Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects

Environmental Statement

Volume 3

Appendix 8.1 - DEP Benthic Characterisation Report

August 2022
Document Reference: 6.3.8.1
APFP Regulation: 5(2)(a)

Title:
Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects Environmental Statement
Appendix 8.1: DEP Benthic Characterisation Report

PINS Document no.: 6.3.8.1	
Document no.: C282-FR-Z-GA-00001	
Date:	Classification
August 2022	**Final**
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Dudgeon Extension Benthic Characterisation Report

Dudgeon Extension Project
Offshore Norfolk
Volume 4 Benthic Characterisation Report
Survey Period: 10 to 19 August 2020

200270-R-004 03 | 23 December 2020
Revised Final

Equinor New Energy Limited

Document Control

Document Information

Document Title	Dudgeon Extension Benthic Characterisation Report Dudgeon Extension Project Offshore Norfolk Volume 4 Benthic Characterisation Report
Fugro Project No.	200270
Fugro Document No.	200270-R-004
Issue Number	03
Issue Status	Revised Final
Fugro Legal Entity	Fugro GB Marine Limited
Issuing Office Address	Victory House, Unit 16, Trafalgar Wharf, Hamilton Road, Portchester, Hampshire, PO6 4PX, UK

Client Information

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Revision History

Issue	Date	Status	Comments on Content	Prepared By	Checked By	Approved By
01	22 November 2020	Draft	Awaiting client comments	RXP	SGW/SRB	PMF
02	17 December 2020	Final	Addressed client comments	JSG	LEB	PMF
03	23 December 2020	Revised Final	Addressed client comments	JSG	LEB	PMF

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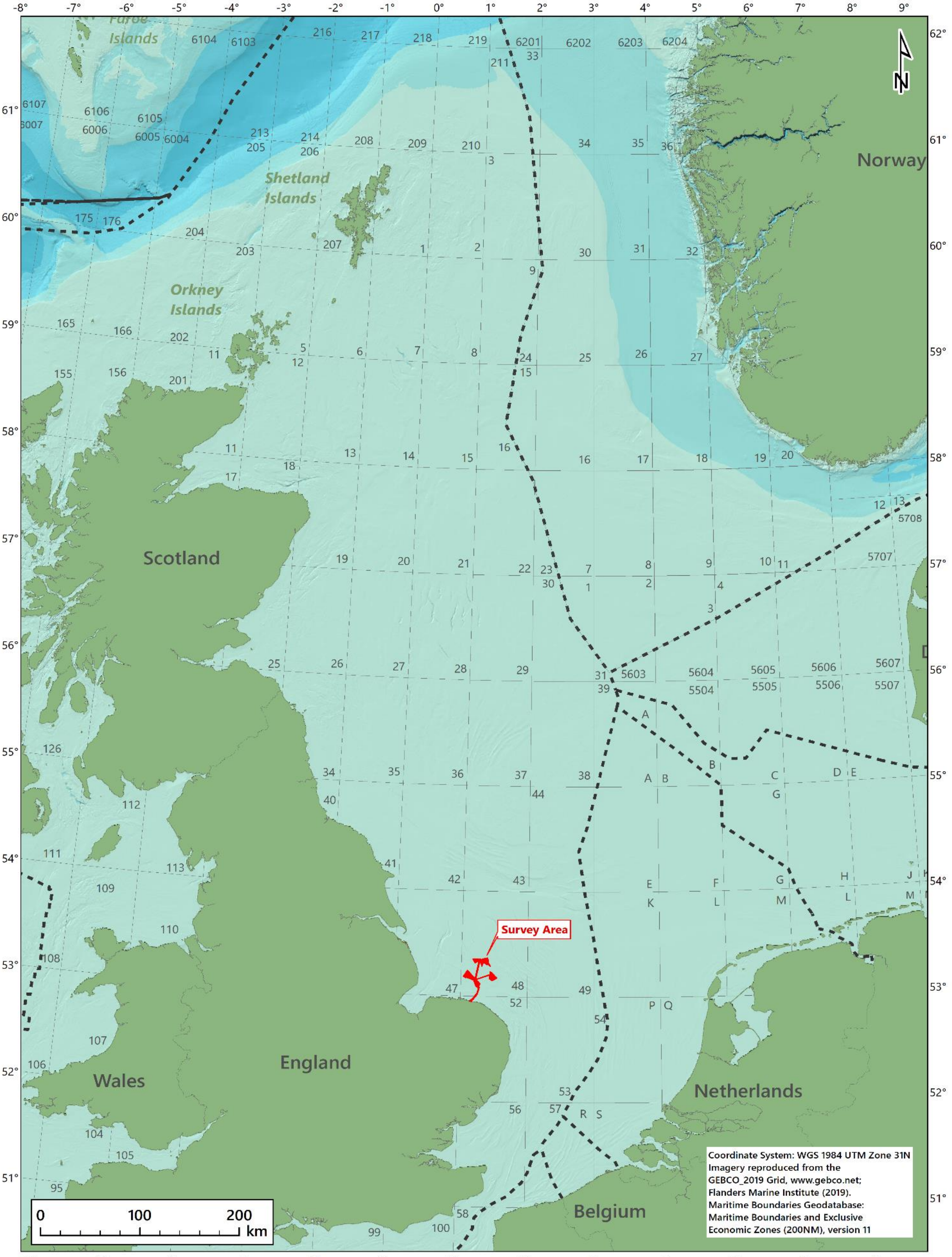
Frontispiece



Executive Summary

Introduction

On the instruction of Equinor New Energy Limited, Fugro performed a benthic characterisation survey at the Dudgeon Extension Project (DEP) and Sheringham Extension Project (SEP) areas, located offshore Norfolk in the southern North Sea (SNS). Operations were conducted onboard the DSV Curtis Marshall during the survey period 10 to 19 August 2020.

The SEP is on the northern and eastern boundary of the existing Sheringham Shoal Offshore Wind Farm (OWF), 17.5 km north of the Norfolk coast. The DEP consists of two wind farm extensions, one extending from the northern and the other from the south-eastern boundary of the existing Dudgeon OWF, known as DEP North and DEP South respectively, 31 km north of the Norfolk coast. Offshore export cables (ECs) will connect the offshore substations situated within the wind farm areas to shore, making landfall at Weybourne.

This report details the results of the benthic characterisation survey for the DEP North and South survey areas, as well as EC corridor and the Interconnector Cable (CC) corridor.

Survey Strategy

Within the DEP North and South survey areas, a total of 26 environmental sampling stations were predefined by the client. At each station, video and stills photography were to be acquired. At 21 of the stations, grab samples were required for macrofaunal and particle size distribution (PSD) analysis, of which 3 stations also required triplicate sampling and 3 required a chemistry (PC) sample for hydrocarbon and metals analysis.

Along the CC corridors, a total of 19 environmental sampling stations were predefined by the client. All stations required video and stills photography data and macrofaunal and PSD grab samples, of which 2 stations also required triplicate sampling and 2 required a PC sample for hydrocarbon and metals analysis.

Along the EC corridor, a total of 25 environmental sampling stations were predefined by the client. At each station, video and stills photography were to be acquired. At 18 of the stations grab samples were required for macrofaunal and PSD analysis, of which 7 stations required triplicate sampling and 3 required a PC sample for hydrocarbon and metals analysis.

Sediment Characteristics

Using the Folk (1954) classification, five sediment classes were identified across the survey areas; 25 stations as sandy gravel, 20 stations as sand, 9 stations as gravelly sand, 3 stations as muddy, sandy gravel and 1 station as gravelly muddy sand. The distribution of these different sediment types did not appear to have any distinct spatial pattern, however, the stations with the higher sand proportion were primarily within the DEP North and South survey areas and the stations with a higher gravel proportion were primarily along the CC and EC corridor survey areas.

The modality of the sediments varied between unimodal, bimodal and polymodal suggesting some samples comprised mixed sediment types. The unimodal sediments were either medium sand or coarse sand on the Wentworth (1922) scale, whereas the bimodal or polymodal sediments comprised sand with a granule or pebble element.

The median particle sizes described using the Wentworth (1922) scale ranged between medium sand (275 µm) and fine pebble (7777 µm).

The sorting coefficient showed sediments ranged from being well sorted to extremely poorly sorted, with the majority of stations being very poorly sorted.

Multivariate analysis identified five groups of stations, which did not show any distinct spatial pattern in the distribution across the survey areas.

Sediment Chemistry

Total hydrocarbon content (THC) values at all stations were within the range of concentrations reported from the SEA2 Area 1 survey, and therefore could be considered background.

The total n-alkanes (nC_{12} to nC_{36}) concentrations and CPI ratio were above the SEA2 Area 1 mean value at some stations. The pristane/phytane (Pr/Ph) ratio was higher than the Area 1 mean at all stations.

The total 2 to 6 ring polycyclic aromatic hydrocarbon (PAH) concentrations at all stations were within the range of the values reported from the SEA2 Area 1 survey and therefore could be considered as background. The individual US EPA 16 PAH concentrations, where applicable, were all below the respective effects range low (ERL) values.

All metal concentrations were below the Centre for Environment, Fisheries and Aquaculture Science (Cefas) Action Level (AL) 1 and AL2, and below the respective effects range low (ERL) values, where available.

Macrofauna

The infaunal communities identified showed variation across the survey area. Variations included phyletic composition, faunal diversity, species richness, evenness and dominance. Multivariate analysis showed a low degree of similarity both across the survey area and within the clusters identified. When ecological significance was considered, five different faunal communities were grouped, distinguished by having different dominant taxa as well as the absence of other key taxa within other groups. The variations in communities were driven by the different sediment types observed. As with the variations in sediments, there was no distributional pattern of communities in relation to the survey area. The macrofauna observed are considered to be typical of sandy and gravelly sediments within the southern North Sea

Seabed Habitats and Biotopes

When seabed photographic data, particle size data and macrofaunal data were considered, using the EUNIS (EEA, 2019) classifications, one broad habitat and three biotope complexes and three possible biotopes were assigned to the transects and stations surveyed. The biotope complexes identified were 'Infralittoral coarse sediment' (A5.13), 'Infralittoral fine sand' (A5.23) and 'Infralittoral mixed sediments' (A5.43).

The sediments observed throughout the survey area were identified as comprising the broadscale priority habitat 'subtidal sands and gravels'. However, this habitat is widely distributed and represented elsewhere in the UK MPA network.

Document Arrangement

Volume 1	Dudgeon and Sheringham Shoal Extension Field Report
Volume 2	Sheringham Shoal Extension Habitat Report
Volume 3	Dudgeon Extension Habitat Report
Volume 4	**Dudgeon Extension Benthic Characterisation Report**
Volume 5	Sheringham Shoal Benthic Characterisation Report

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Abbreviations

AFDW	Ash free dry weight
AL1/AL2	Action Level 1 or 2
BGS	British Geological Society
BSL	Below sea level
CC	Interconnector cable
Cefas	Centre for Environment, Fisheries and Aquaculture Science
CEMP	Coordinated Environmental Monitoring Programme
CLUSTER	Hierarchical agglomerative clustering
CM	Central meridian
CPI	Carbon preference index
Defra	Department for Environment, Food and Rural Affairs
DEP	Dudgeon Extension Project
DG	Day grab
DSLR	Digital single-lens reflex
DSV	Dive support vessel
DTI	Department of Trade and Industry
EC	Export cable
EcoQOs	Ecological Quality Objectives
EEA	European Environment Agency
EIA	Environmental Impact Assessment
EMODnet	European Marine Observation Data Network
EOL	End of line
ERL	Effects range low
EUNIS	European Nature Information System
FA/FB/FC	Faunal sample A, B or C
FID	Flame ionisation detection
FOCI	Feature of Conservation Interest
GC	Gas chromatography
GC-FID	Gas chromatography – flame ionisation detection
GC-MS	Gas chromatography – mass spectrometry
HG	Hamon grab
ICP-MS	Inductively coupled plasma-mass spectrometry
ICP-OES	Inductively coupled plasma-optical emission spectroscopy
JNCC	Joint Nature Conservation Committee
LAT	Lowest Astronomical Tide
LED	Light emitting diode
MCZ	Marine Conservation Zone
MPA	Marine Protected Area

MRV	Minimum reporting value
nC_{12-36}	n-alkane range
NMBAQC	National Marine Biological Association Quality Control
nMDS	Non-metric multi-dimensional scaling
NOAA	National Oceanic and Atmospheric Administration
NPD	Naphthalene, phenanthrene/anthracene and dibenzothiophene
NRC	National Research Council
NS	No sample
NSTF	North Sea Task Force
OSPAR	Oslo and Paris Commission
OWF	Offshore Wind Farm
PAH	Polycyclic aromatic hydrocarbon
PC	Chemistry sample
PCA	Principal components analysis
PMF	Priority Marine Feature
Pr/Ph	Ratio of pristane to phytane
PRIMER	Plymouth Routines in Multivariate Ecological Research
PSA	Particle size analysis
PSD	Particle size distribution
PSDA/PSDB/PSDC	Particle size distribution sample A, B or C
RSD	Relative standard deviation
SAC	Special Area of Conservation
SACFOR	Superabundant, abundant, common, frequent, occasional and rare (semi-quantitative abundance scale)
SD	Standard deviation
SEA2	Strategic Environmental Assessment Area 2
SEP	Sheringham Extension Project
SG	Shipek grab
SIMPER	Similarity percentage (analysis)
SIMPROF	Similarity profile permutation tests
SOL	Start of line
SPA	Special Protected Area
SSS	Side scan sonar
TBT	Tributyltin
THC	Total hydrocarbon content
UCM	Unresolved complex mixture
UKOOA	United Kingdom Offshore Operators Association
UK BAP	United Kingdom Biodiversity Action Plan
US EPA	United States Environmental Protection Agency
US EPA 16	United States Environmental Protection Agency's 16 priority PAH pollutants
UTC	Coordinated Universal Time
UTM	Universal Transverse Mercator
WGS84	World Geodetic System 1984
WoRMS	World Register of Marine Species
?	Identification of taxon is uncertain

1. Introduction

1.1 General Project Description

On the instruction of Equinor New Energy Limited, Fugro performed a benthic characterisation survey at the Dudgeon Extension Project (DEP) and Sheringham Extension Project (SEP) areas. The survey areas were located offshore Norfolk in the southern North Sea (SNS). Operations were conducted onboard the DSV Curtis Marshall during the survey period 10 to 19 August 2020.

The SEP is on the northern and eastern boundary of the existing Sheringham Shoal Offshore Wind Farm (OWF), 17.5 km north of the Norfolk coast. The DEP is on the northern and south-eastern boundary of the existing Dudgeon OWF, 31 km north of the Norfolk coast. Offshore export cables (ECs) will connect the offshore substations situated within the wind farm areas to shore, making landfall at Weybourne.

The DEP consists of two wind farm extensions, one extending from the northern and the other from the south-eastern boundary of the existing Dudgeon OWF, known as DEP North and DEP South, respectively. This report details the results of the benthic characterisation survey for the DEP survey areas (DEP North and South), which for the purpose of this report includes the EC corridor and the Interconnector Cable (CC) corridor. The results of the SEP survey are detailed in Volume 5 of this series of reports.

Appendix A outlines the guidelines for use of this report.

1.2 Scope of Work

The aim of the project was to conduct an ecological survey to inform the Environmental Impact Assessment (EIA). The benthic ecology survey was informed by the outputs of the geophysical surveys to cover the proposed wind farm extensions and CC and EC corridors.

The aim of the study was fulfilled through the acquisition of seabed sediment samples, which were subsequently analysed for particle size distribution (PSD) and benthic macrofaunal composition and biomass. Selected stations were sampled for chemical analyses, which included heavy and trace metals, polychlorinated biphenyls, polycyclic aromatic hydrocarbons (PAHs), total hydrocarbon content (THC), including n-alkanes, pristane and phytane, and organotins. Seabed photographic data were also acquired to investigate the different habitats present in the survey area and identify habitats of potential conservation importance, results of which are detailed in Volume 3 of this series of reports.

1.3 Environmental Legislation

The relevant environmental legislation applying to the extension projects is detailed in Volume 3 (Habitat Assessment Report) and summarised in Table 1.1.

Table 1.1: Summary of marine environmental legislation

Legislation	Key aims
International	
Oslo and Paris (OSPAR) Convention	Establish an area of Marine Protected Areas (MPAs)
Convention on Biological Diversity (CBD)	Conservation of biological diversity and sustainable use of its components
European	
Habitats Directive (92/43/EEC)	Conservation of natural habitats and of wild fauna and flora and protection of biodiversity through measures for protection for habitats listed in Annex I and species listed in Annex II of the Directive. Establishment of a European wide network of protected sites, known as Special Areas of Conservation (SACs)
Birds Directive (2009/147/EC)	Establishment of a network of Special Protection Areas (SPAs) for rare or vulnerable birds listed in Annex I of the Directive.
Marine Strategy Framework Directive (MSFD)(2008/56/EC)	Establish a framework for community action in the field of marine environmental policy
United Kingdom	
Marine and Coastal and Access Act 2009	Enables the designation of Marine Conservation Zones (MCZs) in England, Wales and UK offshore waters
Conservation of Habitats and Species Regulations 2017 (the 'Habitats Regulations')	Transposes the requirements of Habitats Directive into UK law within 12 nautical miles; makes it an offence to kill, injure, capture or disturb European Protected Species (EPS)
Offshore Marine Conservation (Natural Habitats & c.) Regulations 2017	Transposes the requirements of Habitats Directive into UK law outside 12 nautical miles; makes it an offence to kill, injure, capture or disturb EPS
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

1.4 Regional Habitats, Species and Protected Areas

Based on the European Marine Observation and Data Network (EMODnet) seabed habitats map, the DEP survey areas (e.g. proposed wind farm extensions and the EC and the CC corridors) lie in an area likely to comprise the European Nature Information System (EUNIS) habitat, 'Circalittoral coarse sediment' (A5.14) or 'Deep circalittoral coarse sediment' (A5.15), with areas of 'Circalittoral fine sand' (A5.25), 'Circalittoral muddy sand' (A5.26) and 'Deep circalittoral sand' (A5.27) (EMODnet, 2019). Therefore, the UK Biodiversity Action Plan (UK BAP) priority habitat 'Subtidal sands and gravels' could occur within the survey area.

Table 1.2 lists the nearby protected areas within 20 km of the DEP survey areas, summarising the sensitive habitats and species for which they were designated to protect.

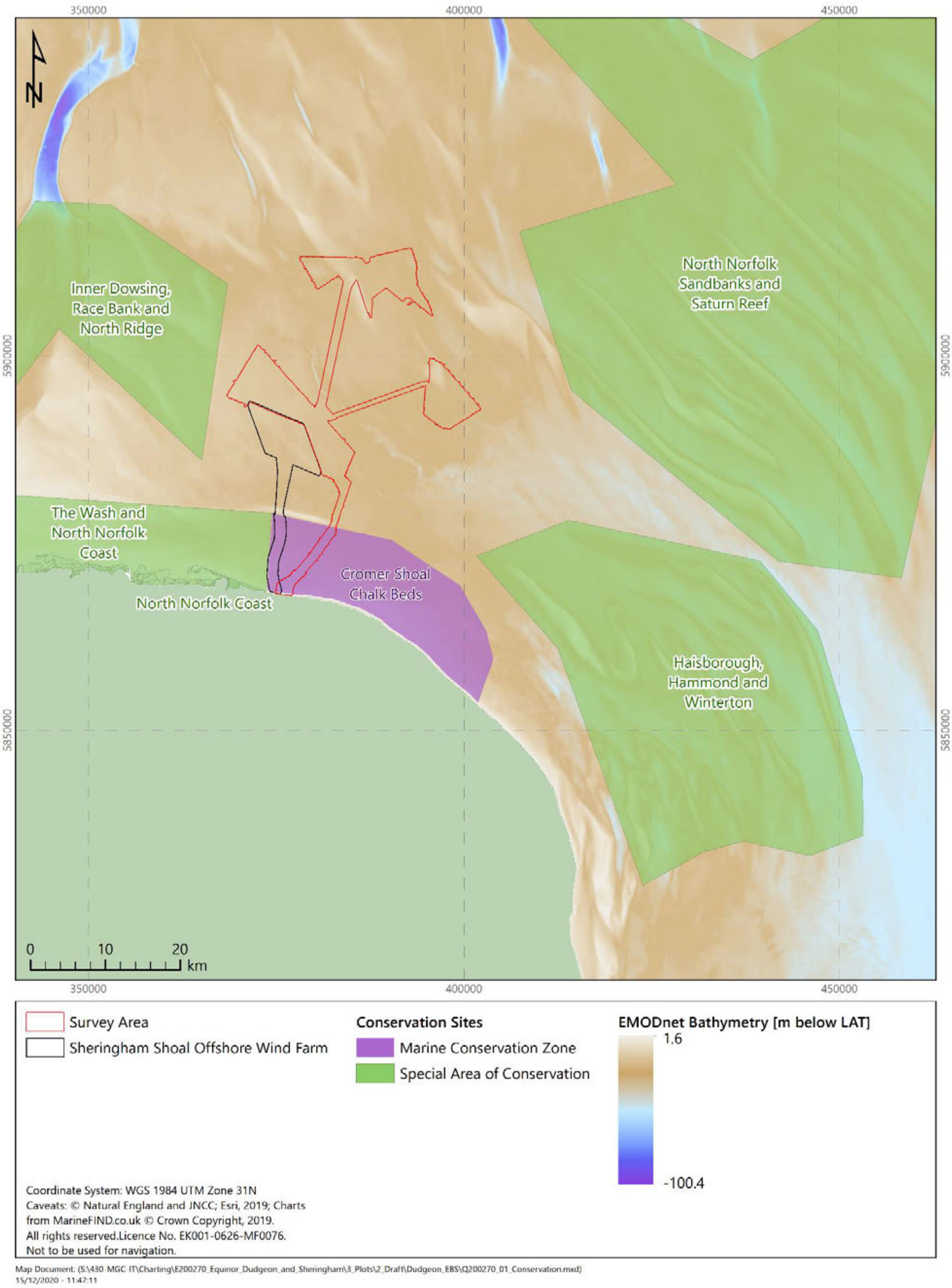
The Annex I habitat 'reefs' may be present within the survey area, as both biogenic and geogenic reef. Biogenic reefs formed by *Sabellaria spinulosa* were included within the rationale for the designation of the North Norfolk Sandbanks and Saturn Reef SAC, the Haisborough, Hamond and Winterton SAC, the Wash and North Norfolk SAC and the Inner Dowsing, Race Bank and North Ridge SAC. These four SACs are also designated to protect the Annex I habitat 'Sandbanks which are slightly covered in seawater all the time'. Geogenic reefs may also be present in the survey area due to the EC corridor passing through the Cromer Shoal Chalk Beds Marine Conservation Zone (MCZ) which is designated due to the relatively high abundance of subtidal chalk as well as peat and clay exposures.

Figure 1.1 spatially displays the protected areas in relation to the DEP and SEP survey area.

Table 1.2: Summary of nearby protected areas, Dudgeon Extension Project

Protected Area	Status	Distance* [km]	Direction*	Protected Habitats/Species†
Inner Dowsing Race Bank and North Ridge	Special Area of Conservation	9.9	W	Annex I habitats 'reefs' Annex I habitat 'sandbanks which are slightly covered by seawater all of the time'
North Norfolk Sandbanks and Saturn Reef	Special Area of Conservation	11.5	NE	Annex I habitats 'reefs' Annex I habitat 'sandbanks which are slightly covered by seawater all of the time'
Cromer Shoal Chalk Beds	Marine Conservation Zone	15.3	SSE	UK BAP priority habitat and FOCI 'subtidal chalk' UK BAP priority habitat 'peat and clay exposures with piddocks' FOCI 'peat and clay exposures'
The Wash and North Norfolk Coast	Special Area of Conservation	16.7	SSW	Annex I habitats 'reefs' Annex I habitat 'sandbanks which are slightly covered by seawater all of the time'
Haisborough, Hammond and Winterton	Special Area of Conservation	17.6	SE	Annex I habitats 'reefs' Annex I habitat 'sandbanks which are slightly covered by seawater all of the time'

Notes
UK BAP = United Kingdom Biodiversity Action Plan
FOCI = Feature of Conservation Interest
* = Distance and direction from the closest boundary of the Dudgeon Extension Project (DEP) survey areas
† = Protected habitats and/or species that are relevant to the current survey only



Notes

EMODnet = European Marine Observation and Data Network

LAT = Lowest Astronomical Tide

Figure 1.1: Protected areas relevant to the survey area, Dudgeon Extension Project

1.5 Environmental Quality Standards for Sediment Chemical Concentrations

Selected data have been compared to the Oslo and Paris Commission (OSPAR) effects range low (ERL) concentrations (OSPAR, 2014). The ERL thresholds represent the low point (10th percentile), on a continuum of chemical concentrations over which adverse biological effects have been observed from ecotoxicological studies. The ERL thresholds are therefore indicative of concentrations below which adverse effects rarely occur (OSPAR, 2009a; 2014).

The second Strategic Environmental Assessment of the Mature Areas of the Offshore North Sea (SEA2) was conducted in 2001. The assessment focuses on "mature" areas, those that have been licenced since the North Sea was first recognised as an oil and gas region, have been extensively explored and have numerous existing fields with production/export infrastructure. The assessment involved a series a seabed surveys to describe the physical and chemical status of the sediments and identify the existing levels of contamination and their sources, as the area has already been subject to disturbance of the sediments due to oil and gas exploration and production. Minimum, maximum and mean concentrations estimated from Area 1 (Sandbanks) provide spatially comparable background concentrations for hydrocarbon data (Environment Resource Technology (Scotland) Limited [ERT], 2003).

The Centre for Environment, Fisheries and Aquaculture Science (Cefas) Guideline Action Levels for the disposal of dredged material are non-statutory guidelines for assessment of disposal of dredged materials to sea, against which reported contaminants concentrations were compared to. In general, concentrations below Cefas Action Level 1 (AL1) are of no concern, whilst concentrations above Action Level 2 (AL2) indicate that dredged material is unsuitable for disposal at sea. Values between AL1 and AL2 may require further investigatory work prior to a disposal decision (Cefas, 2003).

The potential effect of organotin concentrations, specifically tributyltin (TBT) concentrations, on benthic fauna is assessed on a six point scale (A to F) for TBT-specific biological effects (specifically imposex) in dogwhelks and other gastropods. Categories A and B indicate that the Ecological Quality Objectives (EcoQOs) are met, with increasing categories indicating a higher likelihood of adverse effects on the reproductive capability of sensitive key species. As TBT is the most toxic organotin compound to marine fauna, this considers the worst-case scenario against which conservative judgment can be made (OSPAR, 2009b).

1.6 Coordinate Reference System

All coordinates detailed in this report are referenced to World Geodetic System 1984 (WGS84) Universal Transverse Mercator (UTM) projection Zone 31N central meridian (CM) 3° East. Table 1.3 provided the detailed geodetic and projection parameters.

Table 1.3: Project geodetic and projection parameters

Global Positioning System Geodetic Parameters	
Datum:	World Geodetic System 1984 (WGS84)
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° 00′ 00″ East
Latitude of Origin:	00° 00′ 00″ North
False Easting:	500 000 m
False Northing:	0 m
Scale factor on Central Meridian:	0.9996
Units:	Metre

2. Survey Strategy

Within the DEP survey areas, a total of 26 environmental sampling stations were predefined by the client. At each station, video and stills photography were to be acquired. At 21 of the stations grab samples were required for macrofaunal and particle size distribution (PSD) analysis; 18 stations required single samples and at 3 stations triplicate samples were required. At three stations, chemistry samples were also required for hydrocarbon and metals analysis.

Along the CC corridors, a total of 19 environmental sampling stations were predefined by the client. At each station, video and stills photography were to be acquired prior to the collection of macrofaunal and PSD grab sample; 19 stations required single samples and at 2 stations triplicate samples were required. At two stations a chemistry sample was also required for hydrocarbon and metals analysis.

Along the EC corridor, a total of 25 environmental sampling stations were predefined by the client. At each station, video and stills photography were to be acquired. At 18 of the stations grab samples were required for macrofaunal and PSD analysis; 11 stations required single samples and at 7 stations triplicate samples were required. At three stations, a chemistry sample was also required for hydrocarbon and metals analysis. A Shipek grab, with a smaller sample area, was to be used to acquire chemistry samples at stations within the Cromer Shoal Chalk Beds MCZ in order to reduce environmental disturbance.

Table 2.1 provides the coordinates, data to be acquired and rationale for each predefined sampling station. Figure 2.1 spatially displays the sampling station locations overlaid on a SSS mosaic.

Table 2.1: Predefined sampling stations, Dudgeon Extension Project

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]				
Station	Easting	Northing	Rationale	Data and Sample Acquisition
Dudgeon Extension Project (DEP) North and South				
D_01	395 239.1	5 892 020.3	Seabed feature showing on side scan with little bathymetry changes	Video, stills, FA, PSDA
D_02	399 025.9	5 891 930.9	Low variability but side scan showing textured feature, potential *Sabellaria spinulosa*	Video, stills
D_03	400 539.1	5 893 490.5	Sampling slope of sand wave feature	Video, stills, FA, FB, FC, PSDA, PSDB, PSDC
D_04	398 301.8	5 893 379.1	Variable seabed, with sand bank	Video, stills, FA, FB, FC, PSDA, PSDB, PSDC, PC
D_05	395 364.6	5 893 842.2	Low variability seabed, sampled for representativity	Video, stills, FA, PSDA

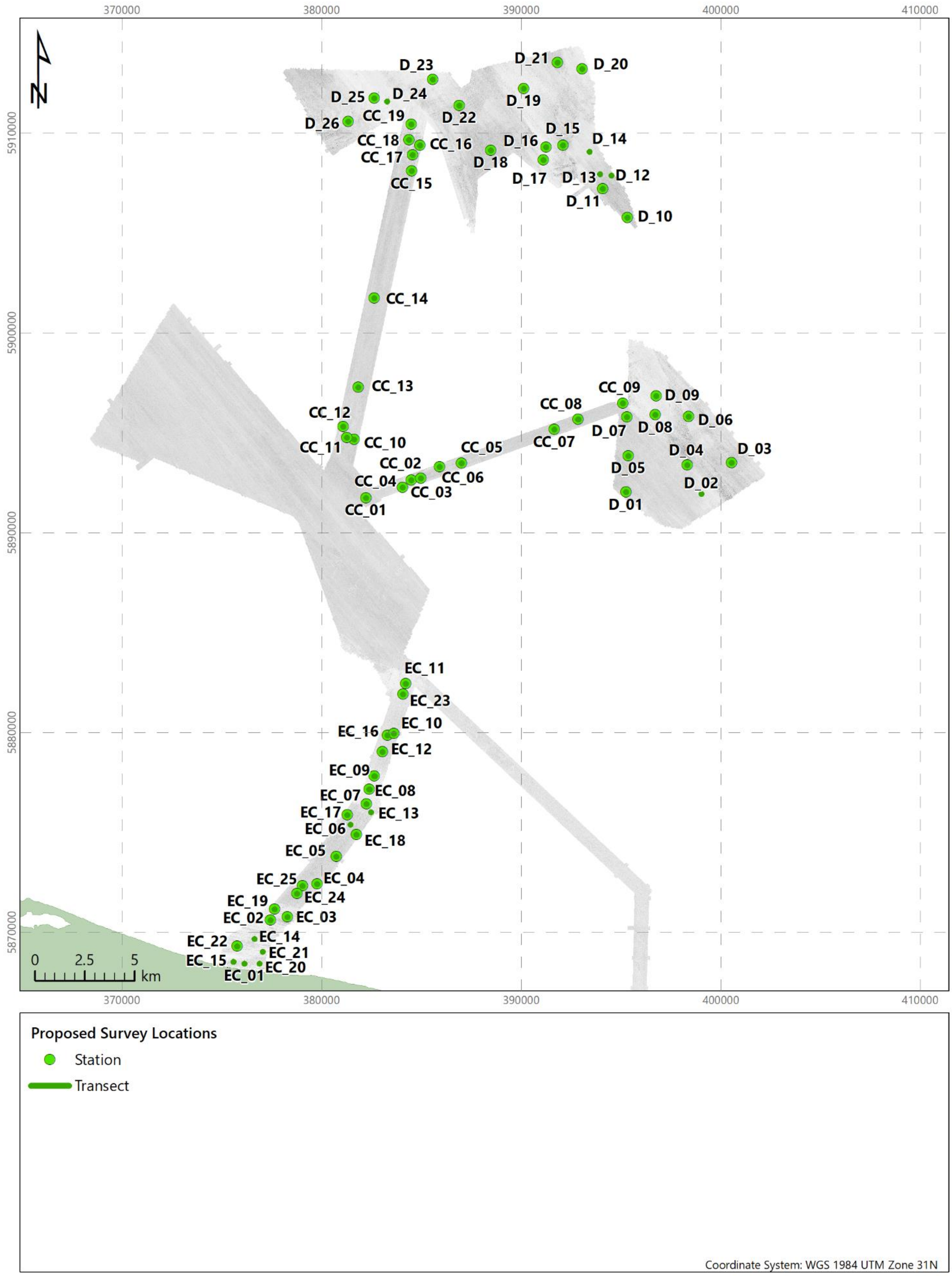
Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]				
Station	Easting	Northing	Rationale	Data and Sample Acquisition
D_06	398 385.4	5 895 811.3	Sampling feature of patch of homogenous seabed between waves/ripples	Video, stills, FA, PSDA
D_07	395 287.8	5 895 779.1	Low variability seabed, sampled for representativity	Video, stills, FA, PSDA
D_08	396 715.8	5 895 888.0	Sampling over potential Annex I Sandbank feature	Video, stills, FA, PSDA
D_09	396 743.5	5 896 838.7	Sampling over potential Annex I Sandbank feature	Video, stills, FA, PSDA
D_10	395 317.5	5 905 771.3	Low variability seabed and previously sampled	Video, stills, FA, PSDA
D_11	394 079.6	5 907 207.3	Low variability seabed and previously sampled	Video, stills, FA, PSDA
D_12	394 505.4	5 907 870.8	Variable seabed adjacent to site previously sampled as *Sabellaria spinulosa*	Video, stills
D_13	393 940.9	5 907 930.2	Potential *Sabellaria* spinulosa area with existing records	Video, stills
D_14	393 412.9	5 909 065.4	Low variability seabed, no feature but previously sampled as *Sabellaria spinulosa*	Video, stills
D_15	392 078.0	5 909 373.6	Sampling sand wave feature	Video, stills, FA, PSDA
D_16	391 237.4	5 909 287.0	Variable seabed, sand wave/mega ripples	Video, stills, FA, PSDA
D_17	391 098.1	5 908 649.9	Variable seabed, sand wave/mega ripples, different to D20	Video, stills, FA, PSDA, PC
D_18	388 458.0	5 909 139.7	Low variability seabed, sampled for representativity	Video, stills, FA, PSDA
D_19	390 118.3	5 912 218.3	Targeting seabed feature, possible sandbank	Video, stills, FA, PSDA
D_20	393 039.8	5 913 208.6	Linear feature	Video, stills, FA, PSDA
D_21	391 814.9	5 913 533.5	Variable seabed, possible *Sabellaria spinulosa*	Video, stills, FA, PSDA
D_22	386 880.0	5 911 376.5	Sand waves with variable slopes	Video, stills, FA, PSDA
D_23	385 553.0	5 912 673.8	Variable seabed, but little showing on side scan	Video, stills, FA, PSDA
D_24	383 263.1	5 911 574.1	Targeting seabed feature, depressed areas from surrounding sediment within Annex I Sandbank	Video, stills
D_25	382 631.6	5 911 742.9	Targeting seabed feature, variable seabed with little showing on side scan within Annex I sandbank	Video, stills, FA, PSDA

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]				
Station	Easting	Northing	Rationale	Data and Sample Acquisition
D_26	381 334.2	5 910 574.4	Targeting seabed feature, raised area of seabed	Video, stills, FA, FB, FC, PSDA, PSDB, PSDC, PC
Interconnector Cable (CC) Corridors				
CC_01	382 221.7	5 891 743.3	Low variability seabed, sampled for representativity	Video, stills, FA, PSDA
CC_02	384 046.8	5 892 259.6	Sampling edge sand wave feature	Video, stills, FA, PSDA
CC_03	384 479.1	5 892 619.8	Sampling crest of sand wave feature	Video, stills, FA, PSDA
CC_04	384 959.4	5 892 727.9	Sampling edge sand wave feature	Video, stills, FA, PSDA
CC_05	385 896.0	5 893 280.2	Variable seabed, ripples adjacent to sand wave	Video, stills, FA, FB, FC, PSDA, PSDB, PSDC
CC_06	387 012.6	5 893 472.3	Variable seabed, widely spaced waved	Video, stills, FA, PSDA, PC
CC_07	391 653.3	5 895 155.2	Low variability seabed, sampled for representativity	Video, stills, FA, PSDA
CC_08	392 851.6	5 895 680.0	Transition in seabed	Video, stills, FA, PSDA
CC_09	395 089.7	5 896 462.4	Transition in seabed	Video, stills, FA, FB, FC, PSDA, PSDB, PSDC
CC_10	381 621.4	5 894 661.0	Sampling edge sand wave feature	Video, stills, FA, PSDA
CC_11	381 249.1	5 894 745.1	Sampling crest of sand wave feature	Video, stills, FA, PSDA
CC_12	381 069.0	5 895 297.4	Sampling edge sand wave feature	Video, stills, FA, PSDA
CC_13	381 837.5	5 897 266.6	Sand wave feature with little change in side scan	Video, stills, FA, PSDA
CC_14	382 631.6	5 901 740.8	Low variability seabed, sampled for representativity	Video, stills, FA, PSDA
CC_15	384 503.2	5 908 088.7	Sampling sand wave feature	Video, stills, FA, PSDA
CC_16	384 562.7	5 908 890.8	Sampling edge sand wave feature	Video, stills, FA, PSDA
CC_17	384 929.1	5 909 386.0	Sampling area between sand waves	Video, stills, FA, PSDA
CC_18	384 374.5	5 909 663.3	Variable seabed between sand waves	Video, stills, FA, PSDA
CC_19	384 486.4	5 910 425.4	Variable seabed and seabed feature with little showing on side scan	Video, stills, FA, PSDA

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]				
Station	Easting	Northing	Rationale	Data and Sample Acquisition
Export Cable (EC) Corridor				
EC_01	376 137.5	5 868 430.4	Potential area for chalk reef with no existing records	Video, stills
EC_02	376 639.3	5 869 674.2	Targeting variable area with adjacent samples indicated cobbles	Video, stills
EC_03	378 283.7	5 870 765.3	Variable seabed and at transition to a more consistent area	Video, stills, FA, FB, FC, PSDA, PSDB, PSDC
EC_04	379 042.9	5 872 313.8	Low variability seabed	Video, stills, FA, PSDA, PC
EC_05	380 734.6	5 873 797.0	Low variability seabed with adjacent samples of mixed sediment	Video, stills, FA, PSDA
EC_06	382 464.5	5 876 008.3	Existing sample location, mixed sediments and *Sabellaria spinulosa*	Video, stills
EC_07	382 237.7	5 876 411.4	Targeting an area which has multiple seabed types and an edge is indicated (side of shoal)	Video, stills, FA, FB, FC, PSDA, PSDB, PSDC, PC
EC_08	382 390.2	5 877 158.9	Targeting feature, top of shoal	Video, stills, FA, PSDA
EC_09	382 642.0	5 877 808.2	Targeting an area which has multiple seabed types and an edge is indicated (side of shoal)	Video, stills, FA, FB, FC, PSDA, PSDB, PSDC
EC_10	383 290.2	5 879 858.9	Low variability seabed adjacent to feature	Video, stills, FA, PSDA
EC_11	384 200.7	5 882 432.2	Consistent area of seabed at junction of cable corridors	Video, stills, FA, PSDA
EC_12	383 617.8	5 879 951.0	Targeting feature	Video, stills, FA, PSDA
EC_13	381 442.7	5 875 396.8	Targeting linear feature	Video, stills
EC_14	377 437.7	5 870 611.4	Variable seabed yet adjacent samples suggest sand	Video, stills, FA, FB, FC, PSDA, PSDB, PSDC
EC_15	375 756.3	5 869 290.6	Consistent seabed with no existing samples	Video, stills, FA, PSDA, PC
EC_16	383 039.3	5 879 023.8	Low variability seabed	Video, stills, FA, PSDA
EC_17	381 287.8	5 875 866.8	Low variability seabed with adjacent samples of mixed sediment	Video, stills, FA, PSDA
EC_18	381 737.9	5 874 884.4	Low variability seabed with adjacent samples of coarse sediment	Video, stills, FA, PSDA
EC_19	377 640.8	5 871 151.5	Targeting variable area and an edge/transition is indicted	Video, stills, FA, FB, FC, PSDA, PSDB, PSDC

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]				
Station	Easting	Northing	Rationale	Data and Sample Acquisition
EC_20	377 051.9	5 869 015.0	Targeting variable area with cobbles indicated from previous samples	Video, stills
EC_21	376 876.0	5 868 439.3	Targeting variable area with reef indicated from previous samples	Video, stills
EC_22	375 573.2	5 868 523.4	Targeting variable area with reef indicated from previous samples	Video, stills
EC_23	384 081.8	5 881 917.6	Targeting variable area and an edge/transition is indicted	Video, stills, FA, FB, FC, PSDA, PSDB, PSDC
EC_24	379 764.0	5 872 417.2	Additional sample to assess area of mixed sediment from MCZ map	Video, stills, FA, FB, FC, PSDA, PSDB, PSDC
EC_25	378 753.7	5 871 926.7	Additional sample to assess area of mixed sediment from MCZ map	Video, stills, FA, PSDA

Notes
FA/FB/FC = Faunal sample A, B or C
PSDA/PSDB/PSDC = Particle size distribution sample A, B or C
PC = Chemistry sample
MCZ = Marine Conservation Zone



Map Document: (S:\430-MGC-IT\Charting\E200270_Equinor_Dudgeon_and_Sheringham\3_Plots\2_Draft\Dudgeon\Q200270_03_ProposedArray.mxd)
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Figure 2.1: Proposed environmental survey locations overlaid on a side scan sonar mosaic, Dudgeon Extension Project

3. Methods

3.1 Survey Methods

The following subsection provide summaries of survey methods, further detailed in Appendix B.1.

