	1.29	93.10
44.20	4.5	0.84	93.94
31.30	5.0	0.56	94.50
22.10	5.5	0.53	95.03
15.60	6.0	0.57	95.60
11.00	6.5	0.62	96.22
7.80	7.0	0.65	96.87
5.50	7.5	0.70	97.57
3.90	8.0	0.68	98.25
2.75	8.5	0.60	98.85
1.95	9.0	0.43	99.28
1.38	9.5	0.28	99.56
0.98	10.0	0.19	99.75
0.69	10.5	0.15	99.89
0.49	11.0	0.09	99.98
0.34	11.5	0.02	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	3.18	Very Poorly Sorted
Skewness	0.44	Very Fine Skewed
Kurtosis	0.89	Platykurtic
Mean [μm]	3625.42	Granule
Mean [phi]	-1.86	
Median [μm]	5952.76	Pebble
Median [phi]	-2.57	
Gravel [%]	66.12	Muddy Sandy Gravel
Sand [%]	26.98	
Mud [%]	6.90	

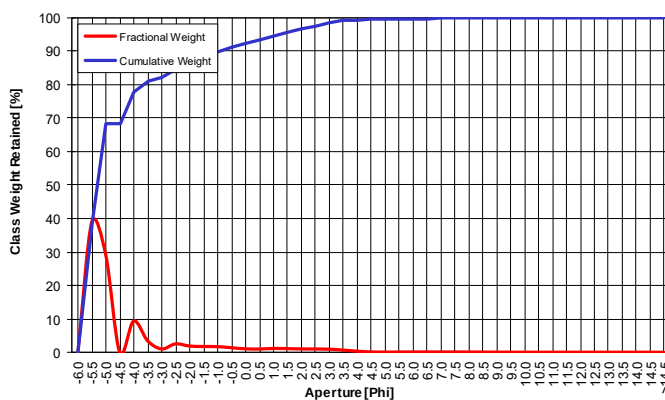


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

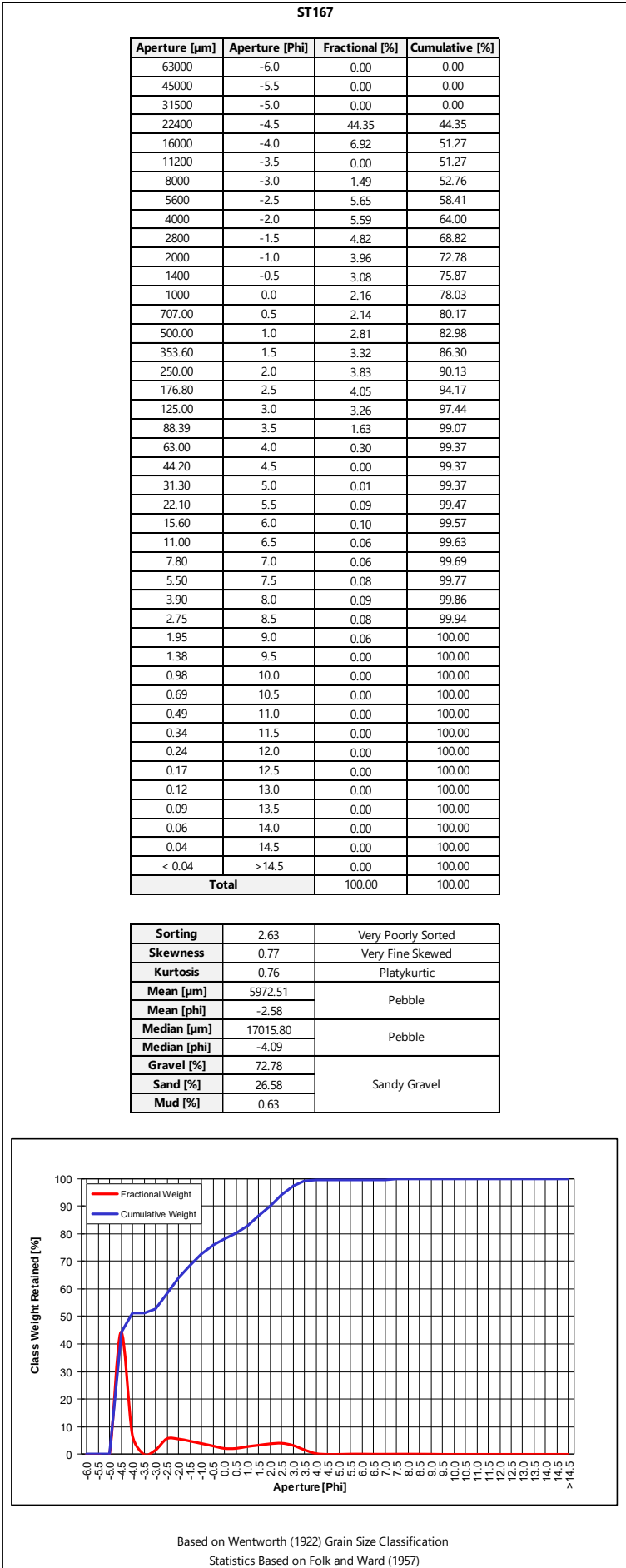
ST166

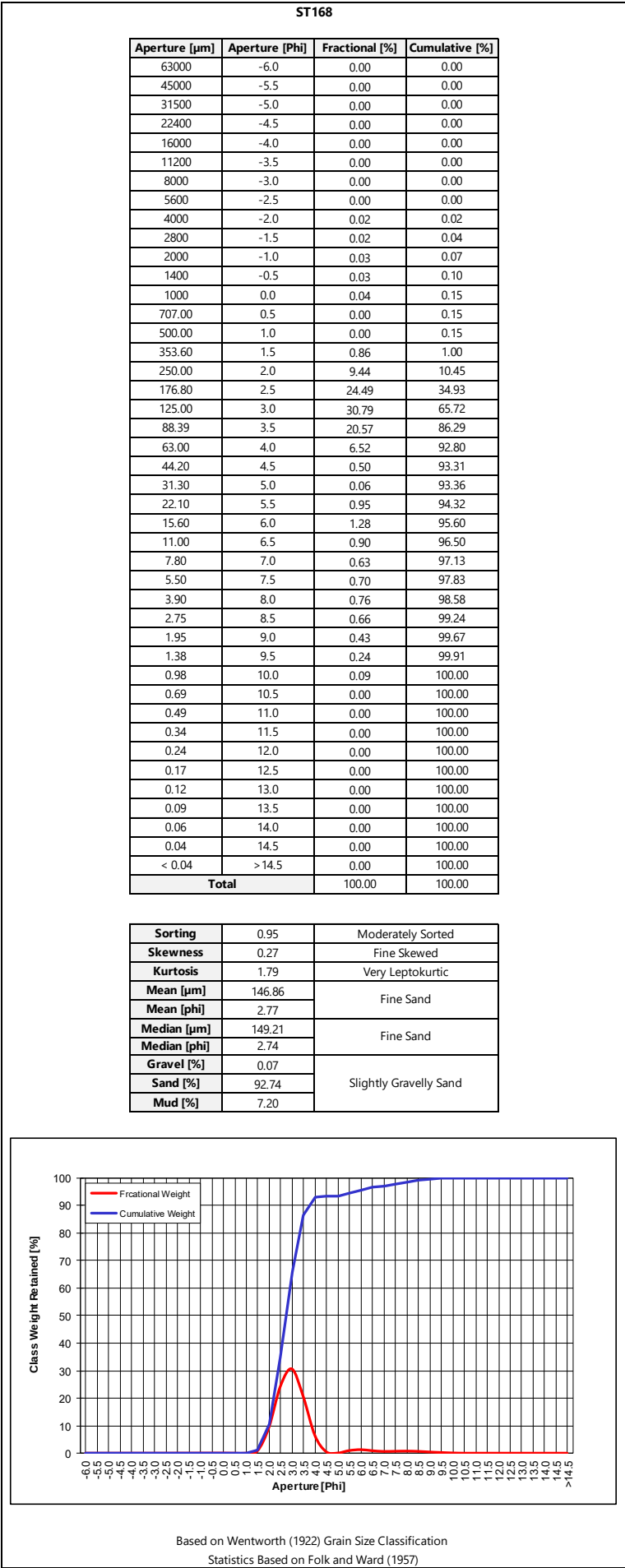
Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	39.11	39.11
31500	-5.0	29.16	68.28
22400	-4.5	0.00	68.28
16000	-4.0	9.38	77.66
11200	-3.5	3.43	81.09
8000	-3.0	1.00	82.08
5600	-2.5	2.51	84.60
4000	-2.0	1.87	86.46
2800	-1.5	1.72	88.19
2000	-1.0	1.69	89.87
1400	-0.5	1.35	91.23
1000	0.0	1.03	92.25
707.00	0.5	0.97	93.22
500.00	1.0	1.14	94.36
353.60	1.5	1.09	95.44
250.00	2.0	0.99	96.43
176.80	2.5	0.98	97.41
125.00	3.0	0.92	98.33
88.39	3.5	0.66	98.99
63.00	4.0	0.31	99.30
44.20	4.5	0.10	99.40
31.30	5.0	0.04	99.44
22.10	5.5	0.06	99.50
15.60	6.0	0.08	99.59
11.00	6.5	0.08	99.67
7.80	7.0	0.08	99.75
5.50	7.5	0.08	99.82
3.90	8.0	0.07	99.89
2.75	8.5	0.05	99.94
1.95	9.0	0.03	99.98
1.38	9.5	0.02	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.89	Poorly Sorted
Skewness	0.76	Very Fine Skewed
Kurtosis	1.93	Very Leptokurtic
Mean [μm]	23621.29	Pebble
Mean [phi]	-4.56	
Median [μm]	39389.78	Pebble
Median [phi]	-5.30	
Gravel [%]	89.87	Gravel
Sand [%]	9.43	
Mud [%]	0.70	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

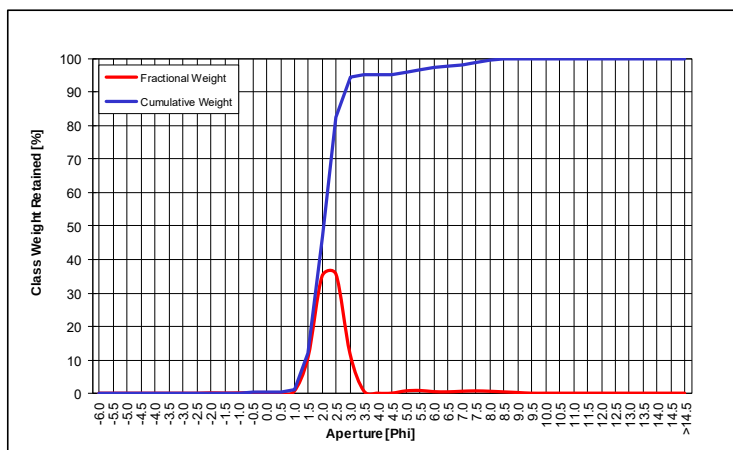




ST169

Aperture [μm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.10	0.10
2800	-1.5	0.05	0.15
2000	-1.0	0.09	0.24
1400	-0.5	0.17	0.41
1000	0.0	0.18	0.59
707.00	0.5	0.00	0.59
500.00	1.0	0.54	1.13
353.60	1.5	10.82	11.96
250.00	2.0	35.03	46.98
176.80	2.5	35.63	82.62
125.00	3.0	11.91	94.53
88.39	3.5	0.65	95.18
63.00	4.0	0.00	95.18
44.20	4.5	0.02	95.20
31.30	5.0	0.68	95.88
22.10	5.5	0.81	96.69
15.60	6.0	0.46	97.16
11.00	6.5	0.40	97.56
7.80	7.0	0.57	98.13
5.50	7.5	0.69	98.82
3.90	8.0	0.58	99.40
2.75	8.5	0.39	99.79
1.95	9.0	0.21	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.58	Moderately Well Sorted
Skewness	0.12	Fine Skewed
Kurtosis	1.26	Leptokurtic
Mean [μm]	241.06	Fine Sand
Mean [phi]	2.05	
Median [μm]	242.78	Fine Sand
Median [phi]	2.04	
Gravel [%]	0.24	Slightly Gravelly Sand
Sand [%]	94.94	
Mud [%]	4.82	

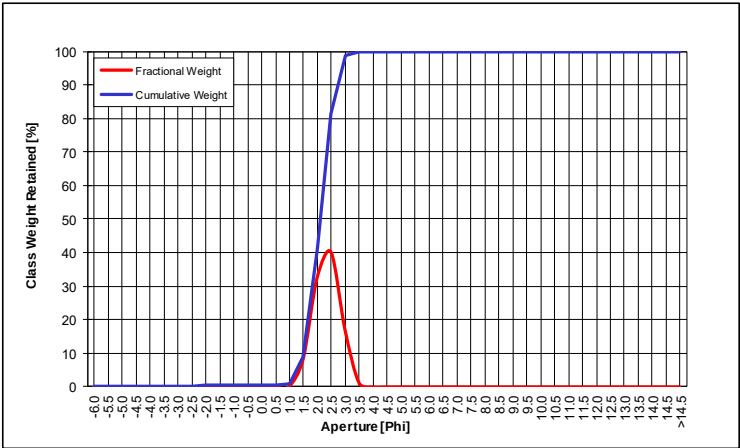


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST170

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.10	0.10
5600	-2.5	0.00	0.10
4000	-2.0	0.23	0.33
2800	-1.5	0.04	0.38
2000	-1.0	0.09	0.47
1400	-0.5	0.03	0.50
1000	0.0	0.03	0.52
707.00	0.5	0.00	0.52
500.00	1.0	0.15	0.68
353.60	1.5	8.27	8.95
250.00	2.0	32.43	41.38
176.80	2.5	40.14	81.52
125.00	3.0	17.14	98.66
88.39	3.5	1.34	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.49	Well Sorted
Skewness	-0.04	Symmetrical
Kurtosis	1.00	Mesokurtic
Mean [µm]	233.91	Fine Sand
Mean [phi]	2.10	
Median [µm]	232.08	Fine Sand
Median [phi]	2.11	
Gravel [%]	0.47	Slightly Gravelly Sand
Sand [%]	99.50	
Mud [%]	0.00	



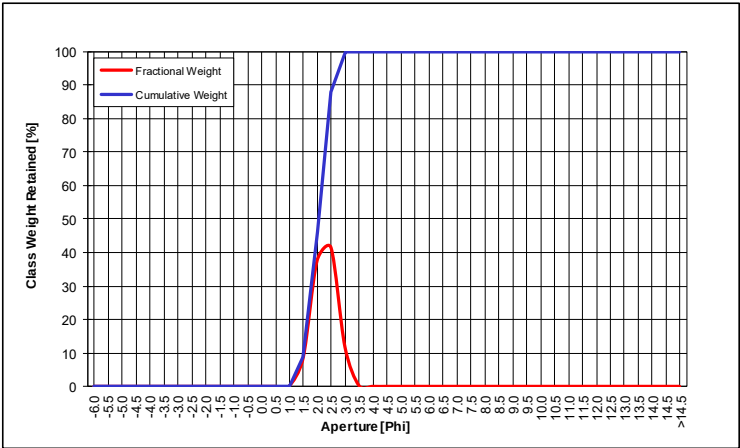
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST171

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.00	0.00
2000	-1.0	0.00	0.00
1400	-0.5	0.00	0.00
1000	0.0	0.00	0.00
707.00	0.5	0.00	0.00
500.00	1.0	0.11	0.11
353.60	1.5	8.50	8.60
250.00	2.0	37.67	46.28
176.80	2.5	41.61	87.89
125.00	3.0	11.84	99.72
88.39	3.5	0.28	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.44	Well Sorted
Skewness	-0.02	Symmetrical
Kurtosis	0.99	Mesokurtic
Mean [µm]	244.52	Fine Sand
Mean [phi]	2.03	
Median [µm]	242.37	Fine Sand
Median [phi]	2.04	
Gravel [%]	0.00	Sand
Sand [%]	100.00	
Mud [%]	0.00	



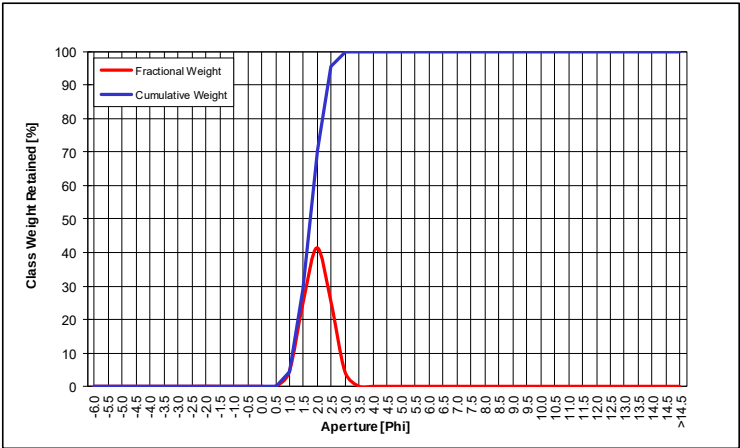
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST172

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.03	0.03
2800	-1.5	0.00	0.03
2000	-1.0	0.00	0.03
1400	-0.5	0.00	0.03
1000	0.0	0.00	0.03
707.00	0.5	0.00	0.03
500.00	1.0	4.23	4.26
353.60	1.5	24.95	29.21
250.00	2.0	41.26	70.47
176.80	2.5	25.14	95.61
125.00	3.0	4.37	99.98
88.39	3.5	0.02	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.48	Well Sorted
Skewness	0.00	Symmetrical
Kurtosis	0.89	Platykurtic
Mean [µm]	296.89	Medium Sand
Mean [phi]	1.75	
Median [µm]	296.92	Medium Sand
Median [phi]	1.75	
Gravel [%]	0.03	Slightly Gravelly Sand
Sand [%]	99.97	
Mud [%]	0.00	



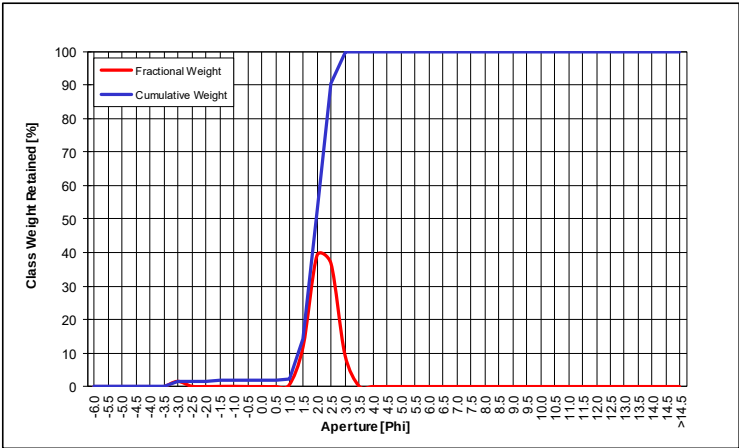
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST173

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	1.56	1.56
5600	-2.5	0.11	1.66
4000	-2.0	0.00	1.66
2800	-1.5	0.04	1.71
2000	-1.0	0.06	1.77
1400	-0.5	0.01	1.78
1000	0.0	0.01	1.79
707.00	0.5	0.00	1.79
500.00	1.0	0.45	2.24
353.60	1.5	11.94	14.18
250.00	2.0	39.27	53.45
176.80	2.5	36.84	90.29
125.00	3.0	9.51	99.80
88.39	3.5	0.20	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.47	Well Sorted
Skewness	0.00	Symmetrical
Kurtosis	1.02	Mesokurtic
Mean [µm]	256.23	Medium Sand
Mean [phi]	1.96	
Median [µm]	257.74	Medium Sand
Median [phi]	1.96	
Gravel [%]	1.77	Slightly Gravelly Sand
Sand [%]	98.23	
Mud [%]	0.00	



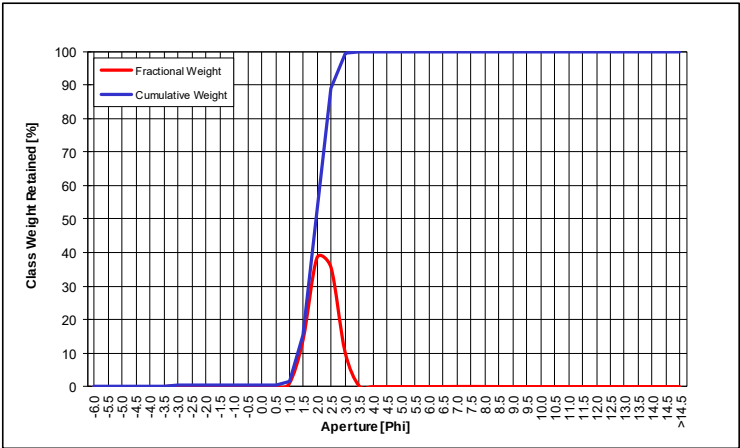
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST174