3.1.1 Seabed Photography

Seabed photography was acquired using a Subsea Technology and Rentals Limited SeaSpyder Telemetry camera system mounted within a purpose built camera frame, complete with a Mini IP 720-1080p high definition video camera, a Canon EOS 200D DSLR high-resolution stills camera (24 megapixel), a separate high-power camera strobe and four high intensity SeaLight LED-1-DC lamps. Four lasers were set up 18.5 cm by 16.5 cm (width and height respectively) apart to provide a scale. Manual position fixes were recorded for every photograph captured and positional data were overlain on the recorded video, along with date, time, project and station information.

3.1.2 Sediment Grab Sampling

Seabed fauna and PSD samples were acquired using a 0.1 m^2 Hamon grab. Chemistry samples were acquired with a 0.1 m^2 Day grab, with the exception of samples acquired in the Cromer Shoal Chalk Beds MCZ (those on the EC corridor), where a 0.04 m^2 Shipek grab was used in order to reduce environmental disturbance. For further details on deployment and processing methods, refer to the field report (Fugro, 2020).

3.2 Laboratory Methods

Brief analytical methodologies are described in the following subsections. Further descriptions of the analytical methodologies are detailed in Appendix B.2.

3.2.1 Sediment Characterisation

3.2.1.1 Particle Size Distribution

Sediment samples were analysed at Fugro sediment laboratory in accordance with Fugro in-house methods based on British Standards (BS) BS1377: Part 1; 2016 and part 2; 1990 and the North East Atlantic National Marine Biological Association Quality Control (NMBAQC) scheme (Mason, 2016). Analysis was by dry sieving (63000 µm to 1000 µm), and laser diffraction (< 1000 µm to < 0.98 µm). Data were expressed at 0.5 phi intervals.

3.2.2 Sediment Hydrocarbons

The sediment samples were analysed at Fugro chemistry laboratory for hydrocarbon content including total hydrocarbon content (THC), total n-alkanes (nC_{12} to nC_{36}) and polycyclic aromatic hydrocarbons (PAHs), specifically the United States Environmental Protection Agency's 16 priority PAH pollutants (US EPA 16 PAHs) and alkylated PAHs.

Samples were extracted by ultrasonication of wet sediments with mixed solvents. The sample extracts were then cleaned-up using absorption column chromatography. The extracts were analysed for THC, unresolved complex mixture (UCM), individual and total n-alkanes (nC_{12} to nC_{36}) and the subsequent carbon preference index (CPI) using gas chromatography-flame ionisation detection (GC-FID). Aromatic hydrocarbons were analysed by gas chromatography-mass spectrometry (GC-MS).

3.2.3 Sediment Metals

The sediment samples were analysed using an aqua regia digest technique. This 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). As macrofaunal communities can exhibit a preference for finer sediments, the concentrations of metals released by an aqua regia digest are typically considered indicative of those influencing biological interactions.

The sediment samples underwent an aqua regia digest followed by multi-element analysis by inductively coupled plasma-mass spectrometry (ICP-MS) (arsenic, cadmium, chromium, copper, lead, lithium, mercury, nickel, and zinc) or by inductively coupled plasma-optical emission spectrometry (ICP-OES) (aluminium, barium and iron).

3.2.4 Sediment Organotins

Sediment organotins were determined using Fugro’s inhouse methodology.

Sediment samples were thawed, homogenised and accurately weighed into a 125 mL conical flask. A solution containing an appropriate amount of the internal standard (containing monoheptyltin, diheptyltin and tripropyltin) was added to each sample. Extraction solvent (acetic acid:methanol:water (1:1:1, v:v:v)) was added and the sample mixed again. The flasks were then capped with solvent cleaned aluminium foil and ultrasonicated for 30 minutes. The slurry was transferred to a centrifuge tube and centrifuged to separate the liquid and solid phases. The ultrasonication and centrifugation steps were repeated one further time. The two extraction solutions were combined, mixed and the pH adjusted to approximately 4.5 using a sodium hydroxide solution. The extract solution was derivatised using 5 % (w/v) sodium tetraethylborate in water solution, the solution left for 30 minutes before 5 mL of hexane was added. The solutions were mixed, left to separate and the hexane layer transferred to a 12 mL vial. The derivatisation step was repeated and a further 5 mL of hexane added. The hexane layers were combined and blown down to 1 mL.

Sample extracts are cleaned up by column chromatography using 3 % de-activated silica. The silica gel used was 70 mesh to 230 mesh, muffled at 400 °C for at least 4 hours to remove impurities and activate it then stored at 200 °C. Prior to use, silica is deactivated by the addition of distilled water. The sediment extract was added to the silica gel column, containing 5 g of adsorbent and eluted with 30 mL of hexane/dichloromethane (4:1, v:v). The eluent was reduced in volume using the evaporator to approximately 2 mL before being further reduced under a gentle stream of nitrogen to an appropriate volume approximately 1 g of activated copper powder (for removal of free sulphur) before being concentrated to 0.5 mL for analysis.

Sample extracts are analysed by GC-MS using selected ion monitoring for monobutyltin, dibutyltin, and tributyltin.

3.2.5 Sediment Macrofauna

Samples were analysed at Fugro benthic laboratory in accordance with Fugro in house quality assured procedures, which are consistent with the requirements of the NMBAQC scheme (Worsfold et al., 2010) and the relevant International Organisation for Standardisation (ISO) standards. Samples were sieved over a 1.0 mm mesh sieve and taxa were identified to the lowest possible taxonomic level. Infaunal and solitary epifauna were enumerated whereas sessile colonial epifauna was recorded as present (P).

3.2.1 Macrofaunal Biomass Analysis

Biomass was undertaken at phylum level for infaunal invertebrates from grab samples using the blotted wet weigh method; biomass was not calculated for epifauna.

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

Table 3.1 summarises the sediment PSD statistics calculated using Gradistat V8 (Blott, 2010). Statistics are based on the Folk and Ward (1957) method.

The Wentworth (1922) sediment classification is based on mean sediment particle size; the Folk (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 that allows particle size data to be expressed in unit of equal value for graphical plotting and statistical calculations.

Table 3.1: Sediment particle size distribution statistics

Statistic	Definition and Descriptive Terminology
Mean	A measure of central tendency: sum of values, divided by number of observations
Median	A measure of central tendency: central value
Mode	A measure of central tendency: most frequently observed value
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, some taxa were merged with a higher corresponding taxon identified. Damaged taxa were removed, as well as juvenile species, as they represent an ephemeral stage of the macrofaunal community and are, therefore, not representative of prevailing benthic conditions. Epifauna included solitary and sessile colonial taxa, the latter recorded as present (P).

3.3.3 Sediment Macrofauna 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 (less dependent on sampling size than S and N)
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 Macrofaunal Biomass Analysis

Biomass was determined for infaunal invertebrates from grab samples to Phylum level; epifauna was not biomassed.

The macrofaunal biomass dataset (Appendix F.2) was converted to ash free dry weight (AFDW) by applying the appropriate standard corrections which provide the equivalent dry weight biomass 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
Notes Standard biomass corrections to convert blotted wet weight to ash free dry weight, from Eleftheriou & Basford (1989)	

3.3.5 Multivariate Analysis

Various multivariate statistical techniques were applied to the macrofauna and sediment characteristics data to investigate patterns of similarity in PRIMER v7 (Table 3.4). For the sediment data, transformation is used to reduce skewness of data; for the macrofaunal data, transformation is used to reduce the influence of the dominant taxa. For optimal performance of multivariate analysis, macrofaunal data were transformed (log x+1) with no transformation applied to the PSD data.

Table 3.4: Multivariate Statistics

Statistic	Definition
CLUSTER	Hierarchical clustering analysis (CLUSTER) to group 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)
nMDS	Non-metric multi-dimensional scaling (nMDS) ordination of Bray Curtis and Euclidean Distance similarity/distance matrices
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 ('SIMPER' algorithm), to gauge the distinctiveness of each of the multivariate groups
PCA	Principal component analysis (PCA), to identify spatial patterns and relationships between variables
BIOENV	Biological and environmental testing ('BIOENV' algorithm), to indicate relationships between physical and biological variables

3.3.6 Seabed Habitats and Biotopes

A habitat assessment was completed by Fugro detailing the analysis of completed transects and incorporating particle size analysis results (Dudgeon Extension Habitat Report – Volume 3 of this series). This will be summarised and refined with consideration of macrofauna sample analysis.

3.3.6.1 Seabed Habitat Classification

To assess the habitats present within the survey area, detailed analysis of video and still photographic data was undertaken, noting the locations of any observed changes in sediment type and/or associated faunal community.

Taxa were recorded to the lowest possible taxonomic level. It should be noted that many species cannot be identified from photographic data alone and, as such, higher taxonomic levels were used.

Descriptors of the substrate composition, corresponding to sediment changes, were used to support the European Nature Information System (EUNIS) habitat identification (Long, 2006). These descriptors were largely based on a reclassification of the Folk (1954) sediment classes, with the Wentworth (1922) classification also used, as the latter differentiates into distinct size classes on a single scale and differentiating between pebbles, cobbles and boulders. The Folk (1954) sediment classification was reclassified into four categories, namely 'coarse sediment', 'mixed sediment', 'mud and sandy mud' and 'sand and muddy sand' (Long, 2006). Further sub-categories, namely 'mud', 'sandy mud' and 'muddy sand' are utilised to further account for differences in sediment in the 'mud to sandy mud' fraction (Kaskela et al., 2019). These categories are defined by the proportions of mud (the 'fines' fraction), sand and gravel. For example, a description of 'muddy sand' defines sediments that have sand as the principal component (50 % to 90 %) with a secondary component of mud (10 % to 50 %) and < 5 % gravel (Kaskela et al., 2019). The EMODnet Geology Consortium further revised these categories to include an additional category 'rock and boulders' (Kaskela et al., 2019), which includes the Wentworth (1922) categories 'boulders' and 'cobbles'. The presence of shell fragments and evident anthropogenic features were also noted.

Table 3.5 presents a summary of the sediment particle sizes and corresponding classifications.

Table 3.5: Sediment particle size and classification terms

<table>
<tr><th>Particle Size</th><th>Wentworth (1922)</th><th>Folk (1954)</th><th colspan="4">Folk, 5 classes (Kaskela et al., 2019)</th></tr>
<tr><td>> 256 mm</td><td>Boulder</td><td rowspan="7">Gravel</td><td colspan="4" rowspan="2">Rock & Boulders</td></tr>
<tr><td>64 mm to 256 mm</td><td>Cobble</td></tr>
<tr><td>32 mm to < 64 mm</td><td rowspan="4">Pebbles</td><td rowspan="10">Coarse sediment:
(Gravel ≥ 80 %,
or
Gravel ≥ 5 % and Sand ≥ 90 %)</td><td rowspan="12">Mixed sediment:
(Mud ≥ 10 % - 95 %
Sand < 90 %
Gravel ≥ 5%)</td><td rowspan="12">Mud to sandy mud*:
(Mud 10 % - 100 %
Sand < 90 %
Gravel < 5 %)</td><td rowspan="12">Sand:
(Mud < 10 %
Sand ≥ 90 %
Gravel < 5%)</td></tr>
<tr><td>16 mm to < 32 mm</td></tr>
<tr><td>8 mm to < 16 mm</td></tr>
<tr><td>4 mm to < 8 mm</td></tr>
<tr><td>2 mm to < 4 mm</td><td>Granules</td></tr>
<tr><td>1 mm to < 2 mm</td><td>Very coarse sand</td><td rowspan="5">Sand</td></tr>
<tr><td>0.5 mm to < 1 mm</td><td>Coarse sand</td></tr>
<tr><td>0.25 mm to < 0.5 mm</td><td>Medium sand</td></tr>
<tr><td>0.125 mm to < 0.25 mm</td><td>Fine sand</td></tr>
<tr><td>62.5 µm to 0.125 mm</td><td>Very fine sand</td></tr>
<tr><td>> 4 µm to 62.5 µm</td><td>Silt</td><td rowspan="2">Mud</td><td rowspan="2">-</td></tr>
<tr><td>> 1 µm to 4 µm</td><td>Clay</td></tr>
<tr><td colspan="7">Notes
* = Mud to sandy mud includes:
Mud (Mud ≥ 90 %, Sand <10 %, Gravel < 5%);
Sandy mud (Mud 50 % to 90 %, Sand 10 % to 50 %, Gravel < 5%);
Muddy sand (Mud 10 % to 50 %, Sand 50 % to 90 %, Gravel < 5%) (Kaskela et al., 2019)</td></tr>
</table>

Habitats within the survey area have been classified in accordance with the hierarchical EUNIS habitat classification (European Environment Agency [EEA], 2019a), which has compiled habitat information from across Europe into a single database. Table 3.6 summarises the EUNIS hierarchy, with an example of the coding system. The equivalent classification from 'The Marine Habitat Classification for Britain and Ireland – Version 15.03' (JNCC, 2015) was also noted. The JNCC classification formed the basis of the marine section of the EUNIS habitat classification scheme (Davies & Moss, 2004), resulting in broad similarities, although there are some structural differences and habitat types. These classification systems are designed to incorporate small-scale temporal variations (e.g. seasonal) into the biotope/habitat categories. However, biological communities and marine environments can be highly dynamic and temporally variable, therefore the biotopes and habitats identified by the current assessment are representative of the survey area at the time of sampling only.

Table 3.6: EUNIS (EEA,2019a) biotope classification hierarchy example

Level	Example Classification Name	Example Classification Code
1. Environment	Marine habitats	A
2. Broad habitat types	Sublittoral sediments	A5
3. Main habitats	Sublittoral sand	A5.2
4. Biotope complexes	Circalittoral muddy sand	A5.26
5 & 6. Biotopes and sub-biotopes	*Amphiura brachiata* with *Astropecten irregularis* and other echinoderms in circalittoral muddy sand	A5.262

Classifications were assigned to each habitat type observed within the video and stills photography. Additional information from grab sampling, such as sediment particle size and macrofaunal communities, was used where available. Although, theoretically, a biotope can be assigned to any sized area of seabed, for the purposes of this assessment the commonly accepted minimum habitat size of 25 m^2 was adopted. For distinct areas of mixed habitats/biotopes (e.g. rock interspersed with coarse sediment) where the overall area was at least 25 m^2, biotope mosaics were considered (Parry, 2019).

4. Results

4.1 Field Operations

4.1.1 Bathymetry and Seabed Features

The geophysical survey was conducted by Gardline Limited in 2019 for the EC corridor and in 2020 for the DEP survey areas and CC corridors. The surveys utilised multibeam echosounder, side scan sonar (SSS), magnetometer and pinger (Gardline, 2020a; 2020b). The following information has been summarised from these reports, and a more detailed interpretation of these data is provided in the Dudgeon Extension Habitat Report – Volume 3 of this series.

Water depths ranged from 0.0 m Lowest Astronomical Tide (LAT) at the landfall on the EC corridor to 36.1 m LAT within a depression in the north-west area of the DEP North survey area.

Within the DEP survey areas sand waves and ripples were observed, as well as some areas of a mottled appearance of sonar reflectivity that were interpreted as coarse sediment (Gardline, 2020a).

Along the CC corridors, areas of sand waves and megaripples were observed with seabed sediments comprising a mix of sands, gravels and outcropping chalk overlain by a veneer of sands and gravels (Gardline, 2020a).

Along the EC corridor the seabed transitioned from mega ripples and sand waves closest to the SEP to being relatively smooth and featureless (Gardline, 2020b).

4.1.2 Seabed Photography

Within the DEP survey areas, photographic stills and video were successfully acquired at all 26 predefined stations. At station D_04 video was re-run (as D_04b) due to tidal conditions.

Along the EC corridor, photographic stills and video were successfully acquired at all predefined stations, except for stations EC_01, EC_20, EC_21 and EC_22, which were abandoned due to the presence of fishing gear at the predefined sampling locations. As such, an additional camera station (EC_26) was proposed and undertaken after approval from the client representative.

Along the CC corridors, photographic stills and video were successfully acquired at all 19 predefined stations. At station CC_05, photographic data acquisition was re-run (as CC_05a) due to tidal conditions.

Table 4.1 details the photographic data acquired at each station. Appendix C provides detailed survey logs.

Table 4.1: Completed transects, Dudgeon Extension Project

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]					
Station		Easting	Northing	Length [m]	Data Acquisition
Dudgeon Extension Project (DEP) North and South					
D_01	SOL	395 258.2	5 892 037.7	63	1 min 14 sec 8 stills
	EOL	395 218.4	5 891 989.2		
D_02	SOL	399 046.8	5 891 928.6	59	1 min 7 sec 8 stills
	EOL	398 989.6	5 891 943.8		
D_03	SOL	400 558.2	5 893 457.3	74	1 min 34 sec 7 stills
	EOL	400 537.2	5 893 528.6		
D_04b	SOL	398 296.5	5 893 413.3	66	1 min 32 sec 9 stills
	EOL	398 292.6	5 893 347.9		
D_05	SOL	395 371.1	5 893 822.4	53	1 min 21 sec 8 stills
	EOL	395 353.2	5 893 872.2		
D_06	SOL	398 406.7	5 895 785.6	63	1 min 36 sec 8 stills
	EOL	398 376.4	5 895 841.4		
D_07	SOL	395 327.5	5 895 748.3	85	2 min 25 sec 9 stills
	EOL	395 265.5	5 895 806.0		
D_08	SOL	396 732.1	5 895 859.1	64	1 min 27 sec 6 stills
	EOL	396 717.3	5 895 921.1		
D_09	SOL	396 758.2	5 896 800.8	74	1 min 44 sec 7 stills
	EOL	396 735.1	5 896 871.5		
D_10	SOL	395 345.2	5 905 745.2	64	1 min 41 sec 14 stills
	EOL	395 295.7	5 905 785.7		
D_11	SOL	394 089.5	5 907 193.1	52	0 min 53 sec 10 stills
	EOL	394 038.0	5 907 186.6		
D_12	SOL	394 511.7	5 907 827.9	65	1 min 39 sec 11 stills
	EOL	394 519.5	5 907 892.7		
D_13	SOL	393 932.0	5 907 962.2	68	1 min 18 sec 13 stills
	EOL	393 934.8	5 907 893.8		
D_14	SOL	393 398.4	5 909 062.5	48	0 min 57 sec 10 stills
	EOL	393 439.9	5 909 087.3		
D_15	SOL	392 065.5	5 909 361.6	46	0 min 59 sec 10 stills
	EOL	392 075.1	5 909 406.1		
D_16	SOL	391 224.3	5 909 310.9	50	0 min 46 sec 6 stills
	EOL	391 217.6	5 909 261.2		

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]					
Station		Easting	Northing	Length [m]	Data Acquisition
D_17	SOL	391 096.9	5 908 630.2	38	1 min 14 sec 9 stills
	EOL	391 109.9	5 908 666.4		
D_18	SOL	388 438.8	5 909 174.9	69	1 min 6 sec 5 stills
	EOL	388 434.3	5 909 105.6		
D_19	SOL	390 069.2	5 912 225.6	76	1 min 49 sec 9 stills
	EOL	390 144.7	5 912 221.8		
D_20	SOL	393 018.7	5 913 237.5	71	1 min 20 sec 9 stills
	EOL	393 036.0	5 913 168.5		
D_21	SOL	391 766.4	5 913 544.8	74	1 min 41 sec 8 stills
	EOL	391 836.6	5 913 568.9		
D_22	SOL	386 863.4	5 911 402.4	67	1 min 23 sec 5 stills
	EOL	386 915.6	5 911 360.8		
D_23	SOL	385 524.2	5 912 692.7	68	1 min 20 sec 7 stills
	EOL	385 579.7	5 912 653.4		
D_24	SOL	383 273.9	5 911 605.6	66	1 min 12 sec 6 stills
	EOL	383 262.4	5 911 540.2		
D_25	SOL	382 640.9	5 911 724.2	53	1 min 1 sec 5 stills
	EOL	382 633.6	5 911 776.6		
D_26	SOL	381 335.8	5 910 526.6	68	1 min 56 sec 9 stills
	EOL	381 356.1	5 910 591.5		
Interconnector Cable (CC)) Corridors					
CC_01	SOL	382 254.6	5 891 775.3	81	1 min 45 sec 15 stills
	EOL	382 180.2	5 891 743.6		
CC_02	SOL	384 027.2	5 892 312.7	81	1 min 46 sec 14 stills
	EOL	384 057.3	5 892 237.8		
CC_03	SOL	384 452.3	5 892 657.9	77	3 min 46 sec 8 stills
	EOL	384 497.4	5 892 595.3		
CC_04	SOL	384 920.2	5 892 761.6	79	2 min 31 sec 8 stills
	EOL	384 974.1	5 892 703.3		
CC_05a	SOL	385 843.3	5 893 297.6	84	1 min 41 sec 5 stills
	EOL	385 916.7	5 893 256.4		
CC_06	SOL	386 981.7	5 893 513.9	84	2 min 8 sec 9 stills
	EOL	387 040.2	5 893 454.2		

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]					
Station		Easting	Northing	Length [m]	Data Acquisition
CC_07	SOL	391 612.5	5 895 136.4	81	1 min 44 sec 8 stills
	EOL	391 682.8	5 895 176.0		
CC_08	SOL	392 895.0	5 895 680.9	76	1 min 46 sec 10 stills
	EOL	392 820.0	5 895 691.7		
CC_09	SOL	395 134.8	5 896 444.7	78	3 min 14 sec 12 stills
	EOL	395 063.3	5 896 476.2		
CC_10	SOL	381 657.6	5 894 671.3	69	2 min 20 sec 15 stills
	EOL	381 590.7	5 894 655.0		
CC_11	SOL	381 277.4	5 894 730.4	64	1 min 40 sec 13 stills
	EOL	381 218.8	5 894 755.6		
CC_12	SOL	381 097.3	5 895 276.9	63	1 min 28 sec 13 stills
	EOL	381 051.5	5 895 320.6		
CC_13	SOL	381 857.3	5 897 248.2	54	1 min 22 sec 12 stills
	EOL	381 807.9	5 897 270.3		
CC_14	SOL	382 607.5	5 901 768.8	57	1 min 16 sec 10 stills
	EOL	382 644.0	5 901 724.8		
CC_15	SOL	384 514.8	5 908 057.1	60	1 min 55 sec 8 stills
	EOL	384 502.3	5 908 115.6		
CC_16	SOL	384 602.5	5 908 870.8	76	1 min 45 sec 6 stills
	EOL	384 539.8	5 908 913.1		
CC_17	SOL	384 964.7	5 909 373.4	69	1 min 33 sec 7 stills
	EOL	384 904.1	5 909 406.2		
CC_18	SOL	384 397.2	5 909 641.2	66	1 min 11 sec 6 stills
	EOL	384 362.1	5 909 696.8		
CC_19	SOL	384 514.1	5 910 412.5	58	0 min 57 sec 6 stills
	EOL	384 477.6	5 910 457.2		
Export Cable (EC) Corridor					
EC_02	SOL	376 649.2	5 869 674.6	41	1 min 18 sec 10 stills
	EOL	376 612.9	5 869 693.2		
EC_03	SOL	378 242.7	5 870 764.4	61	2 min 32 sec 13 stills
	EOL	378 303.8	5 870 767.3		
EC_04	SOL	379 070.5	5 872 311.4	57	1 min 38 sec 6 stills
	EOL	379 014.6	5 872 302.9		
EC_05	SOL	380 755.2	5 873 777.7	41	2 min 04 sec 9 stills
	EOL	380 751.2	5 873 818.8		

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]					
Station		Easting	Northing	Length [m]	Data Acquisition
EC_06	SOL	382 440.8	5 876 011.3	56	2 min 27 sec 7 stills
	EOL	382 496.4	5 876 004.7		
EC_07	SOL	382 215.1	5 876 420.1	59	2 min 07 sec 10 stills
	EOL	382 269.4	5 876 397.2		
EC_08	SOL	382 373.5	5 877 156.6	47	1 min 39 sec 8 stills
	EOL	382 419.7	5 877 163.2		
EC_09	SOL	382 617.8	5 877 813.4	22	1 min 1 sec 5 stills
	EOL	382 628.7	5 877 832.2		
EC_10	SOL	383 244.1	5 879 866.8	71	2 min 25 sec 10 stills
	EOL	383 312.4	5 879 847.4		
EC_11	SOL	384 209.5	5 882 423.1	42	1 min 19 sec 6 stills
	EOL	384 172.0	5 882 441.6		
EC_12	SOL	383 599.1	5 879 948.6	45	1 min 17 sec 11 stills
	EOL	383 644.1	5 879 953.6		
EC_13	SOL	381 471.7	5 875 397.7	59	2 min 24 sec 9 stills
	EOL	381 413.2	5 875 401.8		
EC_14	SOL	377 336.3	5 870 616.4	139	3 min 53 sec 11 stills
	EOL	377 474.2	5 870 635.0		
EC_15	SOL	375 779.5	5 869 281.5	56	1 min 25 sec 8 stills
	EOL	375 725.7	5 869 295.9		
EC_16	SOL	383 035.3	5 879 019.9	21	0 min 47 sec 8 stills
	EOL	383 056.1	5 879 021.3		
EC_17	SOL	381 322.4	5 875 847.2	74	1 min 53 sec 7 stills
	EOL	381 266.4	5 875 895.7		
EC_18	SOL	381 772.9	5 874 880.4	66	2 min 19 sec 9 stills
	EOL	381 707.4	5 874 881.8		
EC_19	SOL	377 661.7	5 871 139.9	43	1 min 24 sec 7 stills
	EOL	377 626.0	5 871 163.8		
EC_23	SOL	384 078.5	5 881 909.2	40	0 min 57 sec 6 stills
	EOL	384 104.8	5 881 939.3		
EC_24	SOL	379 790.3	5 872 412.4	55	2 min 1 sec 8 stills
	EOL	379 734.9	5 872 411.2		
EC_25	SOL	378 783.9	5 871 921.1	47	1 min 57 sec 6 stills
	EOL	378 736.6	5 871 920.0		

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]					
Station		Easting	Northing	Length [m]	Data Acquisition
EC_26	SOL	375 233.3	5 868 469.0	206	3 min 56 sec 18 stills
	EOL	375 245.1	5 868 675.1		
Notes SOL = Start of line EOL = End of line					

4.1.3 Grab Sampling

Within the DEP survey areas, a complete suite of samples (macrofauna and PSD) was successfully acquired at all 26 predefined stations, including the three triplicate sampling stations. Chemistry samples were only retained at two of the three proposed stations due to repeat no samples.

Along the EC corridor, grab samples were acquired at 18 predefined stations. A complete suite of samples (single macrofauna and one PSD) was retained at 13 stations. At five stations no macrofaunal samples were acquired due to repeat no samples. Triplicate samples were not acquired at three proposed stations due to low grab volumes. Chemistry samples were retained at the three proposed stations.

Along the CC corridors, a complete suite of samples (macrofauna and PSD) was successfully acquired at all 19 predetermined stations including the two stations where triplicate sampling was required. Only one of the two chemistry samples were acquired due to repeat no samples.

Table 4.2 presents the positions and samples acquired at each station. Figure 4.1 presents the completed survey locations overlain on a side scan sonar mosaic.

Table 4.2: Completed stations, Dudgeon Extension Project

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]			
Station	Easting	Northing	Sample Acquisition
Dudgeon Extension Project (DEP) North and South			
D_01	395 240.7	5 892 021.0	FA, PSDA
D_03	400 539.0	5 893 490.1	FA, FB, FC, PSDA, PSDB, PSDC
D_04	398 307.7	5 893 364.9	FA, FB, FC, PSDA, PSDB, PSDC
D_05	395 370.6	5 893 835.2	FA, PSDA
D_06	398 377.2	5 895 808.2	FA, PSDA
D_07	395 293.4	5 895 782.1	FA, PSDA
D_08	396 714.5	5 895 871.4	FA, PSDA
D_09	396 748.1	5 896 833.7	FA, PSDA
D_10	395 312.8	5 905 751.5	FA, PSDA

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]			
Station	Easting	Northing	Sample Acquisition
D_11	394 077.7	5 907 210.2	FA, PSDA
D_15	392 070.3	5 909 358.7	FA, PSDA
D_16	391 238.9	5 909 297.7	FA, PSDA
D_17	391 082.1	5 908 647.1	FA, PSDA, PC
D_18	388 465.4	5 909 137.0	FA, PSDA
D_19	390 125.4	5 912 233.2	FA, PSDA
D_20	393 028.4	5 913 193.4	FA, PSDA
D_21	391 814.1	5 913 552.4	FA, PSDA
D_22	386 864.6	5 911 397.5	FA, PSDA
D_23	385 550.4	5 912 676.6	FA, PSDA
D_25	382 637.8	5 911 740.3	FA, PSDA
D_26	381 341.5	5 910 571.7	FA, FB, FC, PSDA, PSDB, PSDC, PC
Interconnector Cable (CC) Corridors			
CC_01	382 227.9	5 891 762.4	FA, PSDA
CC_02	384 051.6	5 892 261.6	FA, PSDA
CC_03	384 475.9	5 892 623.1	FA, PSDA
CC_04	384 960.7	5 892 734.8	FA, PSDA
CC_05	385 888.2	5 893 273.1	FA, FB, FC, PSDA, PSDB, PSDC
CC_06	387 016.3	5 893 475.0	FA, PSDA, PC
CC_07	391 657.0	5 895 154.1	FA, PSDA
CC_08	392 850.8	5 895 663.8	FA, PSDA
CC_09	395 091.8	5 896 445.2	FA, FB, FC, PSDA, PSDB, PSDC
CC_10	381 627.5	5 894 657.3	FA, PSDA
CC_11	381 263.4	5 894 741.9	FA, PSDA
CC_12	381 060.8	5 895 299.4	FA, PSDA
CC_13	381 830.6	5 897 268.6	FA, PSDA
CC_14	382 625.6	5 901 733.4	FA, PSDA
CC_15	384 513.8	5 908 098.7	FA, PSDA
CC_16	384 559.1	5 908 886.3	FA, PSDA
CC_17	384 939.3	5 909 368.7	FA, PSDA
CC_18	384 376.2	5 909 665.1	FA, PSDA
CC_19	384 506.0	5 910 421.7	FA, PSDA

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]			
Station	Easting	Northing	Sample Acquisition
Export Cable (EC) Corridor			
EC_03	378 274.6	5 870 746.9	PSDA, PSDB, PSDC
EC_04	379 053.6	5 872 309.6	PSDA, PC
EC_05	380 741.4	5 873 793.5	FA, PSDA, PC
EC_07	382 233.7	5 876 410.7	FA, FB, FC, PSDA, PSDB, PSDC
EC_08	382 374.1	5 877 164.5	FA, PSDA
EC_09	382 648.5	5 877 828.2	FA, FB, FC, PSDA, PSDB, PSDC
EC_10	383 284.5	5 879 879.4	FA, PSDA
EC_11	384 200.9	5 882 429.5	FA, PSDA
EC_12	383 611.4	5 879 937.8	FA, PSDA
EC_14	377 414.5	5 870 612.0	FA, PSDA, PSDB
EC_15	375 757.7	5 869 284.6	FA, PSDA, PC
EC_16	383 032.4	5 879 027.5	FA, PSDA
EC_17	381 267.3	5 875 855.3	FA, PSDA
EC_18	381 736.1	5 874 877.2	PSDA
EC_19	377 645.1	5 871 138.5	FA, FB, FC, PSDA, PSDB, PSDC
EC_23	384 088.9	5 881 917.1	FA, FB, FC, PSDA, PSDB, PSDC
EC_24	379 768.0	5 872 403.2	PSDA, PSDB, PSDC
EC_25	378 764.4	5 871 922.8	PSDA
Notes FA/FB/FC = Faunal sample A, B or C PSDA, PSDB, PSDC = Particle size distribution sample A, B or C			

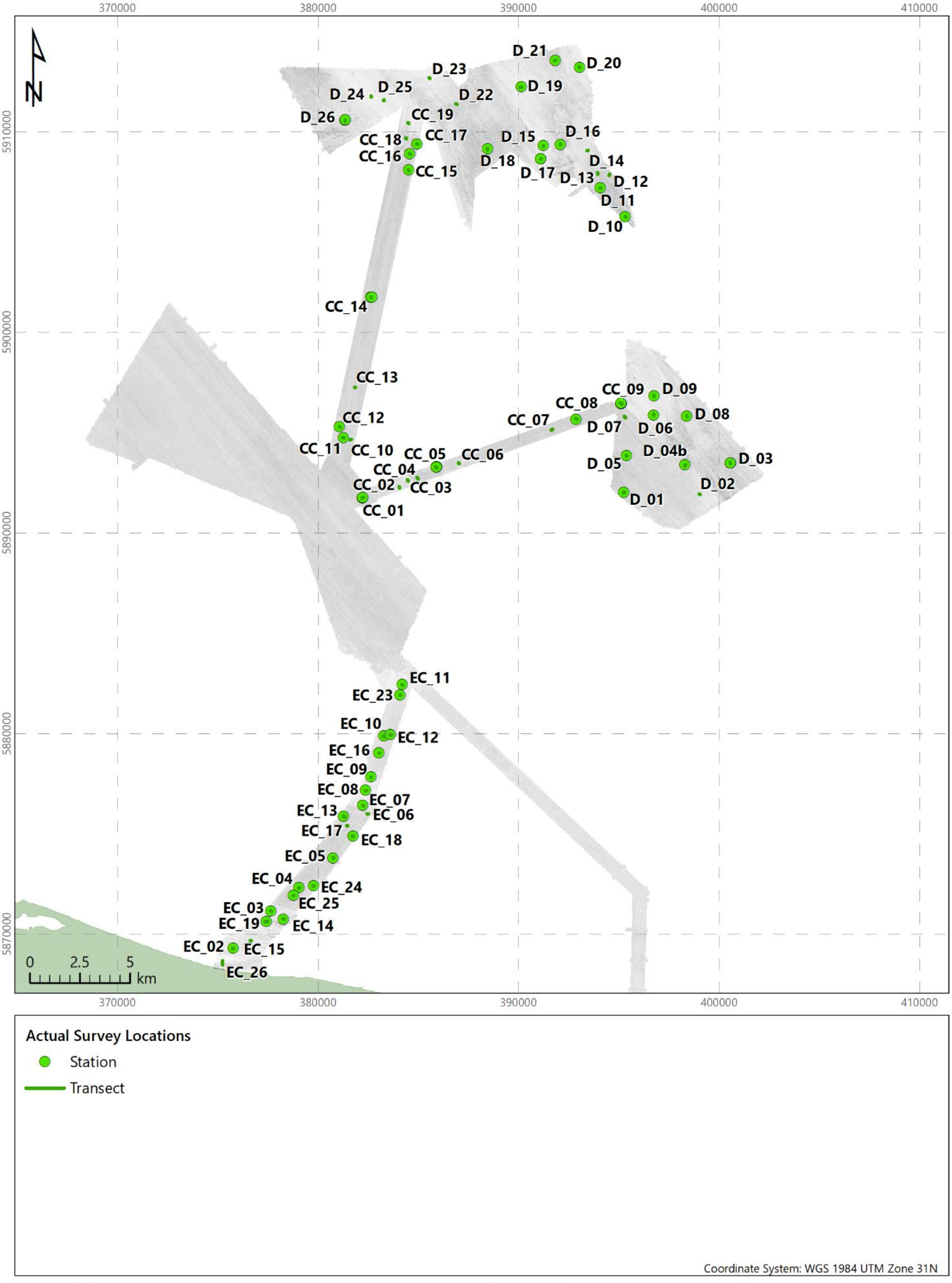

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Figure 4.1: Completed survey locations overlaid on side scan sonar, Dudgeon Extension Project

4.2 Sediment Particle Size Characterisation

4.2.1 Univariate Analysis

Table 4.3 presents the sediment characteristics and Figure 4.2 presents the fractional composition of the sediments spatially across the survey area. Appendix B provides full details of the analytical techniques employed and Appendix D displays the histograms of particle size class summary for each station.

When fractional composition was considered, sand was the dominant fraction of the sediment at the majority of stations (Table 4.3 and Figure 4.2). The sand content ranged from 36.81 % (station EC_24_PSDA) to 100 % (station D_19_PSDA) with a mean of 73.47 %. The gravel content ranged from 0.00 % (station D_19_PSDA) to 60.33 % (station EC_24_PSDA) with a mean of 23.89 %. The fines content ranged from being absent (0.00 %) at 22 stations to 22.13 % (station EC_16_PSDA) with a mean of 2.65 %.

The Folk descriptions classify sediment by the relative proportion of sediment fractions (gravel, sand and fines). The Folk (1954) description described 25 stations as sandy gravel, 20 stations as sand, 9 stations as gravelly sand, 3 stations as muddy sandy gravel and 1 station as gravelly muddy sand.

Table 4.4 presents the physical composition of the sediments (Folk and Ward) at each station. The mode (or modal distribution) represents the peak of the particle size frequency distribution. Within the current survey, distributions were either unimodal, bimodal or polymodal. Stations with a unimodal distribution all peaked at medium sand (302 µm/427 µm) or coarse sand (604 µm/854 µm).

Stations with a bimodal distribution had the first peak between medium sand (302 µm/427 µm) and very coarse pebble (38 250 µm) and the second peak within the same range.

Stations with a polymodal distribution mostly had the first peak at medium sand (302 µm or 427 µm), a few had the first peak at coarse pebble (19 200 µm and 26 950 µm), one had the first peak at coarse sand (854 µm) and one had the first peak at medium pebble (13 600 µm). The second peaks were between very fine silt (5 µm) and very coarse pebble (38 250 µm) and the third peaks were between medium sand (427 µm) and coarse pebble (26 950 µm).

The median particle size ranged between 275 µm (medium sand, station CC_15_PSDA) and 7777 µm (fine pebble, station EC_24_PSDA) with a mean of 591 µm (coarse sand). Wentworth (1922) sediment descriptions, assigned from the mean particle size, categorised the majority of stations as sand, with 19 stations described as coarse sand, 15 stations as medium sand and 16 stations as very coarse sand. Seven stations were described as granule and one station as fine pebble.

The sorting coefficient showed sediments ranged from being well sorted to extremely poorly sorted, with the majority of stations being very poorly sorted.

Skewness indicates the tendency of particle size classes to be skewed about the mean, either towards finer sediment (negative skewed) or coarser sediment (positive skewedness). The majority of stations were either very coarse skewed, coarse skewed or symmetrical, with just a few stations fine or very fine skewed.

Table 4.3: Summary of sediment characteristics, Dudgeon Extension Project

Station	Fractional Composition			Fines		Folk (1954) Description	Folk (BGS modified) Description
	Gravel [%]	Sand [%]	Fines [%]	Silt [%]	Clay [%]		
D_01_PSDA	26.53	67.36	6.11	4.46	1.65	Gravelly sand	Gravelly sand
D_03_PSDA	4.84	93.35	1.81	1.33	0.48	Sand	Slightly gravelly sand
D_04_PSDA	35.84	64.01	0.15	0.15	0.00	Sandy gravel	Sandy gravel
D_05_PSDA	24.08	71.32	4.59	3.42	1.17	Gravelly sand	Gravelly sand
D_06_PSDA	0.03	91.78	8.19	5.84	2.35	Sand	Slightly gravelly sand
D_07_PSDA	21.50	68.83	9.67	6.88	2.78	Gravelly muddy sand	Gravelly muddy sand
D_08_PSDA	0.30	99.70	0.00	0.00	0.00	Sand	Slightly gravelly sand
D_09_PSDA	0.23	99.77	0.00	0.00	0.00	Sand	Slightly gravelly sand
D_10_PSDA	37.47	56.65	5.89	4.16	1.72	Sandy gravel	Sandy gravel
D_11_PSDA	31.51	65.67	2.82	2.06	0.76	Sandy gravel	Sandy gravel
D_15_PSDA	10.38	89.47	0.14	0.14	0.00	Gravelly sand	Gravelly sand
D_16_PSDA	0.05	99.95	0.00	0.00	0.00	Sand	Slightly gravelly sand
D_17_PSDA	0.01	99.99	0.00	0.00	0.00	Sand	Slightly gravelly sand
D_18_PSDA	1.75	92.39	5.86	4.53	1.33	Sand	Slightly gravelly sand
D_19_PSDA	0.00	100	0.00	0.00	0.00	Sand	Sand
D_20_PSDA	1.71	98.29	0.00	0.00	0.00	Sand	Slightly gravelly sand
D_21_PSDA	2.38	91.81	5.81	4.32	1.49	Sand	Slightly gravelly sand
D_22_PSDA	23.30	76.63	0.07	0.07	0.00	Gravelly sand	Gravelly sand
D_23_PSDA	1.41	98.59	0.00	0.00	0.00	Sand	Slightly gravelly sand
D_25_PSDA	0.05	99.95	0.00	0.00	0.00	Sand	Slightly gravelly sand
D_26_PSDA	32.88	65.64	1.48	1 23	0.25	Sandy gravel	Sandy gravel
CC_01_PSDA	47.54	46.56	5.90	3 90	2.00	Muddy, sandy gravel	Muddy sandy gravel
CC_02_PSDA	37.78	57.07	5.15	3.67	1.48	Sandy gravel	Sandy gravel

Station	Fractional Composition			Fines		Folk (1954) Description	Folk (BGS modified) Description
	Gravel [%]	Sand [%]	Fines [%]	Silt [%]	Clay [%]		
CC_03_PSDA	0.28	99.72	0.00	0.00	0.00	Sand	Slightly gravelly sand
CC_04_PSDA	52.24	45.31	2.46	1 90	0.55	Sandy gravel	Sandy gravel
CC_05_PSDA	30.32	69.68	0.00	0.00	0.00	Sandy gravel	Sandy gravel
CC_06_PSDA	57.29	42.51	0.20	0.16	0.04	Sandy gravel	Sandy gravel
CC_07_PSDA	29.94	65.31	4.75	3.57	1.18	Gravelly sand	Gravelly sand
CC_08_PSDA	50.35	46.92	2.73	2.11	0.62	Sandy gravel	Sandy gravel
CC_09_PSDA	28.62	66.06	5.32	3.83	1.49	Gravelly sand	Gravelly sand
CC_10_PSDA	30.38	68.92	0.70	0.57	0.13	Sandy gravel	Sandy gravel
CC_11_PSDA	29.05	69.19	1.75	1.39	0.37	Gravelly sand	Gravelly sand
CC_12_PSDA	12.55	87.45	0.00	0.00	0.00	Gravelly sand	Gravelly sand
CC_13_PSDA	41.35	53.19	5.47	4.03	1.44	Sandy gravel	Sandy gravel
CC_14_PSDA	38.57	55.12	6.31	4.37	1.94	Muddy, sandy gravel	Muddy sandy gravel
CC_15_PSDA	0.46	99.54	0.00	0.00	0.00	Sand	Slightly gravelly sand
CC_16_PSDA	36.45	63.47	0.08	0.08	0.00	Sandy gravel	Sandy gravel
CC_17_PSDA	3.50	96.50	0.00	0.00	0.00	Sand	Slightly gravelly sand
CC_18_PSDA	7.06	92.94	0.00	0.00	0.00	Gravelly sand	Gravelly sand
CC_19_PSDA	0.05	99.95	0.00	0.00	0.00	Sand	Slightly gravelly sand
EC_03_PSDA	58.30	41.70	0.00	0.00	0.00	Sandy gravel	Sandy gravel
EC_04_PSDA	42.35	54.11	3.55	2.62	0.92	Sandy gravel	Sandy gravel
EC_05_PSDA	37.50	57.92	4.58	3.33	1.25	Sandy gravel	Sandy gravel
EC_07_PSDA	31.05	66.40	2.56	1 95	0.60	Sandy gravel	Sandy gravel
EC_08_PSDA	0.79	99.21	0.00	0.00	0.00	Sand	Slightly gravelly sand
EC_09_PSDA	2.79	97.21	0.00	0.00	0.00	Sand	Slightly gravelly sand

Station	Fractional Composition			Fines		Folk (1954) Description	Folk (BGS modified) Description
	Gravel [%]	Sand [%]	Fines [%]	Silt [%]	Clay [%]		
EC_10_PSDA	56.85	40.19	2.96	2 24	0.71	Sandy gravel	Sandy gravel
EC_11_PSDA	42.67	57.33	0.00	0.00	0.00	Sandy gravel	Sandy gravel
EC_12_PSDA	32.95	61.46	5.59	4.07	1.52	Sandy gravel	Sandy gravel
EC_14_PSDA	43.00	57.00	0.00	0.00	0.00	Sandy gravel	Sandy gravel
EC_15_PSDA	0.10	99.90	0.00	0.00	0.00	Sand	Slightly gravelly sand
EC_16_PSDA	30.94	46.93	22.13	14.66	7.47	Muddy, sandy gravel	Muddy sandy gravel
EC_17_PSDA	31.04	64.46	4.50	3.43	1.07	Sandy gravel	Sandy gravel
EC_18_PSDA	36.29	61.41	2.30	1.85	0.45	Sandy gravel	Sandy gravel
EC_19_PSDA	0.02	99.98	0.00	0.00	0.00	Sand	Slightly gravelly sand
EC_23_PSDA	49.93	47.09	2.98	2.12	0.86	Sandy gravel	Sandy gravel
EC_24_PSDA	60.33	36.81	2.86	2 28	0.58	Sandy gravel	Sandy gravel
EC_25_PSDA	38.48	55.50	6.02	4 25	1.77	Sandy gravel	Sandy gravel
Minimum	**0.00**	**36.81**	**0.00**	**0.00**	**0.00**	-	-
Maximum	**60.33**	**100**	**22.13**	**14.66**	**7.47**		
Median	**29.50**	**68.10**	**1.62**	**1.28**	**0.31**		
Mean	**23.89**	**73.47**	**2.65**	**1.91**	**0.73**		
Standard Deviation	**19.6**	**20.8**	**3.69**	**2.54**	**1.17**		

Notes
Fines = silt and clay content
Silt = +4.0 to +8.0 ø units or 3.9 µm to 62.5 µm
Clay = +8.0 to +10.0 ø units or 0.98 µm to 3.9 µm
BGS = British Geological Survey

Table 4.4: Summary of particle size distribution, Dudgeon Extension Project

Station	Modality	Median [µm]*	Mean Particle Size			Sorting Coefficient		Skewness	
			[µm]*	[phi]*	Wentworth (1922) Description	[µm]*	Description†	[µm]*	Description†
D_01_PSDA	Polymodal	497	832	0.26	Coarse sand	5.03	Very poorly sorted	0.31	Very coarse skewed
D_03_PSDA	Unimodal	400	407	1.30	Medium sand	1.76	Moderately sorted	0.20	Coarse skewed
D_04_PSDA	Polymodal	682	1979	-0.98	Very coarse sand	6.56	Very poorly sorted	0.67	Very coarse skewed
D_05_PSDA	Bimodal	531	782	0.35	Coarse sand	3.47	Poorly sorted	0.38	Very coarse skewed
D_06_PSDA	Unimodal	342	333	1.59	Medium sand	2.40	Poorly sorted	-0.35	Very fine skewed
D_07_PSDA	Polymodal	439	669	0.58	Coarse sand	6.35	Very poorly sorted	0.18	Coarse skewed
D_08_PSDA	Unimodal	565	562	0.83	Coarse sand	1.45	Moderately well sorted	-0.06	Symmetrical
D_09_PSDA	Unimodal	437	438	1.19	Medium sand	1.44	Moderately well sorted	0.04	Symmetrical
D_10_PSDA	Polymodal	712	1219	-0.29	Very coarse sand	6.62	Very poorly sorted	0.24	Coarse skewed
D_11_PSDA	Polymodal	642	1063	-0.09	Very coarse sand	4.11	Very poorly sorted	0.44	Very coarse skewed
D_15_PSDA	Bimodal	627	664	0.59	Coarse sand	2.01	Poorly sorted	0.22	Coarse skewed
D_16_PSDA	Unimodal	398	398	1.33	Medium sand	1.43	Moderately well sorted	-0.02	Symmetrical
D_17_PSDA	Unimodal	375	370	1.43	Medium sand	1.38	Well sorted	-0.04	Symmetrical
D_18_PSDA	Unimodal	300	298	1.74	Medium sand	2.06	Poorly sorted	-0.23	Fine skewed
D_19_PSDA	Unimodal	391	388	1.37	Medium sand	1.38	Well sorted	-0.02	Symmetrical
D_20_PSDA	Unimodal	638	625	0.68	Coarse sand	1.46	Moderately well sorted	-0.04	Symmetrical
D_21_PSDA	Unimodal	360	357	1.48	Medium sand	2.22	Poorly sorted	-0.23	Fine skewed
D_22_PSDA	Bimodal	813	934	0.10	Coarse sand	2.40	Poorly sorted	0.20	Coarse skewed
D_23_PSDA	Unimodal	565	556	0.85	Coarse sand	1.66	Moderately sorted	0.00	Symmetrical
D_25_PSDA	Unimodal	401	401	1.32	Medium sand	1.43	Moderately well sorted	-0.02	Symmetrical
D_26_PSDA	Bimodal	683	925	0.11	Coarse sand	3.36	Poorly sorted	0.33	Very coarse skewed
CC_01_PSDA	Bimodal	1440	2246	-1.17	Granule	8.67	Very poorly sorted	0.09	Symmetrical
CC_02_PSDA	Polymodal	706	1205	-0.27	Very coarse sand	5.57	Very poorly sorted	0.30	Coarse skewed

Station	Modality	Median [µm]*	Mean Particle Size			Sorting Coefficient		Skewness	
			[µm]*	[phi]*	Wentworth (1922) Description	[µm]*	Description†	[µm]*	Description†
CC_03_PSDA	Unimodal	590	589	0.76	Coarse sand	1.35	Well sorted	-0.01	Symmetrical
CC_04_PSDA	Polymodal	2342	2271	-1.18	Granule	4.57	Very poorly sorted	-0.04	Symmetrical
CC_05_PSDA	Polymodal	881	1587	-0.67	Very coarse sand	3.44	Poorly sorted	0.65	Very coarse skewed
CC_06_PSDA	Polymodal	4239	3016	-1.59	Granule	5.00	Very poorly sorted	-0.23	Fine skewed
CC_07_PSDA	Bimodal	548	879	0.19	Coarse sand	4.08	Very poorly sorted	0.41	Very coarse skewed
CC_08_PSDA	Bimodal	2063	2146	-1.10	Granule	5.28	Very poorly sorted	0.00	Symmetrical
CC_09_PSDA	Polymodal	589	977	0.03	Coarse sand	5.37	Very poorly sorted	0.33	Very coarse skewed
CC_10_PSDA	Polymodal	689	993	0.01	Coarse sand	3.74	Poorly sorted	0.48	Very coarse skewed
CC_11_PSDA	Bimodal	461	794	0.33	Coarse sand	3.67	Poorly sorted	0.56	Very coarse skewed
CC_12_PSDA	Unimodal	767	847	0.24	Coarse sand	1.93	Moderately sorted	0.28	Coarse skewed
CC_13_PSDA	Bimodal	863	1323	-0.40	Very coarse sand	5.55	Very poorly sorted	0.17	Coarse skewed
CC_14_PSDA	Polymodal	699	1155	-0.21	Very coarse sand	6.09	Very poorly sorted	0.21	Coarse skewed
CC_15_PSDA	Unimodal	275	274	1.87	Medium sand	1.40	Well sorted	-0.01	Symmetrical
CC_16_PSDA	Polymodal	862	1113	-0.15	Very coarse sand	3.13	Poorly sorted	0.30	Very coarse skewed
CC_17_PSDA	Unimodal	561	564	0.83	Coarse sand	1.74	Moderately sorted	0.10	Symmetrical
CC_18_PSDA	Unimodal	531	588	0.77	Coarse sand	2.09	Poorly sorted	0.22	Coarse skewed
CC_19_PSDA	Unimodal	342	344	1.54	Medium sand	1.41	Moderately well sorted	0.02	Symmetrical
EC_03_PSDA	Polymodal	5522	3511	-1.81	Granule	5.87	Very poorly sorted	-0.31	Very fine skewed
EC_04_PSDA	Polymodal	844	1518	-0.60	Very coarse sand	6.01	Very poorly sorted	0.34	Very coarse skewed
EC_05_PSDA	Polymodal	704	1186	-0.25	Very coarse sand	5.66	Very poorly sorted	0.32	Very coarse skewed
EC_07_PSDA	Polymodal	589	1208	-0.27	Very coarse sand	4.80	Very poorly sorted	0.56	Very coarse skewed
EC_08_PSDA	Unimodal	431	432	1.21	Medium sand	1.55	Moderately well sorted	0.03	Symmetrical
EC_09_PSDA	Unimodal	584	586	0.77	Coarse sand	1.55	Moderately well sorted	0.08	Symmetrical
EC_10_PSDA	Polymodal	3389	2811	-1.49	Granule	5.63	Very poorly sorted	-0.15	Fine skewed

Station	Modality	Median [µm]*	Mean Particle Size			Sorting Coefficient		Skewness	
			[µm]*	[phi]*	Wentworth (1922) Description	[µm]*	Description†	[µm]*	Description†
EC_11_PSDA	Polymodal	651	1269	-0.34	Very coarse sand	4.49	Very poorly sorted	0.57	Very coarse skewed
EC_12_PSDA	Polymodal	605	950	0.07	Coarse sand	5.05	Very poorly sorted	0.25	Coarse skewed
EC_14_PSDA	Bimodal	545	1750	-0.81	Very coarse sand	7.01	Very poorly sorted	0.72	Very coarse skewed
EC_15_PSDA	Unimodal	364	362	1.47	Medium sand	1.39	Well sorted	-0.02	Symmetrical
EC_16_PSDA	Polymodal	434	418	1.26	Medium sand	18.40	Extremely poorly sorted	-0.10	Symmetrical
EC_17_PSDA	Polymodal	591	1053	-0.07	Very coarse sand	5.44	Very poorly sorted	0.44	Very coarse skewed
EC_18_PSDA	Polymodal	604	1193	-0.25	Very coarse sand	5.57	Very poorly sorted	0.51	Very coarse skewed
EC_19_PSDA	Unimodal	389	381	1.39	Medium sand	1.34	Well sorted	-0.03	Symmetrical
EC_23_PSDA	Bimodal	1970	2531	-1.34	Granule	6.42	Very poorly sorted	0.13	Coarse skewed
EC_24_PSDA	Bimodal	7777	4367	-2.13	Fine pebble	7.28	Very poorly sorted	-0.40	Very fine skewed
EC_25_PSDA	Polymodal	778	1307	-0.39	Very coarse sand	7.17	Very poorly sorted	0.19	Coarse skewed
Minimum	-	**275**	**274**	**-2.13**	-	**1.34**	-	**-0.40**	-
Maximum		**7777**	**4367**	**1.87**		**18.40**		**0.72**	
Median		**591**	**902**	**0.15**		**3.71**		**0.18**	
Mean		**983**	**1103**	**0.21**		**4.05**		**0.16**	
Standard Deviation		**1310**	**852**	**0.990**		**2.82**		**0.262**	

Notes
* = Folk and Ward method (GRADISTAT statistics)
† = Sorting and skewness based on geometric Folk and Ward (1957) graphical measures (Gradistat statistics)

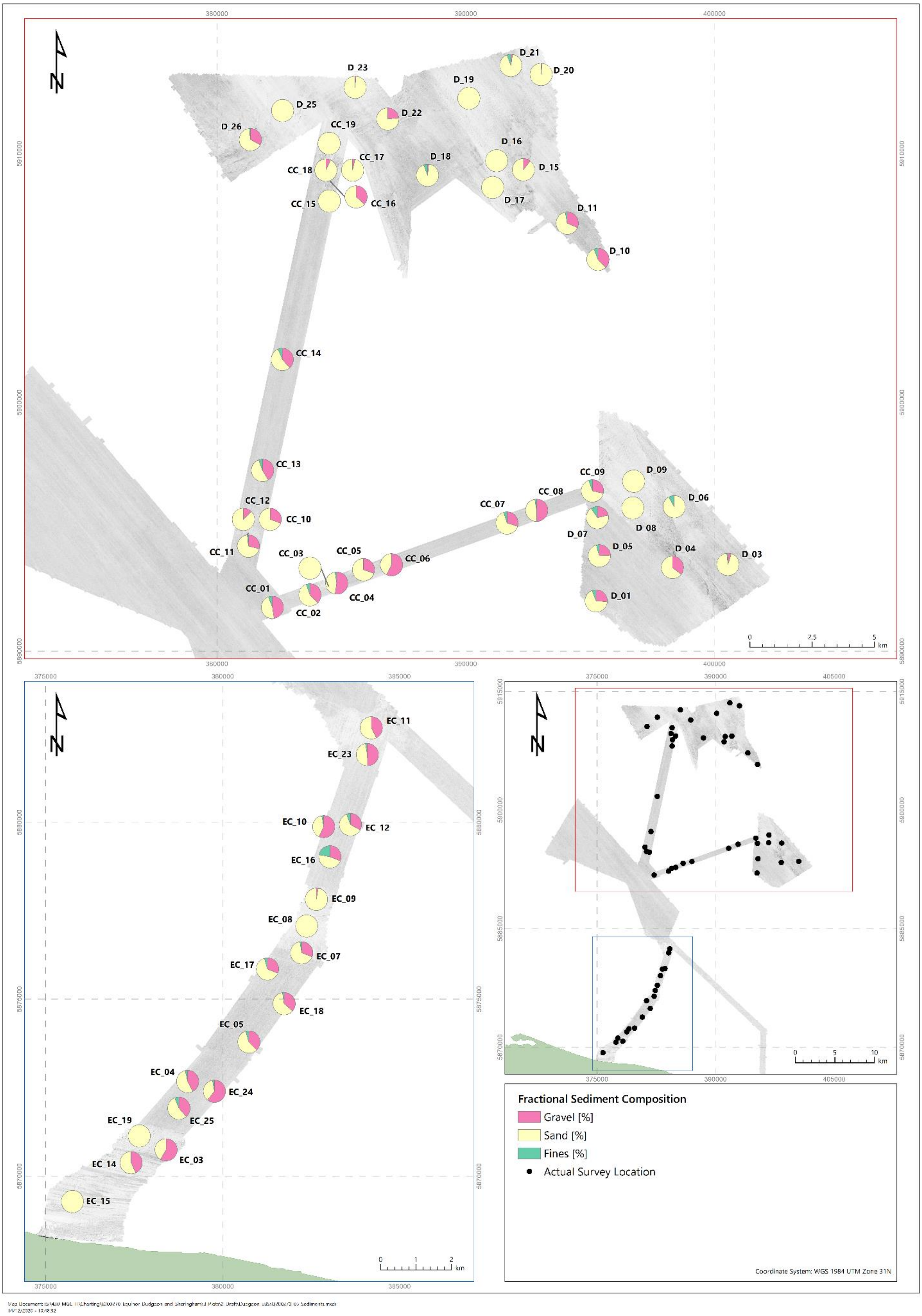


Figure 4.2: Sediment fractional composition overlaid on side scan sonar, Dudgeon Extension Project

4.2.1.1 Intrastation Variability

Table 4.5 presents the sediment characteristics and Table 4.6 presents the physical composition of the sediments (Folk and Ward) of each sample taken at the replicate stations. Relative standard deviation (RSD) indicates the extent of variability in a dataset in relation to the mean value. The RSD value expresses the standard deviation as a percentage of the mean. For the purpose of this report, RSD of less than 30 % will be considered low variability, 30 % to 70 % will be considered moderate variability and more than 70 % will be considered high variability.

Table 4.5 shows that intrastation variability ranged from low to high for all parameters (gravel, sand, fines, silt and clay). Samples within station EC_03 showed the most similarity for all parameters.

Table 4.6 shows that intrastation variability in particles sizes present within the samples ranged from low to high, as did the variability in skewness. The variability in sorting coefficient was low to moderate. Samples within station EC_19 showed the most similarity, with all three samples being described as unimodal, medium sand with a symmetrical distribution.

Table 4.5: Summary of sediment characteristics, Dudgeon Extension Project

Station	Fractional Composition			Fines		Folk (1954) Description	Folk (BGS modified) Description
	Gravel [%]	Sand [%]	Fines [%]	Silt [%]	Clay [%]		
Station D_03							
D_03_PSDA	4.84	93.35	1.81	1.33	0.48	Sand	Slightly gravelly sand
D_03_PSDB	24.93	71.21	3.86	2 98	0.87	Gravelly sand	Gravelly sand
D_03_PSDC	19.73	75.00	5.27	4.08	1.19	Gravelly sand	Gravelly sand
Mean	**16.50**	**79.85**	**3.64**	**2.80**	**0.85**	-	-
Standard Deviation	**10.4**	**11.8**	**1.74**	**1.39**	**0.356**		
RSD [%]	**63**	**15**	**48**	**50**	**42**		
Station D_04							
D_04_PSDA	35.84	64.01	0.15	0.15	0.00	Sandy gravel	Sandy gravel
D_04_PSDB	19.36	77.49	3.16	2.47	0.69	Gravelly sand	Gravelly sand
D_04_PSDC	2.25	97.75	0.00	0.00	0.00	Sand	Slightly gravelly sand
Mean	**19.15**	**79.75**	**1.10**	**0.87**	**0.23**	-	-
Standard Deviation	**16.8**	**17.0**	**1.78**	**1.38**	**0.398**		
RSD [%]	**88**	**21**	**162**	**159**	**173**		
Station D_26							
D_26_PSDA	32.88	65.64	1.48	1 23	0.25	Sandy gravel	Sandy gravel
D_26_PSDB	26.08	73.50	0.42	0.42	0.00	Gravelly sand	Gravelly sand
D_26_PSDC	24.24	75.17	0.59	0.49	0.10	Gravelly sand	Gravelly sand
Mean	**27.73**	**71.44**	**0.83**	**0.71**	**0.12**	-	-
Standard Deviation	**4.55**	**5.09**	**0.569**	**0.449**	**0.126**		
RSD [%]	**16**	**7**	**68**	**63**	**105**		

Station	Fractional Composition			Fines		Folk (1954) Description	Folk (BGS modified) Description
	Gravel [%]	Sand [%]	Fines [%]	Silt [%]	Clay [%]		
Station CC_05							
CC_05_PSDA	**30.32**	**69.68**	**0.00**	**0.00**	**0.00**	Sandy gravel	Sandy gravel
CC_05_PSDB	**10.92**	**89.08**	**0.00**	**0.00**	**0.00**	Gravelly sand	Gravelly sand
CC_05_PSDC	**24.92**	**75.08**	**0.00**	**0.00**	**0.00**	Gravelly sand	Gravelly sand
Mean	**22.05**	**77.95**	**0.00**	**0.00**	**0.00**	-	-
Standard Deviation	**10.0**	**10.0**	**0.00**	**0.00**	**0.00**		
RSD [%]	**45**	**13**	**0**	**0**	**0**		
Station CC_09							
CC_09_PSDA	28.62	66.06	5.32	3.83	1.49	Gravelly sand	Gravelly sand
CC_09_PSDB	34.60	59.34	6.06	4 26	1.80	Sandy gravel	Sandy gravel
CC_09_PSDC	62.38	35.39	2.24	1.69	0.54	Sandy gravel	Sandy gravel
Mean	**41.87**	**53.59**	**4.54**	**3.26**	**1.28**	-	-
Standard Deviation	**18.0**	**16.1**	**2.03**	**1.38**	**0.656**		
RSD [%]	**43**	**30**	**45**	**42**	**51**		
Station EC_03							
EC_03_PSDA	58.30	41.70	0.00	0.00	0.00	Sandy gravel	Sandy gravel
EC_03_PSDB	58.57	41.43	0.00	0.00	0.00	Sandy gravel	Sandy gravel
EC_03_PSDC	56.93	43.07	0.00	0.00	0.00	Sandy gravel	Sandy gravel
Mean	**57.93**	**42.07**	**0.00**	**0.00**	**0.00**	-	-
Standard Deviation	**0.879**	**0.879**	**0.00**	**0.00**	**0.00**		
RSD [%]	**2**	**2**	**0**	**0**	**0**		

Station	Fractional Composition			Fines		Folk (1954) Description	Folk (BGS modified) Description
	Gravel [%]	Sand [%]	Fines [%]	Silt [%]	Clay [%]		
Station EC_07							
EC_07_PSDA	31.05	66.40	2.56	1.95	0.60	Sandy gravel	Sandy gravel
EC_07_PSDB	27.40	71.50	1.10	0.95	0.15	Gravelly sand	Gravelly sand
EC_07_PSDC	17.62	82.38	0.00	0.00	0.00	Gravelly sand	Gravelly sand
Mean	**25.35**	**73.43**	**1.22**	**0.97**	**0.25**	-	-
Standard Deviation	**6.94**	**8.16**	**1.28**	**0.975**	**0.312**		
RSD [%]	**27**	**11**	**105**	**100**	**125**		
Station EC_09							
EC_09_PSDA	2.79	97.21	0.00	0.00	0.00	Sand	Slightly gravelly sand
EC_09_PSDB	6.04	93.96	0.00	0.00	0.00	Gravelly sand	Gravelly sand
EC_09_PSDC	0.04	99.96	0.00	0.00	0.00	Sand	Slightly gravelly sand
Mean	**2.96**	**97.04**	**0.00**	**0.00**	**0.00**	-	-
Standard Deviation	**3.00**	**3.00**	**0.00**	**0.00**	**0.00**		
RSD [%]	**102**	**3**	**0**	**0**	**0**		
Station EC_14							
EC_14_PSDA	43.00	57.00	0.00	0.00	0.00	Sandy gravel	Sandy gravel
EC_14_PSDB	56.78	43.22	0.00	0.00	0.00	Sandy gravel	Sandy gravel
Mean	**49.89**	**50.11**	**0.00**	**0.00**	**0.00**	-	-
Standard Deviation	**9.75**	**9.75**	**0.00**	**0.00**	**0.00**		
RSD [%]	**20**	**19**	**0**	**0**	**0**		
Station EC_19							
EC_19_PSDA	0.02	99.98	0.00	0.00	0.00	Sand	Slightly gravelly sand
EC_19_PSDB	0.12	99.88	0.00	0.00	0.00	Sand	Slightly gravelly sand
EC_19_PSDC	0.04	99.96	0.00	0.00	0.00	Sand	Slightly gravelly sand
Mean	**0.06**	**99.94**	**0.00**	**0.00**	**0.00**	-	-
Standard Deviation	**0.053**	**0.053**	**0.00**	**0.00**	**0.00**		
RSD [%]	**96**	**< 1**	**0**	**0**	**0**		

Station	Fractional Composition			Fines		Folk (1954) Description	Folk (BGS modified) Description
	Gravel [%]	Sand [%]	Fines [%]	Silt [%]	Clay [%]		
Station EC_23							
EC_23_PSDA	**49.93**	**47.09**	**2.98**	**2.12**	**0.86**	Sandy gravel	Sandy gravel
EC_23_PSDB	**27.03**	**72.57**	**0.40**	**0.36**	**0.04**	Gravelly sand	Gravelly sand
EC_23_PSDC	**32.39**	**64.86**	**2.74**	**2.21**	**0.53**	Sandy gravel	Sandy gravel
Mean	**36.45**	**61.51**	**2.04**	**1.56**	**0.48**	-	-
Standard Deviation	**12.0**	**13.1**	**1.43**	**1.05**	**0.412**		
RSD [%]	**33**	**21**	**70**	**67**	**86**		
Station EC_24							
EC_24_PSDA	**60.33**	**36.81**	**2.86**	**2.28**	**0.58**	Sandy gravel	Sandy gravel
EC_24_PSDB	**49.62**	**45.34**	**5.03**	**3.67**	**1.36**	Sandy gravel	Sandy gravel
EC_24_PSDC	**58.49**	**37.82**	**3.69**	**2.59**	**1.10**	Sandy gravel	Sandy gravel
Mean	**56.15**	**39.99**	**3.86**	**2.85**	**1.01**	-	-
Standard Deviation	**5.72**	**4.66**	**1.10**	**0.730**	**0.397**		
RSD [%]	**10**	**12**	**28**	**26**	**39**		

Notes
Fines = silt and clay content
Silt = +4.0 to +8.0 ø units or 3.9 µm to 62.5 µm
Clay = +8.0 to +10.0 ø units or 0.98 µm to 3.9 µm
BGS = British Geological Survey
RSD = Relative standard deviation

Table 4.6: Summary of particle size distribution, Dudgeon Extension Project

Station	Modality	Median [µm]*	Mean Particle Size			Sorting Coefficient		Skewness	
			[µm]*	[phi]*	Wentworth (1922) Description	[µm]*	Description†	[µm]*	Description†
Station D_03									
D_03_PSDA	Unimodal	400	407	1.30	Medium sand	1.76	Moderately sorted	0.20	Coarse skewed
D_03_PSDB	Bimodal	464	1072	-0.10	Very coarse sand	4.87	Very poorly sorted	0.63	Very coarse skewed
D_03_PSDC	Bimodal	432	959	0.06	Coarse sand	5.92	Very poorly sorted	0.48	Very coarse skewed
Mean	-	**432**	**813**	**0.42**	-	**4.18**	-	**0.44**	-
Standard Deviation		**32**	**356**	**0.766**		**2.16**		**0.218**	
RSD [%]		**7**	**44**	**183**		**52**		**50**	
Station D_04									
D_04_PSDA	Polymodal	682	1979	-0.98	Very coarse sand	6.56	Very poorly sorted	0.67	Very coarse skewed
D_04_PSDB	Bimodal	494	771	0.38	Coarse sand	3.70	Poorly sorted	0.53	Very coarse skewed
D_04_PSDC	Unimodal	569	574	0.80	Coarse sand	1.61	Moderately well sorted	0.08	Symmetrical
Mean	-	**582**	**1108**	**0.06**	-	**3.96**	-	**0.43**	-
Standard Deviation		**94**	**761**	**0.930**		**2.49**		**0.308**	
RSD [%]		**16**	**69**	**1550**		**63**		**72**	
Station D_26									
D_26_PSDA	Bimodal	683	925	0.11	Coarse sand	3.36	Poorly sorted	0.33	Very coarse skewed
D_26_PSDB	Bimodal	552	833	0.26	Coarse sand	3.08	Poorly sorted	0.46	Very coarse skewed
D_26_PSDC	Polymodal	617	802	0.32	Coarse sand	3.20	Poorly sorted	0.35	Very coarse skewed
Mean	-	**617**	**853**	**0.23**	-	**3.22**	-	**0.38**	-
Standard Deviation		**65**	**64**	**0.108**		**0.140**		**0.070**	
RSD [%]		**11**	**7**	**46**		**4**		**19**	

Station	Modality	Median [µm]*	Mean Particle Size			Sorting Coefficient		Skewness	
			[µm]*	[phi]*	Wentworth (1922) Description	[µm]*	Description†	[µm]*	Description†
Station CC_05									
CC_05_PSDA	Polymodal	881	1587	-0.67	Very coarse sand	3.44	Poorly sorted	0.65	Very coarse skewed
CC_05_PSDB	Bimodal	673	671	0.58	Coarse sand	2.19	Poorly sorted	0.34	Very coarse skewed
CC_05_PSDC	Unimodal	1044	1234	-0.30	Very coarse sand	1.87	Moderately sorted	0.37	Very coarse skewed
Mean	-	**866**	**1164**	**-0.13**	-	**2.50**	-	**0.45**	-
Standard Deviation		**186**	**462**	**0.642**		**0.830**		**0.171**	
RSD [%]		**21**	**40**	**494**		**33**		**38**	
Station CC_09									
CC_09_PSDA	Polymodal	589	977	0.03	Coarse sand	5.37	Very poorly sorted	0.33	Very coarse skewed
CC_09_PSDB	Polymodal	650	1156	-0.21	Very coarse sand	6.51	Very poorly sorted	0.27	Coarse skewed
CC_09_PSDC	Bimodal	8654	5060	-2.34	Fine pebble	6.94	Very poorly sorted	-0.38	Very fine skewed
Mean	-	**3298**	**2398**	**-0.84**	-	**6.27**	-	**0.07**	-
Standard Deviation		**4640**	**2310**	**1.31**		**0.811**		**0.394**	
RSD [%]		**141**	**96**	**156**		**13**		**563**	
Station EC_03									
EC_03_PSDA	Polymodal	5522	3511	-1.81	Granule	5.87	Very poorly sorted	-0.31	Very fine skewed
EC_03_PSDB	Polymodal	5173	3477	-1.80	Granule	6.01	Very poorly sorted	-0.27	Fine skewed
EC_03_PSDC	Bimodal	10096	4273	-2.10	Fine pebble	6.28	Very poorly sorted	-0.57	Very fine skewed
Mean	-	**6930**	**3754**	**-1.90**	-	**6.06**	-	**-0.38**	-
Standard Deviation		**2750**	**450**	**0.170**		**0.208**		**0.163**	
RSD [%]		**40**	**12**	**9**		**3**		**42**	
Station EC_07									
EC_07_PSDA	Polymodal	589	1208	-0.27	Very coarse sand	4.80	Very poorly sorted	0.56	Very coarse skewed
EC_07_PSDB	Polymodal	559	1077	-0.11	Very coarse sand	4.91	Very poorly sorted	0.60	Very coarse skewed
EC_07_PSDC	Bimodal	494	707	0.50	Coarse sand	3.31	Poorly sorted	0.54	Very coarse skewed
Mean	-	**547**	**997**	**0.04**	-	**4.34**	-	**0.57**	-
Standard Deviation		**49**	**260**	**0.406**		**0.894**		**0.031**	
RSD [%]		**9**	**26**	**1015**		**21**		**5**	

Station	Modality	Median [µm]*	Mean Particle Size			Sorting Coefficient		Skewness	
			[µm]*	[phi]*	Wentworth (1922) Description	[µm]*	Description†	[µm]*	Description†
Station EC_09									
EC_09_PSDA	Unimodal	584	586	0.77	Coarse sand	1.55	Moderately well sorted	0.08	Symmetrical
EC_09_PSDB	Unimodal	518	536	0.90	Coarse sand	1.72	Moderately sorted	0.28	Coarse skewed
EC_09_PSDC	Unimodal	434	434	1.20	Medium sand	1.43	Moderately well sorted	0.02	Symmetrical
Mean	-	**512**	**519**	**0.96**	-	**1.57**	-	**0.12**	-
Standard Deviation		**75.2**	**77.5**	**0.220**		**0.146**		**0.136**	
RSD [%]		**15**	**15**	**23**		**9**		**113**	
Station EC_14									
EC_14_PSDA	Bimodal	545	1750	-0.81	Very coarse sand	7.01	Very poorly sorted	0.72	Very coarse skewed
EC_14_PSDB	Polymodal	4139	3271	-1.71	Granule	6.21	Very poorly sorted	-0.17	Fine skewed
Mean	-	**2342**	**2510**	**-1.26**	-	**6.61**	-	**0.27**	-
Standard Deviation		**2540**	**1080**	**0.629**		**0.566**		**0.629**	
RSD [%]		**108**	**43**	**51**		**9**		**233**	
Station EC_19									
EC_19_PSDA	Unimodal	389	381	1.39	Medium sand	1.34	Well sorted	-0.03	Symmetrical
EC_19_PSDB	Unimodal	438	439	1.19	Medium sand	1.42	Moderately well sorted	0.02	Symmetrical
EC_19_PSDC	Unimodal	393	391	1.36	Medium sand	1.39	Well sorted	-0.01	Symmetrical
Mean	-	**407**	**404**	**1.31**	-	**1.38**	-	**0.00**	-
Standard Deviation		**27.2**	**31.0**	**0.108**		**0.040**		**0.025**	
RSD [%]		**7**	**8**	**8**		**3**		**534**	
Station EC_23									
EC_23_PSDA	Bimodal	1970	2531	-1.34	Granule	6.42	Very poorly sorted	0.13	Coarse skewed
EC_23_PSDB	Polymodal	517	1088	-0.12	Very coarse sand	4.51	Very poorly sorted	0.64	Very coarse skewed
EC_23_PSDC	Polymodal	580	1216	-0.28	Very coarse sand	4.83	Very poorly sorted	0.58	Very coarse skewed
Mean	-	**1023**	**1612**	**-0.58**	-	**5.25**	-	**0.45**	-
Standard Deviation		**821**	**799**	**0.663**		**1.02**		**0.279**	
RSD [%]		**80**	**50**	**114**		**19**		**63**	

Station	Modality	Median [µm]*	Mean Particle Size			Sorting Coefficient		Skewness	
			[µm]*	[phi]*	Wentworth (1922) Description	[µm]*	Description†	[µm]*	Description†
Station EC_24									
EC_24_PSDA	Bimodal	7777	4367	-2.13	Fine pebble	7.28	Very poorly sorted	-0.40	Very fine skewed
EC_24_PSDB	Polymodal	1897	2352	-1.23	Granule	8.00	Very poorly sorted	0.01	Symmetrical
EC_24_PSDC	Polymodal	5823	3540	-1.82	Granule	6.80	Very poorly sorted	-0.37	Very fine skewed
Mean	-	**5165**	**3420**	**-1.73**	-	**7.36**	-	**-0.25**	-
Standard Deviation		**3000**	**1010**	**0.457**		**0.604**		**0.228**	
RSD [%]		**58**	**30**	**26**		**8**		**91**	

Notes
* = Folk and Ward method (Gradistat statistics)
† = Sorting and skewness based on geometric Folk and Ward (1957) graphical measures (Gradistat statistics)
RSD = Relative standard deviation

4.2.2 Investigation of Granulometric Similarities

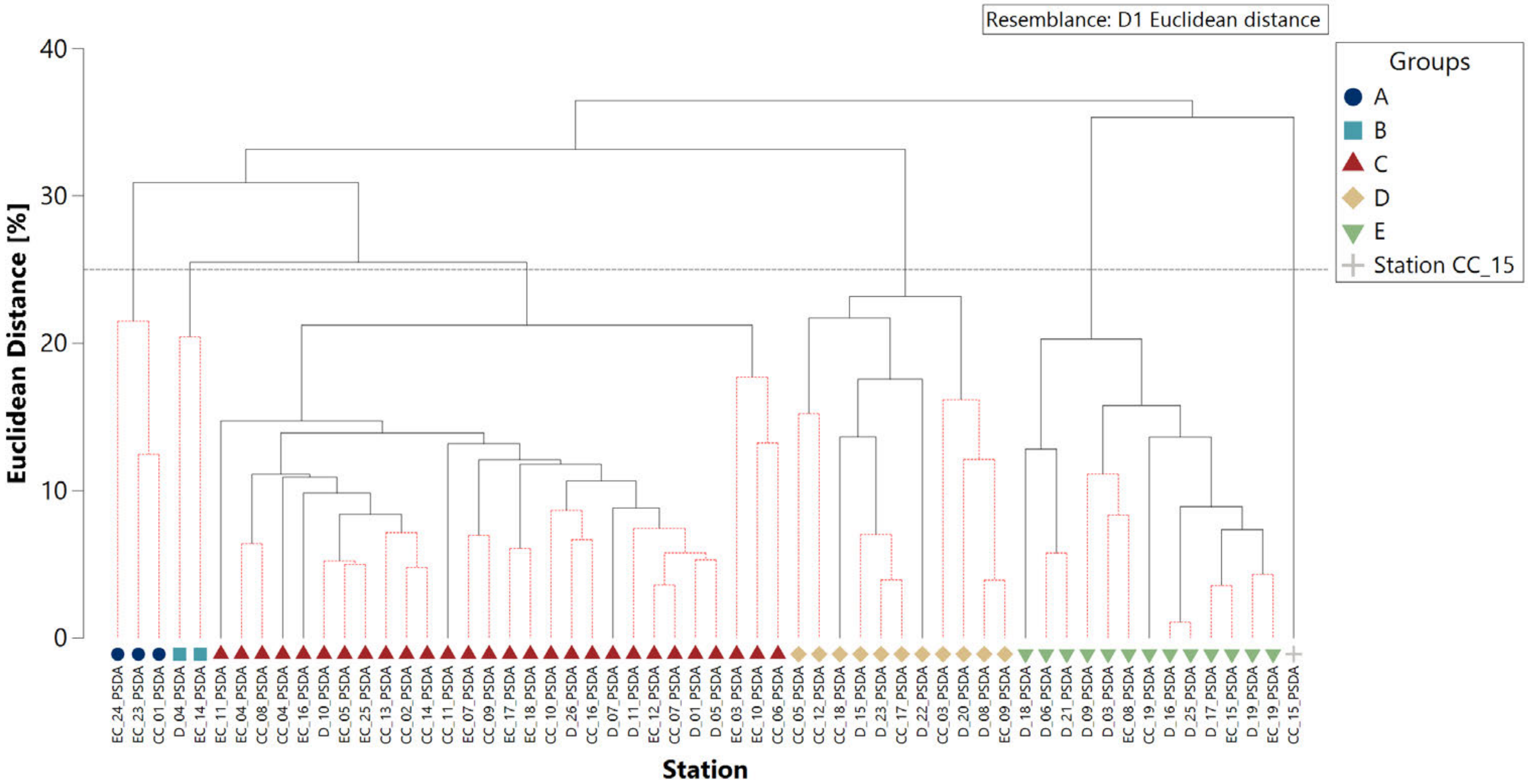
4.2.2.1 Cluster Analysis

In PRIMER, the cluster algorithm was used to group samples according to their similarity. Figure 4.3 presents the dendrogram for untransformed station (0.1 m^2) data. The SIMPROF algorithm was used to identify statistically significant (P = 0.05) differences between samples, with significant splits depicted as black lines and non-significant splits as red lines. Statistically significant splits may not be ecologically significant (Clarke et al., 2008), and therefore where appropriate, coarser groups were created.