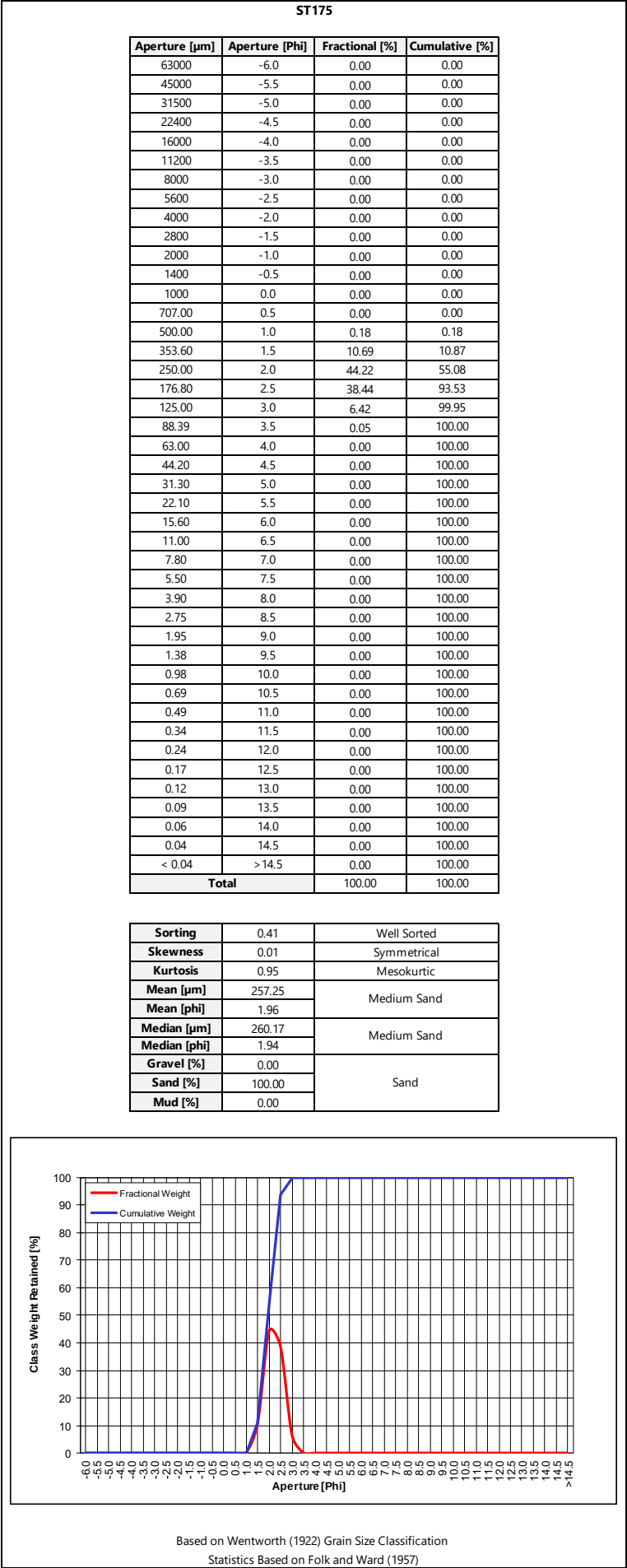
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.29	0.29
5600	-2.5	0.00	0.29
4000	-2.0	0.25	0.54
2800	-1.5	0.00	0.54
2000	-1.0	0.02	0.56
1400	-0.5	0.02	0.58
1000	0.0	0.01	0.59
707.00	0.5	0.00	0.59
500.00	1.0	0.85	1.44
353.60	1.5	13.94	15.38
250.00	2.0	38.31	53.68
176.80	2.5	35.42	89.10
125.00	3.0	10.46	99.56
88.39	3.5	0.30	99.86
63.00	4.0	0.00	99.86
44.20	4.5	0.00	99.86
31.30	5.0	0.00	99.86
22.10	5.5	0.00	99.86
15.60	6.0	0.00	99.86
11.00	6.5	0.01	99.87
7.80	7.0	0.04	99.91
5.50	7.5	0.04	99.95
3.90	8.0	0.03	99.99
2.75	8.5	0.01	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.48	Well Sorted
Skewness	0.02	Symmetrical
Kurtosis	1.00	Mesokurtic
Mean [µm]	256.57	Medium Sand
Mean [phi]	1.96	
Median [µm]	258.47	Medium Sand
Median [phi]	1.95	
Gravel [%]	0.56	Slightly Gravelly Sand
Sand [%]	99.30	
Mud [%]	0.14	



Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

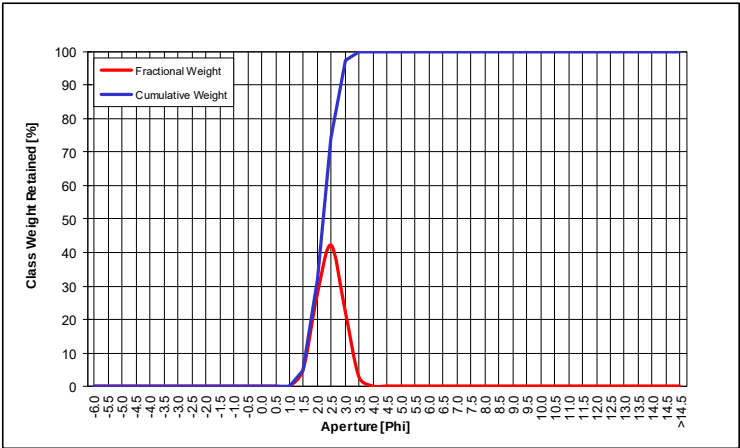




ST176

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.00	0.00
2000	-1.0	0.00	0.00
1400	-0.5	0.00	0.00
1000	0.0	0.00	0.00
707.00	0.5	0.00	0.00
500.00	1.0	0.01	0.01
353.60	1.5	4.89	4.90
250.00	2.0	27.13	32.02
176.80	2.5	42.25	74.28
125.00	3.0	22.93	97.20
88.39	3.5	2.80	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.47	Well Sorted
Skewness	0.01	Symmetrical
Kurtosis	0.92	Mesokurtic
Mean [µm]	216.18	Fine Sand
Mean [phi]	2.21	
Median [µm]	215.74	Fine Sand
Median [phi]	2.21	
Gravel [%]	0.00	Sand
Sand [%]	100.00	
Mud [%]	0.00	



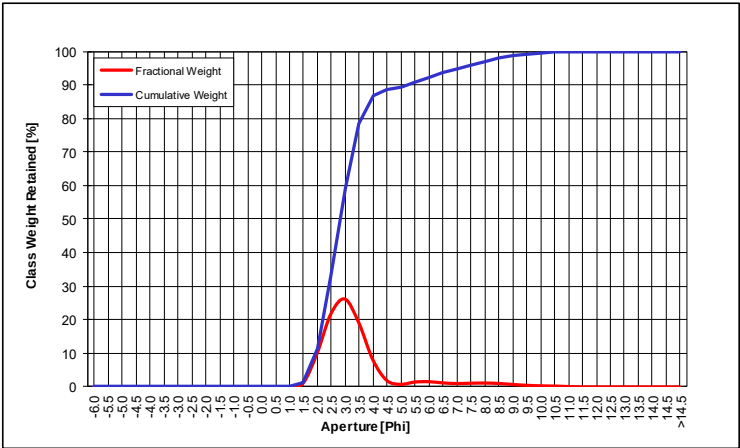
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST177

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.01	0.01
2800	-1.5	0.03	0.05
2000	-1.0	0.04	0.09
1400	-0.5	0.02	0.10
1000	0.0	0.04	0.14
707.00	0.5	0.00	0.14
500.00	1.0	0.00	0.14
353.60	1.5	1.13	1.28
250.00	2.0	9.98	11.26
176.80	2.5	21.89	33.15
125.00	3.0	26.26	59.41
88.39	3.5	19.12	78.52
63.00	4.0	8.13	86.65
44.20	4.5	1.95	88.60
31.30	5.0	0.79	89.39
22.10	5.5	1.46	90.85
15.60	6.0	1.58	92.43
11.00	6.5	1.23	93.66
7.80	7.0	1.02	94.68
5.50	7.5	1.12	95.80
3.90	8.0	1.17	96.97
2.75	8.5	1.05	98.01
1.95	9.0	0.76	98.77
1.38	9.5	0.50	99.27
0.98	10.0	0.34	99.61
0.69	10.5	0.27	99.87
0.49	11.0	0.13	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	1.26	Poorly Sorted
Skewness	0.38	Very Fine Skewed
Kurtosis	2.05	Very Leptokurtic
Mean [µm]	132.17	Fine Sand
Mean [phi]	2.92	
Median [µm]	141.53	Fine Sand
Median [phi]	2.82	
Gravel [%]	0.09	Slightly Gravelly Muddy Sand
Sand [%]	86.56	
Mud [%]	13.35	

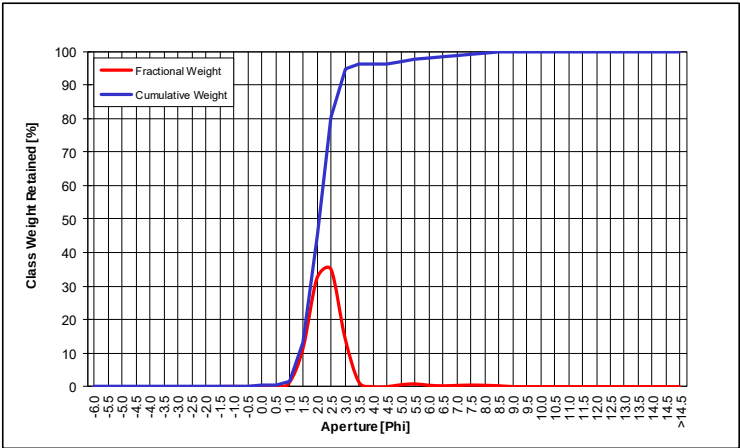


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)

ST178

Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.00	0.00
4000	-2.0	0.00	0.00
2800	-1.5	0.04	0.04
2000	-1.0	0.07	0.11
1400	-0.5	0.03	0.14
1000	0.0	0.12	0.27
707.00	0.5	0.00	0.27
500.00	1.0	1.15	1.41
353.60	1.5	11.54	12.96
250.00	2.0	32.38	45.34
176.80	2.5	34.99	80.33
125.00	3.0	14.64	94.97
88.39	3.5	1.37	96.34
63.00	4.0	0.00	96.34
44.20	4.5	0.01	96.35
31.30	5.0	0.57	96.91
22.10	5.5	0.83	97.74
15.60	6.0	0.44	98.18
11.00	6.5	0.26	98.43
7.80	7.0	0.37	98.80
5.50	7.5	0.48	99.28
3.90	8.0	0.41	99.69
2.75	8.5	0.27	99.97
1.95	9.0	0.03	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.55	Moderately Well Sorted
Skewness	0.03	Symmetrical
Kurtosis	1.03	Mesokurtic
Mean [µm]	236.59	Fine Sand
Mean [phi]	2.08	
Median [µm]	238.73	Fine Sand
Median [phi]	2.07	
Gravel [%]	0.11	Slightly Gravelly Sand
Sand [%]	96.23	
Mud [%]	3.66	



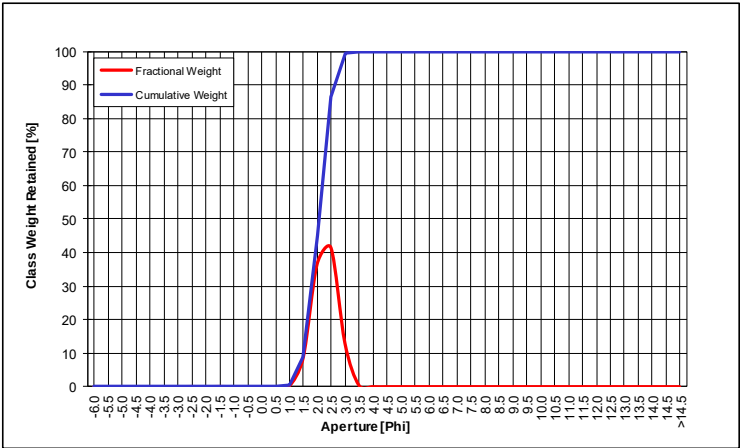
Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)