When run at 5 % significance, PRIMER identified many different cluster groups within the dataset. However, when ecological significance was considered, a slice was added at the Euclidean distance of 25, which then identified five groups and one ungrouped station:

- Group A comprised 3 stations (CC_01, EC_23 and EC_24) and was dominated by very poorly sorted gravel sediments, with a primary peak at coarse pebble and a secondary peak at medium sand;
- Group B comprised 2 stations (D_04, EC_14) and was dominated by very poorly sorted sands, with a primary peak at medium sand and a secondary peak at very coarse pebble;
- Group C comprised 28 stations across all survey areas, and overall comprised very poorly sorted sandy and gravelly sediments, with a primary peak at medium sand and secondary peaks within the granule and pebble fractions;
- Group D comprised 9 stations (4 within D, 4 within CC and 1 within EC) and was dominated by moderately sorted coarse sand;
- Group E comprised 15 stations (10 within D, 2 within CC and 3 within EC) and was dominated by moderately well sorted medium sand;
- Ungrouped station CC_15 which comprised well sorted medium sand.

Table 4.7 summarises the mean physical characteristics of the clusters identified in multivariate analysis and Figure 4.4 presents the mean fractional composition of each cluster. Figure 4.5 spatially presents the sediment groups identified in multivariate analysis overlaid on a SSS mosaic, and shows that the sediments across the area were very patchy and variable, and showed no distinct spatial distribution.



Note
Slice at 25 % resemblance based on Euclidean distance

Figure 4.3: Dendrogram of hierarchical clustering of sediment characteristics data, Dudgeon Extension Project

Table 4.7: Summary of sediment characteristics, Dudgeon Extension Project

Group	Stations	Median Particle Size* [μm]	Mean Particle Size		Sorting Coefficient†		Fractional Composition [%]		
			[μm]*	Wentworth (1922) Description	[μm]*	Description†	Gravel*	Sand*	Fines*
A [●]	CC_01, EC_23, EC_24	3729	3048	Granule	7.46	Very poorly sorted	52.60	43.49	3.91
B [■]	D_04, EC_14	614	1865	Very coarse sand	6.79	Very poorly sorted	39.42	60.51	0.08
C [▲]	D_01, D_05, D_07, D_10, D_11, D_26, CC_02, CC_04, CC_06, CC_07, CC_08, CC_09, CC_10, CC_11, CC_13, CC_14, CC_16, EC_03, EC_04, EC_05, EC_07, EC_10, EC_11, EC_12, EC_16, EC_17, EC_18, EC_25	1153	1350	Very coarse sand	5.54	Very poorly sorted	37.30	58.43	4.23
D [◆]	D_08, D_15, D_20, D_22, D_23, CC_03, CC_05, CC_12, CC_17, CC_18, EC_09	647	737	Coarse sand	1.92	Moderately sorted	8.51	91.47	0.02
E [▼]	D_03, D_06, D_09, D_16, D_17, D_18, D_19, D_21, D_25, CC_19, EC_08, EC_15, EC_19	372	370	Medium sand	1.61	Moderately well sorted	0.77	97.68	1.55
CC_15 [+]	CC_15	275	274	Medium sand	1.40	Well sorted	0.46	99.54	0.00

Notes
* = Folk & Ward method (Gradistat statistics)
† = Sorting based on geometric Folk & Ward (1957) graphical measures (Gradistat statistics)

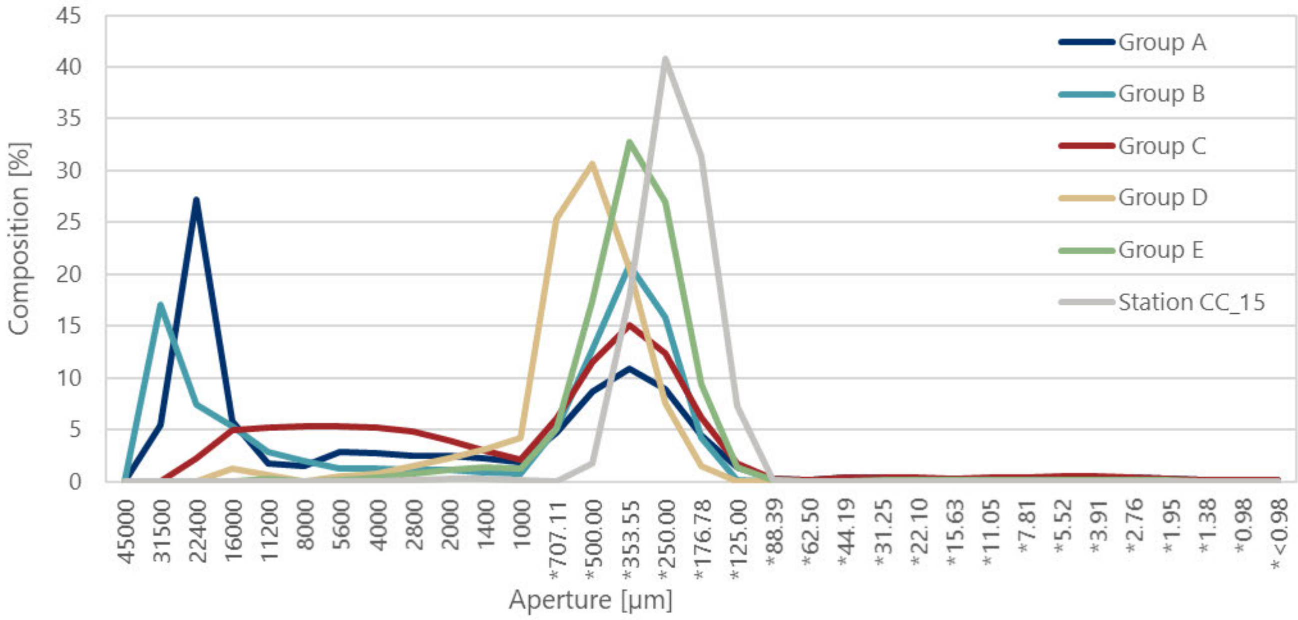


Figure 4.4: Mean fractional composition of cluster groups identified in multivariate analysis, Dudgeon Extension Project

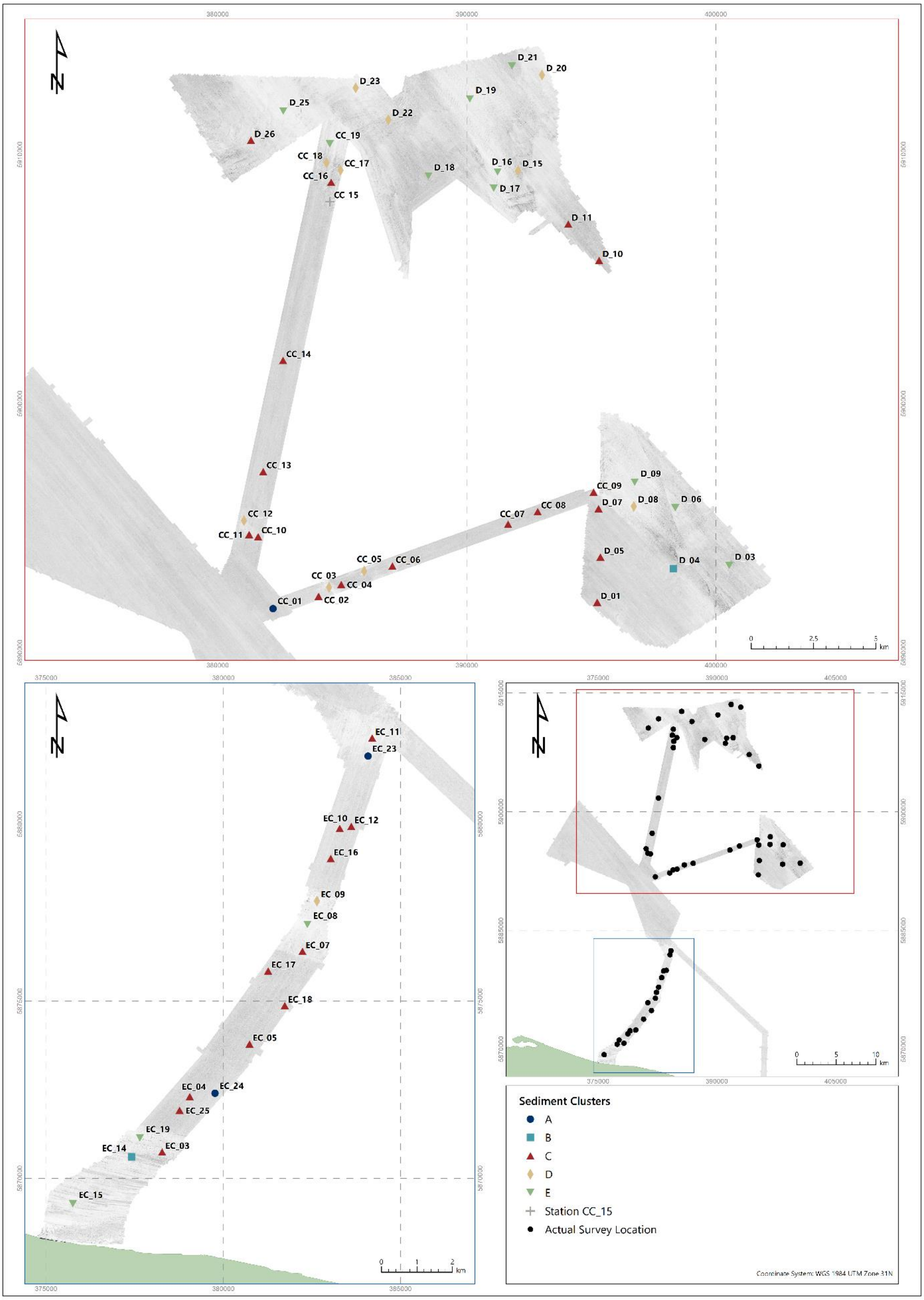


Figure 4.5: Sediment groups identified in multivariate analysis overlaid on a side scan sonar mosaic, Dudgeon Extension Project

4.2.2.2 Principal Components Analysis

Figure 4.6 presents a principal components analysis (PCA) ordination plot of the percentage of the sediment that comprised each sediment fraction used to identify the sediment fractions driving the variability of the sediment composition across the survey area.

The first principle component (PC1), which explained 47.4 % of the variability, was negatively influenced by medium sand on the Wentworth scale and positively influenced by coarse pebble, medium pebble and fine pebble. The second principle component (PC2), which explained 35.4% of the variability, was positively influenced by coarse sand and negatively influenced coarse pebble, medium pebble and fine pebble.

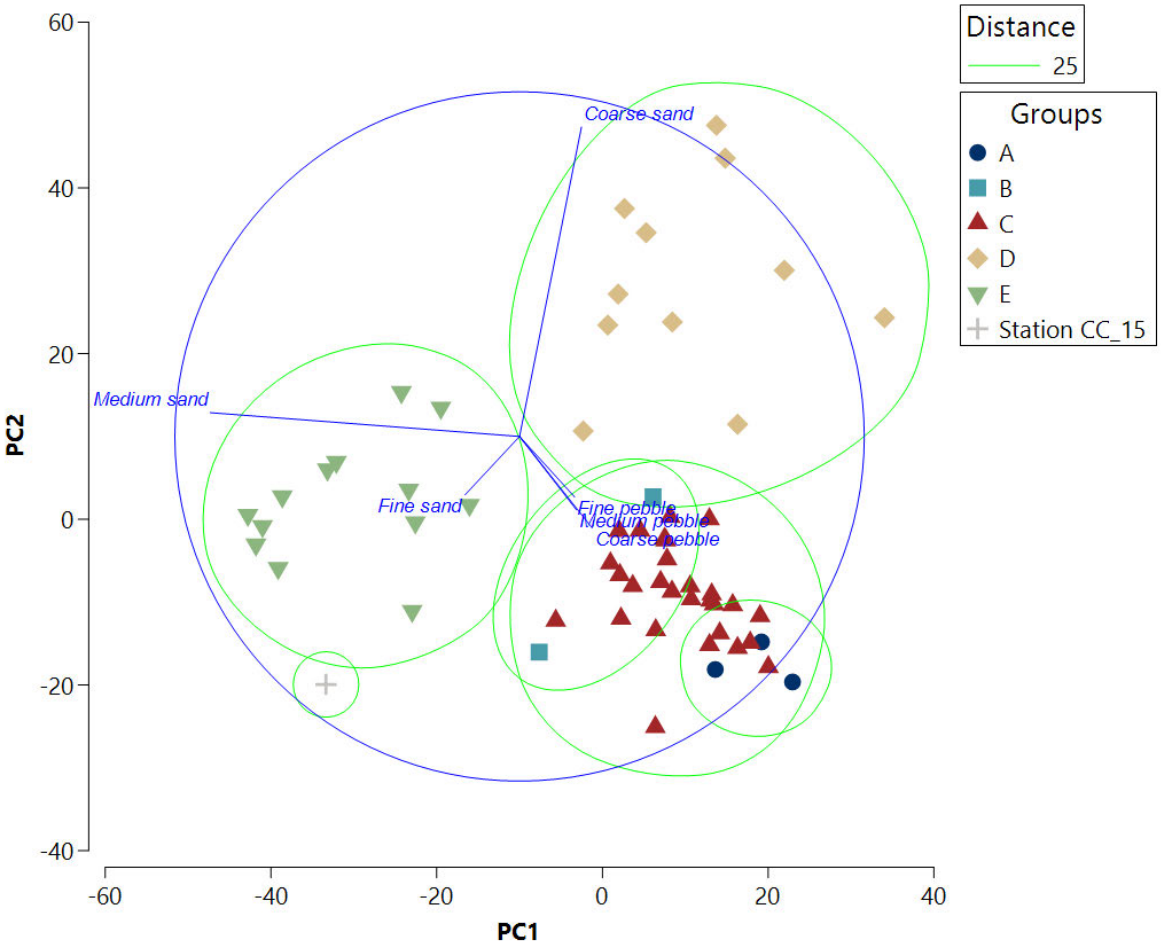


Figure 4.6: Principal components analysis (PCA) ordination of Wentworth (1922) fractional composition (%), Dudgeon Extension Project

4.3 Sediment Chemistry

4.3.1 Sediment Hydrocarbons

Appendix E.1 presents the Gas Chromatography–Flame Ionisation Detection (GC-FID) profiles illustrating the hydrocarbon components detected in each of the sediment samples. RSD values have been provided to indicate the extent of variability in the dataset. For the purpose of this report, RSD of less than 30 % will be considered low variability, 30 % to 70 % will be considered moderate variability and more than 70 % will be considered high variability.

4.3.1.1 Total Hydrocarbon and n-Alkanes (nC_{12} to nC_{36}) Content

Table 4.8 presents the concentrations of total hydrocarbons, UCM, total n-alkanes and CPI ratios (nC_{12} to nC_{36}) and pristane/phytane ratios reported from the surface sediment across the DEP North and South and EC and CC survey areas. Appendix E.2 presents the individual n-alkane concentrations for the sediments analysed across the DEP North and South and EC and CC survey areas.

The THC values ranged from 1.2 µg/g (station EC_15) to 4.0 µg/g (station EC_04) with a mean concentration of 2.5 µg/g and moderate variability (RSD of 52 %). THC values at stations D_26, EC_04 and EC_05 were all higher than the Area 1 mean concentration of 1.6 µg/g.

Total n-alkanes (nC_{12} to nC_{36}) concentrations ranged from 0.07 µg/g (station EC_15) to 0.38 µg/g (station EC_04) with a mean concentration of 0.24 µg/g and moderate variability (RSD 49 %). The total n-alkane concentrations at stations D_17, D_26, EC_04 and EC_05 were all above the Area 1 mean concentration of 0.16 µg/g.

The CPI ratio (nC_{12} to nC_{36}) ranged from 1.24 (station D_26) to 1.63 (station EC_05) with a mean concentration of 1.43 and low variability (RSD 12 %). The CPI ratios at all stations except one (station D_26) were higher than the Area 1 mean ratio of 1.25.

The pristane/phytane (Pr/Ph) ratio ranged from 2.91 (station EC_15) to 5.01 (station EC_05) with a mean of 3.76 and low variation (RSD 19 %) and all stations were higher than the Area 1 mean ratio of 2.51.

Table 4.8: Summary of sediment hydrocarbon analysis, Dudgeon Extension Project

Station	THC*	UCM*	n-alkanes*			CPI Ratio			Pristane*	Phytane*	Pr/Ph Ratio
			nC_{12-20}	nC_{21-36}	nC_{12-36}	nC_{12-20}	nC_{21-36}	nC_{12-36}			
D_17	1.4	0.7	0.07	0.11	0.19	0.96	1.60	1.31	0.0162	0.0042	3.90
D_26	3.3	1.9	0.13	0.20	0.33	0.92	1.52	1.24	0.0516	0.0157	3.29
CC_06	1.4	0.7	0.06	0.10	0.16	0.95	1.66	1.32	0.0192	0.0052	3.73
EC_04	4.0	2.1	0.15	0.23	0.38	0.89	1.97	1.43	0.0410	0.0109	3.74
EC_05	3.6	1.8	0.11	0.19	0.30	0.95	2.25	1.63	0.0373	0.0074	5.01
EC_15	1.2	0.8	0.02	0.05	0.07	0.94	2.13	1.62	0.0053	0.0018	2.91
Minimum	**1.2**	**0.7**	**0.02**	**0.05**	**0.07**	**0.89**	**1.52**	**1.24**	**0.0053**	**0.0018**	**2.91**
Maximum	**4.0**	**2.1**	**0.15**	**0.23**	**0.38**	**0.96**	**2.25**	**1.63**	**0.0516**	**0.0157**	**5.01**
Mean	**2.5**	**1.3**	**0.09**	**0.15**	**0.24**	**0.94**	**1.86**	**1.43**	**0.0284**	**0.0075**	**3.76**
Standard Deviation	**1.23**	**0.67**	**0.049**	**0.070**	**0.118**	**0.026**	**0.303**	**0.166**	**0.0176**	**0.00505**	**0.711**
RSD [%]	**52**	**50**	**54**	**48**	**49**	**3**	**16**	**12**	**62**	**67**	**19**
Area 1 – Sandbanks, SEA2 Survey (ERT, 2003)†											
Minimum	**0.4**	**0.1**	-	-	**0.03**	-	-	**0.77**	**0.002**	**0.001**	**1.07**
Maximum	**10.0**	**6.5**	-	-	**1.47**	-	-	**1.57**	**0.131**	**0.049**	**4.27**
Mean	**1.6**	**1.0**	-	-	**0.16**	-	-	**1.25**	**0.018**	**0.007**	**2.51**
RSD [%]	**106**	**110**	-	-	**163**	-	-	**13**	**156**	**129**	**31**

Notes
THC = Total hydrocarbon content; UCM = Unresolved complex mixture; CPI = Carbon preference index
Pr/Ph = Ratio of pristane to phytane; RSD = Relative standard deviation; SEA2 = Strategic Environmental Assessment Area 2
* = Concentrations expressed as µg/g of dry sediment
† = Minimum, maximum, mean and RSD values from Area 1 – Sandbanks in SEA2 (ERT, 2003)

Key	Below Area 1 mean	Above Area 1 mean

4.3.1.2 Sediment Aromatic Hydrocarbon Content

The distribution and concentration of aromatic compounds in seabed sediments were analysed by GC-MS. The aromatic compounds quantified were the naphthalenes (2 ring aromatics), 3 to 6 ring PAHs and the dibenzothiophenes (sulphur containing heteroaromatics). Table 4.9 summarises the sediment total aromatic hydrocarbon concentrations, including the total 2 to 6 ring PAHs and total US EPA 16 PAHs, Table 4.10 summarises the concentrations of the individual US EPA 16 PAHs and Table 4.12 summarises the individual aromatic hydrocarbon concentrations and their alkyl homologue concentrations. The distributions of aromatic hydrocarbons are displayed as three-dimensional plots for ease of interpretation in Appendix E.3.

Total 2 to 6 ring PAH concentrations are calculated as the sum of individual PAHs, some of which were less than the minimum reporting value (MRV). Consequently, the total 2 to 6 ring PAH concentration is assigned as a less than value. However, the concentrations of the individual PAHs that were less than the MRV are unlikely to significantly influence the total 2 to 6 ring PAH concentrations. Therefore, for the purposes of this report, total 2 to 6 ring PAH, US EPA 16 PAH and total naphthalenes, phenanthrenes and dibenzothiophenes (NPD) concentrations are treated as absolute values to provide comparison between stations.

Total 2 to 6 ring PAH concentrations ranged from < 0.0180 µg/g (station EC_15) to 0.194 µg/g (station EC_04) with a mean of 0.101 µg/g and were higher than the Area 1 mean concentration of 0.058 µg/g at three stations (D_26, EC_04 and EC_05).

Total US EPA 16 PAH concentrations ranged from < 5.1 ng/g (station EC_15) to 52.2 ng/g (station EC_04) with a mean of 28.1 ng/g. All individual US EPA 16 PAH (Table 4.9) concentrations were all below the Coordinated Environmental Monitoring Programme (CEMP) ERLs, where available.

Table 4.9: Summary of sediment aromatic hydrocarbon analysis, Dudgeon Extension Project

Station	Total 2 to 6 Ring PAH*	Total US EPA 16 PAH†
D_17	0.0493	< 13.5
D_26	0.123	< 35.3
CC_06	0.0493	< 13.6
EC_04	0.194	52.2
EC_05	0.179	48.9
EC_15	< 0.0180	< 5.1
Minimum	**< 0.0180**	**< 5.1**
Maximum	**0.194**	**52.2**
Mean	**0.101**	**28.1**
Standard Deviation	**0.0741**	**20.1**

Station	Total 2 to 6 Ring PAH*	Total US EPA 16 PAH†
RSD [%]	**72**	**71**
Area 1 – Sandbanks SEA2 Survey (ERT, 2003)†		
Minimum	**0.004**	-
Maximum	**0.648**	-
Mean	**0.058**	-
RSD [%]	**190**	-

Notes
For statistical evaluation of total 2 to 6 ring PAH and total US EPA 16 PAH concentrations, < values treated as absolute values for calculating summary statistics
Total 2 to 6 ring PAH = Total 2 to 6 ring polycyclic aromatic hydrocarbons (PAH), including alkyl homologues
Total US EPA 16 PAH = Total United States Environmental Protection Agency's (US EPA) 16 polycyclic aromatic hydrocarbons
RSD = Relative standard deviation
* = Concentrations expressed as µg/g of dry sediment
† = Concentrations expressed as ng/g of dry sediment
# = Minimum, maximum and mean and RSD values from Area 1 – Sandbanks in SEA2 (ERT, 2003)

Key	Below Area 1 mean	Above Area 1 mean

Table 4.10: Summary of United States Environmental Protection Agency (US EPA) 16 Polycyclic Aromatic Hydrocarbon (PAH) Concentrations, Dudgeon Extension Project

PAH [ng/g of Dry Sediment]	D_17	D_26	CC_06	EC_04	EC_05	EC_15	CEMP Assessment Criteria (OSPAR, 2014) ERL
Naphthalene	0.5	2.1	0.7	4.2	3.7	0.2	**160**
Acenaphthylene	< 0.1	< 0.1	< 0.1	0.1	0.1	< 0.1	-
Acenaphthene	0.1	0.1	0.1	0.4	0.3	< 0.1	-
Fluorene	0.2	0.4	0.2	1.1	0.9	0.1	-
Phenanthrene	2.8	6.1	2.7	8.6	8.9	0.5	**240**
Anthracene	0.1	0.4	0.1	0.8	0.9	0.1	**85**
Fluoranthene	1.5	4.8	1.3	5.8	5.3	0.5	**600**
Pyrene	1.2	4.1	1.2	5.4	4.9	0.4	**665**
Benzo(a)anthracene	0.6	1.9	0.7	2.8	2.6	0.2	**261**
Chrysene	0.8	2.6	1.1	3.2	2.8	0.3	**384**
Benzo(b)fluoranthene	2.0	4.7	1.9	6.6	5.9	1.2	-
Benzo(k)fluoranthene	0.5	1.0	0.5	1.7	1.5	0.3	-
Benzo(a)pyrene	0.6	1.7	0.6	3.0	2.8	0.2	**430**
Indeno(1,2,3-cd)pyrene	0.8	1.7	0.8	3.1	3.0	0.4	**240**
Benzo(ghi)perylene	1.5	3.1	1.4	4.6	4.5	0.4	**85**
Dibenzo(a,h)anthracene	0.2	0.5	0.2	0.8	0.8	< 0.1	-
Total US EPA 16	**< 13.5**	**< 35.3**	**< 13.6**	**52.2**	**48.9**	**< 5.1**	-

Notes
PAH = Polycyclic aromatic hydrocarbon
ERL = Effects range low
CEMP = Coordinated environmental monitoring programme
US EPA 16 = United States Environmental Protection Agency's 16 priority polycyclic aromatic hydrocarbons
OSPAR = Oslo and Paris Commission

Key	Below ERL	Above ERL

Table 4.11: Sediment Polycyclic Aromatic Hydrocarbon Analysis, Dudgeon Extension Project

PAH	Station					
	D_17	D_26	CC_06	EC_04	EC_05	EC_15
Naphthalene (128)	0.5	2.1	0.7	4.2	3.7	0.2
C_1 128	1.7	4.8	1.9	9.8	9.3	0.5
C_2 128	3.0	4.5	3.1	14.2	12.5	0.7
C_3 128	3.2	7.2	3.0	14.7	13.7	0.8
C_4 128	2.4	5.5	2.1	8.9	9.0	0.5
TOTAL 128	**10.8**	**24.1**	**10.8**	**51.8**	**48.2**	**2.7**
Phenanthrene/anthracene (178)	2.9	6.5	2.8	9.4	9.8	0.6
C_1 178	2.4	6.7	2.6	8.8	8.8	0.5
C_2 178	2.3	6.4	2.6	8.8	8.4	0.6
C_3 178	2.4	6.3	2.2	8.3	7.8	0.7
TOTAL 178	**10.0**	**25.9**	**10.2**	**35.3**	**34.8**	**2.4**
Dibenzothiophene (184)	0.1	0.1	0.1	0.4	0.3	< 0.1
C_1 184	0.2	0.4	0.2	0.7	0.6	< 0.1
C_2 184	0.2	0.5	0.2	0.7	0.6	0.1
C_3 184	0.2	0.4	0.1	0.6	0.4	0.1
TOTAL 184	**0.7**	**1.4**	**0.6**	**2.4**	**1.9**	**< 0.4**
Fluoranthene/pyrene (202)	2.7	8.9	2.5	11.2	10.2	0.9
C_1 202	2.1	7.4	1.9	8.6	7.4	0.6
C_2 202	1.7	5.0	1.4	6.6	6.0	0.5
C_3 202	1.4	3.6	1.3	5.4	4.7	0.5
TOTAL 202	**7.9**	**24.9**	**7.1**	**31.8**	**28.3**	**2.5**
Benzanthracenes/ benzphenanthrenes (228)	2.5	7.8	2.9	9.9	8.7	1.0
C_1 228	1.4	4.0	1.5	5.4	4.7	0.5
C_2 228	1.8	4.3	1.8	6.7	6.1	0.7
TOTAL 228	**5.7**	**16.1**	**6.2**	**22.0**	**19.5**	**2.2**
m/z 252*	5.4	13.0	5.8	20.4	17.9	3.0
C_1 252	2.1	5.0	2.3	7.8	6.9	1.0
C_2 252	1.3	2.5	1.3	4.7	4.2	0.9
TOTAL 252	**8.8**	**20.5**	**9.4**	**32.9**	**29.0**	**4.9**
m/z 276†	3.4	7.4	3.0	12.4	10.9	1.3
C_1 276	1.2	1.7	1.1	3.1	3.4	0.7
C_2 276	0.8	1.3	0.9	2.5	2.5	0.9
TOTAL 276	**5.4**	**10.4**	**5.0**	**18.0**	**16.8**	**2.9**
NPD‡	**21.5**	**51.4**	**21.6**	**89.5**	**84.9**	**< 5.7**
NPD [%]	**44**	**42**	**44**	**46**	**48**	**< 32**
Total 2 to 6 ring PAH	**49.3**	**123**	**49.3**	**194**	**179**	**< 18.0**

Notes
* = m/z 252 - benzfluoranthenes/benzpyrenes/perylene
† = m/z 276 - anthanthrene/indenopyrenes/benzperylenes
‡ = NPD - naphthalenes, phenanthrenes and dibenzothiophenes (totals)
Concentrations expressed as ng/g dry sediment

4.3.2 Sediment Metals

Table 4.12 summarises the concentrations of the extractable metals in the sediment samples following an aqua regia digest. Variability in metals concentration across the survey areas ranged from low (arsenic and lead, both RSD of 28 %) to high (barium, RSD of 96 %). All metal concentrations were below the Cefas AL1 and AL2, and below the CEMP ERLs, where available.

Table 4.12: Summary of sediment metals analysis, Dudgeon Extension Project

Station	Al	As	Ba	Cd	Cr	Cu	Fe	Hg	Li	Ni	Pb	Zn
D_17	1320	8.73	6.25	< 0.0800	3.94	< 0.800	3940	< 0.0400	1.53	1.86	4.59	6.43
D_26	3390	11.3	71.8	< 0.0800	10.2	1.10	13100	< 0.0400	2.96	4.70	7.53	14.7
CC_06	1930	5.90	6.78	< 0.0800	4.53	1.44	4880	< 0.0400	2.61	3.27	7.28	9.12
EC_04	3650	10.5	42.0	< 0.0800	8.67	1.80	9200	< 0.0400	5.01	4.82	6.34	16.2
EC_05	4750	14.3	38.4	< 0.0800	10.2	2.06	10900	< 0.0400	5.17	5.04	9.93	18.7
EC_15	1480	9.42	4.83	< 0.0800	5.03	0.915	5460	< 0.0400	1.81	3.24	5.34	11.6
Minimum	**1320**	**5.90**	**4.83**	-	**3.94**	**< 0.800**	**3940**	-	**1.53**	**1.86**	**4.59**	**6.43**
Maximum	**4750**	**14.3**	**71.8**	-	**10.2**	**2.06**	**13100**	-	**5.17**	**5.04**	**9.93**	**18.7**
Mean	**2750**	**10.0**	**28.3**	-	**7.10**	**1.28**	**7910**	-	**3.18**	**3.82**	**6.84**	**12.8**
Standard Deviation	**1380**	**2.80**	**27.1**	-	**2.92**	**0.607**	**3700**	-	**1.57**	**1.24**	**1.89**	**4.59**
RSD [%]	**50**	**28**	**96**	-	**41**	**47**	**47**	-	**49**	**33**	**28**	**36**
Cefas 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**

Notes

Al = Aluminium; As = Arsenic; Ba = Barium; Cd = Cadmium; Cr = Chromium; Cu = Copper

Fe = Iron; Hg = Mercury; Li = Lithium; Ni = Nickel; Pb = Lead; Zn = Zinc

Concentrations expressed in mg/kg dry sediment

Samples were subject to an aqua regia digest

Where results were < minimum reporting value, summary statistics have been calculated using an absolute value determined by minimum reporting value / 2

Cefas = Centre for Environment, Fisheries and Aquaculture Science

OSPAR = Oslo and Paris Commission

CEMP = Coordinated environmental monitoring programme

ERL = Effects range low

* = Cefas action levels available at https://www.gov.uk/guidance/marine-licensing-sediment-analysis-and-sample-plans

Key	Below ERL	Above ERL

4.3.3 Sediment Organotins

Table 4.13 summarises the concentrations of organotins in the sediment samples. Total organotin concentrations ranged from < 1.20 ng/g (station EC_15) to < 40.7 ng/g (station D_26) with a mean of 8.28 ng/g. The maximum TBT concentration was 1.26 ng/g, which was below the CEMP class B assessment criteria of 2 ng/g.

Table 4.13: Summary of organotins analysis, Dudgeon Extension Project

Station	Monobutylin (MBT)	Dibutyltin (DBT)	Tributyltin (TBT)	Total Organotins
D_17	< 0.400	< 0.400	1.26	< 2.06
D_26	39.9	< 0.400	< 0.400	< 40.7
EC_04	0.420	< 0.400	< 0.400	< 1.22
EC_05	< 0.400	0.568	< 0.400	< 1.37
EC_15	< 0.400	< 0.400	< 0.400	< 1.20
CC_06	< 0.400	1.67	1.05	< 3.12
Minimum	**< 0.400**	**< 0.400**	**< 0.400**	**< 1.20**
Maximum	**39.9**	**1.67**	**1.26**	**< 40.7**
Mean	-	-	-	**8.28**
Standard Deviation	-	-	-	**15.9**
RSD [%]	-	-	-	**192**
CEMP Assessment Criteria (OSPAR, 2009b)				
Class B	-	-	**2**	-
Notes Concentrations expressed as ng/g dry weight For statistical evaluation of total organotin concentrations, < values treated as absolute values for calculating summary statistics CEMP = Coordinated environmental monitoring programme Class B = OSPAR Ecological Quality Objective threshold criteria				
Key	Below Class B		Above Class B	

4.4 Sediment Macrofauna

4.4.1 Phyletic Composition of Infauna

A full list of taxa identified and enumerated (individuals per 0.1 m^2) from the survey area are presented in Appendix F.1.

A total of 398 taxa and 13 172 individuals were identified within all grab samples (FA, FB and FC samples) from the survey area. Of these taxa, 94 were recorded as juveniles, pelagic, fish or damaged fauna. Several other indeterminable specimens were merged. To represent the permanent macrofaunal community and to avoid spurious enhancement of the species list, the dataset was rationalised and these taxa were removed prior to statistical analysis (see Appendix F.1).

Table 4.14 summarises the abundance of taxonomic groups identified within the rationalised dataset for the FA samples across the survey area and Figures 4.7 and 4.8 display the data graphically.

The rationalised data for the FA samples comprised 272 benthic taxa, of which 122 (44.9 %) were annelids, 87 (32.0 %) were arthropods, 47 (17.3 %) were molluscs, 7 (2.6 %) were echinoderms, 9 (3.3 %) were other phyla (specifically cnidarians, nemerteans, phoronids, platyhelminthes and sipunculids). A total of 9558 individuals was identified in the rationalised data, of which 3146 (32.9 %) were annelids, 1925 (20.1 %) were arthropods, 3857 (40.4 %) were molluscs, 178 (1.9 %) were echinoderms, 452 (4.7 %) were other phyla (Table 4.14).

Table 4.14: Taxonomic groups of macrofauna, Dudgeon Extension Project

Taxonomic Group	Number of Taxa	Composition of Taxa [%]	Abundance	Composition of Individuals [%]
Annelida	122	44.9	3146	32.9
Arthropoda	87	32.0	1925	20.1
Mollusca	47	17.3	3857	40.4
Echinodermata	7	2.6	178	1.9
Other phyla	9	3.3	452	4.7
Total	**272**	**100**	**9558**	**100**

Notes
Macrofaunal samples were processed through a 1.0 mm sieve
Other phyla include: Cnidaria, Nemertea, Phoronida, Platyhelminthes and Sipuncula

Figures 4.9 and 4.10 illustrate the phyletic composition of taxa and individuals for each sample (per 0.1 m^2), respectively, facilitating spatial comparison and highlighting the variation between stations across the survey area.

The phyletic composition in terms of taxa varied across the survey area and within the DEP North and South, CC and EC survey areas. Annelids and arthropods were present in all samples and between them comprised over 50 % of the taxa and represented the only taxa present at six samples (two within the DEP survey areas, one within the CC and three within the EC corridors). Molluscs were present at the majority of samples (45 of the 53 samples), other phyla were present at 33 samples and echinoderms were only present at 21 samples, with the variation spread across the survey areas.

The phyletic composition in term of individuals showed a lot of variation across the three survey areas. The dominant taxa varied between annelids, arthropods and molluscs, and the most dominant taxa at any sample was annelids (93.5 %) at sample CC_16_FA. Echinoderms, where present, contributed the lowest proportions with the highest being 4.3 % at sample D_01_FA, whereas other phyla, where present, contributed higher proportions with the highest being 22.7 % at sample CC_11_FA.

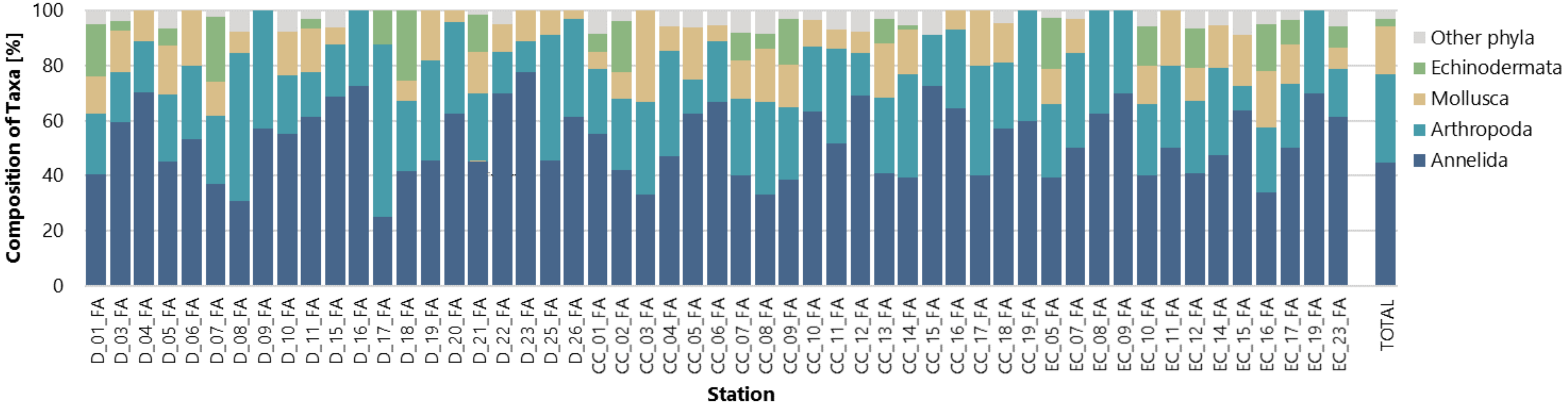


Figure 4.7: Phyletic composition of macrofaunal taxa, Dudgeon Extension Project

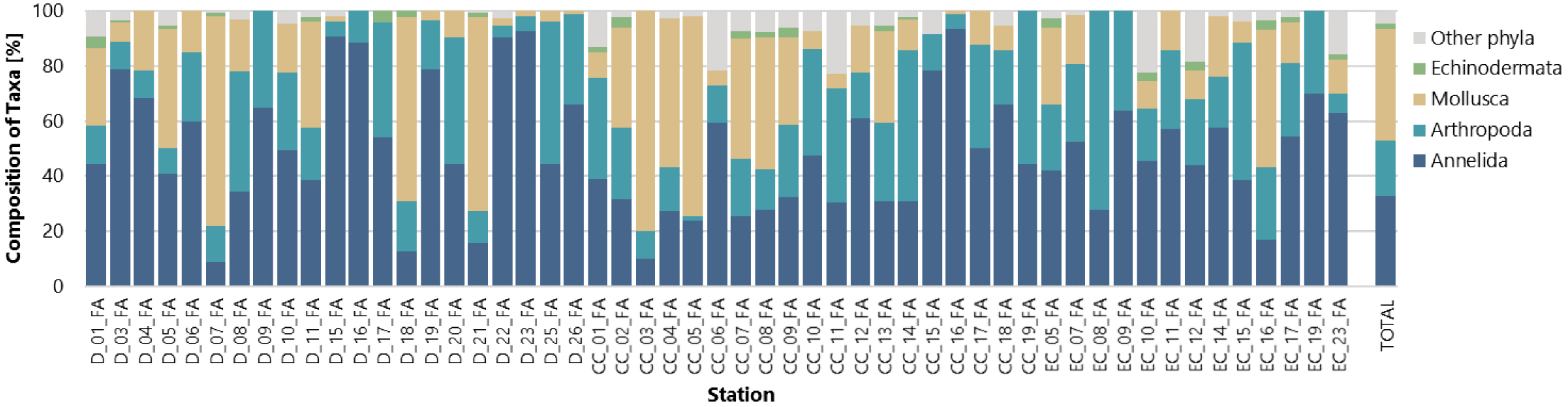


Figure 4.8: Phyletic composition of macrofaunal individuals, Dudgeon Extension Project

4.4.1.1 Intrastation Variability

Figures 4.9 and 4.10 illustrate the intrastation variability of phyletic composition of taxa and individuals for each replicate sample (per 0.1 m^2) taken at the triplicate stations respectively, facilitating spatial comparison and highlighting the broad similarities and differences between stations across the survey area.

The composition of taxa at the triplicate stations showed some variation across the majority of stations. All samples/replicates were dominated by annelids and at similar numbers except D_26_FC where arthropods were the most abundant taxa. Arthropods were present at all samples/replicates and were either the second or third dominant taxa and in similar numbers within most stations. Molluscs were present at all samples/replicates except EC_09_FA and EC_09_FC and all samples/replicates at station EC_19. Echinoderms and 'other phyla' also showed variation in presence and absence at some stations. The only stations that had the same phyletic groups present across all three replicates/samples were station CC_09, EC_07 and station EC_19.

The composition of individuals also showed some variation between samples/replicates at the majority of stations, particularly at station EC_07, EC_09 and EC_23. The stations within the DEP survey areas and EC and CC corridors were all dominated by annelids, with arthropods second dominant.

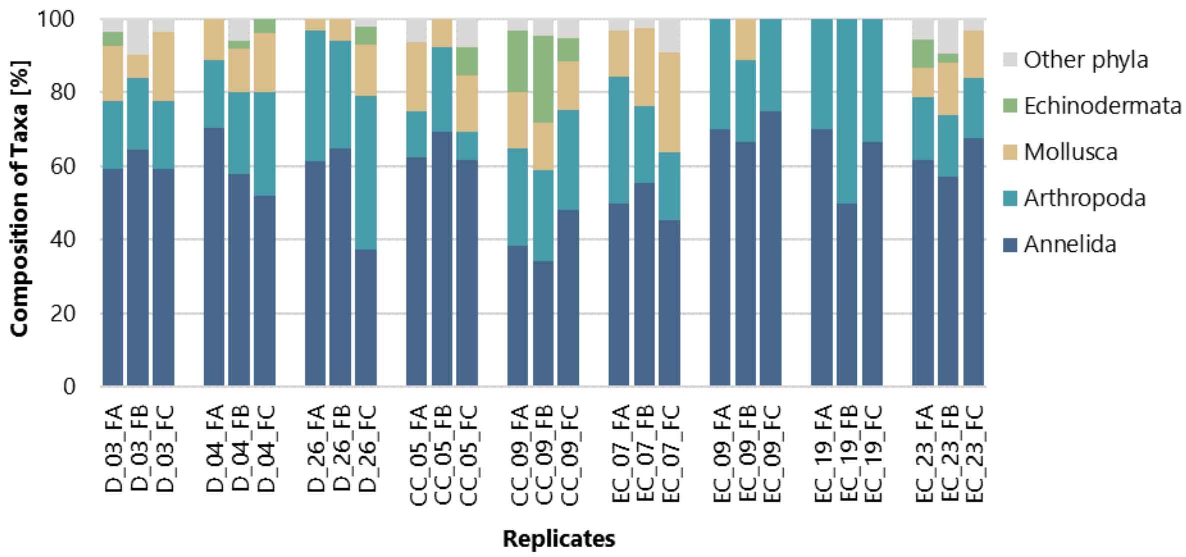


Figure 4.9: Phyletic composition of macrofaunal taxa, Dudgeon Extension Project

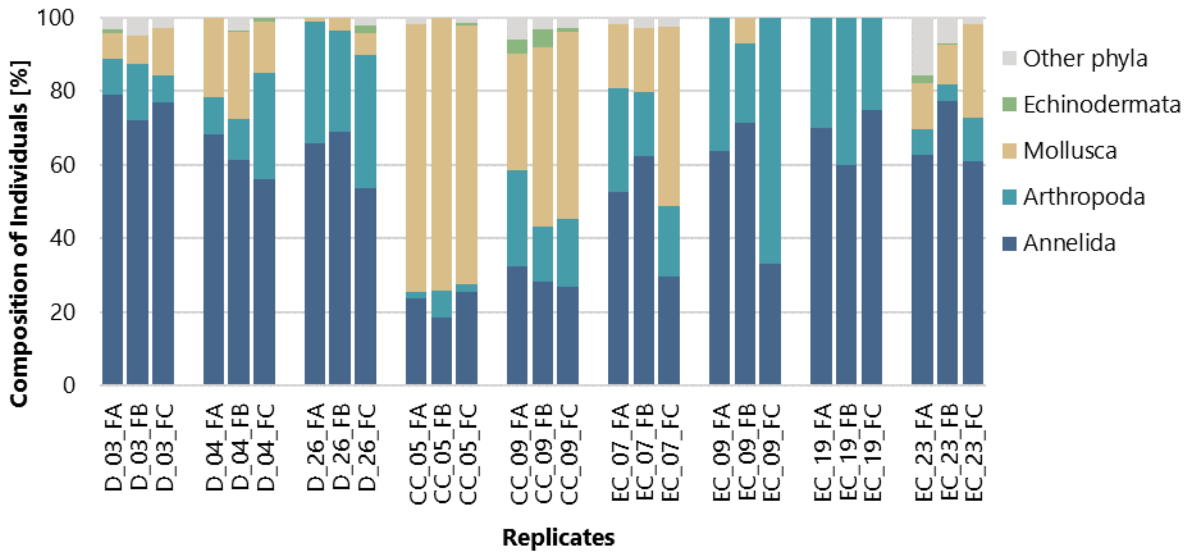


Figure 4.10: Phyletic composition of macrofaunal individuals, Dudgeon Extension Project

4.4.2 Community Statistics

Table 4.15 presents the number of taxa and individuals identified within the rationalised dataset from each FA sample at each station, along with several commonly used diversity and evenness statistics. Figures 4.11 and 4.12 spatially presents the number of taxa and individuals across the survey area.

The number of taxa per station (0.1 m^2) ranged from 3 (station CC_03_FA) to 79 (station D_01_FA) with a median of 27 and a mean of 32.

The number of individuals per station (0.1 m^2) ranged from 9 (station CC_19_FA) to 1902 (station D_07_FA) with a median of 80 and a mean of 180.

Richness (Margalef's Index (d)), diversity (Shannon-Wiener diversity index (H'Log_2), outlined in Dauvin et al. (2012) (Section 3.3.3), evenness (expressed as both Pielou's (J) and dominance (Simpson's Index (λ)) all ranged from low to high across the survey areas and showed similar spatial patterns.

Station CC_03_FA, which had the lowest number of taxa, also had the lowest richness (Margalef's index) with a value of 0.87 and the lowest evenness (Shannon-Wiener index) with a value of 0.92 and the highest dominance (Simpsons index) with a value of 0.660. Station D_07_FA, which had the highest abundance, also had the lowest Pielou's index with a value of 0.319.

Station D_01_FA, which had the highest number of taxa, also had the highest species richness (Margalef's index) with a value of 12.93. The highest diversity (Shannon-Wiener diversity index) with a value of 5.17 was at station EC_10_FA.

The highest evenness (Pielou's index) was 0.965 at station CC_12_FA. The lowest dominance (Simpson's index) was 0.004 at station D_10_FA.

Table 4.15: Macrofaunal community statistics (0.1 m^2), Dudgeon Extension Project

Station	Numbers		Richness	Diversity	Evenness	Dominance
	Taxa	Individuals	Margalef's Index [d]	Shannon-Wiener [H'Log$_2$]	Pielou [J]	Simpson [λ]
D_01_FA	79	416	12.93	4.78	0.758	0.086
D_03_FA	27	90	5.78	3.58	0.753	0.189
D_04_FA	27	79	5.95	3.80	0.800	0.112
D_05_FA	59	299	10.17	3.98	0.676	0.166
D_06_FA	15	20	4.67	3.75	0.959	0.085
D_07_FA	69	1902	9.01	1.95	0.319	0.558
D_08_FA	13	32	3.46	3.15	0.852	0.147
D_09_FA	7	20	2.00	2.30	0.818	0.270
D_10_FA	38	85	8.33	4.90	0.934	0.044
D_11_FA	31	80	6.85	3.90	0.787	0.138
D_15_FA	16	54	3.76	2.61	0.652	0.328
D_16_FA	11	34	2.84	2.18	0.629	0.400
D_17_FA	8	24	2.20	2.52	0.841	0.233
D_18_FA	60	859	8.73	2.89	0.489	0.372
D_19_FA	11	89	2.23	1.75	0.507	0.501
D_20_FA	24	52	5.82	3.85	0.839	0.120
D_21_FA	54	451	8.67	2.75	0.478	0.424
D_22_FA	20	73	4.43	3.09	0.716	0.233
D_23_FA	9	55	2.00	1.89	0.596	0.448
D_25_FA	11	27	3.03	2.92	0.844	0.174
D_26_FA	31	79	6.87	4.41	0.891	0.065
CC_01_FA	45	161	8.66	4.72	0.859	0.054
CC_02_FA	67	384	11.09	4.81	0.792	0.082
CC_03_FA	3	10	0.87	0.92	0.582	0.660
CC_04_FA	34	146	6.62	3.37	0.662	0.262
CC_05_FA	16	113	3.17	1.93	0.482	0.500
CC_06_FA	18	37	4.71	3.67	0.879	0.109
CC_07_FA	46	200	8.49	4.07	0.736	0.157
CC_08_FA	35	115	7.17	3.82	0.745	0.173
CC_09_FA	77	423	12.57	4.79	0.765	0.088
CC_10_FA	30	93	6.40	4.43	0.902	0.061
CC_11_FA	29	128	5.77	3.76	0.774	0.125
CC_12_FA	13	18	4.15	3.57	0.965	0.093
CC_13_FA	61	305	10.49	4.60	0.776	0.095

Station	Numbers		Richness	Diversity	Evenness	Dominance
	Taxa	Individuals	Margalef's Index [d]	Shannon-Wiener [H'Log2]	Pielou [J]	Simpson [λ]
CC_14_FA	56	204	10.34	4.54	0.782	0.094
CC_15_FA	11	23	3.19	3.21	0.927	0.130
CC_16_FA	14	93	2.87	1.48	0.390	0.622
CC_17_FA	10	24	2.83	2.87	0.864	0.177
CC_18_FA	21	56	4.97	3.62	0.824	0.130
CC_19_FA	5	9	1.82	2.20	0.946	0.235
EC_05_FA	61	363	10.18	4.92	0.830	0.054
EC_07_FA	32	57	7.67	4.68	0.937	0.050
EC_08_FA	8	18	2.42	2.06	0.685	0.395
EC_09_FA	10	22	2.91	3.01	0.905	0.149
EC_10_FA	74	364	12.38	5.17	0.832	0.053
EC_11_FA	10	14	3.41	3.18	0.958	0.122
EC_12_FA	66	352	11.09	4.80	0.795	0.067
EC_14_FA	19	54	4.51	3.59	0.845	0.120
EC_15_FA	11	26	3.07	2.54	0.735	0.287
EC_16_FA	50	291	8.64	3.85	0.682	0.200
EC_17_FA	76	413	12.45	4.87	0.779	0.074
EC_19_FA	10	20	3.00	3.05	0.917	0.140
EC_23_FA	49	202	9.04	4.64	0.826	0.071
Minimum	3	9	0.87	0.92	0.319	0.044
Maximum	79	1902	12.93	5.17	0.965	0.660
Median	27	80	5.78	3.59	0.792	0.140
Mean	32	180	6.16	3.46	0.764	0.202
Standard deviation	23	293	3.37	1.06	0.150	0.159

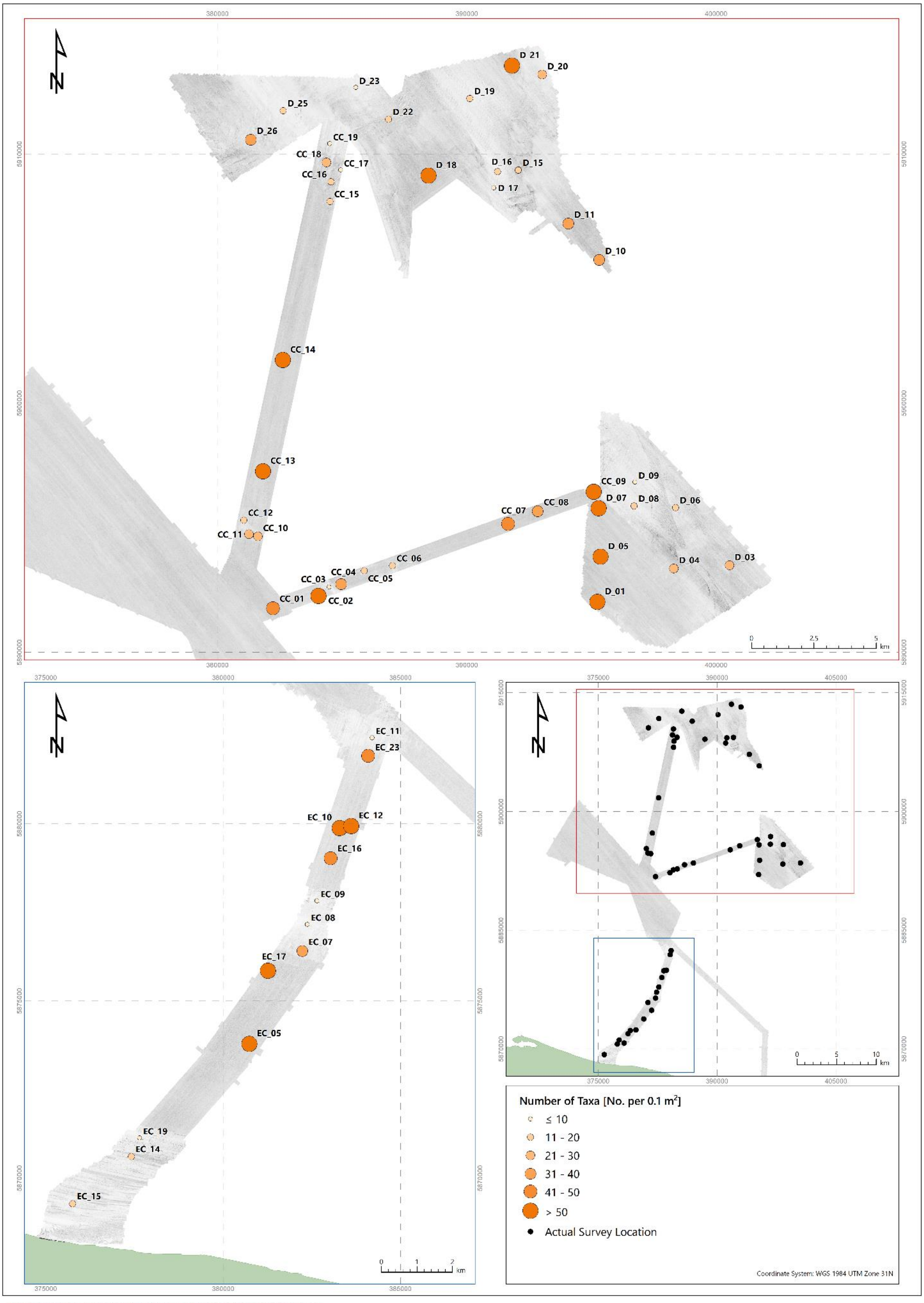


Figure 4.11: Number of macrofaunal taxa per sample (0.1 m^2) overlaid on bathymetry, Dudgeon Extension Project

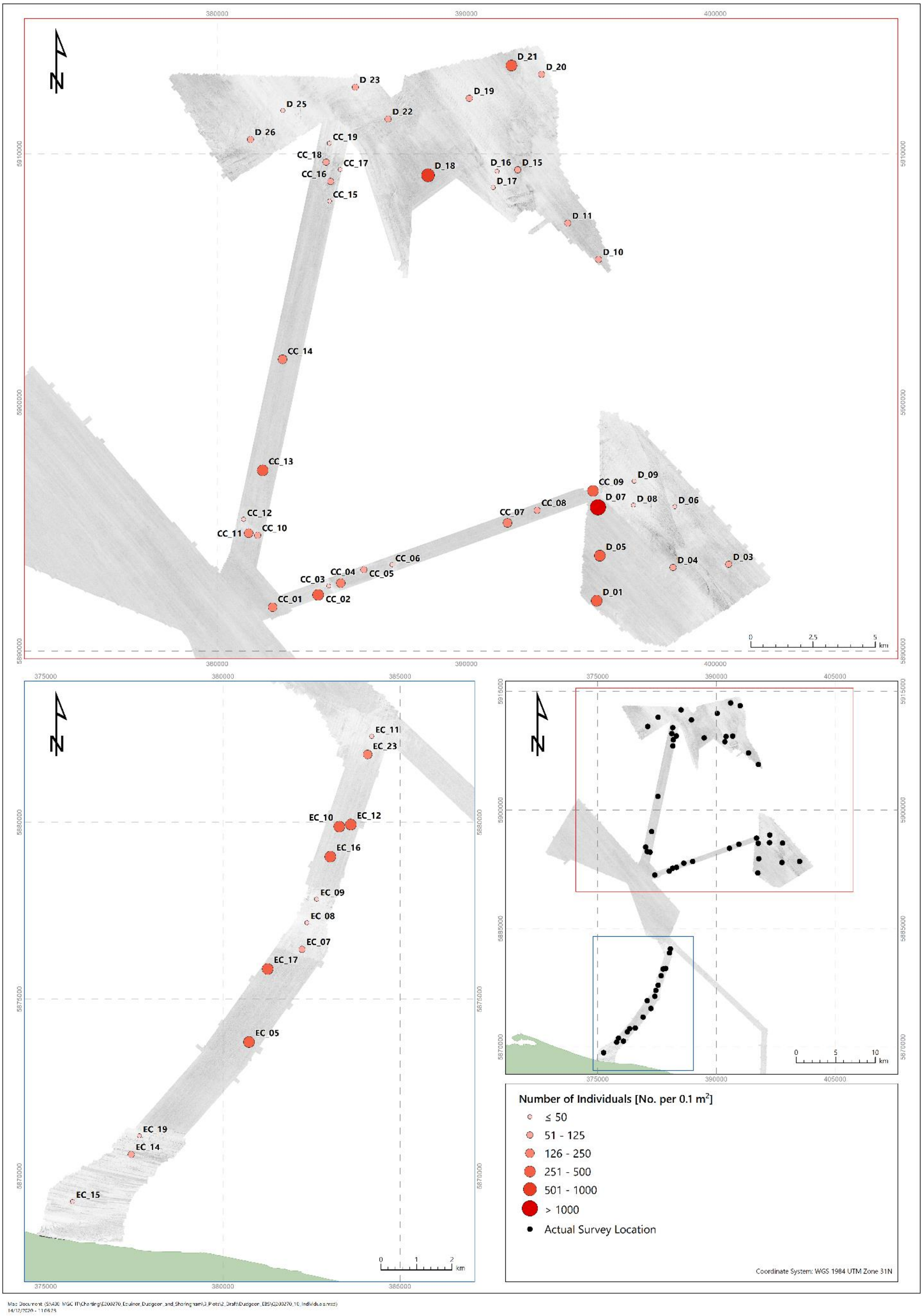


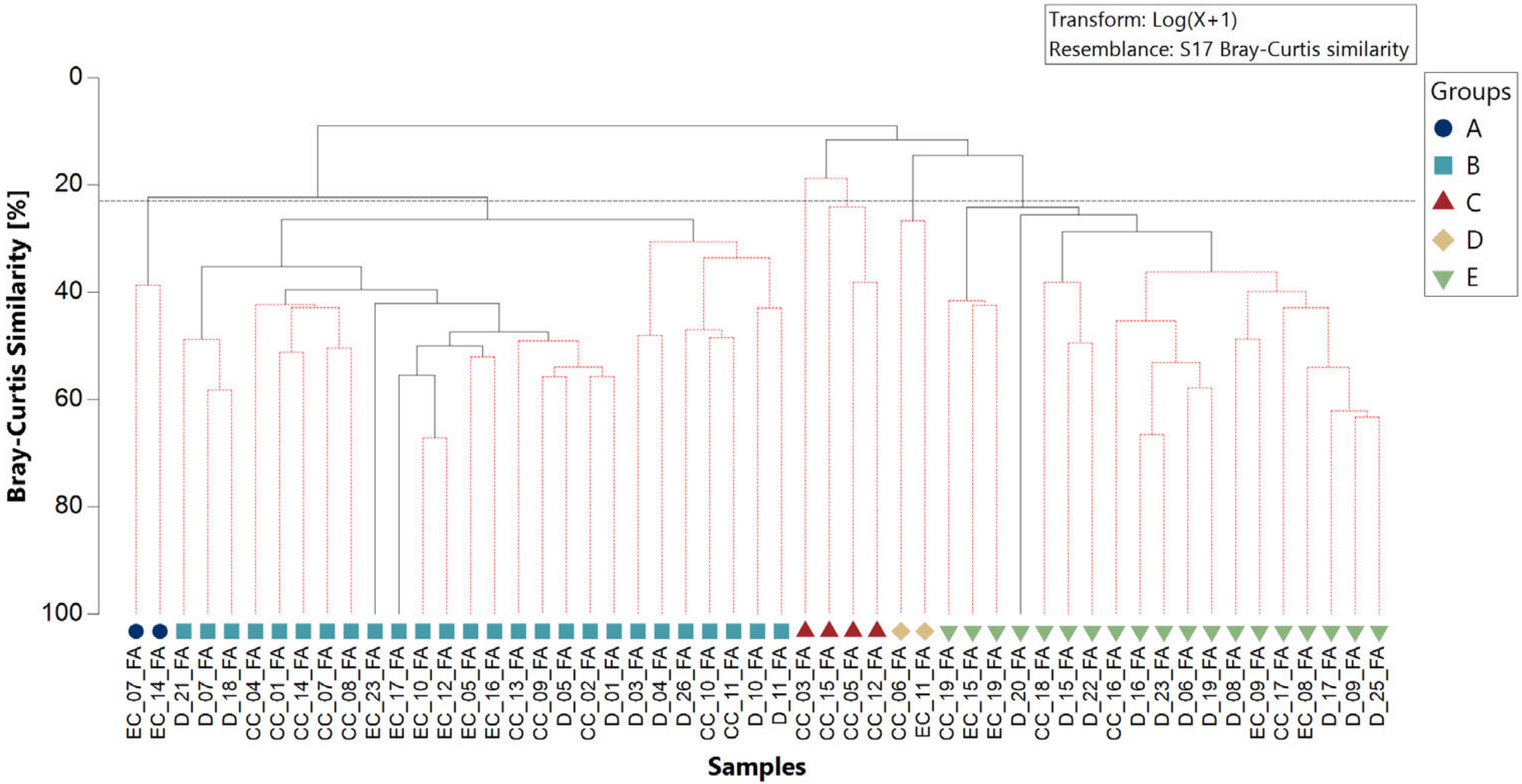
Figure 4.12: Number of macrofaunal individuals per sample (0.1 m^2) overlaid on bathymetry, Dudgeon Extension Project

4.4.3 Investigation of Faunal Similarities

In PRIMER v7, the Cluster algorithm was used to group samples according to their faunal similarity. Figure 4.13 presents the hierarchical agglomerative cluster dendrogram for log (x+1) transformed sample data. The SIMPROF algorithm was used to identify statistically significant ($P = 0.05$) differences between samples, with significant splits depicted as black lines and non-significant splits as red lines. Statistically significant splits may not be ecologically significant (Clarke et al., 2008), and therefore where appropriate, coarser groups were created.

There was a low degree of similarity across the survey areas with all samples having 9 % similarity. When run at 5 % significance, PRIMER identified many different clusters within the dataset. However, when ecological significance was considered, a slice was added at 23 % Bray-Curtis similarity, which, when including any clusters above that slice, then identified five groups:

- Group A comprised 2 samples and grouped together with a mean 38.7 % similarity;
- Group B comprised 26 samples and grouped together with 35.0 % similarity;
- Group C comprised 4 samples and grouped together with 23.8 % similarity;
- Group D comprised 2 samples and grouped together with 26.7 % similarity;
- Group E comprised 19 samples and grouped together with 32.6 % similarity.



Note
Slice at 23 % similarity

Figure 4.13: Dendrogram of hierarchical clustering of infaunal station (0.1 m^2) abundance data, Dudgeon Extension Project

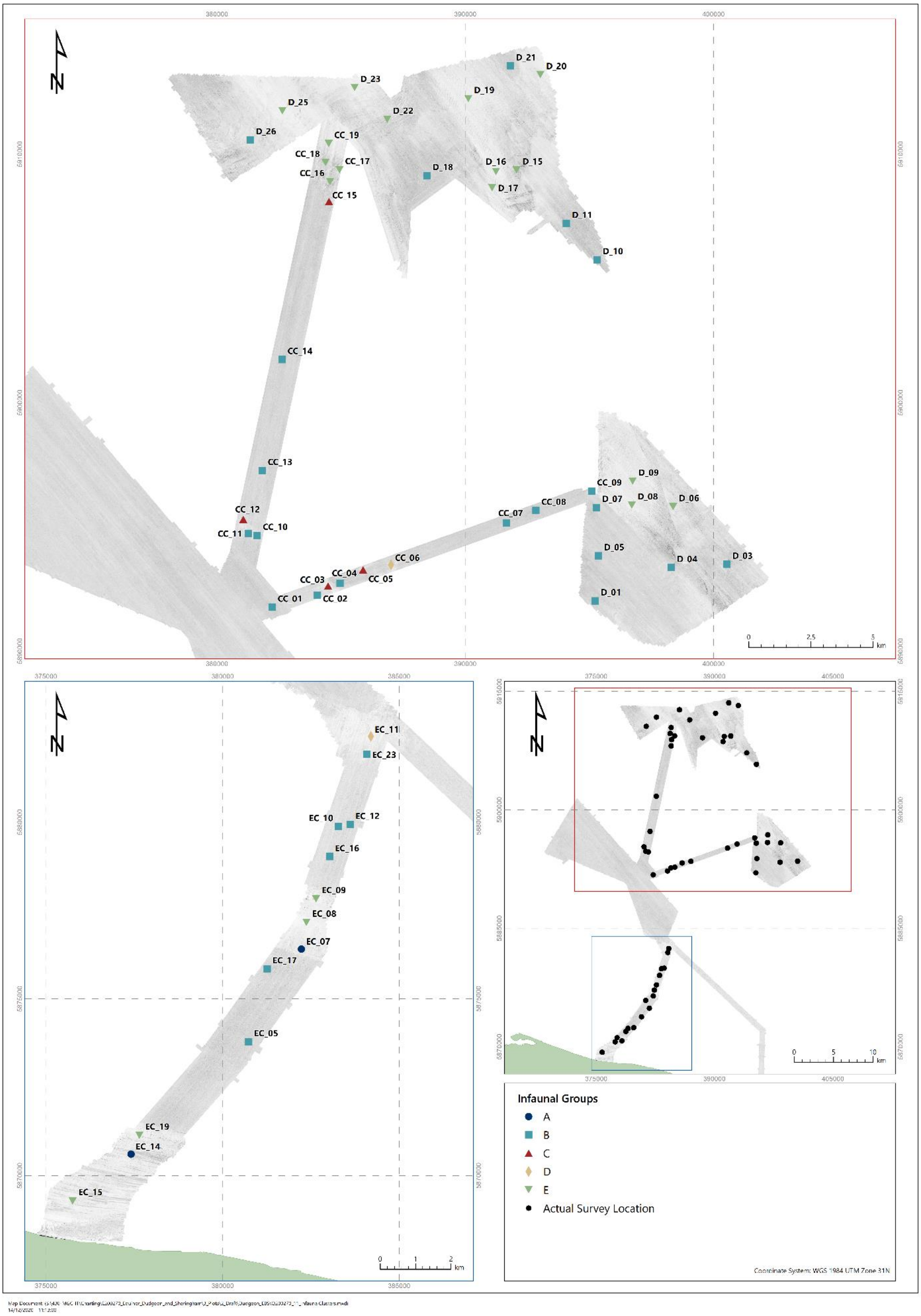


Figure 4.14: Infaunal groups identified in multivariate analysis overlaid on a side scan sonar mosaic, Dudgeon Extension Project

4.4.4 Characteristic Taxa from Similarity Percentage Analysis

Table 4.16 summarises the top 10 most abundant taxa within each group identified from cluster analysis. The top 10 most abundant taxa varied between each group, with each of the top most abundant taxon being different in every group. Some of the other most abundant taxa in each group varied in abundances or were absent from the top ten taxa.

SIMPER analysis showed that differences between groups were due to the presence and absence as well as the abundance of taxa.

Group A was different Group B due to the samples within group A having higher abundances of *Rissoa parva*, *Lanice conchilega* and *Spiophanes bombyx* agg., being absent of *Crepidula fornicata*, *Amphipholis squamata*, *Urothoe elegans*, and having lower abundances of *Polycirrus*, *Sabellaria spinulosa*, *Leiochone* and *Ampelisca spinipes*. Group A was different from groups C, D and E due to those groups being absent of or having lower abundances of the top abundant taxa in group A.

Group B was different from group C and group E due to higher abundances of *Crepidula fornicata* and *Rissoa parva* in group B and the absence of *Sabellaria spinulosa*, *Ampelisca spinipes* and *Amphipholis squamata* from group C and group E. Group B was different from group D due to the absence of *Crepidula fornicata* and Nemertea as well as many other taxa from samples within group D, and higher abundances of *Polycirrus*, *Leiochone* and *Sabellaria spinulosa* in samples within group B.

Group C was different from group D due to higher abundances of *Goodallia triangularis* and the presence of *Glycera lapidum* and *Aonides paucibranchiata*. Many of the top ten taxa from Group D were absent from group C. Group C was different from group E due to higher abundances *Goodallia triangularis* in group C and higher abundances of *Ophelia borealis* and the presence of *Bathyporeia elegans* and *Spio goniocephala* in group E.

Group D was different from group E due to group D having the presence of *Sabellaria spinulosa* and *Nephasoma minutum* and higher abundances of *Leiochone*, *Lanice conchilega*, *Goodallia triangularis* and *Abludomelita obtusata* and several other of the top abundant taxa from group D. Group E also had higher abundance of *Ophelia borealis* than group D, and had the presence of *Gastrosaccus spinifer* and *Bathyporeia elegans*.

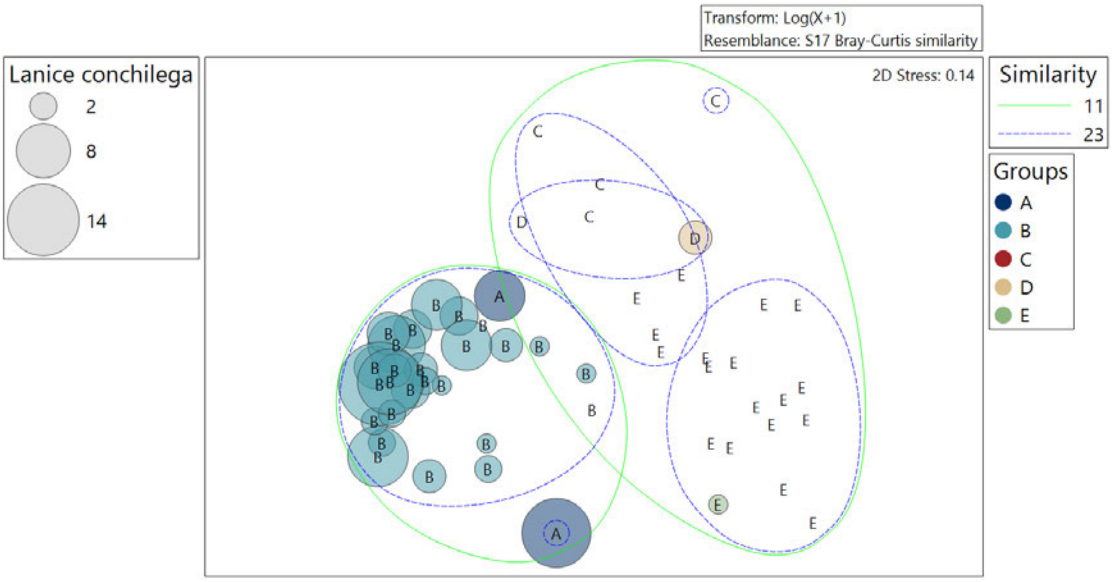
Figures 4.15, 4.16, 4.17, 4.18 and 4.19 present the spatial distribution each of the most abundant taxa from each group. To facilitate interpretation, the identified groups from ‘Cluster’ analysis were superimposed upon the nMDS ordination with their corresponding colours used for the taxon abundance scale.

The relationship between macrofauna communities and physical and chemical determinants will be discussed further in Sections 0 and 5.