ST179

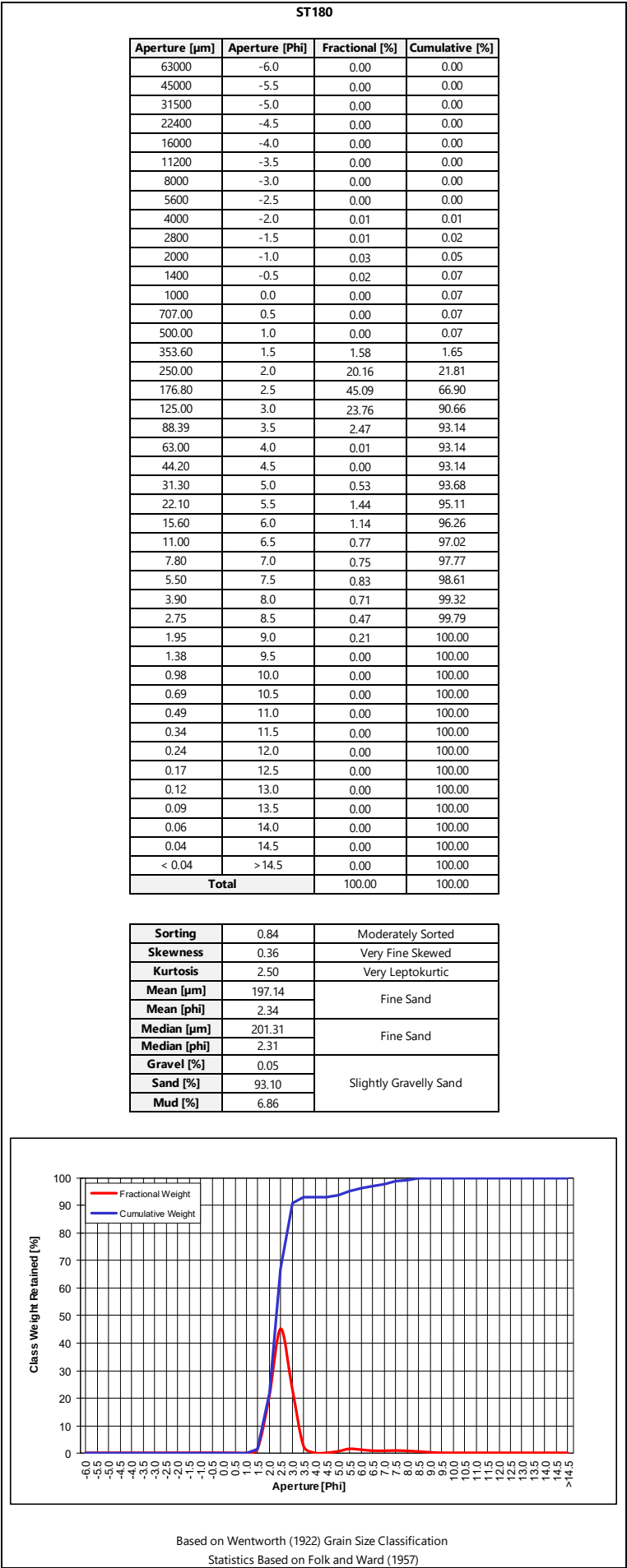
Aperture [µm]	Aperture [Phi]	Fractional [%]	Cumulative [%]
63000	-6.0	0.00	0.00
45000	-5.5	0.00	0.00
31500	-5.0	0.00	0.00
22400	-4.5	0.00	0.00
16000	-4.0	0.00	0.00
11200	-3.5	0.00	0.00
8000	-3.0	0.00	0.00
5600	-2.5	0.05	0.05
4000	-2.0	0.00	0.05
2800	-1.5	0.06	0.10
2000	-1.0	0.00	0.10
1400	-0.5	0.02	0.12
1000	0.0	0.00	0.12
707.00	0.5	0.00	0.12
500.00	1.0	0.15	0.27
353.60	1.5	8.54	8.81
250.00	2.0	36.44	45.25
176.80	2.5	41.35	86.60
125.00	3.0	12.96	99.56
88.39	3.5	0.44	100.00
63.00	4.0	0.00	100.00
44.20	4.5	0.00	100.00
31.30	5.0	0.00	100.00
22.10	5.5	0.00	100.00
15.60	6.0	0.00	100.00
11.00	6.5	0.00	100.00
7.80	7.0	0.00	100.00
5.50	7.5	0.00	100.00
3.90	8.0	0.00	100.00
2.75	8.5	0.00	100.00
1.95	9.0	0.00	100.00
1.38	9.5	0.00	100.00
0.98	10.0	0.00	100.00
0.69	10.5	0.00	100.00
0.49	11.0	0.00	100.00
0.34	11.5	0.00	100.00
0.24	12.0	0.00	100.00
0.17	12.5	0.00	100.00
0.12	13.0	0.00	100.00
0.09	13.5	0.00	100.00
0.06	14.0	0.00	100.00
0.04	14.5	0.00	100.00
< 0.04	> 14.5	0.00	100.00
Total		100.00	100.00

Sorting	0.45	Well Sorted
Skewness	-0.03	Symmetrical
Kurtosis	0.99	Mesokurtic
Mean [µm]	242.92	Fine Sand
Mean [phi]	2.04	
Median [µm]	240.24	Fine Sand
Median [phi]	2.06	
Gravel [%]	0.10	Slightly Gravelly Sand
Sand [%]	99.90	
Mud [%]	0.00	

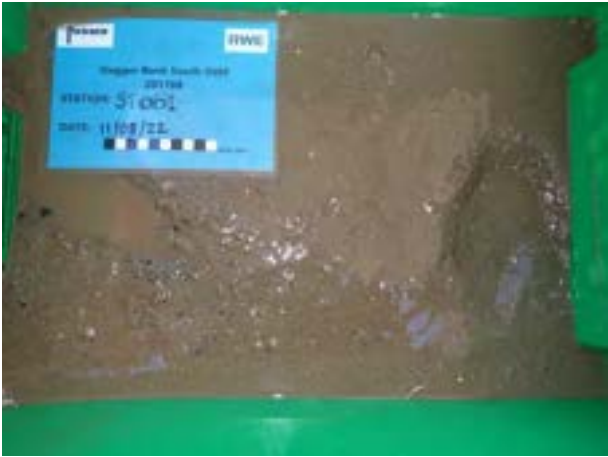


Based on Wentworth (1922) Grain Size Classification
Statistics Based on Folk and Ward (1957)





D.3 Grab Sample Photographs

	
Station ST001	
	
Station ST002	
	
Station ST003	



Station ST004



Station ST005



Station ST006



Station ST007



Station ST008



Station ST009



Station ST010



Station ST011



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Station ST041



Station ST042



Station ST043



Station ST044



Station ST045



Station ST046



Station ST047



Station ST048



Station ST049



Station ST050



Station ST051



Station ST052



Station ST053



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Station ST057



Station ST058



Station ST059



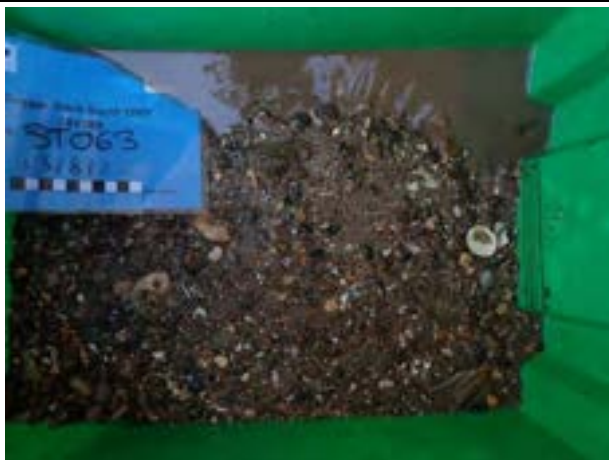
Station ST060



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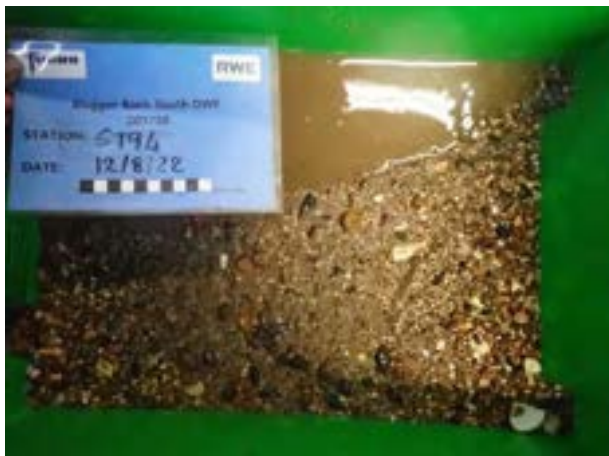
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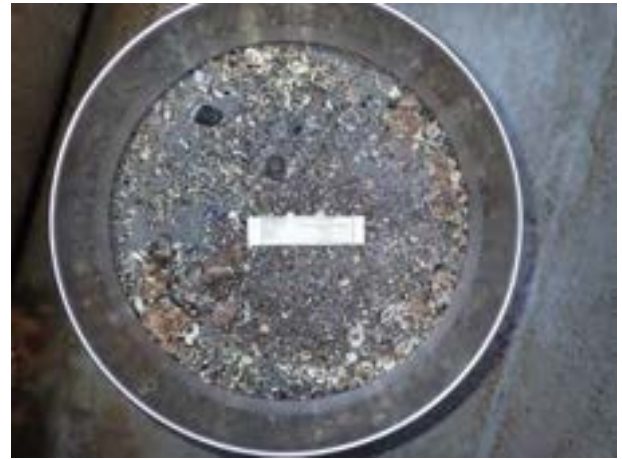
Station ST130



Station ST131



Station ST132



Station ST133



Station ST134



Station ST135



Station ST136



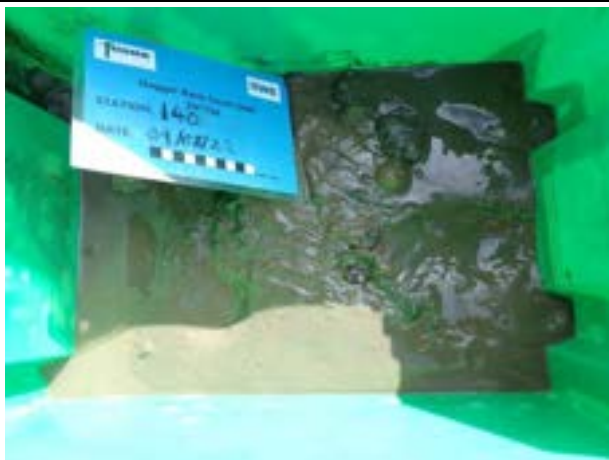
Station ST137



Station ST138



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Station ST140



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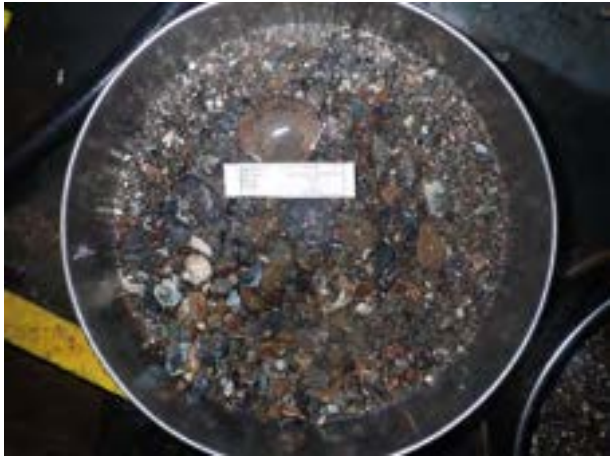
Station ST160



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Station ST165	

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Station ST172



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Station ST174



Station ST175



Station ST176



Station ST177



Station ST178



Station ST179



Station ST180

Appendix E

Chemistry Analysis Certificates

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwell House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ



Test Report ID	MAR01544
Issue Version	1
Customer	Fugro GB Marine Ltd, Victory House, 16 Trafalgar Wharf, Hamilton Road, Portsmouth, Hampshire, PO6 4PX
Customer Reference	201788 - Doggerbank MMO Analysis
Date Sampled	07-19-Aug-2022
Date Received	02-Sep-22
Date Reported	30-Sep-22
Condition of samples	Cold Satisfactory

A handwritten signature in black ink, appearing to read 'M. Hubbard'.