Table 4.16: Top 10 most abundant macrofaunal taxa within each macrofaunal community grouping, Dudgeon Extension Project

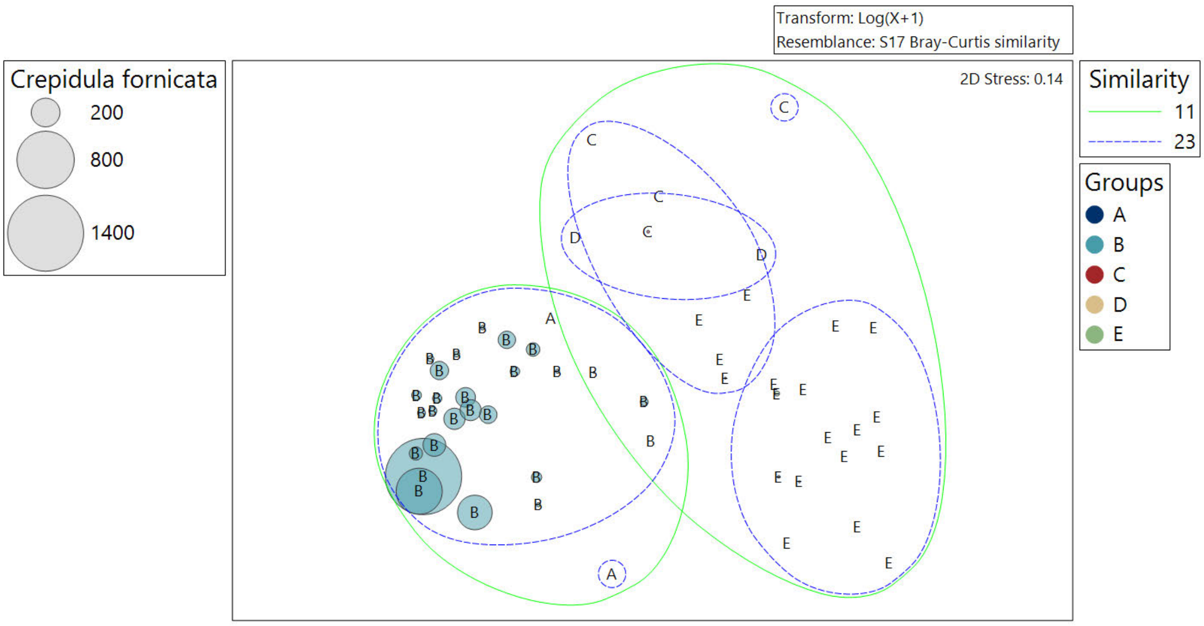
Group A [●]	Ind* [0.1 m^2]	Cum [%]	Group B [■]	Ind* [0.1 m^2]	Cum [%]
Lanice conchilega	10	18.0	*Crepidula fornicata*	121	37.0
Rissoa parva	6	28.8	*Sabellaria spinulosa*	19	43.0
Sabellaria spinulosa	5	37.8	*Pisidia longicornis*	14	47.2
Spiophanes bombyx agg.	3	43.2	*Polycirrus*	9	49.9
Anoplodactylus petiolatus	3	47.7	*Galathea intermedia*	7	52.2
Achelia echinata	2	51.4	*Leiochone*	7	54.3
Gastrosaccus spinifer	2	55.0	*Amphipholis squamata*	7	56.3
Lacuna crassior	2	58.6	*Rissoa parva*	6	58.3
Polycirrus	2	61.3	*Ampelisca spinipes*	6	60.0
Bathyporeia guilliamsoniana	2	64.0	*Nephasoma minutum*	5	61.6
Group C [▲]	**Ind* [0.1 m^2]**	**Cum [%]**	**Group D [◆]**	**Ind* [0.1 m^2]**	**Cum [%]**
Goodallia triangularis	23	54.9	*Nephasoma minutum*	4	15.7
Sphaerosyllis bulbosa	3	61.0	*Leiochone*	3	27.5
Glycera lapidum	2	65.2	*Sabellaria spinulosa*	3	39.2
Schistomeringos neglecta	2	68.9	*Spio goniocephala*	2	45.1
NEMERTEA	1	72.0	*Lanice conchilega*	2	51.0
Aonides paucibranchiata	1	74.4	*Goodallia triangularis*	2	56.9
Ophelia borealis	1	76.8	*Ophelia borealis*	1	60.8
Polycirrus	1	79.3	*Lysilla nivea*	1	64.7
Spio symphyta	1	81.1	*Abludomelita obtusata*	1	68.6
Notomastus	1	82.9	*Unciola crenatipalma*	1	72.5
Group E [▼]	**Ind* [0.1 m^2]**	**Cum [%]**			
Ophelia borealis	17	43.6			
Gastrosaccus spinifer	3	51.7			
Bathyporeia elegans	2	57.2			
Spio goniocephala	2	61.2			
Scoloplos armiger	1	63.8			
Travisia forbesii	1	66.3			
Nephtys cirrosa	1	68.4			
Aonides paucibranchiata	1	70.6			
Eurydice spinigera	1	72.3			
Polycirrus	1	73.9			

Notes
Cum = Cumulative percentage of the individuals of each taxon relative to the total number of individuals recorded per group
* = Mean number of individuals of each taxon within the sample (0.1 m^2)



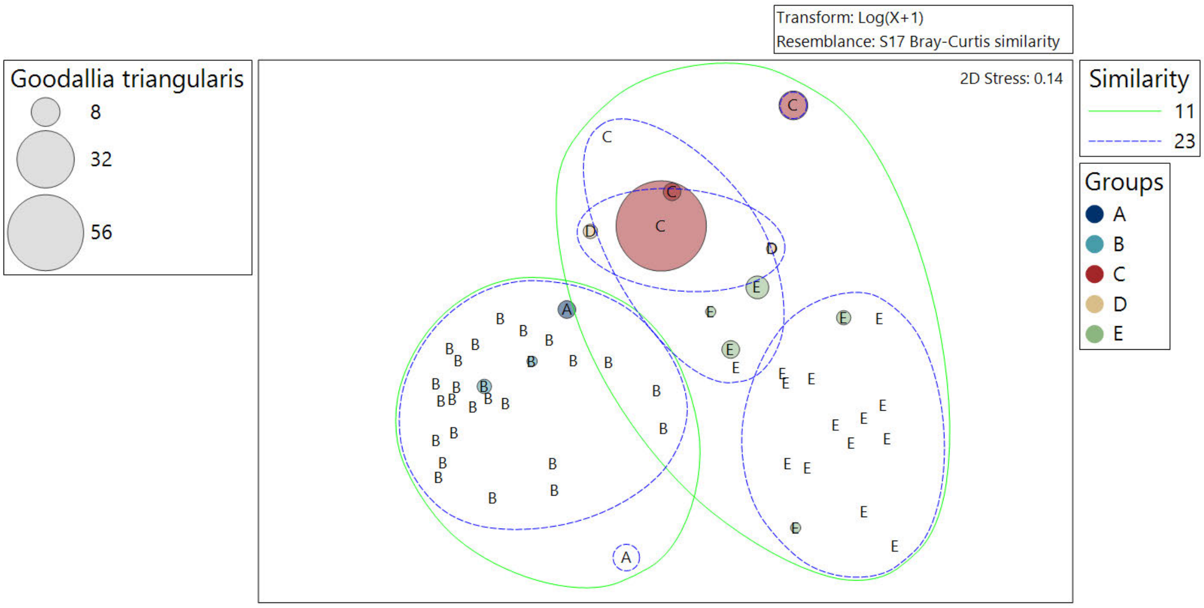
Notes
Non-metric multi-dimensional scaling ordination (nMDS) of macrofaunal data superimposed with graduating circles reflecting the abundance of *Lanice conchilega* per sample (0.1 m^2)

Figure 4.15: nMDS ordination superimposed with *Lanice conchilega* abundance data, Dudgeon Extension Project



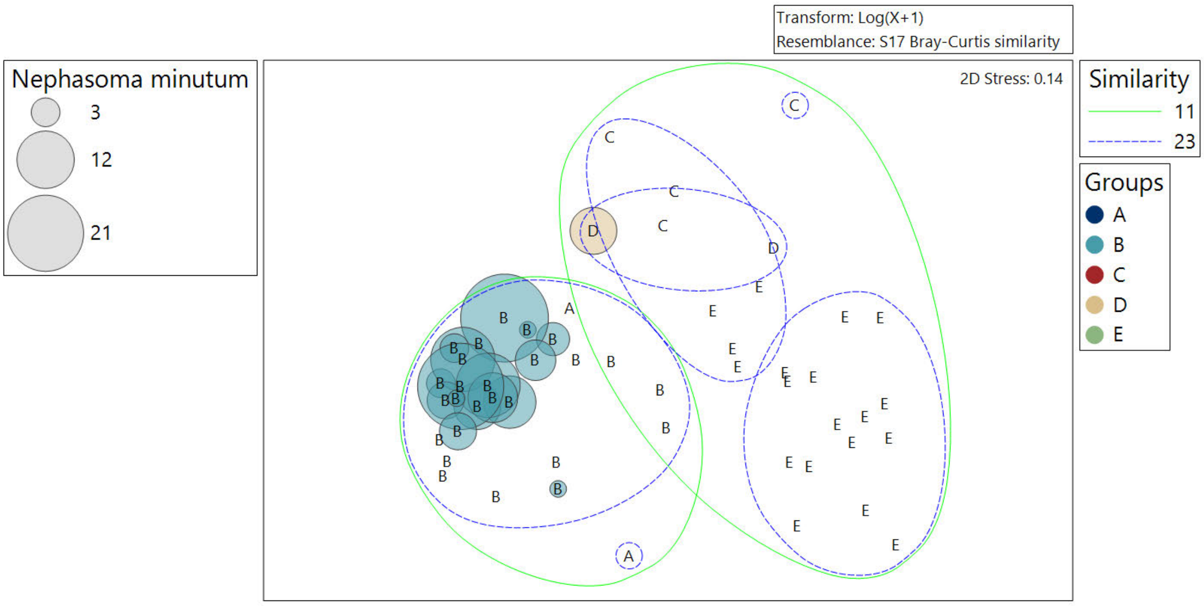
Notes
Non-metric multi-dimensional scaling ordination (nMDS) of macrofaunal data superimposed with graduating circles reflecting the abundance of *Crepidula fornicata* per sample (0.1 m^2)

Figure 4.16: nMDS ordination superimposed with *Crepidula fornicata* abundance data, Dudgeon Extension Project



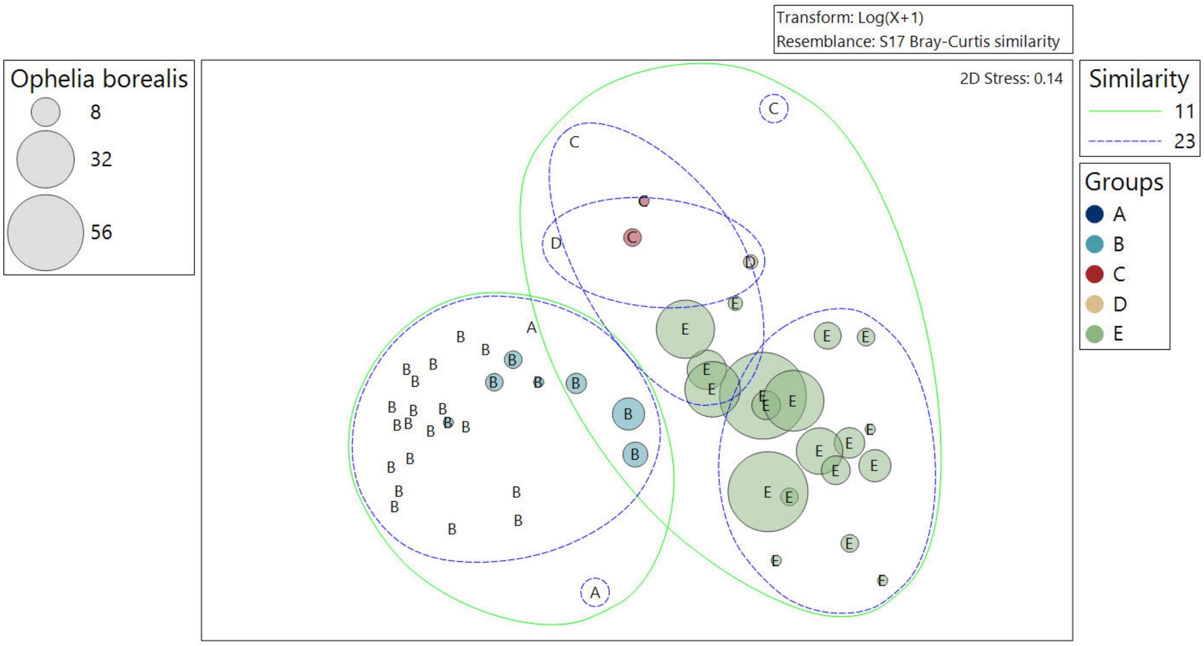
Notes
Non-metric multi-dimensional scaling ordination (nMDS) of macrofaunal data superimposed with graduating circles reflecting the abundance of *Goodallia triangularis* per sample (0.1 m^2)

Figure 4.17: nMDS ordination superimposed with *Goodallia triangularis* abundance data, Dudgeon Extension Project



Notes
Non-metric multi-dimensional scaling ordination (nMDS) of macrofaunal data superimposed with graduating circles reflecting the abundance of *Nephasoma minutum* per sample (0.1 m^2)

Figure 4.18: nMDS ordination superimposed with *Nephasoma minutum* abundance data, Dudgeon Extension Project



Notes
Non-metric multi-dimensional scaling ordination (nMDS) of macrofaunal data superimposed with graduating circles reflecting the abundance of *Ophelia borealis* per sample (0.1 m^2)

Figure 4.19: nMDS ordination superimposed with *Ophelia borealis* abundance data, Dudgeon Extension Project

4.4.5 Biomass

Table 4.17 summarises the total macrofaunal biomass and phyletic composition of the biomass by sample across the survey area. Figure 4.21 spatially presents the total macrofaunal biomass across the survey area whilst Figure 4.20 presents the phyletic composition of the biomass graphically.

The total biomass of macrofauna ranged from 0.005 g at sample CC_03_FA to 5.773 g at sample D_21_FA.

The sample with the highest biomass of annelids was sample EC_10_FA with 1.147 g and annelids contributed the highest biomass at 30 of the 53 samples within the survey areas.

The sample with the highest biomass of arthropods was sample D_21_FA with 3.789 g and arthropods generally contributed moderate proportions of biomass at the majority of samples.

The sample with the highest biomass of molluscs was sample EC_16_FA with 5.156 g and molluscs contributed the highest proportion of biomass at 17 of the 53 samples within the survey areas.

The sample with the highest biomass of echinoderms was sample D_03_FA with 1.903 g. Echinoderms contributed the highest proportion of biomass at one sample (sample D_03_FA) but generally contributed low biomass at the majority of samples.

The sample with the highest biomass of 'other phyla' was sample D_10_FA with 0.022 g.

Table 4.17: Phyletic composition of macrofaunal biomass, Dudgeon Extension Project

Sample	Biomass (Ash Free Dry Weight [g])					
	Annelida	Arthropoda	Mollusca	Echinodermata	Other Phyla	Total
D_01_FA	0.154	0.041	2.062	0.005	0.008	2.271
D_03_FA	0.040	0.006	0.038	1.903	0.004	1.991
D_04_FA	0.051	0.003	0.027	0.000	0.000	0.081
D_05_FA	0.405	0.159	0.125	0.000	0.004	0.693
D_06_FA	0.047	0.004	0.001	0.000	0.000	0.051
D_07_FA	0.132	0.457	3.515	0.004	0.006	4.114
D_08_FA	0.039	0.055	0.000	0.000	0.012	0.107
D_09_FA	0.016	0.003	0.000	0.000	0.000	0.019
D_10_FA	0.096	0.029	2.475	0.000	0.022	2.622
D_11_FA	0.117	0.004	1.271	0.077	0.001	1.470
D_15_FA	0.169	0.001	0.003	0.000	0.001	0.174
D_16_FA	0.062	0.001	0.001	0.000	0.000	0.063
D_17_FA	0.026	0.008	0.000	0.018	0.000	0.052
D_18_FA	0.222	0.159	0.543	0.004	0.014	0.942
D_19_FA	0.090	0.006	0.001	0.000	0.000	0.096
D_20_FA	0.101	0.048	0.002	0.000	0.000	0.151
D_21_FA	0.141	3.789	1.840	0.001	0.002	5.773
D_22_FA	0.050	0.004	0.001	0.000	0.005	0.060
D_23_FA	0.237	0.007	0.002	0.000	0.000	0.246
D_25_FA	0.027	0.013	0.002	0.000	0.000	0.042
D_26_FA	0.209	0.014	0.015	0.000	0.000	0.238
CC_01_FA	0.064	0.090	0.029	0.000	0.017	0.200
CC_02_FA	0.108	0.129	0.066	0.001	0.009	0.314
CC_03_FA	0.000	0.003	0.000	0.000	0.002	0.005
CC_04_FA	0.051	0.045	0.078	0.000	0.007	0.181
CC_05_FA	0.034	0.002	0.085	0.000	0.000	0.121
CC_06_FA	0.021	0.002	0.001	0.000	0.001	0.025
CC_07_FA	0.078	0.019	0.029	0.001	0.006	0.133
CC_08_FA	0.025	0.014	0.060	0.001	0.003	0.103
CC_09_FA	0.201	0.103	1.383	0.002	0.007	1.698
CC_10_FA	0.039	0.022	0.032	0.000	0.001	0.094
CC_11_FA	0.036	0.030	0.058	0.000	0.003	0.127
CC_12_FA	0.013	0.002	0.003	0.000	0.000	0.018
CC_13_FA	0.136	0.067	1.137	0.001	0.002	1.342
CC_14_FA	0.041	0.102	0.897	0.001	0.009	**1.049**

Sample	Biomass (Ash Free Dry Weight [g])					
	Annelida	Arthropoda	Mollusca	Echinodermata	Other Phyla	Total
CC_15_FA	0.038	0.001	0.005	0.000	0.000	**0.045**
CC_16_FA	0.065	0.002	0.000	0.000	0.000	**0.067**
CC_17_FA	0.040	0.011	0.132	0.000	0.000	**0.183**
CC_18_FA	0.065	0.005	0.006	0.000	0.001	**0.077**
CC_19_FA	0.022	0.007	0.000	0.000	0.000	**0.029**
EC_05_FA	0.138	0 211	2.429	0.007	0.003	**2.789**
EC_07_FA	0.043	0.013	0.002	0.000	0.000	**0.058**
EC_08_FA	0.026	0.019	0.000	0.000	0.000	**0.045**
EC_09_FA	0.454	0.009	0.000	0.000	0.000	**0.464**
EC_10_FA	1.147	0.153	0.108	0.003	0.021	**1.433**
EC_11_FA	0.023	0.002	0.001	0.000	0.000	**0.026**
EC_12_FA	0.234	0.310	0.367	0.001	0.012	**0.925**
EC_14_FA	0.095	0.004	0.004	0.000	0.000	**0.103**
EC_15_FA	0.126	0.003	0.001	0.000	0.004	**0.134**
EC_16_FA	0.061	0.138	5.156	0.002	0.001	**5.358**
EC_17_FA	0.388	0.168	0.163	0.001	0.009	**0.730**
EC_19_FA	0.050	0.002	0.000	0.000	0.000	**0.051**
EC_23_FA	0.210	0.005	2.016	0.001	0.002	**2.235**
Minimum	**0.000**	**0.001**	**0.000**	**0.000**	**0.000**	**0.005**
Maximum	**1.147**	**3.789**	**5.156**	**1.903**	**0.022**	**5.773**
Median	**0.064**	**0.013**	**0.027**	**0.000**	**0.001**	**0.134**
Mean	**0.123**	**0.123**	**0.494**	**0.038**	**0.004**	**0.781**
SD	**0.175**	**0.521**	**1.03**	**0.261**	**0.006**	**1.31**

Notes
Biomass expressed as ash free dry weight in g/0.1 m^2 grab sample
Other phyla include: Cnidaria

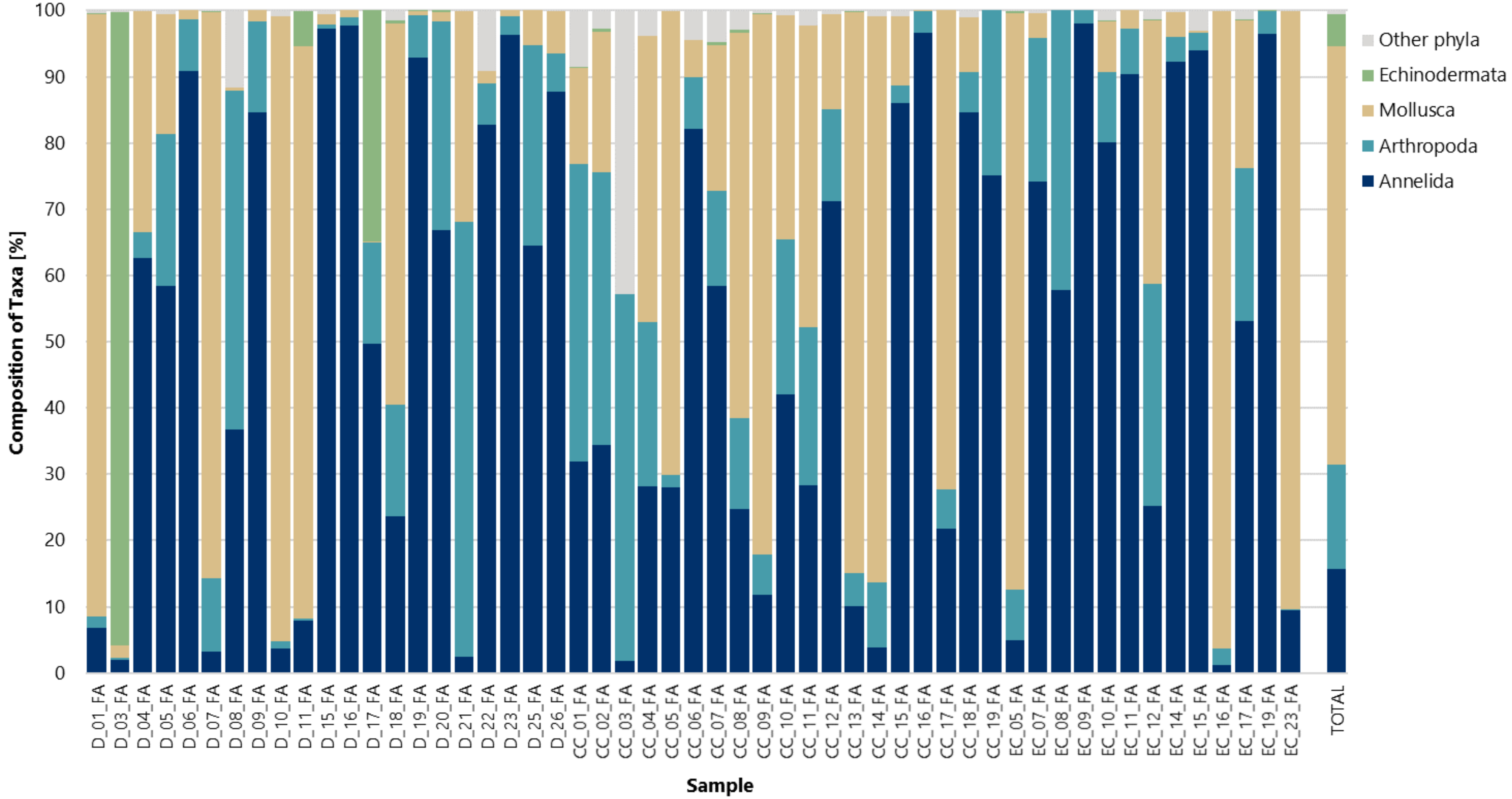
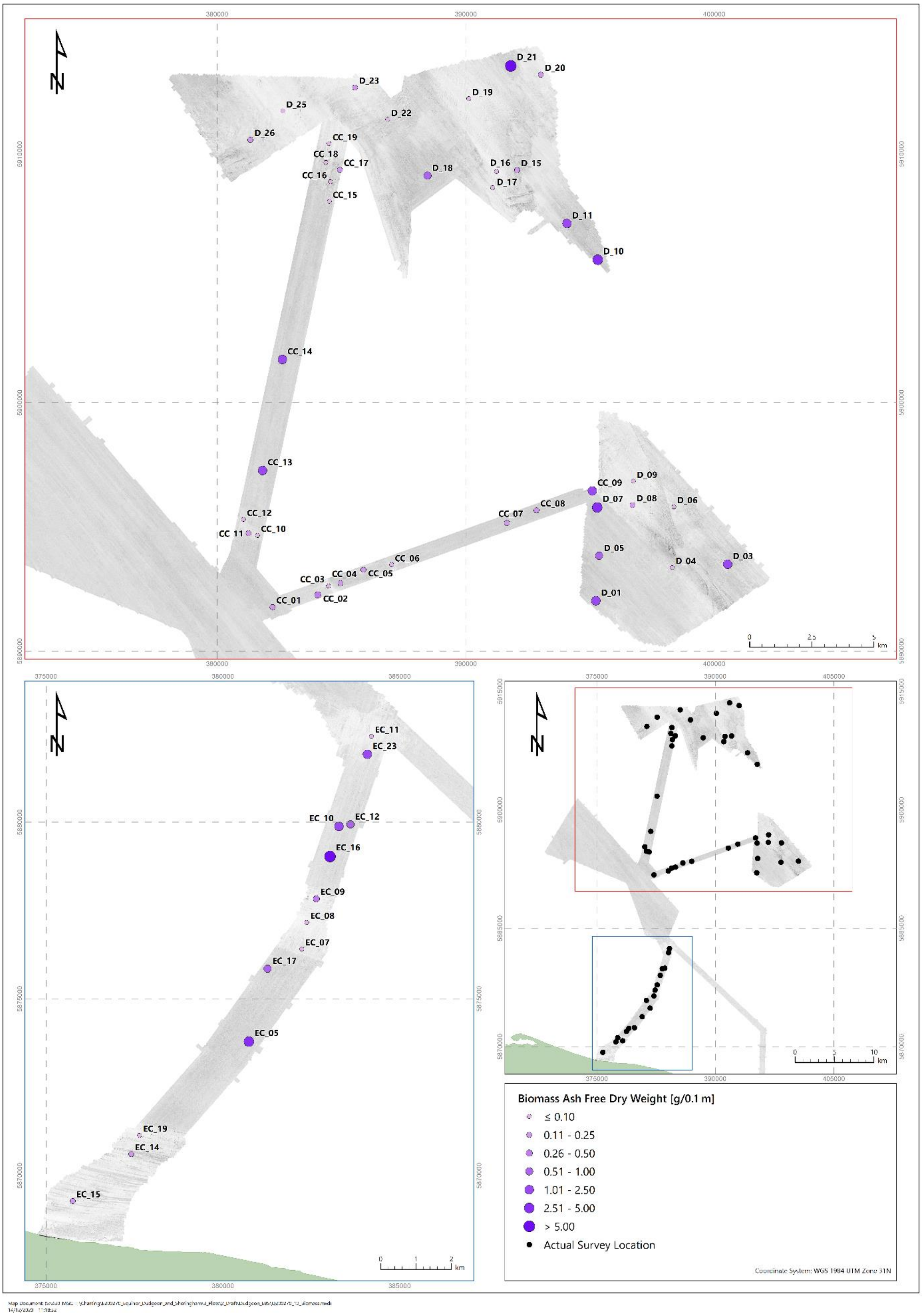


Figure 4.20: Phyletic composition of infaunal biomass, Dudgeon Extension Project



Notes

Biomass expressed as ash free dry weight in g/0.1 m^2 grab sample

Figure 4.21: Total biomass overlaid on side scan sonar, Dudgeon Extension Project

Table 4.18 summarises the biomass of taxonomic groups identified within each macrofaunal community group. The highest biomasses were in groups B and E (1.496 g and 2.113 g, respectively), however, within the groups the phyla contributing the highest biomass varied, being from echinoderms (66.6 %) in group B and annelids (81.0 %) in group E. Echinoderms contributed the highest proportion of biomass in group C and annelids contributed the highest proportion in group A and group D. The lowest biomass was in group D (0.025 g).

Table 4.18: Biomass within each infaunal grouping, Dudgeon Extension Project

Phyla	Group A [●]		Group B [■]	
	Biomass [g/0.1 m^2]	Composition of Biomass [%]	Biomass [g/0.1 m^2]	Composition of Biomass [%]
Annelida	0.069	85.7	0.174	11.6
Arthropoda	0.008	10.3	0.241	16.1
Echinodermata	0.003	3.8	0.997	66.6
Mollusca	0	0	0.078	5.2
Other phyla	0	0.3	0.007	0.4
Total	**0.080**	**100**	**1.496**	**100**
Phyla	**Group C [▲]**		**Group D [◆]**	
	Biomass [g/0.1 m^2]	**Composition of Biomass [%]**	**Biomass [g/0.1 m^2]**	**Composition of Biomass [%]**
Annelida	0.021	45.1	0.022	86.3
Arthropoda	0.002	4.5	0.002	7.3
Echinodermata	0.023	49.0	0.001	4.2
Mollusca	0	0	0	0
Other phyla	0.001	1.4	0.001	2.2
Total	**0.047**	**100**	**0.025**	**100**
Phyla	**Group E [▼]**			
	Biomass [g/0.1 m^2]	**Composition of Biomass [%]**		
Annelida	1.711	81.0		
Arthropoda	0.207	9.8		
Echinodermata	0.152	7.2		
Mollusca	0.019	0.9		
Other phyla	0.024	1.1		
Total	**2.113**	**100**		

Notes
Biomass expressed as mean ash free dry weight within each infaunal community group

4.4.6 Epifauna

4.4.6.1 Solitary Epifauna

A total of 11 taxa of solitary epifauna were identified across three phyla; cnidarians, arthropods and tunicates (Appendix F.3). As epifauna rely on a hard surface for epilithic attachment, the characteristic solitary epifauna have been identified in grab samples within each sediment group deduced from the multivariate analysis (Table 4.19). Although not all samples had solitary epifauna present, the presence of epifauna have been provided as an average across the groups.

Group C had all identified taxa present (11) and was dominated by the tunicate *Dendrodoa grossularia* and the barnacle *Balanus crenatus*, which contributed 89.7 % of the group's abundance. Groups A and E both had five taxa present and both groups were dominated by barnacles, which contributed 97.8 % and 97.7 % of the groups abundance, respectively. Group B had four taxa present and was dominated by the barnacle *Balanus crenatus* and the tunicate *Molgula manhattensis*, which contributed 95.1 % of the group's abundance. Group D had three taxa present and was dominated by the barnacle *Balanus crenatus* which contributed 88.9 % of the group's abundance. The ungrouped station CC_15 did not have any epifauna present.

Table 4.19: Epifaunal taxa within each sediment grouping, Dudgeon Extension Project

Sediment Group A [●]	Ind* [0.1 m²]	Cum [%]	Sediment Group B [■]	Ind* [0.1 m²]	Cum [%]
Verruca stroemia	163.0	55.2	*Balanus crenatus*	26.0	64.2
Balanus crenatus	126.0	97.8	*Molgula manhattensis*	12.5	95.1
Polycarpa fibrosa	3.5	99.0	*Verruca stroemia*	1.5	98.8
Ascidiella scabra	2.5	99.8	ACTINIARIA	0.5	100
Molgula complanata	0.5	100			
Sediment Group C [▲]	**Ind* [0.1 m²]**	**Cum [%]**	**Sediment Group D [◆]**	**Ind* [0.1 m²]**	**Cum [%]**
Dendrodoa grossularia	123.8	56.1	*Balanus crenatus*	2.2	88.9
Balanus crenatus	74.2	89.7	*Molgula complanata*	0.2	96.3
Verruca stroemia	8.5	93.6	*Dendrodoa grossularia*	0.1	100
Polycarpa fibrosa	4.6	95.7			
Polycarpa pomaria	3.2	97.1			
Molgula complanata	2.2	98.1			
Molgula manhattensis	1.5	98.8			
Ascidiella scabra	1.3	99.3			
ACTINIARIA	1.1	99.8			
Microcosmus claudicans	0.2	99.9			
Styelidae	0.2	100			

Sediment Group E [▼]	Ind* [0.1 m^2]	Cum [%]	Sediment Ungrouped Station CC_15 [+]	Ind* [0.1 m^2]	Cum [%]
Balanus crenatus	137.2	97.5	No solitary epifauna	0	0
Molgula complanata	2.5	99.3			
ACTINIARIA	0.5	99.7			
Verruca stroemia	0.3	99.9			
Polycarpa fibrosa	0.2	100			

Notes
Cum = Cumulative percentage of the individuals of each taxon relative to the total number of individuals recorded per group
* = Mean number of individuals within each group (0.1 m^2)

4.4.6.2 Colonial Epifauna

4.4.6.2.1 Phyletic Composition of Colonial Epifauna

Table 4.20 summarises the epifaunal taxonomic groups identified across the survey area. The full list of colonial epifauna taxa identified and enumerated (individuals per 0.1 m^2) from the survey area are presented in Appendix F.3.

Across the survey areas 81 colonial epifaunal taxa were identified across 7 phyletic groups, of which 43 (54.4 %) were bryozoans, 18 (22.8 %) were cnidarians, 8 (10.1 %) were tunicates, 6 (7.6 %) were porifera, 2 (2.5 %) were entoproctas, and 1 (1.3 %) of each annelids and ciliophoras.

Table 4.20: Taxonomic groups of colonial epifauna, Dudgeon Extension Project

Taxonomic Group	Number of Taxa	Composition of Taxa [%]
Annelida	1	1.3
Bryozoa	43	54.4
Ciliophora	1	1.3
Cnidaria	18	22.8
Entoprocta	2	2.5
Porifera	6	7.6
Tunicata	8	10.1
Total	**79**	**100**

Notes
Macrofaunal samples were processed through a 1 mm sieve

4.4.6.2.2 Community Statistics

Table 4.21 presents the number of taxa and phyletic groups identified from each sample and Figure 4.22 displays the data graphically.

Colonial epifauna varied across the survey area and was absent from two samples (D_16_FA and D_19_FA). Samples CC_19_FA, EC_09_FA and EC_19_FA only had 1 epifaunal taxa present from within the phyla Ciliophora. Sample CC_14_FA had the highest overall number of epifaunal taxa (47).

Of the 8 phyletic groups present, bryozoans were present in the most samples (48 of the 53) and had the highest diversity of taxa in a sample (23 taxa at CC_14_FA). At samples D_10_FA, CC_15_FA, EC_11_FA and EC_15_FA bryozoans were the only taxa present.

Table 4.21: Number of colonial epifaunal taxa (0.1 m^2), Dudgeon Extension Project

Sample	Annelida	Bryozoa	Ciliophora	Cnidaria	Entoprocta	Porifera	Tunicata	Total
D_01_FA	1	21	1	4	1	1	0	29
D_03_FA	0	11	0	2	0	1	0	14
D_04_FA	1	14	0	1	0	1	0	17
D_05_FA	1	22	1	4	1	3	2	34
D_06_FA	0	4	1	3	0	0	0	8
D_07_FA	1	21	0	3	0	3	0	28
D_08_FA	0	1	1	1	0	0	0	3
D_09_FA	0	2	1	1	0	0	0	4
D_10_FA	0	2	0	0	0	0	0	2
D_11_FA	0	14	0	2	0	1	0	17
D_15_FA	0	2	1	0	0	0	0	3
D_16_FA	0	0	0	0	0	0	0	0
D_17_FA	0	2	0	1	0	0	0	3
D_18_FA	0	19	1	7	1	2	1	31
D_19_FA	0	0	0	0	0	0	0	0
D_20_FA	0	2	1	0	0	0	0	3
D_21_FA	0	16	0	5	1	1	0	23
D_22_FA	0	4	1	1	0	0	0	6
D_23_FA	0	1	1	0	0	0	0	2
D_25_FA	0	1	1	0	0	0	0	2
D_26_FA	0	12	1	2	1	0	0	16
CC_01_FA	0	12	0	4	2	4	1	23
CC_02_FA	1	19	0	8	2	3	5	38
CC_03_FA	0	1	1	0	0	0	0	2
CC_04_FA	0	12	0	3	0	3	2	20
CC_05_FA	1	13	1	2	0	1	1	19
CC_06_FA	0	7	0	2	0	3	0	12
CC_07_FA	1	20	1	3	1	3	2	31
CC_08_FA	0	20	0	5	1	1	2	29
CC_09_FA	0	17	0	5	0	2	1	25
CC_10_FC	0	5	1	0	0	0	0	6
CC_11_FA	0	14	1	0	0	3	1	19
CC_12_FA	0	4	1	0	0	0	0	5
CC_13_FA	0	18	0	2	1	3	1	25
CC_14_FA	0	23	1	9	2	3	4	42
CC_15_FA	0	7	0	0	0	0	0	7

Sample	Annelida	Bryozoa	Ciliophora	Cnidaria	Entoprocta	Porifera	Tunicata	Total
CC_16_FA	0	2	1	0	0	1	0	4
CC_17_FA	0	1	1	0	0	0	0	2
CC_18_FA	0	2	1	0	0	0	0	3
CC_19_FA	0	0	1	0	0	0	0	1
EC_05_FA	0	19	1	6	1	1	2	30
EC_07_FA	0	14	1	4	2	2	0	23
EC_08_FA	0	1	1	1	0	0	0	3
EC_09_FA	0	0	1	0	0	0	0	1
EC_10_FA	0	15	1	5	1	3	0	25
EC_11_FA	0	8	0	0	0	0	0	8
EC_12_FA	0	17	1	5	1	3	1	28
EC_14_FA	0	9	1	2	1	1	0	14
EC_15_FA	0	3	0	0	0	0	0	3
EC_16_FA	0	18	0	6	2	3	0	29
EC_17_FA	0	21	1	6	1	3	3	35
EC_19_FA	0	0	1	0	0	0	0	1
EC_23_FA	0	9	0	1	0	2	0	12
Minimum	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Maximum	**1**	**23**	**1**	**9**	**2**	**4**	**5**	**42**
Median	**0**	**9**	**1**	**1**	**0**	**1**	**0**	**12**
Mean	**0.1**	**9.5**	**0.6**	**2.2**	**0.4**	**1.2**	**0.5**	**14.5**
SD	**0.3**	**7.7**	**0.5**	**2.4**	**0.7**	**1.3**	**1.1**	**12.3**

Notes
SD = Standard deviation

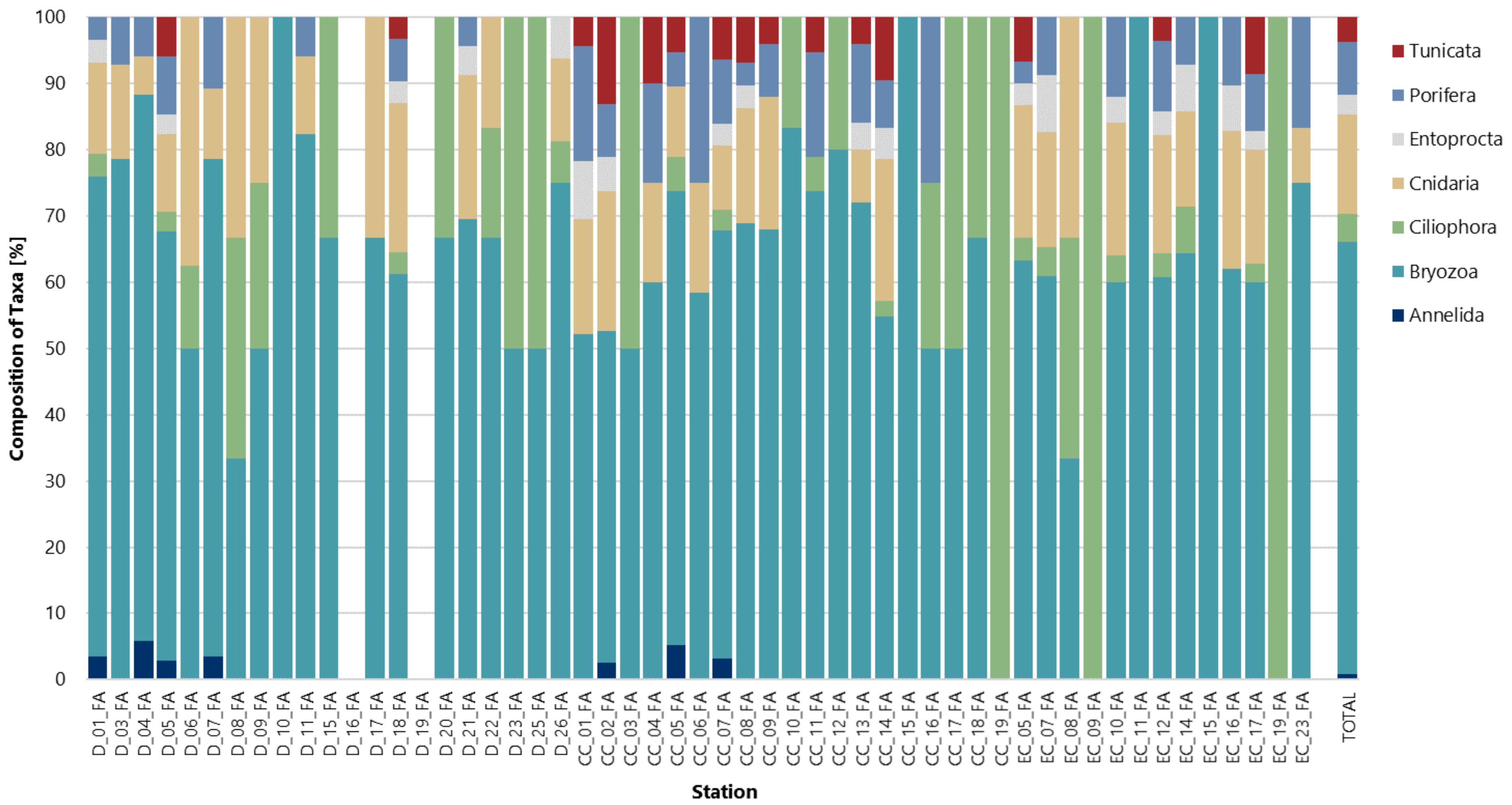


Figure 4.22: Phyletic composition of colonial epifauna, Dudgeon Extension Project

4.4.6.2.3 Characteristic Taxa

Table 4.22 summarises the characteristic colonial epifaunal taxa identified within each sediment group deduced from the multivariate analysis (Section 4.2.2)

The samples within sediment group C had the highest number of taxa (74) present across the samples. Bryozoans were the top most abundant taxa across all of the groups, with *Conopeum reticulum* present in all groups. Other bryozoans in abundance included Alcyonidiidae, *Bicellariella ciliata* and *Flustra foliacea*. The cnidarian Sertulariidae was in the top taxa in groups A, C and ungrouped station CC_15 and the ciliophoran Folliculinidae was in the top taxa in groups C, D and E.

Table 4.22: Most frequently occurring colonial epifaunal taxa within each sediment grouping, Dudgeon Extension Project

Taxon	Rank Dominance	Frequency of Occurrence [%]
Sediment Group A [●] 29 Taxa		
Conopeum reticulum	1	100
Flustra foliacea	1	100
Sertulariidae	1	100
Bicellariella ciliata	1	100
Alcyonidiidae	1	100
Didemnidae	1	100
23 other taxa all equal dominance and occurrence	= 7	50.0
Sediment Group B [■] 26 Taxa		
Conopeum reticulum	1	100
Bicellariella ciliata	1	100
Alcyonidiidae	1	100
Chorizopora brongniartii	1	100
Candidae (*Cradoscrupocellaria/Scrupocellaria*)	1	100
21 other taxa all equal dominance and occurrence	= 6	50.0
Sediment Group C [▲] 74 Taxa		
Alcyonidiidae	1	95.8
Conopeum reticulum	2	83.3
Folliculinidae	2	83.3
Celleporella hyalina	2	83.3
Bicellariella ciliata	5	79.2
Chorizopora brongniartii	5	79.2
Flustra foliacea	5	79.2
Amphiblestrum auritum	5	79.2
Crisiidae	9	75.0
Sertulariidae	10	70.8

Taxon	Rank Dominance	Frequency of Occurrence [%]
Sediment Group D [◆] 25 Taxa		
Penetrantiidae (scars)	1	100.0
Folliculinidae	2	72.7
Alcyonidiidae	3	27.3
Conopeum reticulum	3	27.3
Amphiblestrum auritum	5	18.2
Escharella immersa	5	18.2
Electra pilosa	5	18.2
18 other taxa all equal dominance and occurrence	= 8	9.1
Sediment Group E [▼] 39 Taxa		
Penetrantiidae (scars)	1	53.8
Escharella immersa	2	46.2
Folliculinidae	3	38.5
Conopeum reticulum	4	30.8
Flustra foliacea	4	30.8
Cliona	4	30.8
8 other taxa all equal dominance and occurrence	= 7	23.1
Sediment Ungrouped Station CC_15 [+] 7 Taxa		
Conopeum reticulum	1	100
Sertulariidae	1	100
Alcyonidiidae	1	100
Pedicellina	1	100
Vesicularia spinosa	1	100
Eucratea loricata	1	100
Celleporella hyalina	1	100

Notes
Rank dominance is calculated based on frequency (e.g. percentage of samples from which each taxon was recorded)
= equal rank dominance across a number of taxa

4.5 Seabed Habitats and Biotopes

4.5.1 Biotope Classification

The physical and biological characteristics of the multivariate groups apparent within the macrofaunal community (see Section 4.4.3) were considered in conjunction with the geophysical and photographic data for habitat classification. Soft sediment habitats are often defined on the sediment type and infaunal community composition. Therefore, soft sediments within the survey may be further classified using data from grab samples (specifically the PSD and macrofaunal data), with the photographic data analysis providing higher level habitat information. Habitats comprising hard substrates, where grab sampling was not achieved, have been classified using photographic data only.

From photographic data (Dudgeon Extension Habitat Report – Volume 3 of this series) the seabed across the DEP survey areas and along the EC and CC corridors varied from rippled sand to areas of mixed sediment (mud, sand and gravel including pebbles and cobbles). Three main EUNIS habitats were identified: the habitat complexes 'Sublittoral coarse sediment' (A5.1) and 'Sublittoral sand' (A5.2) and the biotope complex 'Circalittoral mixed sediment' (A5.44).

When all data was considered, one broad habitat, three biotope complexes and three possible biotopes were assigned to the transects and stations surveyed.

Table 4.23 presents the hierarchy of the assigned EUNIS (EEA, 2019a) classifications, and equivalent JNCC (2015) classifications identified from photographic data and grab sample data. Biotopes assigned are relevant to the time of sampling, with this survey completed in summer.

Tables 4.24, 4.25 and 4.26 summarises the physical and biological parameters characteristics of the biotope complexes and biotopes assigned, along with example photographs. Sections 4.5.1.1 to 4.5.1.4 provide detailed descriptions of each biotope.

Table 4.23: Habitat classifications, Dudgeon Extension Project

EUNIS (EEA, 2019a) Habitat Classification					Equivalent JNCC (2015) Classification
Environment Level 1	Broad Habitat Level 2	Habitat Complex Level 3	Biotope Complex Level 4	Biotope Level 5	
A Marine	A3 Infralittoral rock and other hard substrata	-	-	-	IR Infralittoral rock (and other hard substrata)
	A5 Sublittoral sediment	A5.1 Sublittoral coarse sediment	A5.13 Infralittoral coarse sediment	A5.133 '*Moerella* spp. with venerid bivalves in infralittoral gravelly sand'	SS.SCS.ICS.MoeVen *Moerella* spp. with venerid bivalves in infralittoral gravelly sand
		A5.2 Sublittoral sand	A5.23 Infralittoral fine sand	A5.233 *Nephtys cirrosa* and *Bathyporeia* spp. in infralittoral sand	SS.SSa.IFiSa.NcirBat *Nephtys cirrosa* and *Bathyporeia* spp. in infralittoral sand
		A5.4 Sublittoral mixed sediment	A5.43 Infralittoral mixed sediments	A5.431 *Crepidula fornicata* with ascidians and anemones on infralittoral coarse mixed sediment	SS.SMx.IMx.CreAsAn *Crepidula fornicata* with ascidians and anemones on infralittoral coarse mixed sediment

Notes
EEA = European Environment Agency
EUNIS = European Nature Information System
JNCC = Joint Nature Conservation Committee

4.5.1.1 Infralittoral Rock and Other Hard Substrata (A3/IR)

The habitat 'Infralittoral rock and other hard substrata' (A3/IR) includes bedrock, boulders and cobbles in the subtidal zone, which support seaweed communities such as kelp species (EEA, 2019b).

This particular habitat was only observed at a nearshore transect (EC_26) along the EC corridor. Emergent from sandy gravel, areas of exposed chalk were observed in the section closest to the shore. As clay can be considered as 'soft rock', the biotope complex 'Communities on soft circalittoral rock' (A4.23) was considered. However, water depth ranged from 2.8 m to 5.5 m below sea level (BSL), with the infralittoral considered to extend to as deep as 20 m (e.g. EEA, 2019c) and the circalittoral to begin from 10 m depth (e.g. EEA, 2019d). As no grab samples was undertaken along this transect, this habitat could not be further defined and was therefore left at habitat level.

The transect was dominated by red algae (Rhodophyta) and brown algae (Phaeophyceae). Epifauna present included starfish (*Asterias rubens*), anemones (*Sagartia* sp., Sagartiidae and *Urticina* sp.).

A

A: Photograph EC_26_003

Rippled sand with exposed chalk and cobbles and boulders

Red algae (Rhodophyta),

brown algae (*C. multifida*),

anemone (Sagartiidae)

B

B: Photograph EC_06_008

Rippled sand with exposed chalk and cobbles and boulders

Red algae (Rhodophyta) including *Phyllophora* sp.),

anemone (Sagartiidae),

faunal turf (Hydrozoa/Bryozoa)

Figure 4.23: Example seabed photographs of 'infralittoral rock and other hard substrata' (A3/IR), Dudgeon Extension Project

4.5.1.2 Infralittoral Coarse Sediment (A5.13)

The higher level habitat complex 'Sublittoral coarse sediment' (A5.1) was observed along ten transects within the DEP survey areas, nine transects along the EC corridor, and along eight CC corridor transects. Following analysis of macrofaunal data this has been further refined to 'Infralittoral coarse sediment' (A5.13) at stations within group A (stations EC_07 and EC_14), group C (stations CC_03, CC_05, CC_12, CC_15) and group D (CC_06, EC_11).

The biotope complex 'Infralittoral coarse sediment' encompasses a variety of coarse sediments (coarse sand, gravelly sand, shingle and gravel including pebbles and cobbles), with moderate expose and disturbance to tidal currents and/or wave action. This habitat commonly occurs on the open coast or in tide-swept channels of marine inlets and is characterised by a robust fauna of infaunal polychaetes such as *Chaetozone setosa* and *Lanice conchilega*, cumacean crustacea such as *Iphinoe trispinosa* and *Diastylis bradyi*, and venerid bivalves (EEA, 2019e).

Although this biotope complex description corresponds with the general sediment descriptions of samples within group A, C and D, there were some variations in sediment composition and faunal assemblages between the groups.

Stations within group A were characterised by very poorly sorted sandy gravel (mean of 37.02 % gravel and 61.70 % sand) with a very low mud content (< 2 %). The macrofaunal community had high species richness, diversity, evenness and dominance and was dominated by the polycheates *Lanice conchilega*, *Sabellaria spinulosa*, *Spiophanes bombyx* agg., and the gastropod *Rissoa parva*. However, the assemblage observed did not match any other the described biotopes within 'Infralittoral coarse sediment' and could therefore not be refined further.

Stations within group C were characterised by poorly sorted gravelly sand (mean of 10.90 % gravel and 89.10 % sand) and no mud content. The macrofaunal community had moderate species richness, diversity, dominance and high evenness. The most abundant taxa were the bivalve *Goodallia triangularis*, and the polychaetes *Sphaerosyllis bulbosa, Glycera lapidum, Schistomeringos neglecta* and therefore elements of the biotope '*Moerella* spp. with venerid bivalves in infralittoral gravelly sand' (A5.133) were observed within the macrofaunal community identified. This biotope and the similarities with group C is discussed further in Section 4.5.1.2.1.

Stations within group D were characterised by very poorly sorted sandy gravel (Mean of 49.98 % gravel and 49.92 % sand) and very low mud content (< 1 %). The macrofaunal community had good species richness and diversity, high evenness and low dominance. The most abundant taxa were the sipunculid *Nephasoma minutum* and the polychaetes *Leiochone*, *Sabellaria spinulosa*, *Spio goniocephala*, *Lanice conchilega*, although not all taxa were present in both samples. The assemblage observed did not match any other the described biotopes within 'Infralittoral coarse sediment' and could therefore not be refined further.

The typical epifauna observed within this habitat included bryozoans (*Alcyonidium diaphanum*, Flustridae including *Flustra* foliacea, *Vesicularia spinulosa*), hydroids (*Hydrallmania falcata*, *Nemertesia antennina* and Tubulariidae), anemone (*Urticina* sp. and Sagartiidae), sea squirts (Ascidiacea including *Dendrodoa grossularia*), topshells (Trochidae and *Calliostoma zizyphinum*), barnacles (*Verruca stroemia* and *Balanus crenatus*).

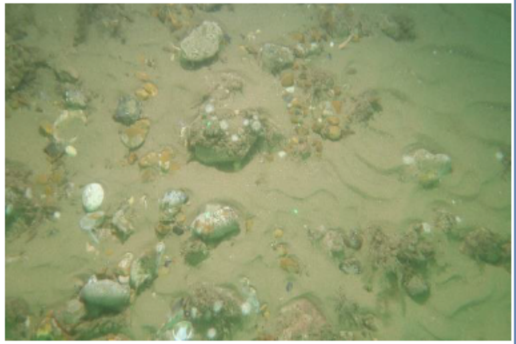
The characteristics observed that relate to these biotopes are summarised in Table 4.24 along with some example photographs.

4.5.1.2.1 '*Moerella* spp. with venerid bivalves in infralittoral gravelly sand' (A5.133)

'*Moerella* spp. with venerid bivalves in infralittoral gravelly sand' is described as infralittoral medium to coarse sand and gravelly sand which is subject to moderately strong water movement. Macrofaunal communities are characterised by *Moerella* spp. with the polychaete *Glycera lapidum* (agg.) and venerid bivalves. Typical species include *Moerella pygmaea* or *M*. *donacina* with other robust bivalves such as *Dosinia lupinus*, *Timoclea ovata*, *Goodallia triangularis* and *Chamelea gallina*. Other infauna includes nephtyd and spionid polychaetes and amphipod crustacea (EEA, 2019f).

Within group C some of these key taxa were present, such as the polychaete *Glycera lapidum* (agg.), the bivalve *Goodallia triangularis* and the amphipod *Urothoe marina*. However, taxa were low in both samples and is therefore difficult to determine whether the biotope is present. The referenced biotope description suggests that remote grab sampling is likely to underestimate venerid bivalves, which may explain the absence of some of the key taxa characteristic of this biotope.

Table 4.24: Summary of EUNIS habitat classification 'Infralittoral coarse sediment' (A5.13), Dudgeon Extension Project

Habitat Classification	Distribution	Physical characteristics	Biological characteristics		Example Photograph
A5.13 Infralittoral coarse sediment (SS.SCS.ICS)	Group A [●]: Station: EC_07, EC_14	Gravel : Sand : Mud 37.02 %: 61.70 %: 1.28 %	Taxa: 26	Characteristic taxa†: *Lanice conchilega*, *Rissoa parva*, *Sabellaria spinulosa*, *Spiophanes bombyx* agg., *Anoplodactylus petiolatus*	 
		Folk: Sandy gravel	Individuals: 56		
		BGS Folk: Sandy gravel	Richness: 6.09	Characteristic taxa‡: *Flustra foliacea*, *Vesicularia spinosa*, *Hydrallmania falcata*, *Urticina* sp.	
		Very coarse sand [1479 µm]	Diversity: 4.14	Solitary epifauna: *Molgula manhattensis*, Actiniaria, *Dendrodoa grossularia*	
		Very poorly sorted [5.91 µm]	Evenness: 0.891	Colonial epifauna†: *Escharella immersa*, Folliculinidae, *Conopeum reticulum*	
		Very coarse skewed [0.64 µm]	Dominance: 0.891	Biomass†: 0.080	

Habitat Classification	Distribution	Physical characteristics	Biological characteristics		Example Photograph
A5.13 Infralittoral coarse sediment Possible '*Moerella* spp. with venerid bivalves in infralittoral gravelly sand' (A5.133)	Group C [▲]: Stations: CC_03, CC_05, CC_12, CC_15	Gravel : Sand : Mud 10.90 %: 89.10 %: 0.00 %	Taxa†: 11	Characteristic taxa†: *Goodallia triangularis*, *Sphaerosyllis bulbosa*, *Glycera lapidum*, *Schistomeringos neglecta*, Nemertea	
		Folk: Gravelly sand	Individuals: 41		
		BGS Folk: Gravelly sand	Richness: 2.85	Characteristic taxa‡: *Vesicularia spinulosa*, *Flustra foliacea*, *Calliostoma zizyphinum*, *Nemertesia antennina*	
		Coarse sand [824 µm]	Diversity: 2.41	Solitary epifauna: *Balanus crenatus*, *Molgula complanate*, *Dendrodoa grossularia*	
		Poorly sorted [2.03 µm]	Evenness: 0.739	Epifauna: *Escharella immersa*, Folliculinidae, *Chorizopora brongniartii*	
		Coarse skewed [0.23 µm]	Dominance: 0.346	Biomass: 0.047	

Habitat Classification	Distribution	Physical characteristics	Biological characteristics		Example Photograph
A5.13 Infralittoral coarse sediment	Group D [◆]†: Stations: CC_06, EC_11	Gravel : Sand : Mud 49.98 %: 49.92 %: 0.10 %	Taxa: 14	Characteristic taxa†: *Nephasoma minutum, Leiochone, Sabellaria spinulosa, Spio goniocephala, Lanice conchilega*	 
		Folk: Sandy gravel	Individuals: 26		
		BGS Folk: Sandy gravel	Richness: 4.06	Characteristic taxa‡: *Urticina* sp., *Flustra foliacea*, Sessilia	
		Granule [2142 µm]	Diversity: 3.42	Solitary epifauna: *Dendrodoa grossularia, Verruca stroemia, Balanus crenatus*	
		Very poorly sorted [4.75 µm]	Evenness: 0.919	Epifauna: *Escharella immersa, Flustra foliacea, Schizomavella*	
		Coarse skewed [0.17 µm]	Dominance: 0.116	Biomass: 0.025	

Notes
Biomass expressed as mean ash free dry weight in g/0.1 m^2 grab sample within multivariate group
Values of each characteristic refer to mean per 0.1 m^2 within multivariate group
EUNIS = European Nature Information System
† = Taxa identified from grab analysis
‡ = Taxa identified from photographic analysis

4.5.1.3 Infralittoral Fine Sand (A5.23)

The higher level habitat complex ‘Sublittoral sand’ (A5.2) was observed along ten transects within the DEP survey areas, five transects along the EC corridor, and five transects along the CC corridors. Following analysis of macrofaunal data this has been further refined to ‘Infralittoral fine sand’ (A5.23) at the 19 stations within group E (D_06, D_08, D_09, D_15, D_16, D_17, D_19, D_20, D_22, D_23, D_25, CC_16, CC_17, CC_18, CC_19, EC_08, EC_09, EC_15, EC_19).

The habitat complex ‘Infralittoral fine sand’ (A5.23) is described as clean sands occurring in shallow water, either on the open coast or in tide-swept channels of marine inlets. The habitat typically lacks a significant seaweed component and is characterised by robust fauna, particularly amphipods (*Bathyporeia*) and robust polychaetes including *Nephtys cirrosa* and *Lanice conchilega* (EEA, 2019g).

Stations within group E were characterised by moderately sorted sand (mean of 4.64 % gravel and 94.91 % sand) with a very low mud content (< 1 %). The macrofaunal community had moderate species richness, diversity and evenness and low dominance and was dominated by the polychaete *Ophelia borealis*, the mysid *Gastrosaccus spinifer* and the amphipod *Bathyporeia elegans*. Similarities with the faunal communities in this group were seen with the biotope ‘*Nephtys cirrosa* and *Bathyporeia* spp. in infralittoral sand’ (A5.233), including the polychaete *Nephtys cirrosa* in the top ten taxa. This biotope is discussed further in Section 4.5.1.3.1.

Epifauna was sparse and included bryozoans (Flustridae including *Flustra foliacea* and *Alcyonidium diaphanum*), anemones (Sagartiidae) and barnacles (Sessilia).

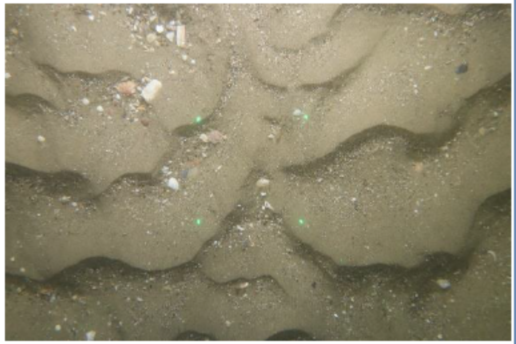
The characteristics observed that relate to these biotopes are summarised in Table 4.25 along with some example photographs.

4.5.1.3.1 ‘*Nephtys cirrosa* and *Bathyporeia* spp. in infralittoral sand’ (A5.233)

‘*Nephtys cirrosa* and *Bathyporeia* spp. in infralittoral sand’ is described as well-sorted medium and fine sands with communities characterised by *Nephtys cirrosa* and *Bathyporeia* spp. (and sometimes *Pontocrates* spp.) which occur in the shallow sublittoral to at least 30 m depth. This biotope typically occurs in sediments subject to physical disturbance, as a result of wave action (and occasionally strong tidal streams). The magelonid polychaete *Magelona mirabilis* may be frequent in this biotope in more sheltered, less tideswept areas whilst in coarser sediments the opportunistic polychaete *Chaetozone setosa* may be commonly found (EEA, 2019h).

Within group E several of the described key taxa were present, such as the amphipod *Bathyporeia elegans* and the polychaete *Nephtys cirrosa* as well as the sediment description being moderately sorted sands being influenced by wave and tidal action. Therefore, this biotope is likely to be present in this group.

Table 4.25: Summary of EUNIS habitat classification 'Infralittoral fine sand' (A5.23), Dudgeon Extension Project

Habitat Classification	Distribution	Physical characteristics	Biological characteristics		Example Photograph
A5.23 Infralittoral fine sand Possible A5.233 *Nephtys cirrosa* and *Bathyporeia* spp. in infralittoral sand	Group E [▼]#†: Stations: D_06, D_08, D_09, D_15, D_16, D_17, D_19, D_20, D_22, D_23, D_25, CC_16, CC_17, CC_18, CC_19, EC_08, EC_09, EC_15, EC_19	Gravel : Sand : Mud 4.64 %: 94.91 %: 0.45 %	Taxa†: 12	Characteristic taxa†: *Ophelia borealis, Gastrosaccus spinifer, Bathyporeia elegans, Spio goniocephala, Scoloplos armiger*	 
		Folk: Sand	Individuals†: 39		
		BGS Folk: Slightly gravelly sand	Richness: 3.18	Characteristic taxa‡: *Alcyonidium diaphanum, Flustra foliacea,*	
		Coarse sand [528 µm]	Diversity: 2.67	Solitary epifauna: Actiniaria	
		Moderately sorted [1.72 µm]	Evenness: 0.764	Epifauna: Folliculinidae, Penetrantiidae (scars), *Conopeum reticulum*	
		Symmetrical [0.03 µm]	Dominance: 0.267	Biomass: 2.113	

Notes
EUNIS = European Nature Information System
Values of each characteristic refer to mean per 0.1 m^2 within multivariate group
Biomass expressed as mean ash free dry weight in g/0.1 m^2 grab sample within multivariate group
† = Taxa identified from grab analysis.
‡ = Taxa identified from photographic analysis

4.5.1.4 Infralittoral Mixed Sediments (A5.43)

The biotope complex ‘Circalittoral mixed sediments’ (A5.44) was identified along six transects within the DEP survey areas, nine transects along the EC corridor and seven transects along the CC corridors. Following analysis of macrofaunal data this has been further refined to ‘Infralittoral mixed sediment’ (A5.43) at stations within group B.

This biotope complex is described as including well mixed muddy gravelly sands or very poorly sorted mosaics of shell, cobbles and pebbles embedded in mud, sand or gravel. Due to the variable nature of the sediment type, a widely variable array of communities may be found, including those characterised by bivalves. (EEA, 2019i).

Stations within group B were characterised by very poorly sorted sandy gravel (mean of 32.45 % gravel and 62.64 % sand). The mean mud was 4.90 % but ranged from 0.15 % to 22.13 %. The macrofaunal community had high species richness, diversity and evenness and had low dominance. The dominant taxa were the limpet *Crepidula fornicata*, the polychaetes *Sabellaria spinulosa* and *Polycirrus*, the crab *Pisidia longicornis* and the squat lobster *Galathea intermedia*. Similarities with the faunal communities in this group were seen with the biotope ‘Crepidula fornicata with ascidians and anemones on infralittoral coarse mixed sediment’ (A5.431). This biotope is discussed further in Section 4.5.1.4.1.

Epifauna observed in photographic data was diverse and included bryozoan (*Alcyonidium diaphanum*, Flustridae including *Flustra foliacea, Vesicularia spinulosa*), hydroids (*Hydrallmania falcata* and *Nemertesia antennina*), barnacles (Sessilia), sponges (Porifera including ?*Dysidea fragilis*, Polymastiidae, *Sycon ciliatum*), anemones (*Urticina* sp. and Sagartiidae), sea squirts (Ascidiacea including possible *Dendrodoa grossularia*), topshells (*Calliostoma zizyphinum*), slipper limpet (*Crepidula fornicata*).

The characteristics observed that relate to these biotopes are summarised in Table 4.26 along with some example photographs.

4.5.1.4.1 *Crepidula fornicata* with ascidians and anemones on infralittoral coarse mixed sediment *(A5.431)*

This biotope is described as medium to coarse sands with gravel, shells, pebbles and cobbles on moderately exposed coasts may support populations of the slipper limpet *Crepidula fornicata* with ascidians and anemones. Anemones such as *Urticina felina* and *Alcyonium digitatum* and ascidians such as *Styela clava* are typically found in this biotope. Bryozoans such as *Flustra foliacea* are also found along with polychaetes such as *Lanice conchilega* (EEA, 2019j).

Within group E the key taxa slipper limpet *Crepidula fornicata* was present in the majority of stations, and at some stations in high numbers. Information on the infauna of this biotope is limited, and therefore relies on observations of epifauna, which included various ascidians and anemones. Therefore, this biotope is likely to be present in this group.

Table 4.26: Summary of EUNIS habitat classifications, Dudgeon Extension Project

Habitat Classification	Distribution	Physical characteristics	Biological characteristics	Characterising taxa	Example Photograph
A5.43 Infralittoral mixed sediments Possible A5.431 *Crepidula fornicata* with ascidians and anemones on infralittoral coarse mixed sediment	Group B [■]: Stations: D_01, D_03, D_04, D_05, D_07, D_10, D_11, D_18, D_21, D_26, CC_01, CC_02, CC_04, CC_07, CC_08, CC_09, CC_10, CC_11, CC_13, CC_14, EC_05, EC_10, EC_12, EC_16, EC_17, EC_23	Gravel : Sand : Mud 32.45 %: 62.64 %: 4.90 %	Taxa†: 49	Characteristic taxa†: *Crepidula fornicata, Sabellaria spinulosa, Pisidia longicornis, Polycirrus, Galathea intermedia*	 
		Folk: Sandy gravel	Individuals†: 254	Characteristic taxa‡: *Urticina* sp., *Flustra foliacea, Asterias rubens, Vesicularia spinulosa*	
		BGS Folk: Sandy gravel	Richness: 8.86		
		Very coarse sand [1210 µm]	Diversity: 4.23	Solitary epifauna: *Balanus crenatus, Dendrodoa grossularia, Verruca stroemia*	
		Very poorly sorted [5.41 µm]	Evenness: 0.771	Epifauna: *Escharella immersa, Conopeum reticulum, Chorizopora brongniartii*	
		Coarse skewed [0.22 µm]	Dominance: 0.130	Biomass: 1.496	

Notes

EUNIS = European Nature Information System

Values of each characteristic refer to mean per 0.1 m^2 within multivariate group

Biomass expressed as mean ash free dry weight in g/0.1 m^2 grab sample within multivariate group

† = Taxa identified from grab analysis.

‡ = Taxa identified from photographic analysis

4.5.2 Potential Sensitive Habitats and Species

Full details of the sensitive habitat assessments and results can be found in the Dudgeon Extension Habitat Report (Volume 3 of this series). The following sections provide a summary of the assessment results.

4.5.2.1.1 Annex I Stony Reef

A stony reef assessment was carried out within the DEP survey areas and along the EC and CC corridors. Within the DEP survey areas and along the CC corridors, all transects were classed as 'Not a reef'. Along the EC corridor, two transects were classed as 'Low reef' whilst the rest were assigned to 'Not a reef'. Neither of these areas fulfil the definition of the Annex I habitat Stony Reef. Additionally, along one nearshore transect, there was an area of potential Annex 1 geogenic (soft bedrock) reef, and United Kingdom Biodiversity Action Plan (UK BAP) priority habitat 'Subtidal chalk', due to the presence of outcropping chalk observed.

4.5.2.1.2 Herring Spawning Grounds

A herring spawning ground assessment was carried out within the DEP survey areas and along the EC and CC corridors. Within the DEP survey areas, most of sediment type within the survey area was identified as 'Unsuitable'. However, a total of nine samples were assessed as being as 'Marginal' and four samples as 'Preferred' herring spawning grounds. Along the EC corridor a total of 19 samples were considered as 'Preferred' herring spawning grounds, four were considered 'Marginal' and the remaining eight samples were classed as 'Unsuitable'. Along the CC corridors, a total of ten samples were considered as 'Preferred' herring spawning grounds, seven samples were considered 'Marginal' and the remaining six samples were classed as 'Unsuitable'. No specimens of herring (*Clupea harengus*) were recorded across the survey area. Herring are considered as a priority species in the UK BAP.

4.5.2.1.3 Sand Eel Preferred Grounds

A sand eel preferred grounds habitat assessment was carried out within the DEP survey areas and along EC and CC corridors. Most of sediment type within the survey area was assessed as being as 'Preferred' or 'Marginal' ground for sand eels due to the high composition of coarse sand. Specimens of sand eel (Ammodytidae) were observed in photographic data on the EC corridor, and specimens were observed within grab samples from 3 stations within the DEP survey areas and one on the EC corridor. Sand eels are considered as a priority species in the UK BAP.

4.5.2.1.4 Other Potentially Sensitive Habitats and Species

Specimens of *Sabellaria spinulosa* were encountered within grab samples and were observed within nine of the camera transects within the DEP survey areas, predominantly within DEP South survey area and south-eastern regions of DEP North survey area. The specimens found were either single tubes, encrusting, or very small clumps and therefore did not warrant a full assessment to confirm that the Annex I 'reef' habitat was not present.

No other Annex I habitats or Annex II species, OSPAR threatened and/or declining species and habitats or UK Biodiversity Action Plan priority habitats and species (OSPAR, 2008; JNCC & Department for Environment, Food and Rural Affairs [Defra], 2012) were observed within the survey area.

5. Discussion

5.1 Sediment Characterisation

The general physical and chemical characteristics of sediment particles have a significant effect on how other chemical components and biological species interact with seabed sediments. For example, the silt/clay fraction is known to adsorb petroleum hydrocarbons/heavy metals from seawater and through this pathway, these chemicals become incorporated into the sediment system (Meyers & Quinn, 1973). Granulometry data can therefore be critical when interpreting chemical and biological data obtained in this type of benthic study. In addition, since waste discharges often possess significantly different physical characteristics from the natural sediments present in the area, such data may also provide some information on the spread of discharged material.

With regard to macrofaunal communities, the species distributions and community structure can be greatly influenced by the nature of the sediment, which represents the effects of a complex set of hydrological factors, such as water movement, turbulence and suspended load, at one particular point in time. Some animals have a behavioural preference for sediment of a particular grain size (Meadows, 1964; Gray, 1981), while this factor and organic matter content are closely associated with other properties of the sediment such as density, porosity, permeability, oxygenation and bacterial count (Buchanan, 1984), all of which affect animal functions such as locomotion, attachment, tube construction and feeding. Specifically, the proportion of fine (silt/clay) material often influences the distribution of macrofaunal communities.

Using the Folk (1954) classification, five sediment classes were identified across the survey areas; 25 stations as sandy gravel, 20 stations as sand, 9 stations as gravelly sand, 3 stations as muddy sandy gravel and 1 station as gravelly muddy sand. The distribution of these different sediment types did not appear to have any distinct spatial pattern, however, the stations with the higher sand proportion were primarily within the DEP survey areas and the stations with a higher gravel proportion were primarily along the CC and EC corridor survey areas.

The modality of the sediments varied between unimodal, bimodal and polymodal suggesting some samples comprised mixed sediment types. The unimodal sediments were either medium sand or coarse sand on the Wentworth (1922) scale, whereas the bimodal and polymodal sediments comprised sand with a granule or pebble element.

The multivariate analysis of sediments showed many significant clusters. However, when ecological significance considered was considered, a slice was added at the Euclidean distance of 25, which then identified five groups. The principal component analysis showed that the groups were differentiated by the proportion of medium sand and coarse sand, and also whether a secondary element was present in the sediments, as either coarse pebble, medium pebble and fine pebble. One group (group A) was dominated by coarse pebble with medium/coarse sand as a secondary element. The stations comprising group A were all located close together along the CC route at the end closest to the DEP North survey area. All other groups seemed to show no spatial pattern to their distribution.

5.2 Sediment Chemistry

5.2.1 Sediment Hydrocarbons

5.2.1.1 Total and Aliphatic Hydrocarbons

Marine sediments contain hydrocarbons derived from many sources that enter the marine environment via three general processes: biosynthesis (marine and land organisms biosynthesise hydrocarbons), geochemical processes (submarine and coastal/terrestrial oil-seeps) and anthropogenic sources (Farrington & Meyer, 1975; Myers & Gunnerson, 1976). Anthropogenic hydrocarbon inputs to the marine environment include marine transportation, coastal oil refineries, accidental shipping losses, industrial and municipal waste (which includes sewage and dredged spoils). A significant contribution to the global budget enters the marine environment via urban and river run-off, atmospheric deposition (from combustion sources including PAHs) and natural seepages (Johnston, 1980; Dicks et al., 1987; North Sea Task Force [NSTF], 1993; OSPAR, 2000; 2010).

Total hydrocarbon values at some stations were higher than the SEA2 (ERT, 2003) Area 1 mean concentration of 1.6 µg/g. The Area 1 RSD of THC values was 106 %, demonstrating that the samples taken during the SEA2 survey had high THC variability, likely due to the patchy nature of the sediments within the survey area. The RSD of THC values during the current survey was 52 %, demonstrating moderate variability. Therefore, although the concentrations from the current survey were above the Area 1 mean, THC values from the current survey were within the range of the values reported from the SEA2 survey (Table 4.8), and can be considered as background for the region.

Biosynthesised hydrocarbons are ubiquitous in the marine environment (Harada et al., 1995; Parinos et al., 2013). Odd carbon number, long chain n-alkanes are widely distributed in the plant kingdom (Eglinton et al., 1962; Douglas & Eglinton, 1966; Bush & McInerney, 2013) as components of cuticle waxes. These are common on the surfaces of leaves, stems, flowers and pollen and their presence in sediment is indicative of terrestrial inputs from adjacent land masses. Relatively high concentrations of nC_{29}, nC_{31} and nC_{33} are therefore a common feature of many marine sediments (Farrington et al., 1977), particularly inshore marine sediments (Bouloubassi et al., 1997).

The ratio of odd to even carbon numbered normal alkanes is termed the carbon preference index (CPI) and has been calculated over various chain length ranges. Elevated ratios (i.e. those > 1.00) over the nC_{12} to nC_{36} carbon range are due to the domination of the odd-chain length n-alkanes (nC_{27} to nC_{33}) and are typically associated/observed with inputs from terrestrial run-off (leaf waxes, etc., discussed previously). All but one station during the current survey recorded CPI (nC_{12} to nC_{36}) ratios exceeding the SEA2 (ERT, 2003) Area 1 mean ratio of 1.25, demonstrating the influence of odd-chain length n-alkanes (nC_{27} to nC_{33}) and biogenic material for the majority of sediment samples within the survey area.

The isoprenoidal alkanes pristane (Pr) and phytane (Ph) were reported in low concentrations in each of the sediment samples analysed. These compounds are present in significant concentrations in crude oils (Berthou & Friocourt, 1981). They may also be biosynthesised (Gunkel & Gassmann, 1980) and pristane, a breakdown product of the phytol moiety of chlorophyll is widespread in the marine ecosystem, probably being derived from zooplankton. Phytane is generally absent or present in only relatively low levels in uncontaminated natural systems (Blumer & Snyder, 1965). The Pr/Ph ratios reported at all stations were higher than the Area 1 mean concentration of 2.51. These values would typically suggest that the higher proportion of the pristane present in the sediments was derived from non-petrogenic sources.

5.2.1.2 Aromatic Hydrocarbons

PAHs are widely spread in the environment (Butler et al., 1984) with natural sources occurring primarily through synthesis by plants (Neff, 1979; Sims & Overcash, 1983), related to natural seeps of petroleum (National Research Council [NRC], 1983; Kennicutt et al., 1988) and to formation during natural forest and prairie fires (Youngblood & Blumer, 1975; Wakeham et al., 1979). By far the greatest proportion of PAHs released into the environment are formed during fossil fuel combustion and anthropogenic forest and agricultural fires (Edwards, 1983; Sims & Overcash, 1983; Haritash & Kaushik, 2009). PAHs primarily enter marine sediments from atmospheric and riverine inputs and tend to adsorb to suspended inorganic and organic particulate matter, ultimately settling on the seabed where they accumulate to relatively high concentrations (Latimer & Zheng, 2003; Culotta et al., 2006).

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, 2015) and the CEMP specifies 9 PAHs of specific concern (OSPAR, 2014), which primarily reflect inputs from anthropogenic combustion sources.

Total 2 to 6 ring PAH concentrations were higher than the SEA2 (ERT, 2003) Area 1 mean concentration of 0.058 µg/g at three stations (D_26, EC_04 and EC_05). The Area 1 RSD of total 2 to 6 ring PAH concentrations was 190 %, demonstrating that the samples taken during the SEA2 survey had very high variability, likely due to the patchy nature of the sediments within the survey area. Total 2 to 6 ring PAH concentrations from the current survey were within the range of values reported from the SEA2 Area 1 survey and therefore could be considered as background for the region.

The individual US EPA 16 PAH concentrations were all below the CEMP ERLs, where available.

5.2.2 Sediment Metals

Metals and metalloids occur naturally in the marine environment and are widely distributed in both dissolved and sedimentary forms. Some are essential to marine life while others have no biological function and therefore are toxic to numerous organisms at certain levels (Paez-Osuna & Ruiz-Fernandez, 1995; Boening, 1999). Metals can enter the environment via natural methods such as riverine transport, coastal discharges, geological weathering and atmospheric fallout (Brady et al., 2015). Other routes into marine sediments are from anthropogenic activities such as direct discharges from industrial activities.

Trace metal contaminants in the marine environment tend to form associations with the non-residual phases of mineral matter, such as iron and manganese oxides and hydroxides, metal sulphides, clays, organics and carbonates (Warren & Zimmerman, 1993; Dang et al., 2015; Wang et al., 2015). Non-residual trace metals are associated with more reactive and available sediment components through processes such as adsorption onto mineral surfaces and organic complexation. Metals associated with these more reactive phases are prone to various environmental interactions and transformations (physical, chemical and biological) potentially increasing their mobility and biological availability (Tessier et al., 1979; Warren & Zimmerman, 1993; Du Laing et al., 2009). Residual trace metals are defined as those that are part of the crystal structure of the component minerals and are generally unavailable to organisms (de Orte et al., 2018). Therefore, in monitoring trace metal contamination of the marine environment, it is important to distinguish the more mobile non-residual trace metals from the residual metals held tightly in the sediment lattice (Chester & Voutsinou, 1981), which are of comparatively lesser environmental significance because of their low reactivity and availability.

In this study, an analytical procedure involving the digestion of sediment in aqua regia was employed to analyse the elemental content of the sediments. The aqua regia digest releases for analysis the ‘non-residual’ heavy metals, which are not incorporated in the mineral matrix and are therefore potentially available for biological uptake.

The bioavailable metals concentrations in the sediments were all below their respective Cefas action levels and the CEMP ERLs indicating that these metals are unlikely to have an adverse effect on the macrofaunal communities present.

5.2.3 Sediment Organotins

Organotin compounds have historically been used in marine antifouling products; however, their use is now prohibited. Environmental monitoring conducted in the vicinity of locations where vessel maintenance was conducted identified a link between these compounds and the disruption of the reproductive capabilities of a number of gastropod species, leading to these compounds being gradually phased out of use during the 1980s and 1990s.

Since 2003, monitoring of imposex and related effects of TBT in marine snails in OSPAR Regions I, II, III and IV has been undertaken regularly. Although the overall status is improving, marine snails still show pollution effects from TBT over large parts of the OSPAR area, especially Regions II, III and IV (OSPAR, 2014). There is a clear relationship between shipping and the occurrence of imposex with levels high in the vicinity of busy shipping lanes; the situation is markedly better where there is less large vessel traffic (OSPAR, 2011).