Authorised by: Marya Hubbard
Position: Laboratory Manager

Any additional comments or interpretations found in this report, are outside the scope of UKAS accreditation

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Page 1 of 31

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwell House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ.

Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



Client Reference		SOCOTEC Ref	Matrix	mg/kg (Dry Weight)							
				Method No							
				Limit of Detection							
				Accreditation							
			UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD	
			Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Copper (Cu)	Mercury (Hg)	Nickel (Ni)	Lead (Pb)	Zinc (Zn)	
BT112	MAR01544.001	Sediment	1.4	0.24	12.7	8.8	0.02	12.6	9.4	39.1	
BT117	MAR01544.002	Sediment	3.0	<0.04	5.8	4.7	<0.01	4.7	2.5	14.4	
BT191	MAR01544.003	Sediment	3.1	0.12	5.8	3.9	<0.01	3.5	2.5	13.5	
BT198	MAR01544.004	Sediment	3.0	<0.04	4.4	3.3	<0.01	3.3	2.0	9.8	
BT140	MAR01544.005	Sediment	2.5	0.07	4.5	3.8	<0.01	3.0	1.9	9.0	
BT144	MAR01544.006	Sediment	2.5	<0.04	4.5	3.6	<0.01	3.0	1.9	8.1	
BT146	MAR01544.007	Sediment	2.7	<0.04	5.2	4.1	0.02	3.2	2.3	8.3	
BT163	MAR01544.008	Sediment	15.4	0.13	11.5	8.3	0.01	15.0	4.5	32.9	
BT195	MAR01544.009	Sediment	2.6	<0.04	4.7	3.2	<0.01	3.3	2.2	9.2	
BT176	MAR01544.010	Sediment	3.2	<0.04	5.8	3.5	<0.01	3.8	2.4	12.1	
BT174	MAR01544.011	Sediment	2.9	<0.04	5.0	3.0	<0.01	2.5	2.1	9.5	
BT178	MAR01544.012	Sediment	19.0	<0.04	6.1	4.1	<0.01	4.7	3.2	12.3	
BT195	MAR01544.013	Sediment	2.8	<0.04	3.6	3.0	<0.01	2.3	1.4	15.0	
BT198	MAR01544.014	Sediment	9.9	<0.04	5.2	4.2	0.02	4.0	2.5	12.2	
BT100	MAR01544.015	Sediment	2.2	<0.04	3.4	3.3	<0.01	2.1	1.4	10.1	
BT105	MAR01544.016	Sediment	2.7	<0.04	5.2	3.3	<0.01	2.4	2.2	13.9	
BT100	MAR01544.017	Sediment	8.5	<0.04	5.4	3.7	<0.01	3.6	3.2	14.8	
BT113	MAR01544.018	Sediment	3.7	<0.04	4.3	3.2	<0.01	2.5	1.6	14.5	
BT121	MAR01544.019	Sediment	3.2	<0.04	4.5	3.8	<0.01	2.7	1.7	10.2	
BT125	MAR01544.020	Sediment	24.4	0.14	15.2	7.4	0.02	14.9	5.9	35.0	
BT134	MAR01544.021	Sediment	7.0	<0.04	10.5	7.3	0.03	6.8	5.4	18.9	
BT141	MAR01544.022	Sediment	18.4	0.07	6.9	2.8	0.01	3.4	5.3	15.4	
BT146	MAR01544.023	Sediment	6.5	<0.04	4.4	3.5	<0.01	2.7	3.8	12.0	
BT152	MAR01544.024	Sediment	6.4	<0.04	5.1	5.4	0.01	4.6	5.5	19.4	
BT158	MAR01544.025	Sediment	3.0	0.07	5.1	3.7	<0.01	2.5	5.3	12.2	
BT181	MAR01544.026	Sediment	32.2	0.12	12.3	7.1	0.02	12.2	17.8	37.0	
BT164	MAR01544.027	Sediment	73.4	0.17	12.8	8.2	0.03	16.3	31.5	59.2	
BT158	MAR01544.028	Sediment	14.5	<0.04	11.2	8.0	0.03	9.0	24.6	45.5	
BT172	MAR01544.029	Sediment	13.4	<0.04	7.8	4.5	<0.01	4.4	7.1	16.5	
BT178	MAR01544.030	Sediment	5.8	<0.04	6.8	3.4	<0.01	3.5	5.2	16.3	
Certified Reference Material SETQC 774 (% Recovery)			103	94	99	96	98	101	97	101	
QC Blank			<0.5	<0.04	<0.5	<0.5	<0.01	<0.5	<0.5	<2	

* See Report Notes

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Results contained herein only apply to the sample tested.

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwell House, Bretby Business Park, Ashby Road, Burton upon Trent DE15 0YZ.

Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



		Units	mg/Kg (Dry Weight)	
		Method No	ASO/SOP/Y01	
		Limit of Detection	0.001	0.001
		Accreditation	UKAS/MMD	UKAS/MMD
Client Reference:	SOCOTEC Ref:	Matrix	Dibutyltin (DBT)	Tributyltin (TBT)
BT112	MAR01544.001	Sediment	<0.001	<0.001
BT117	MAR01544.002	Sediment	<0.005	<0.005
BT391	MAR01544.003	Sediment	<0.001	<0.001
BT398	MAR01544.004	Sediment	<0.001	<0.001
BT340	MAR01544.005	Sediment	<0.001	<0.001
BT344	MAR01544.006	Sediment	<0.001	<0.001
BT346	MAR01544.007	Sediment	<0.001	<0.001
BT363	MAR01544.008	Sediment	<0.001	<0.001
BT365	MAR01544.009	Sediment	<0.001	<0.001
BT370	MAR01544.010	Sediment	<0.001	<0.001
Certified Reference Material QSP378MS (% Recovery)			56	51
QC Blank			<0.001	<0.001

* See Report Notes

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Page 3 of 31

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwell House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ.

Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



		Units	mg/Kg (Dry Weight)	
		Method No	ASO/SOP/Y01	
		Limit of Detection	0.001	0.001
		Accreditation	UKAS/MMD	UKAS/MMD
Client Reference	SOCOTEC Ref	Matrix	Diethyltin (DET)	Triethyltin (TET)
ST074	MAR01544.011	Sediment	<0.001	<0.001
ST078	MAR01544.012	Sediment	<0.001	<0.001
ST085	MAR01544.013	Sediment	<0.001	<0.001
ST098	MAR01544.014	Sediment	<0.001	<0.001
ST103	MAR01544.015	Sediment	<0.001	<0.001
ST105	MAR01544.016	Sediment	<0.001	<0.001
ST107	MAR01544.017	Sediment	<0.001	<0.001
ST113	MAR01544.018	Sediment	<0.001	<0.001
ST121	MAR01544.019	Sediment	<0.001	<0.001
ST125	MAR01544.020	Sediment	<0.001	<0.001
Certified Reference Material QSP378MS (% Recovery)			73	54
QC Blank			<0.001	<0.001

* See Report Notes

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Page 4 of 31

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwell House, Bretby Business Park, Ashby Road, Burton upon Trent DE15 0YZ.

Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



		Units	mg/Kg (Dry Weight)	
		Method No	ASO/SOP/Y01	
		Limit of Detection	0.001	0.001
		Accreditation	UKAS/MMD	UKAS/MMD
Client Reference	SOCOTEC Ref	Matrix	Diethyltin (DET)	Triethyltin (TET)
BT134	MAR01544.021	Sediment	<0.001	<0.001
BT141	MAR01544.022	Sediment	<0.001	<0.001
BT146	MAR01544.023	Sediment	<0.001	<0.001
BT152	MAR01544.024	Sediment	<0.001	<0.001
BT158	MAR01544.025	Sediment	<0.001	<0.001
BT161	MAR01544.026	Sediment	<0.001	<0.001
BT164	MAR01544.027	Sediment	<0.001	<0.001
BT166	MAR01544.028	Sediment	<0.001	<0.001
BT172	MAR01544.029	Sediment	<0.001	<0.001
BT178	MAR01544.030	Sediment	<0.001	<0.001
Certified Reference Material QSP378M2 (% Recovery)			99	82
QC Blank			<0.001	<0.001

* See Report Notes

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Results contained hereon only apply to the samples tested.

Page 6 of 31

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwell House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ.

Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD
Client Reference:	SOCOTEC Ref:	Matrix	ACENAPTH	ACENAPHY	ANTHRACEN	BAA	BAP	BBF
BT012	MAR01544.001	Sediment	<1	<1	<1	<1	1.49	2.63
BT017	MAR01544.002	Sediment	<1	<1	1.06	2.19	2.80	2.66
BT031	MAR01544.003	Sediment	<1	<1	<1	<1	<1	<1
BT036	MAR01544.004	Sediment	<1	<1	<1	<1	<1	<1
BT040	MAR01544.005	Sediment	<1	<1	<1	<1	<1	<1
BT044	MAR01544.006	Sediment	<1	<1	<1	<1	<1	<1
BT046	MAR01544.007	Sediment	<1	<1	<1	<1	<1	<1
BT053	MAR01544.008	Sediment	<1	<1	<1	<1	<1	1.01
BT065	MAR01544.009	Sediment	<1	<1	<1	<1	<1	<1
BT070	MAR01544.010	Sediment	<1	<1	<1	<1	<1	<1
Certified Reference Material Quinoline QPH107MS (% Recovery)			83	135	79	81	81	77
QC Blank			<1	<1	<1	<1	<1	<1

→ Indicates result is for an in-house Reference Material as no Certified Reference Materials are available.

For full analysis name see method summaries.

*See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwell House, Bretby Business Park, Ashby Road, Burton upon Trent DE15 0YZ.

Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS/MMD	UKAS/MMD	UKAS/MMD	MMD	MMD	MMD
Client Reference:	SOCOTEC Ref:	Matrix	BN208P	BP	BP*	CM	CPH6.N	CM
BT112	MAR01544.001	Sediment	2.82	2.06	1.55	3.74	3.22	3.45
BT117	MAR01544.002	Sediment	3.23	2.66	2.04	4.76	10.50	7.45
BT391	MAR01544.003	Sediment	<1	<1	<1	<1	<1	<1
BT398	MAR01544.004	Sediment	<1	<1	<1	<1	<1	<1
BT340	MAR01544.005	Sediment	<1	<1	<1	<1	<1	<1
BT344	MAR01544.006	Sediment	<1	<1	<1	<1	2.10	1.25
BT346	MAR01544.007	Sediment	<1	<1	<1	<1	<1	<1
BT353	MAR01544.008	Sediment	<1	<1	<1	1.66	1.03	1.19
BT365	MAR01544.009	Sediment	<1	<1	<1	<1	<1	<1
BT370	MAR01544.010	Sediment	<1	<1	<1	1.10	1.06	1.15
Certified Reference Material Quasimeme QPH107MS (% Recovery)			85	80	75	92	55	79
QC Blank			<1	<1	<1	<1	<1	<1

* Indicates result is for an in-house Reference Material as no Certified Reference Materials are available.

For full analyte names see method summaries.

*See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwell House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ.

Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



		Units	µg/kg (Dry Weight)	µg/kg (Dry Weight)	µg/kg (Dry Weight)	µg/kg (Dry Weight)	µg/kg (Dry Weight)	µg/kg (Dry Weight)
		Method No	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104
		Limit of Detection	1	1	1	1	1	1
		Accreditation	MMD	MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD
Client Reference:	SOCOTEC Ref:	Matrix	CB	CHRYSENE*	DESOXIN	FLUORANE	FLUORENE	INDOPYR
BT112	MAR01544.001	Sediment	3.54	1.68	<1	2.04	<1	2.06
BT117	MAR01544.002	Sediment	12.00	3.24	<1	6.20	<1	1.99
BT391	MAR01544.003	Sediment	<1	<1	<1	<1	<1	<1
BT398	MAR01544.004	Sediment	<1	<1	<1	<1	<1	<1
BT340	MAR01544.005	Sediment	<1	<1	<1	<1	<1	<1
BT344	MAR01544.006	Sediment	1.64	<1	<1	<1	<1	<1
BT348	MAR01544.007	Sediment	1.14	<1	<1	<1	<1	<1
BT353	MAR01544.008	Sediment	<1	<1	<1	<1	<1	<1
BT365	MAR01544.009	Sediment	<1	<1	<1	<1	<1	<1
BT370	MAR01544.010	Sediment	1.29	<1	<1	<1	<1	<1
Certified Reference Material Quinoline QPH107MS (% Recovery)			66	70	84	82	78	82
QC Blank			<1	<1	<1	<1	<1	<1

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For full analysis name see method summaries.

*See report notes

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



		Units	µg/kg (Dry Weight)	µg/kg (Dry Weight)	µg/kg (Dry Weight)	µg/kg (Dry Weight)	mg/kg
Method No		ASO/SOP/303/304	ASO/SOP/303/304	ASO/SOP/303/304	ASO/SOP/303/304	ASO/SOP/305	
Limit of Detection		1	1	1	1	1	
Accreditation		UKAS/MMD	MMD	UKAS/MMD	UKAS/MMD	MMD	
Client Reference	SOCOTEC Ref	Matrix	NRPTH	PERYLENE	PIENANT	PHYENE	THE
BT112	MAR01544.001	Sediment	1.22	1.75	2.67	1.92	22.0
BT117	MAR01544.002	Sediment	1.09	1.87	6.24	5.82	2.02
BT391	MAR01544.003	Sediment	<1	<1	<1	<1	<1
BT398	MAR01544.004	Sediment	<1	<1	<1	<1	<1
BT440	MAR01544.005	Sediment	<1	<1	<1	<1	<1
BT444	MAR01544.006	Sediment	<1	<1	<1	<1	<1
BT448	MAR01544.007	Sediment	<1	<1	<1	<1	<1
BT563	MAR01544.008	Sediment	<1	<1	<1	<1	<1
BT595	MAR01544.009	Sediment	<1	<1	<1	<1	<1
BT670	MAR01544.010	Sediment	<1	<1	<1	<1	<1
Certified Reference Material Quinoline QPH107MS (% Recovery)			82	92	75	79	133
QC Blank			<1	<1	<1	<1	<1

→ Indicates result is for an in-house Reference Material as no Certified Reference Materials are available.

For full analysis name see method summaries.

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD
Client Reference:	SOCOTEC Ref:	Matrix	ACENAPTH	ACENAPHY	ANTHRACEN	BAA	BAP	BBF
ST074	MAR01544.011	Sediment	<1	<1	<1	<1	<1	<1
ST078	MAR01544.012	Sediment	<1	<1	<1	<1	<1	<1
ST085	MAR01544.013	Sediment	<1	<1	<1	<1	<1	<1
ST098	MAR01544.014	Sediment	<1	<1	<1	<1	<1	<1
ST103	MAR01544.015	Sediment	<1	<1	<1	<1	<1	<1
ST105	MAR01544.016	Sediment	<1	<1	<1	<1	<1	<1
ST107	MAR01544.017	Sediment	<1	<1	<1	<1	<1	<1
ST113	MAR01544.018	Sediment	<1	<1	<1	<1	<1	<1
ST121	MAR01544.019	Sediment	<1	<1	<1	<1	<1	<1
ST125	MAR01544.020	Sediment	1.23	1.66	2.74	6.07	5.46	7.37
Certified Reference Material Quinacrine QPH107MS (% Recovery)			78	133	95	81	83	71
QC Blank			<1	<1	<1	<1	<1	<1

→ Indicates result is for an in-house Reference Material as no Certified Reference Materials are available.

For full analysis name see method summaries.

*See report notes

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS/MMD	UKAS/MMD	UKAS/MMD	MMD	MMD	MMD
Client Reference:	SOCOTEC Ref:	Matrix	BENZOPH	BEP	BEP*	CIN	CINPH.N	CIN
BT074	MAR01544.011	Sediment	<1	<1	<1	<1	<1	<1
BT078	MAR01544.012	Sediment	<1	<1	<1	<1	<1	<1
BT085	MAR01544.013	Sediment	<1	<1	<1	<1	<1	<1
BT098	MAR01544.014	Sediment	<1	<1	<1	<1	<1	<1
BT103	MAR01544.015	Sediment	<1	<1	<1	<1	2.17	1.58
BT105	MAR01544.016	Sediment	<1	<1	<1	5.04	2.90	5.62
BT107	MAR01544.017	Sediment	<1	<1	<1	1.18	1.59	1.20
BT113	MAR01544.018	Sediment	<1	<1	<1	1.75	1.88	2.23
BT121	MAR01544.019	Sediment	<1	<1	<1	3.66	2.04	1.91
BT125	MAR01544.020	Sediment	6.25	7.00	3.77	65.0	46.2	66.5
Certified Reference Material Quinacrine QPH107MS (% Recovery)			79	77	82	92	58	82
QC Blank			<1	<1	<1	<1	<1	<1

* Indicates result is for an in-house Reference Material as no Certified Reference Materials are available.

For full analysis name see method summaries.

*See report notes

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104
		Limit of Detection	1	1	1	1	1	1
		Accreditation	MMD	MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD
Client Reference:	SOCOTEC Ref:	Matrix	CSW	CHRYSENE*	DESOXAH	FLUORANE	FLUXORENE	INDOPYR
ST074	MAR01544.011	Sediment	<1	<1	<1	<1	<1	<1
ST078	MAR01544.012	Sediment	<1	<1	<1	<1	<1	<1
ST085	MAR01544.013	Sediment	<1	<1	<1	<1	<1	<1
ST098	MAR01544.014	Sediment	<1	<1	<1	<1	<1	<1
ST103	MAR01544.015	Sediment	1.47	<1	<1	<1	<1	<1
ST105	MAR01544.016	Sediment	2.06	<1	<1	<1	<1	<1
ST107	MAR01544.017	Sediment	1.06	<1	<1	<1	<1	<1
ST113	MAR01544.018	Sediment	3.16	<1	<1	<1	<1	<1
ST121	MAR01544.019	Sediment	1.82	<1	<1	<1	<1	<1
ST125	MAR01544.020	Sediment	38.0	9.39	<1	12.1	6.90	2.57
Certified Reference Material Quinacrine QPHT07MS (% Recovery)			69	84	57	92	89	71
QC Blank			<1	<1	<1	<1	<1	<1

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For full analysis name see method summaries.

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



		Units	µg/kg (Dry Weight)	µg/kg (Dry Weight)	µg/kg (Dry Weight)	µg/kg (Dry Weight)	mg/kg
		Method No	ASO/SOP/703/704	ASO/SOP/703/704	ASO/SOP/703/704	ASO/SOP/703/704	ASO/SOP/705
		Limit of Detection	1	1	1	1	1
		Accreditation	UKAS/MMD	MMD	UKAS/MMD	UKAS/MMD	MMD
Client Reference:	SOCOTEC Ref:	Matrix	NRPT6	PERYLENE	PHENANT	PYRENE	THC
ST074	MAR01544.011	Sediment	<1	<1	<1	<1	<1
ST078	MAR01544.012	Sediment	<1	<1	<1	<1	<1
ST085	MAR01544.013	Sediment	<1	<1	<1	<1	<1
ST098	MAR01544.014	Sediment	<1	<1	<1	<1	<1
ST103	MAR01544.015	Sediment	<1	<1	1.31	<1	<1
ST105	MAR01544.016	Sediment	1.19	<1	3.49	<1	2.02
ST107	MAR01544.017	Sediment	<1	<1	<1	1.05	<1
ST113	MAR01544.018	Sediment	1.70	<1	1.33	<1	<1
ST121	MAR01544.019	Sediment	1.82	<1	<1	<1	<1
ST125	MAR01544.020	Sediment	7.33	3.38	34.7	15.3	8.98
Certified Reference Material Quinacrine QPHT07MS (% Recovery)			81	90	86	93	131
QC Blank			<1	<1	<1	<1	<1

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD
Client Reference:	SOCOTEC Ref:	Matrix	ACENAPTH	ACENAPHY	ANTHRACEN	BAA	BAP	BBF
BT134	MAR01544.021	Sediment	<1	<1	1.11	4.32	4.26	5.66
BT141	MAR01544.022	Sediment	<1	<1	<1	<1	<1	<1
BT146	MAR01544.023	Sediment	<1	<1	<1	<1	<1	1.39
BT152	MAR01544.024	Sediment	<1	<1	<1	1.36	1.23	1.91
BT158	MAR01544.025	Sediment	<1	<1	1.38	1.99	2.57	3.08
BT161	MAR01544.026	Sediment	2.18	1.62	3.47	8.67	9.76	9.31
BT164	MAR01544.027	Sediment	2.56	1.81	4.01	8.24	6.85	10.1
BT166	MAR01544.028	Sediment	5.60	2.59	7.94	16.3	15.1	17.7
BT172	MAR01544.029	Sediment	<1	<1	<1	<1	<1	1.06
BT178	MAR01544.030	Sediment	<1	<1	<1	1.06	1.07	2.82
Certified Reference Material Quinoline QPH107MS (% Recovery)			60	143	11*	88	87	74
QC Blank			<1	<1	<1	<1	<1	<1

* Indicates result is for an in-house Reference Material as no Certified Reference Materials are available.

For full analysis name see method summaries.

*See report notes.

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Certificate of Analysis

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



		Units	µg/kg (Dry Weight)	µg/kg (Dry Weight)	µg/kg (Dry Weight)	µg/kg (Dry Weight)	µg/kg (Dry Weight)	µg/kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS/MMD	UKAS/MMD	UKAS/MMD	MMD	MMD	MMD
Client Reference:	SOCOTEC Ref:	Matrix	BN25WSP	WSP	WSP*	CM	CMW&N	CMW
BT134	MAR01544.021	Sediment	5.80	5.25	4.65	21.7	13.9	21.2
BT141	MAR01544.022	Sediment	<1	<1	<1	3.78	2.32	2.32
BT146	MAR01544.023	Sediment	1.12	<1	1.34	4.18	2.40	3.22
BT152	MAR01544.024	Sediment	2.90	2.41	2.96	7.32	7.10	9.63
BT158	MAR01544.025	Sediment	3.42	3.19	3.16	12.0	10.9	16.4
BT161	MAR01544.026	Sediment	13.2	11.9	10.6	57.7	33.7	46.1
BT164	MAR01544.027	Sediment	11.1	10.6	9.68	77.1	34.1	68.7
BT166	MAR01544.028	Sediment	18.7	20.9	16.3	136	80.4	117
BT172	MAR01544.029	Sediment	<1	1.06	1.16	3.80	1.80	2.86
BT178	MAR01544.030	Sediment	2.30	2.24	2.12	7.28	4.12	4.77
Certified Reference Material Quasimodo QPH107MS (% Recovery)			90	80	88	98	80	87
QC Blank			<1	<1	<1	<1	<1	<1

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For full analysis name see method summation.

*See report notes.

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		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104	ASC/SOP/103/104
		Limit of Detection	1	1	1	1	1	1
		Accreditation	MMD	MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD	UKAS/MMD
Client Reference:	SOCOTEC Ref:	Matrix	OW	CHRYSENE*	BENZOX	FLUORANT	FLUORENE	INDOPYR
BT134	MAR01544.021	Sediment	17.9	5.16	<1	9.75	<1	4.04
BT141	MAR01544.022	Sediment	2.69	<1	<1	<1	<1	<1
BT146	MAR01544.023	Sediment	2.63	1.15	<1	1.27	<1	1.10
BT152	MAR01544.024	Sediment	5.47	2.04	<1	2.69	<1	1.71
BT158	MAR01544.025	Sediment	15.2	3.19	<1	4.51	1.01	2.59
BT161	MAR01544.026	Sediment	40.4	14.5	1.59	18.7	3.60	7.15
BT164	MAR01544.027	Sediment	51.0	12.9	1.53	17.4	4.36	5.72
BT166	MAR01544.028	Sediment	122	25.0	2.56	34.5	8.50	8.19
BT172	MAR01544.029	Sediment	2.00	<1	<1	1.01	<1	<1
BT178	MAR01544.030	Sediment	4.25	2.12	<1	3.69	<1	1.45
Certified Reference Material Quinoline QPH107MS (% Recovery)			70	84	77	91	90	77
QC Blank			<1	<1	<1	<1	<1	<1

* Indicates report is for an in-house Reference Material as no Certified Reference Materials are available.

For full analysis name see method summaries.

* See report notes.

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMD Analysis



		Units	µg/kg (Dry Weight)	µg/kg (Dry Weight)	µg/kg (Dry Weight)	µg/kg (Dry Weight)	mg/kg
		Method No	ASG/SOP/103/104	ASG/SOP/103/104	ASG/SOP/103/104	ASG/SOP/103/104	ASG/SOP/105
		Limit of Detection	1	1	1	1	1
		Accreditation	UKAS/MMD	MMD	UKAS/MMD	UKAS/MMD	MMD
Client Reference:	SOCOTEC Ref:	Matrix	NRPTH	PERYLENE	PHENANTH	PHYENE	THC
BT134	MAR01544.021	Sediment	5.45	1.88	8.33	10.5	39.4
BT141	MAR01544.022	Sediment	2.27	<1	1.01	<1	<1
BT146	MAR01544.023	Sediment	2.35	<1	1.57	1.29	<1
BT152	MAR01544.024	Sediment	2.44	1.27	3.92	3.37	4.98
BT158	MAR01544.025	Sediment	3.03	<1	7.42	4.00	2.92
BT161	MAR01544.026	Sediment	18.8	2.32	24.6	18.1	109
BT164	MAR01544.027	Sediment	26.8	1.68	26.8	18.0	45.6
BT166	MAR01544.028	Sediment	46.0	3.66	58.5	34.0	70.2
BT172	MAR01544.029	Sediment	1.68	<1	1.12	1.23	2.00
BT178	MAR01544.030	Sediment	3.09	<1	2.58	3.07	4.40
Certified Reference Material Quasimeme QPH107MS (% Recovery)			81	70	84	90	129
QC Blank			<1	<1	<1	<1	<1

→ Indicates report is for an in-house Reference Material as no Certified Reference Materials are available.

For full analysis name see method summaries.

*See report notes.

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMO Analysis



		Units	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)
		Method No	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702
		Limit of Detection	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006
		Accreditation	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO
Client Reference	SOCOTEC Ref	Matrix	PCB 101	PCB 105	PCB 110	PCB 118	PCB 128	PCB 138	PCB 140
ST012	MAR01544.001	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST017	MAR01544.002	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST037	MAR01544.003	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST038	MAR01544.004	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST040	MAR01544.005	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST044	MAR01544.006	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST046	MAR01544.007	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST083	MAR01544.008	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST089	MAR01544.009	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST070	MAR01544.010	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
Certified Reference Material Quaternary QSR151MS (% Recovery)			99	76	103	95	85	99	83
QC Blank			<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006

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Test Report ID: MAR01544

Issue Version: 1

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		Units	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)
		Method No	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702
		Limit of Detection	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006
		Accreditation	UKAS/1800	UKAS/1800	UKAS/1800	UKAS/1800	UKAS/1800	UKAS/1800	UKAS/1800
Client Reference:	SOCOTEC Ref:	Matrix	PCB 940	PCB 151	PCB 153	PCB 155	PCB 156	PCB 157	PCB 158
ST012	MAR01544.001	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST017	MAR01544.002	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST037	MAR01544.003	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST038	MAR01544.004	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST040	MAR01544.005	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST044	MAR01544.006	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST046	MAR01544.007	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST051	MAR01544.008	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST055	MAR01544.009	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST070	MAR01544.010	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
Certified Reference Material Quasimate QSR151MS (% Recovery)			100	108	86	84	104	89	89
QC Blank			<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMO Analysis



		Units	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)
		Method No	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702
		Limit of Detection	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008
		Accreditation	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO
Client Reference	SOCOTEC Ref	Matrix	PCB 180	PCB 183	PCB 187	PCB 194	PCB 28	PCB 31	PCB 44
ST112	MAR01544.001	Sediment	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
ST117	MAR01544.002	Sediment	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
ST137	MAR01544.003	Sediment	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
ST138	MAR01544.004	Sediment	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
ST140	MAR01544.005	Sediment	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
ST144	MAR01544.006	Sediment	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
ST146	MAR01544.007	Sediment	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
ST151	MAR01544.008	Sediment	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
ST155	MAR01544.009	Sediment	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
ST170	MAR01544.010	Sediment	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Certified Reference Material Quaternary QSR151MS (% Recovery)			95	87	106	97	78	91	102
QC Blank			<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMO Analysis



		Units	mg/kg (Dry Weight)	mg/kg (Dry Weight)	mg/kg (Dry Weight)	mg/kg (Dry Weight)
		Method No	ASC/90P/7102	ASC/90P/7102	ASC/90P/7102	ASC/90P/7102
		Limit of Detection	0.00006	0.00006	0.00006	0.00006
		Accreditation	UKAS/118/0	UKAS/118/0	UKAS/118/0	UKAS/118/0
Client Reference:	SOCOTEC Ref:	Matrix	PCB 47	PCB 49	PCB 52	PCB 56
ST112	MAR01544.001	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST117	MAR01544.002	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST137	MAR01544.003	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST138	MAR01544.004	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST140	MAR01544.005	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST144	MAR01544.006	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST146	MAR01544.007	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST187	MAR01544.008	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST189	MAR01544.009	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST170	MAR01544.010	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
Certified Reference Material Quasimeme QCR151MS (% Recovery)			99	102	106	123
QC Blank			<0.00006	<0.00006	<0.00006	<0.00006

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		Units	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)
		Method No	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702
		Limit of Detection	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006
		Accreditation	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO
Client Reference:	SOCOTEC Ref:	Matrix	PCB 101	PCB 105	PCB 110	PCB 118	PCB 128	PCB 138	PCB 148
ST574	MAR01544.011	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST579	MAR01544.012	Sediment	0.00015	<0.00006	0.00014	<0.00006	<0.00006	<0.00006	<0.00006
ST585	MAR01544.013	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST588	MAR01544.014	Sediment	<0.00006	0.00010	<0.00006	<0.00006	0.00010	<0.00006	<0.00006
ST100	MAR01544.015	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST106	MAR01544.016	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST107	MAR01544.017	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST113	MAR01544.018	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST121	MAR01544.019	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
ST125	MAR01544.020	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
Certified Reference Material Quasimate QCR151MS (% Recovery)			92	78	103	106	85	89	81
QC Blank			<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006

→ Indicates result is Blank. In-house Reference Material and/or Certified Reference Materials are available.

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Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwell House, Beetby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMO Analysis



		Units	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)
		Method No	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702
		Limit of Detection	0.00008	0.00008	0.00008	0.00008	0.00008	0.00008	0.00008
		Accreditation	UKAS/1800	UKAS/1800	UKAS/1800	UKAS/1800	UKAS/1800	UKAS/1800	UKAS/1800
Client Reference:	SOCOTEC Ref:	Matrix	PCB 945	PCB 151	PCB 153	PCB 155	PCB 156	PCB 173	PCB 18
ST574	MAR01544.011	Sediment	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008
ST579	MAR01544.012	Sediment	0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008
ST585	MAR01544.013	Sediment	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008
ST588	MAR01544.014	Sediment	<0.00008	<0.00008	<0.00008	<0.00008	0.00008	<0.00008	<0.00008
ST103	MAR01544.015	Sediment	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008
ST106	MAR01544.016	Sediment	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008
ST107	MAR01544.017	Sediment	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008
ST113	MAR01544.018	Sediment	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008
ST121	MAR01544.019	Sediment	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008
ST125	MAR01544.020	Sediment	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008
Certified Reference Material Quasimate QCR151MS (% Recovery)			101	106	93	80	109	89	88
QC Blank			<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008	<0.00008

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		Units	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)
		Method No	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702
		Limit of Detection	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
		Accreditation	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO
Client Reference:	SOCOTEC Ref:	Matrix	PCB 180	PCB 183	PCB 187	PCB 194	PCB 28	PCB 31	PCB 44
ST574	MAR01544.011	Sediment	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000
ST579	MAR01544.012	Sediment	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000
ST585	MAR01544.013	Sediment	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000
ST588	MAR01544.014	Sediment	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000
ST100	MAR01544.015	Sediment	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000
ST106	MAR01544.016	Sediment	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000
ST107	MAR01544.017	Sediment	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000
ST113	MAR01544.018	Sediment	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000
ST121	MAR01544.019	Sediment	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000
ST125	MAR01544.020	Sediment	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000
Certified Reference Material Quasimate QCR151MS (% Recovery)			95	93	106	94	77	91	100
QC Blank			<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000	<0.00000

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMO Analysis



		Units	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)
		Method No	ASO/90P/702	ASO/90P/702	ASO/90P/702	ASO/90P/702
		Limit of Detection	0.00006	0.00006	0.00006	0.00006
		Accreditation	UKAS/18610	UKAS/18610	UKAS/18610	UKAS/18610
Client Reference:	SOCOTEC Ref:	Matrix	POB 47	POB 46	POB 52	POB 56
ST374	MAR01544.011	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST378	MAR01544.012	Sediment	<0.00006	<0.00006	0.00016	<0.00006
ST385	MAR01544.013	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST388	MAR01544.014	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST100	MAR01544.015	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST106	MAR01544.016	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST107	MAR01544.017	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST113	MAR01544.018	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST121	MAR01544.019	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
ST125	MAR01544.020	Sediment	<0.00006	<0.00006	<0.00006	<0.00006
Certified Reference Material Quasimeme QCR151MS (% Recovery)			97	100	96	118~
QC Blank			<0.00006	<0.00006	<0.00006	<0.00006

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Test Report ID: MAR01544

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		Units	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)
		Method No	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702
		Limit of Detection	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006
		Accreditation	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO	UKAS/MMO
Client Reference:	SOCOTEC Ref:	Matrix	PCB 101	PCB 105	PCB 110	PCB 118	PCB 128	PCB 138	PCB 140
BT154	MAR01544.021	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT141	MAR01544.022	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT148	MAR01544.023	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT152	MAR01544.024	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT158	MAR01544.025	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT161	MAR01544.026	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT164	MAR01544.027	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT168	MAR01544.028	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT172	MAR01544.029	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT179	MAR01544.030	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
Certified Reference Material Quasimeme QCR151MS (% Recovery)			91	81	99	102	88	102	83
QC Blank			<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006

= Indicates result is blank. In-house Reference Material and/or Certified Reference Materials are available.

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMO Analysis



		Units	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)
		Method No	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702
		Limit of Detection	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006
		Accreditation	UKAS/1800	UKAS/1800	UKAS/1800	UKAS/1800	UKAS/1800	UKAS/1800	UKAS/1800
Client Reference:	SOCOTEC Ref:	Matrix	PCB 940	PCB 151	PCB 153	PCB 155	PCB 156	PCB 157	PCB 158
BT154	MAR01544.021	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT141	MAR01544.022	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT148	MAR01544.023	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT152	MAR01544.024	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT156	MAR01544.025	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT161	MAR01544.026	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT164	MAR01544.027	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT166	MAR01544.028	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT172	MAR01544.029	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT179	MAR01544.030	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
Certified Reference Material Quasimate QCR151MS (% Recovery)			100	104	90	83	114	86	92
QC Blank			<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006

= Indicates result is Blank. In-house Reference Material and/or Certified Reference Materials are available.

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMO Analysis



		Units	mg/kg (Dry Weight)	mg/kg (Dry Weight)	mg/kg (Dry Weight)	mg/kg (Dry Weight)	mg/kg (Dry Weight)	mg/kg (Dry Weight)	mg/kg (Dry Weight)
		Method No	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702	ASG/SOP/702
		Limit of Detection	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006
		Accreditation	UKAS/11610	UKAS/11610	UKAS/11610	UKAS/11610	UKAS/11610	UKAS/11610	UKAS/11610
Client Reference:	SOCOTEC Ref:	Matrix	PCB 180	PCB 183	PCB 187	PCB 194	PCB 28	PCB 31	PCB 44
BT134	MAR01544.021	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT141	MAR01544.022	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT148	MAR01544.023	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT152	MAR01544.024	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT156	MAR01544.025	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT161	MAR01544.026	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT164	MAR01544.027	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT166	MAR01544.028	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT172	MAR01544.029	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
BT179	MAR01544.030	Sediment	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006
Certified Reference Material Quaternary QCR/151MS (% Recovery)			89	90	93	92	81	94	98
QC Blank			<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006

→ Indicates result is Blank. In-house Reference Material and/or Certified Reference Materials are available.

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201788 - Doggerbank MMO Analysis



		Units	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)	mg/Kg (Dry Weight)
		Method No	ASCI/SGP/702	ASCI/SGP/702	ASCI/SGP/702	ASCI/SGP/702
		Limit of Detection	0.0008	0.0008	0.0008	0.0008
		Accreditation	UKAS/7010	UKAS/7010	UKAS/7010	UKAS/7010
Client Reference	SOCOTEC Ref.	Matrix	PCB 47	PCB 49	PCB 52	PCB 55
ST134	MAR01544.021	Sediment	<0.0008	<0.0008	<0.0008	<0.0008
ST141	MAR01544.022	Sediment	<0.0008	<0.0008	<0.0008	<0.0008
ST148	MAR01544.023	Sediment	<0.0008	<0.0008	<0.0008	<0.0008
ST152	MAR01544.024	Sediment	<0.0008	<0.0008	<0.0008	<0.0008
ST158	MAR01544.025	Sediment	<0.0008	<0.0008	<0.0008	<0.0008
ST161	MAR01544.026	Sediment	<0.0008	<0.0008	<0.0008	<0.0008
ST164	MAR01544.027	Sediment	<0.0008	<0.0008	<0.0008	<0.0008
ST168	MAR01544.028	Sediment	<0.0008	<0.0008	<0.0008	<0.0008
ST172	MAR01544.029	Sediment	<0.0008	<0.0008	<0.0008	<0.0008
ST176	MAR01544.030	Sediment	<0.0008	<0.0008	<0.0008	<0.0008
Certified Reference Material Quinacrine QCR/51MS (% Recovery)			95	97	121	114
QC Blank			<0.0008	<0.0008	<0.0008	<0.0008

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Test Report ID: MAR01544

Issue Version: 1

Customer Reference: 201783 - Doggerbank MMO Analysis



REPORT NOTES

Method Code	Sample ID	The following information should be taken into consideration when using the data contained within this report
ICPM99*	MAR01544.001-090	Analysis was conducted by an internal SOCOTEC laboratory. UKAS accredited analysis by this laboratory is under UKAS number 1252.
ASC/SOP/301	MAR01544.002	The matrix of this sample has been found to interfere with the result for this test. The sample has therefore been diluted, but in doing so, the detection limit for this test has been elevated.
ASC/SOP/303/304	MAR01544.001-030	Benzofluoranthene is known to coelute with Benzo(b)fluoranthene and these peaks can not be resolved. It is believed Benzo(b)fluoranthene is present in these samples therefore it is suggested that the Benzo(b)fluoranthene results should be taken as a Benzo(b)fluoranthene (inc. Benzo(b)fluoranthene). Benzo(b)fluoranthene is not UKAS accredited. This should be taken into consideration when utilising the data.
ASC/SOP/303/304	MAR01544.001-030	Chrysene is known to coelute with Triphenylene and these peaks can not be resolved in the PAH-9ED UKAS accredited method. Chrysene and Triphenylene are resolved for MMO but this is currently not UKAS accredited therefore Chrysene is reported without this accreditation.

DEViating SAMPLE STATEMENT

Deviation Code	Deviation Definition	Sample ID	Deviation Details. The following information should be taken into consideration when using the data contained within this report
D1	Holding Time Exceeded	N/A	N/A
D2	Sample Contaminated through Damaged Packaging	N/A	N/A
D3	Sample Contaminated through Sampling	N/A	N/A
D4	Inappropriate Container/Packaging	N/A	N/A
D5	Damaged in Transit	N/A	N/A
D6	Insufficient Quantity of Sample	N/A	N/A
D7	Inappropriate Headspace	N/A	N/A
D8	Retained at incorrect Temperature	N/A	N/A
D9	Lack of Date & Time of Sampling	N/A	N/A
D10	Insufficient Sample Details	N/A	N/A
D11	Sample Integrity compromised or not suitable for analysis	N/A	N/A

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Test Report ID: MAR01544
 Issue Version: 1
 Customer Reference: 201788 - Doggerbank MMO Analysis



Method	Sample and Fraction Size	Method Summary
Metals	Air dried	Aqua regia extraction followed by ICP analysis.
Organics	Wet Sediment	Solvent extraction and derivatisation followed by GC-MS analysis.
Polycyclic Aromatic Hydrocarbons (PAHs)	Wet Sediment	Solvent extraction and clean up followed by GC-MS analysis.
Total Hydrocarbon Content (THC)	Wet Sediment	Ultra-violet fluorescence spectroscopy.
Polychlorinated Biphenyls (PCBs)	Air dried and sieved to <2mm	Solvent extraction and clean up followed by GC-MS/MS analysis.

Analyte Definitions					
Analyte Abbreviation	Full Analyte name	Analyte Abbreviation	Full Analyte name	Analyte Abbreviation	Full Analyte name
ACENAPTH	Acenaphthene	C2N	C2-naphthalenes	THC	Total Hydrocarbon Content
ACENAPHY	Acenaphthylene	C2N	C2-naphthalenes	AcOH	alpha-Hexachlorocyclohexane
ANTHRACN	Anthracene	CHRYSENE	Chrysene	BzOH	Beta-Hexachlorocyclohexane
BBA	Benzo(a)anthracene	GBENZAH	Benzo(a)anthracene	CHCH	gamma-Hexachlorocyclohexane
BAP	Benzo(a)pyrene	FLUORANTH	Fluoranthene	CHLDRIN	Chlordane
BBF	Benzo(b)fluoranthene	FLUORENE	Fluorene	HCB	Hexachlorobenzene
BOP	Benzo(e)pyrene	INDPHE	Indeno(1,2,3-cd)pyrene	PPDB	p,p'-Dichlorodiphenyldichloroethylene
BENZGHI	Benzo(g,h,i)perylene	NAPTH	Naphthalene	PPGT	p,p'-Dichlorodiphenyldichloroethane
BZF	Benzo(k)fluoranthene	PERYLENE	Perylene	PPTDX	p,p'-Dichlorodiphenyldichloroethane
C1N	C1-naphthalenes	PHENANTH	Phenanthrene		
C1PHEN	C1-phenanthrene	PYRENE	Pyrene		

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Appendix F

Macrofaunal Analysis

F.1 Subtidal Grabs Macrofaunal Abundance

Click on icon to open the macrofaunal abundance data



Appendix F.1 Macro
Abundance

F.2 Subtidal Grabs Macrofaunal Biomass

Click on icon to open the macrofaunal biomass data



Appendix F.2 Macro
Biomass

F.3 2 m Beam Trawls Macrofaunal Abundance

Click on icon to open the macrofaunal biomass data



Appendix F.3 Beam
trawl abundance