The environmental persistence and fate of TBT is correlated to the specific characteristics of the aquatic ecosystem such as temperature, salinity, pH, suspended matter, microbial populations, flushing rates, etc. Distribution of TBT among the different environmental compartments is regulated by biological, chemical and physical mechanisms. TBT undergoes degradation to DBT, MBT and ultimately inorganic tin in the marine environment through processes such as microbial and UV degradation, becoming progressively less toxic in the process. TBT is broken down very slowly in sediments, particularly those with low oxygen content where persistence is estimated at tens of decades (Dowson et al., 1996; Gadd, 2000). Since toxicity of the organotins is maximal for the tri-substituted compounds, degradation can essentially be considered a mechanism of detoxification (OSPAR, 2005).

The TBT concentrations were all below the Class B assessment criteria under CEMP, indicating the levels present in the samples would not be expected to affect the reproductive capability of sensitive gastropod species.

5.3 Macrofaunal Communities

Seabed sediments provide support, protection and the food source for many macrofaunal species. The sediment macrofauna, most of which are infaunal (living within the sediment), are therefore particularly vulnerable to external influences that alter the sediments' physical, chemical or biological nature. Such infaunal animals are largely sedentary and are thus unable to avoid unfavourable conditions. Each species has its own response and degree of sensitivity to changes in the physical and/or chemical environment and consequently the species composition and their relative abundance in a particular location provides a reflection of the health and condition of the immediate environment, both current and historical. The recognition that aquatic contaminant inputs may alter sediment characteristics, together with the relative ease of obtaining quantitative samples from specific locations, has led to the widespread use of infaunal communities in monitoring the impact of disturbances to the marine environment over a long period of time.

The infaunal communities within the survey areas showed variation in terms of phyletic composition, the number of taxa and the number of individuals present at each station. Although annelids were the dominant taxa overall, between samples the dominant taxa varied between annelids and arthropods. Whilst annelids and arthropods were present in every sample, molluscs, echinoderms and 'other phyla' showed variability in terms of presence and absence. The dominant phyla in terms of number of individuals showed a lot of variation, varying between annelids, arthropods and molluscs.

The variation in number of taxa and number of individuals was reflected in the diversity indices, including richness (Margalef's Index (d)), diversity (Shannon-Wiener diversity index

(H'Log2)), evenness (expressed as both Pielou's (J) and dominance (Simpson's Index (λ)), all of which also showed high levels of variation across the survey area. The variation in number of taxa and number of individuals did not appear to show any spatial pattern, although in general the samples within the DEP survey areas had lower numbers.

The multivariate analysis of infauna showed many significant clusters. However, when ecological significance was considered, a slice was added at the Bray-Curtis similarity of 23 %, which then identified five groups. Each of the infaunal groups were dominated by different key taxa, as well as differing level of taxa and individuals. The infaunal groups identified, as with the particle size analysis, showed no spatial pattern to their distribution.

The BIOENV algorithm in the BEST routine was run in PRIMER for a single and a combination of two and three variables. The single sediment fraction correlating with the patterns in the macrofaunal community was 353.55 µm ($P \leq 0.01$; rho = 0.473) which is described as medium sand on the Wentworth (1922) scale. When variables were combined, the best combination of fractions was 8000 µm, 500 µm and 353.55 µm ($P \leq 0.01$; rho = 0.638), which are medium pebble, coarse sand and medium sand, respectively. Therefore, the macrofaunal communities are being driven by the type of sand present, as well as whether any coarse material (such as gravel or pebbles) were also present in the sediments.

Samples within infaunal Group A were dominated by fauna typical of the very poorly sorted sandy gravel sediments and very low mud content that were present at these stations, particularly the polychaetes *Lanice conchilega, Sabellaria spinulosa, Spiophanes bombyx* agg., which are all tubiculous and show preference for medium to coarse sands in order to build their tubes. The low mud content is typical of areas with moderate levels of exposure to tidal or wave action. The samples within group A all had high species richness and diversity, which could, in part, be due to the presence of *L. conchilega*. This polychaete is known to have a positive influence on benthic communities, particularly in shallow sand habitats, by reducing the effects of the hydrodynamics, allowing the accumulation of food particles and providing a stable surface for larval recruitment (Rees et al., 2007).

Infaunal group B showed the highest species richness, likely due to mixed sediments comprising sandy gravel with a variable mud content (0.15 % to 22.13 %). The higher mud content is typical of areas with less disturbance from wave or tidal action, allowing for more stable conditions which a wider range of taxa can inhabit over time. Although the macrofaunal community had high richness, diversity and evenness, there was low dominance suggesting low numbers across a diverse range of taxa. Several of the dominant taxa, including the limpet *Crepidula fornicata*, the crab *Pisidia longicornis* and the squat lobster *Galathea intermedia*, have preference for gravelly sediments where they can either attach (in the case of *C. fornicata*) or take shelter. Amphipods with a preference for sediments with a notable mud content, as well as tubiculous polychaetes relying on sand to build their tubes, were also present within this group. Stability of the environment and the increased species richness may also come from the tubes formed by polychaetes, including *Sabellaria spinulosa*, which although were not in sufficient numbers to constitute a reef habitat, their tubes provide a stable surface for epilithic attachment for other species (Maddock, 2008).

Samples within infaunal group C had moderate richness, diversity, dominance and high evenness. Sediments comprised poorly sorted gravelly sand with no mud content, indicative of clean sands due to moderate or high exposure to wave or tidal action. The most abundant taxa were the bivalve *Goodallia triangularis*, which shows preference for sands and gravels, and the polychaetes *Sphaerosyllis bulbosa, Glycera lapidum, Schistomeringos neglecta*.

The two samples comprising group D were characterised by very poorly sorted sandy gravel and very low mud content (< 1 %). The macrofaunal community had good species richness and diversity, high evenness and low dominance. The most abundant taxa were the sipunculid *Nephasoma minutum* and the polychaetes *Leiochone*, *Sabellaria spinulosa*, *Spio goniocephala*, *Lanice conchilega*, which are considered typical of sandy gravel/gravelly sand sediments.

Samples within group E were characterised by moderately sorted sand with a very low mud content (< 1 %). The macrofaunal community had moderate species richness, diversity and evenness and low dominance and was dominated by the polychaete *Ophelia borealis* and the amphipod *Bathyporeia elegans* which show preference for sandy sediments.

The benthic communities recorded across the DEP survey areas and EC and CC corridors were considered to be typical of sandy and gravelly sediments within the southern North Sea (Heip and Craeymeersch, 1995; Rees et al., 2007).

Biomass of the infauna also showed variation in the samples taken from across the survey area, likely due to the variation in infauna identified within each sample. The overall biomass was highest within infaunal group E, with annelids providing the highest contribution due to the high abundance of the bristleworm *Ophelia borealis*. Group B had the second highest biomass, with echinoderms proving the highest contribution, due to the presence of the brittlestar *Amphipholis squamata* as one of the most abundant taxa.

Solitary epifauna were identified across three phyla; cnidarians, arthropods and tunicates. Sediment group C had the highest diversity, comprising all identified taxa, and was dominated by the tunicate *Dendrodoa grossularia* and the barnacles *Balanus crenatus*. The sediments at group C comprised sandy gravel with the highest mud content (mean of 4.23 %) of all the sediment groups identified. Due to the mud content the stations within sediment, group C likely had the least disturbance from wave or tidal action of all the groups, providing a more stable environment for epilithic attachment.

The BIOENV algorithm revealed the single sediment fraction correlating with the patterns in the solitary epifauna community was 353.55 µm ($P \leq 0.01$; rho = 0.403) which is described as medium sand on the Wentworth (1922) scale. When variables were combined, the best combination of fractions was 2000 µm, 500 µm and 353.55 µm ($P \leq 0.01$; rho = 0.583), which are granule, coarse sand and medium sand, respectively. Therefore, as with the macrofaunal communities, epifaunal communities are being driven by the proportion and type of sand present, as well as whether any coarse material (such as gravel or pebbles) were also present in the sediments.

The colonial epifauna within sediment group C also had the highest diversity with 74 taxa, whereas the group with the next highest diversity was group E with 39 taxa. As with the solitary epifauna, the lower disturbance from wave or tidal action at stations within this groups could be providing a more stable environment for epilithic attachment of colonial epifauna.

5.4 Seabed Habitats and Biotopes

When seabed photographic data, particle size data and macrofaunal data were considered, using the EUNIS (EEA, 2019a) classifications, one broad habitat and three biotope complexes and three possible biotopes were assigned to the transects and stations surveyed. The biotope complexes and the possible biotopes were refined from the habitat complexes and biotope complexes identified in the Dudgeon Extension Habitat Report (Volume 3 of this series).

The majority of stations (26) were classified as the biotope complex 'Infralittoral mixed sediment' (A5.43) and included stations across the DEP North and South, CC and EC survey areas. Sediments primarily comprised sandy gravels with a variable mud content. The macrofaunal and epifaunal assemblages present at these stations were typical of mixed sediments with low to moderate levels of exposure to tide and wave action. The infaunal community showed similarities to the biotope '*Crepidula fornicata* with ascidians and anemones on infralittoral coarse mixed sediment' (A5.431), which was therefore thought possible to be present at these stations.

Nineteen stations, distributed across the DEP North and South, CC and EC survey areas, were classified as 'Infralittoral fine sand' (A5.23) due to the high sand and low gravel/mud content and faunal assemblages being typical of clean sands with moderate exposure to wave or tidal action. The infaunal community showed similarities to the biotope '*Nephtys cirrosa* and *Bathyporeia* spp. in infralittoral sand' (A5.233), which was therefore thought possible to occur at these stations.

Eight stations were classified as biotope complex 'Infralittoral Coarse Sediment' (A5.13) due to the sediments comprising sandy gravels/gravelly sands with low mud content. These included three stations in the EC survey area and five in the CC survey area. These stations included samples that were grouped, based on their infaunal assemblages, into groups A, C and D. The macrofaunal and epifaunal assemblages present at these stations were typical of moderately exposed coarse sediments. The infaunal community identified in samples within group C showed similarities to the biotope '*Moerella* spp. with venerid bivalves in infralittoral gravelly sand' (A5.133) and was therefore thought possible to be present at those stations.

The distribution of these biotopes did not show any distinct pattern in distribution. This is likely to be due to the heterogeneity of the sediments across the survey area, evident on the side scan sonar data. Sand waves and megaripples were both interpreted present across the survey area, which typically result in the sand crests comprise mobile sediment environments and tend to have low diversity, and the troughs contain more stable gravelly sediments, due to less sediment movements (Koop et al., 2019), allowing an accumulation of organic material and therefore support more diverse infaunal and epifaunal communities.

The sediments observed throughout the survey area were identified as comprising the broadscale priority habitat 'subtidal sands and gravels'. However, this habitat is widely distributed and represented elsewhere in the UK Marine Protected Area (MPA) network (JNCC, 2019).

Based on the assessments performed in the Dudgeon Extension Habitat Report (Volume 3 of this series) and the observations during this report, several sensitive habitats/species have the potential occur within the survey area (Table 5.1). No other Annex I habitats or Annex II species, OSPAR threatened and/or declining species and habitats or UK Biodiversity Action Plan priority habitats and species (OSPAR, 2008; JNCC & Defra, 2012) were observed within the survey area.

Table 5.1: Summary of sensitive habitats/species potentially present, Dudgeon Extension Project

Listed Feature		Relationship*	Related Feature	
Description	Designation/Status		Description	Designation/Status
Geogenic reef	Annex I habitat	May occur	Bedrock reef (Subtidal chalk)	Annex I habitat
Subtidal sands and gravels	Priority habitat; habitat FOCI	Contains	Offshore subtidal sands and gravels	UK BAP priority habitat; MPA search feature
		May occur	Sandbanks which are slightly covered by sea water all the time	Annex I habitat
Peat and clay exposures with piddocks	Priority habitat	Contains	Peat and clay exposures with piddocks	UK BAP priority habitat
Subtidal chalk	Priority habitat; habitat FOCI	May occur	Subtidal Chalk	UK BAP priority habitat
		May occur	Geogenic reef	Annex I habitat
Herring spawning grounds	Priority species	Contains	Herring spawning grounds	UK BAP priority species
Sand eel preferred habitat	Priority species	Contains	Sand eel preferred habitat	UK BAP priority species

Notes
FOCI = Feature of Conservation Interest
UK BAP = United Kingdom Biodiversity Action Plan
OSPAR = Oslo and Paris Commission
MPA = Marine Protected Area
* = Summarises the relationship between different protected habitat designations. For example, where Annex I geogenic reef occurs, bedrock reef may occur, in this case from subtidal clay. Similarly, the priority habitat 'Subtidal sands and gravels; contains the UK BAP priority habitat and MPA Search feature 'Offshore subtidal sands and gravels' (JNCC, 2018)

6. Conclusions

The aim of this report has been to evaluate the existing physical, chemical and biological components in the marine environment within the survey area. A review of the environmental data in context with other cited studies from the region and estimated sediment effects threshold values (ERT, 2003; OSPAR, 2014) was also undertaken. Cefas Action Levels 1 and 2 were also used for comparison to metals concentrations. Based on the overall assessment of the survey area, the following key conclusions can be stated:

Five sediment types were identified across the survey area and described using the Folk (1954) classification as sand, gravelly muddy sand, gravelly sand, sandy gravel and muddy, sandy gravel. Variation was also seen in terms of modality, sorting index and skewness. There was no distributional pattern of sediments in relation to the survey area.

The total hydrocarbon content was low and values at all stations were within the range of values recorded in the SEA2 Area 1 regional survey. The total n-alkanes (nC_{12} to nC_{36}) concentrations and CPI ratio were higher than the SEA2 Area 1 mean value at some stations. The pristane/phytane (Pr/Ph) ratio was higher than the Area 1 mean at all stations.

The total 2 to 6 ring PAH concentrations at all stations were within the range of values recorded from the SEA2 Area 1 regional survey. The individual US EPA 16 PAH concentrations were all below the CEMP ERLs.

All metal concentrations were below the Cefas AL1 and AL2, and below the CEMP ERLs, where available.

Total organotins concentrations showed high variation across the survey area. TBT concentrations were all below the CEMP Class B assessment criteria.

Macrofaunal communities varied across the survey areas, with five different communities observed, each with different dominant taxa. Faunal diversity, species richness, evenness and dominance all ranged from high to low across the survey areas. The variations in communities were driven by the different sediment types observed. As with the variations in sediments, there was no distributional pattern of communities in relation to the survey area.

When sediment types and macrofaunal communities were considered, three biotope complexes were defined: 'Infralittoral coarse sediment' (A5.13), 'Infralittoral fine sand' (A5.23) and 'Infralittoral mixed sediments' (A5.43). Within each biotope complex, similarities in macrofaunal communities were observed with a biotope and therefore three biotopes were thought possible to occur.

The macrofauna and habitats observed are considered typical for these sediments in this area of the southern North Sea.

Several sensitive habitats/species potentially occur within the survey area. Patches of Annex I 'Bedrock' reef and the priority habitat 'Peat and clay exposures with piddocks' were observed along transect EC_26. Areas of 'marginal' and 'preferred' of both herring spawning grounds and sand eel preferred grounds were observed across the survey areas. The sediments throughout the survey areas were identified to comprise the broadscale priority habitat 'Subtidal sands and gravels'.

No other Annex I habitats or Annex II species, OSPAR threatened and/or declining species and habitats or UK Biodiversity Action Plan priority habitats and species were observed within the survey area.

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Appendices

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.

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Appendix B

Methodologies

B.1 Survey Methods

B.1.1 Sediment Grab Sampling

Seabed fauna and particle size distribution (PSD) samples were acquired using a 0.1 m^2 Hamon grab. Chemistry samples were acquired with a 0.1 m^2 Day grab, with the exception of samples acquired in the Cromer Shoal Chalk Beds Marine Conservation Zone (MCZ), where a 0.04 m^2 Shipek grab was used.

Operational procedures for grab sampling were as follows:

- The grab was prepared for operations prior to arrival on station. 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 crane;
- When the grab had reached the seabed (evidenced through a distinct slackening of the wire rope), a positional fix was taken;
- On recovery to the deck, the sample was inspected and judged acceptable or otherwise (see below for rejection criteria);
- A single grab sample was retained for faunal analysis and a sub-sample was retained for PSD analysis.
- At stations where triplicate samples were required, three grab samples were taken, each of which retaining a grab sample for faunal analysis and a subsample for PSD analysis.
- Deck logs were completed for each sample acquired (including no samples) with: date, time, sample number, fix number, sediment type, odour and 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;
- Samples represented less than approximately 5 litres of sediment, where a macrofaunal sample was to be taken (unless deemed acceptable by the client representative);
- Sample is more than 25 m from the target location (unless deemed acceptable by the client representative);
- Deemed unacceptable by the client representative for any other reason.

B.1.2 Chemistry Sample Processing

At stations where chemistry samples were required a 0.1 m^2 Day grab was used. However, within the Cromer Shoal Chalk Beds MCZ, samples were acquired using a 0.04 m^2 Shipek grab.

- Hydrocarbon samples were collected using a metal scoop for to a nominal depth of 2 cm. The samples were preserved in glass jars at approximately −20 °C;

- Heavy metal samples were collected using a plastic scoop to a nominal depth of 2 cm. The samples were preserved in polythene bags at approximately −20 °C;

B.1.3 Macrofauna and PSD Sample Processing

Macrofauna samples were processed as follows:

- Macrofauna samples were processed in their entirety, by opening the grab to drop the grab into a container. All supernatant water was processed along with the sediment;
- A PSD subsample was collected using a plastic scoop and placed into a polythene bag. The samples were stored at ambient temperature;
- The sample was then transferred to a sediment processing chute and washed out over a 1.0 mm sieve;
- 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.2 Laboratory Analysis for Sediment Samples

B.2.1 Particle Size Analysis

Particle size distribution (PSD) analysis was undertaken in accordance with Fugro in-house methods based on the NE Atlantic National Marine Biological Association Quality Control (NMBAQC) scheme's best practice guidance document – Particle Size Analysis (PSA) for Supporting Biological Analysis, and BS1377: Parts 1: 2016 and 2: 1990.

Dry Sieve Analysis

Representative material > 1 mm was split from the bulk subsample and oven dried before sieving 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

Particle size distribution (PSD) analysis was undertaken in accordance with Fugro in-house methods based on the NMBAQC best practice guidance document – Particle Size Analysis (PSA) for Supporting Biological Analysis, and BS ISO 13320: 2009.

Representative material < 1 mm was removed from the bulk subsample for laser analysis, a minimum of three triplicate analyses were analysed using the laser sizer at 0.5 phi intervals between < 1 mm to < 0.98 µm. Laser diffraction was carried out using a Malvern Mastersizer 2000 with a Hydro 2000G dispersion unit.

Sieve and laser data are merged and input into GRADISTAT to derive statistics including mass and percentage retained within each size fraction, mean and median grain size, bulk sediment classes (percentage gravel, sand and silt/clay), skewness, sorting coefficients and Folk classification.

B.2.2 Hydrocarbon Analysis

Hydrocarbon analysis of sediments was carried out by FGBML.

General Precautions

To effectively eliminate all possible sources of hydrocarbon contamination from the analysis the following precautionary measures were taken prior to sample work-up:

- All solvents were purchased as high purity grade. Each batch was checked for purity by concentrating approximately 400 mL down to a small volume (< 1 mL) and analysing by gas chromatography (GC);
- All water used was distilled through an all glass still and dichloromethane extracted to minimise contamination from plasticisers;
- All glassware was cleaned using an acid/base machine wash. The glassware was rinsed with acetone then finally with dichloromethane prior to use;

- Procedural blanks, replicate analyses and laboratory reference material were run with each batch.

Ultrasonication Extraction for Hydrocarbons in Sediment

Sediment samples were thawed, homogenised and accurately weighed into a 250 mL conical flask. A solution containing an appropriate amount of the following internal standards was added to each sample using a microsyringe.

Aliphatic Standards	Aromatic Standards
Heptamethylnonane	D_8 Naphthalene
D_{34} Hexadecane	D_{10} Acenaphthene
D_{42} Eicosane	D_{10} Phenanthrene
Squalane	D_{10} Pyrene
	D_{12} Chrysene
	D_{12} Perylene

Methanol (50 mL) and solvent were mixed with the sediment. Dichloromethane (DCM) (60 mL) was then added and the sample mixed again. The flasks were then capped with solvent cleaned aluminium foil and ultrasonicated for 30 minutes.

After being allowed to settle the solvent was decanted through a GF-C filter paper into a 1 litre separating funnel. The extract was then partitioned with 100 mL of DCM extracted distilled water and the DCM layer run-off into a clean 500 mL round-bottomed flask. The ultrasonic extraction was repeated a further two times using 50 mL DCM and 15 minutes of ultrasonication. Each time the filtered extract was partitioned with the remaining methanol/water in the separating funnel. The DCM extracts were bulked and reduced in volume to approximately 2 mL using a rotary evaporator, then further reduced to approximately 1 mL under a gentle stream of nitrogen prior to clean-up.

Correction factors for wet/dry sediments were obtained by drying a subsample of the homogenised sediment to constant weight at 105 °C.

Clean-Up of Extracts by Column Chromatography

Removal of polar material, including lipids was carried out using a silica gel column. The silica gel used was 70 to 230 mesh which was heated at 400 °C for at least 4 hours to remove impurities and residual moisture and then stored at 200 °C prior to use. The sample extract was added to the silica gel column, containing 5 g of adsorbent and eluted with 35 mL of DCM/pentane (1:2). The eluant was reduced in volume using the evaporator to approximately 2 mL, with activated copper powder (for removal of free sulphur), before being further reduced under a gentle stream of nitrogen to an appropriate volume and analysed by both gas chromatography (GC) and gas chromatography-mass spectrometry (GC-MS).

	Gas Chromatography [GC]	Gas Chromatography-Mass Spectrometry [GC-MS]
Instrument	HP 6890 Series GC with 7673 autoinjector	HP 7890 Series GC with autoinjector and 5977A MSD
Column	100 %-dimethylpolysiloxane bonded fused silica, 60 m, 0.25 µm film thickness, 0.32 mm internal diameter	(5 %phenyl)-methylpolysiloxane bonded fused silica, 60 m, 0.32 µm film thickness 0.25 mm internal diameter
Carrier Gas	Hydrogen (constant flow 3.5 mL/min)	Hydrogen (constant flow 1.4 mL/min)
Injector	On–column (2 µL injection)	Splitless, 280 °C, split flow 40 mL/min, vent time 1.5 min (1 µL injection)
Oven Temperature Programme	80 °C – 2 min 80 °C to 320 °C at 18 °C/min 320 °C – 13 min 320 °C to 350 °C at 30 °C/min	60 °C – 1 min 60 °C to 180 °C at 11 °C/min 180 °C to 260 °C at 6 °C/min 260 °C to 320 °C at 6 °C/min 330 °C – 7 min
Source/Detector Temperature	350 °C (FID)	230 °C
Electron Energy	-	70 eV
Selected Ion Monitoring (SIM)	-	9 groups - 6 ions per group
Dwell Time (per ion)	-	0.035 second

Total Hydrocarbons by Gas Chromatography–Flame Ionisation Detection (GC-FID)

The total hydrocarbon material present was quantified using response factors calculated from the analysis of mixed oil standard solutions over an appropriate range. The unresolved complex mixture (UCM) was determined by subtracting the area of all the resolved peaks from the total hydrocarbon area and applying the total hydrocarbon response factor. The minimum reporting value (MRV) is 0.5 µg/g dry weight.

n-alkanes, Pristane and Phytane

Calibration was undertaken using a range of n-alkane standard solutions containing the even carbon number compounds between nC_{12} and nC_{36}, and a range of suitable internal standards. Individual response factors were calculated for each of the n-alkanes present in the calibration solution. Response factors for the non-calibrated n-alkanes (and pristane and phytane) were taken to be equivalent to closely eluting compounds. The MRV of individual n-alkanes is 0.1 ng/g dry weight.

The n-alkanes between nC_{12} and nC_{36} were reported, as were the ranges between nC_{12} and nC_{20} and nC_{21} and nC_{36}. Carbon preference index (CPI) values (the ratio of odd to even carbon numbered compounds) for the same ranges were also calculated. Pristane and phytane (and associated ratio) were also determined.

Polycyclic Aromatic Hydrocarbons

A full range of polycyclic aromatic hydrocarbon (PAH) and alkylated PAH were quantified as specified by Department of Trade and Industry (DTI) regulations (DTI, 1993).

Calibration was undertaken using a range of PAH standard solutions, a number of alkylated PAH, dibenzothiophene and a range of suitable internal standards. Individual response factors were calculated for each of the compounds present in the calibration solution. Response factors for the non-calibrated alkylated PAH were taken to be equivalent to closely related compounds. The MRV of individual and alkylated PAHs is 0.1 ng/g.

B.2.3 Organotin Analysis

Sediment organotin analysis was carried out by FGBML.

Ultrasonic Extraction Procedures

Sediment samples were thawed, homogenised and accurately weighed into a 125 mL conical flask. A solution containing an appropriate amount of the internal standard (containing monoheptyltin, diheptyltin and tripropyltin) was added to each sample. Extraction solvent (acetic acid:methanol:water (1:1:1, v:v:v)) was added and the sample mixed again. The flasks were then capped with solvent cleaned aluminium foil and ultrasonicated for 30 minutes. The slurry was transferred to a centrifuge tube and centrifuged to separate the liquid and solid phases. The ultrasonication and centrifugation steps were repeated one further time. The two extraction solutions were combined, mixed and the pH adjusted to approximately 4.5 using a sodium hydroxide solution. The extract solution was derivatised using 5 % (w/v) sodium tetraethylborate in water solution, the solution left for 30 minutes before 5 mL of hexane was added. The solutions were mixed, left to separate and the hexane layer transferred to a 12 mL vial. The derivatisation step was repeated and a further 5 mL of hexane added. The hexane layers were combined and blown down to 1 mL.

Clean-up of Sediment Extracts by Column Chromatography

Sample extracts are cleaned up by column chromatography using 3 % de-activated silica. The silica gel used was 70 mesh to 230 mesh, muffled at 400 °C for at least 4 hours to remove impurities and activate it then stored at 200 °C. Prior to use, silica is deactivated by the addition of distilled water. The sediment extract was added to the silica gel column, containing 5 g of adsorbent and eluted with 30 mL of hexane/dichloromethane (4:1, v:v). The eluent was reduced in volume using the evaporator to approximately 2 mL before being further reduced under a gentle stream of nitrogen to an appropriate volume approximately 1 g of activated copper powder (for removal of free sulphur) before being concentrated to 0.5 mL for analysis.

GC-MS Analysis of Organotins

Sample extracts are analysed by GC-MS using selected ion monitoring for monobutyltin, dibutyltin, and tributyltin. The instrument parameters are shown on the following table.

	Gas Chromatography-Mass Spectrometry [GC-MS]
Instrument	ThermoFinnigan Trace GC-DSQ mass selective detector with AS3000 autoinjector
Column	(5 %phenyl)-methylpolysiloxane bonded fused silica, 30 m, 0.25 µm film thickness 0.25 mm internal diameter
Carrier Gas	Helium (constant flow 1 mL/min)
Injector	Splitless, 280 °C, split flow 50 mL/min, vent time 1.0 min (2 µL injection)
Oven Temperature Programme	60 °C – 1 min 60 °C to 240 °C at 13 °C/min 240 °C to 320 °C at 45 °C/min 320 °C – 6 min
Source/Detector Temperature	250 °C
Electron Energy	70 eV
Selected Ion Monitoring (SIM)	3 groups – 6 ions per group
Dwell Time (per ion)	0.030 second

B.2.4 Macrofaunal Analysis

Macrofauna analysis was carried out by FGBML benthic laboratories which are members of the NMBAQC scheme of external quality assurance.

On return to the laboratory, the samples were removed from formalin and washed through 0.5 mm mesh sieves. The material retained was then processed to remove fauna. The animals were separated by hand from the retained sediment by using a combination of stereo microscopes for the fine sediments and in white trays for any coarser material. Processed sediment is stored in Phenoxetol (2 %) or returned to the original formalin.

Following extraction, the animals were identified and enumerated by specialist taxonomists. Identification was to species level where possible. Specimens which, due to their immaturity, damage incurred during processing or lack of suitable taxonomic literature, cannot be identified to species level are identified at higher taxonomic levels as appropriate. After identification, samples were stored in 70 % industrial denatured alcohol or a mixture of 70 % ethanol/1 % propylene glycol/29 % water. A minimum of 10 % of samples within the project were re-analysed (for extraction, species identification, enumeration and data entry) as per NMBAQC quality control guidelines (Worsfold, 2010). For biomass, identified macrofauna were blot dried and weighed at species/phyla level then returned to storage container.

Species abundances were entered on file in a spreadsheet package or the Unicorn database, both of which store and sort entries into taxonomic order and provide output files for numerical analysis. Nomenclature follows that given on the World Register of Marine Species (WoRMS Editorial Board, 2020). The taxonomic order is based on Species Directory codes (Howson & Picton, 1997) to give an idea of 'evolutionary rank'. Once all the entries had been checked, the resulting quantitative data were subjected to various statistical techniques to investigate community structure.

Prior to statistical analysis, the macrofaunal abundance data was manipulated to avoid spurious enhancement of community statistics. This involved the removal of all damaged (e.g. Golfingiidae), as well as epibenthic taxa (e.g. Chaetognatha), fish (e.g. *Liparis liparis)* and juvenile specimens, as they are not considered to be a permanent part of the community. Some indeterminate species were also rationalised at a higher taxonomic level with another taxon in the same genus in order to maintain these data in the dataset (e.g. *Polycirrus* with *Polycirrus denticulatus* and *Polycirrus medusa).*

B.3 Statistical Analysis

B.3.1 Univariate and Multivariate Analysis of Macrofauna Data

Univariate analysis is used to extracts features of communities which are not the function of specific taxa, i.e. these methods are species independent. They are not sensitive to spatio-temporal variations in species composition, so that assemblages with no species in common can theoretically have equal diversities. Univariate analyses were calculated using the Plymouth Routines in Multivariate Ecological Research (PRIMER) version (v)7 Diverse procedure and included number of individuals (N) and taxa (S), richness employing the Margalef's index (d), diversity employing the Shannon-Wiener index ($HLog_2$), evenness employing the Pielou's index (J) and Simpson's dominance (λ)

Margalef's Index of Richness (d)

Margalef's index (d) is a measure of the number of species present for a given number of individuals. Unlike the total number of species, this index is less independent from sample size. It is expressed as:

$$d = \frac{S - 1}{logN}$$

Where:

N = number of individuals;
S= number of species.

Pielou's Equitability (J)

Pielou's index of evenness (also referred to as equitability) expresses how evenly distributed the individuals are among the different taxa. In general, the higher the evenness, the more balanced the sample is, as it indicates that the individuals are evenly distributed between the taxa recorded. It is expressed as:

$$\mathrm{J}' = \frac{\mathrm{H}'}{\mathrm{Log\ S}}$$

Where:

H' = Shannon-Wiener Index;
S = total number of species.

Shannon-Wiener Diversity ($H'Log_2$)

The Shannon-Wiener index of diversity incorporates richness and evenness as it expresses the number of species within a sample and the distribution of abundance across these species. In mathematical information theory, which is the context in which the Shannon-Wiener formula was originally devised, the Shannon-Wiener index of diversity measures the information content of a code in which one can write infinite messages. Analogously, the use of the

Shannon-Wiener index of diversity as a measure of the diversity of a community, assumes that indefinitely samples can be taken from the community without depleting it. It is expressed as:

$$H' = -\sum_i P_i \operatorname{Log}(P_i)$$

Where:

Pi = proportion of the ith species.

Simpson's Index of Dominance (λ)

Simpson's index of dominance is the probability that any two individuals from the sample, when chosen at random, are from the same species. Values are report as ≤ 1, where high values correspond to assemblages whose total abundance is dominated by one, or a very few, of a species. It is expressed as:

$$\lambda = \sum \mathrm{P}_i^2$$

B.3.2 Multivariate Analysis

In the initial stage, multivariate analysis may involve transformation of data. For sediment analysis, transformation reduce the skewness allowing optimal performance of the multivariate analysis. For macrofaunal analysis, transformation is applied where the fauna is numerically dominated by a few species which may mask the underlying community composition. Transformation reduces the influence of those more dominant species, with transformation ranging in severity from no transformation to the reduction of all data to presence absence only. If no transformation is applied to the data, greater emphasis is given to the most common species; a square root transformation allows the intermediate abundance species to play a role; a fourth root transformation results in a down-weighting of the dominant species, taking into much greater account the lowest abundant species, an allowing the underlying community composition to be assessed. An alternative transformation, with very similar effect to the fourth root, is the log transform log(1+y). The latter transformations are effectively equivalent in focusing attention on patterns within the whole community, mixing contribution from both common and rare species (Clarke & Warwick, 2001).

Similarity Matrices

This analysis divides sites into groupings based on a measure of similarity or distance, depending on the nature of the data. For biological data, similarity based on the Bray-Curtis matrix is recommended, and for environmental data the Euclidean distance is recommended (Clarke & Warwick, 2001). The similarity/distance compares all samples with all other samples, producing a matrix.

Hierarchical Agglomerative Clustering (CLUSTER) and Similarity Profile Testing (SIMPROF)

The hierarchical agglomerative clustering (CLUSTER) programme uses the similarity matrix to successively fuse samples into larger and larger groups according to their level of similarity. The results are displayed by means of a tree-like dendrogram with similarity (or distance) displayed on one axis and samples on the other. Similarity profile (SIMPROF) test was also performed in conjunction to cluster analysis. The test is a permutation of the null hypothesis that a set of specified samples, which are not a priori divided into groups, do not differ from each other in multivariate structure and looks for statistically significant evidence of "true" clusters in samples i.e. if the different sample groupings interpreted from the cluster analysis are significantly different. The results are displayed by colour convention on the dendrogram: samples connected by red lines constitute a significant group in statistical terms and cannot be separated. Conversely, samples connected by black lines, and therefore statistically different, may be interpreted as being ecologically not significantly different. The SIMPROF output was therefore always considered in terms of statistical and ecological significance, in line with Clarke et al. (2008) who indicate that, creating coarser groupings is entirely appropriate, provided that the resulting clusters are always supersets of the SIMPROF groups.

Non-metric Multidimensional Scaling

Non-metric multidimensional scaling (nMDS) uses the similarity matrix to ordinate samples in a two-dimensional plane. This attempts to construct a map of the samples in which the more similar/close two samples are, the nearer they are on the map. The extent to which these relations can be adequately represented in a two-dimensional map is expressed as the stress coefficient statistic or stress value. Stress values above 0.3 indicate near arbitrary points and the ordination should be considered unreliable. Stress values between 0.2 and 0.3 are poor representations of the data. Stress < 0.2 can show meaningful ordinations, while stress < 0.1 shows a good ordination of the data, with no real prospect of misleading interpretation. The combination of clustering and ordination analysis is a very effective way of checking the adequacy and mutual consistency of both representations (Clarke & Warwick, 2001).

Similarity Percentages Analysis (SIMPER)

This analysis can be applied to the data to gauge the faunal distinctiveness of each multivariate cluster, as identified by the clustering analysis. Similarity percentages analysis (SIMPER) provides a ranked list of taxa which contributes most to the similarity within clusters and the dissimilarity between clusters.

Principal Component Analysis (PCA)

The principal component analysis (PCA) identifies multidimensional patterns in datasets; once these multidimensional patterns have been found the data are compressed by reducing the number of dimensions without loss of information. The results of a PCA are graphically represented by the principal component (PC) axes, which are linear combinations of the values for each variable and represent the perpendicular distance in a multidimensional space along which the variance is maximised. 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 PCs. In general, a picture which accounts for as much as 70 % to 75 % of the original variation is likely to describe the overall structure rather well (Clarke & Warwick, 2001).

Appendix C

Logs

C.1 Survey Log

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
11/08/2020	18:16	EC_14	HG	NS	No fix	8.1	377 437.7	5 870 611.4	-	-	-	-
11/08/2020	18:32	EC_14	HG	NS	30	8.1	377 437.7	5 870 611.4	377 433.0	5 870 617.9	8.0	-
11/08/2020	19:10	EC_14	HG	NS	31	8.3	377 437.7	5 870 611.4	377 433.7	5 870 611.8	4.1	-
11/08/2020	19:38	EC_03	Video	SOL	32	9.3	378 283.7	5 870 765.3	378 242.7	5 870 764.4	41.1	-
11/08/2020	19:39	EC_03	Still	200270_EC_03_01	33	-	378 283.7	5 870 765.3	378 255.2	5 870 766.2	28.6	-
11/08/2020	19:39	EC_03	Still	200270_EC_03_02	34	-	378 283.7	5 870 765.3	378 258.5	5 870 766.4	25.2	-
11/08/2020	19:39	EC_03	Still	200270_EC_03_03	35	-	378 283.7	5 870 765.3	378 262.7	5 870 767.2	21.2	-
11/08/2020	19:39	EC_03	Still	200270_EC_03_04	36	-	378 283.7	5 870 765.3	378 265.4	5 870 767.2	18.4	-
11/08/2020	19:39	EC_03	Still	200270_EC_03_05	37	-	378 283.7	5 870 765.3	378 268.4	5 870 767.2	15.5	-
11/08/2020	19:39	EC_03	Still	200270_EC_03_06	38	-	378 283.7	5 870 765.3	378 271.3	5 870 767.2	12.5	-
11/08/2020	19:39	EC_03	Still	200270_EC_03_07	39	-	378 283.7	5 870 765.3	378 274.3	5 870 767.3	9.6	-
11/08/2020	19:40	EC_03	Still	200270_EC_03_08	40	-	378 283.7	5 870 765.3	378 280.3	5 870 767.2	4.0	-
11/08/2020	19:40	EC_03	Still	200270_EC_03_09	41	-	378 283.7	5 870 765.3	378 287.3	5 870 767.2	4.0	-
11/08/2020	19:40	EC_03	Still	200270_EC_03_10	42	-	378 283.7	5 870 765.3	378 291.0	5 870 766.7	7.4	-
11/08/2020	19:40	EC_03	Still	200270_EC_03_11	43	-	378 283.7	5 870 765.3	378 295.4	5 870 766.8	11.7	-
11/08/2020	19:41	EC_03	Still	200270_EC_03_12	44	-	378 283.7	5 870 765.3	378 297.8	5 870 766.8	14.2	-
11/08/2020	19:41	EC_03	Still	200270_EC_03_13	45	-	378 283.7	5 870 765.3	378 301.5	5 870 767.1	17.8	-
11/08/2020	19:41	EC_03	Video	EOL	46	9.8	378 283.7	5 870 765.3	378 303.8	5 870 767.3	20.2	-
11/08/2020	19:49	EC_03	HG	NS	47	9.5	378 283.7	5 870 765.3	378 272.8	5 870 767.2	11.1	-
11/08/2020	19:55	EC_03	HG	NS	48	9.5	378 283.7	5 870 765.3	378 270.8	5 870 776.4	17.1	-
11/08/2020	20:03	EC_03	HG	PSDA	49	9.4	378 283.7	5 870 765.3	378 274.6	5 870 746.9	20.5	-
11/08/2020	20:29	EC_03	HG	NS	50	10.1	378 283.7	5 870 765.3	378 290.8	5 870 754.8	12.6	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
11/08/2020	20:51	EC_03	HG	NS	51	10.0	378 283.7	5 870 765.3	378 297.4	5 870 768.4	14.0	-
11/08/2020	20:56	EC_03	HG	NS	52	10.1	378 283.7	5 870 765.3	378 266.0	5 870 764.7	17.8	-
11/08/2020	21:00	EC_03	HG	PSDB	53	10.0	378 283.7	5 870 765.3	378 290.9	5 870 748.4	18.3	-
11/08/2020	21:13	EC_03	HG	PSDC	54	9.8	378 283.7	5 870 765.3	378 290.7	5 870 757.1	10.7	-
11/08/2020	21:31	EC_19	Video	SOL	55	11.4	377 640.8	5 871 151.5	377 661.7	5 871 139.9	24.0	-
11/08/2020	21:32	EC_19	Still	200270_EC_19_001	56	-	377 640.8	5 871 151.5	377 645.3	5 871 150.8	4.6	-
11/08/2020	21:32	EC_19	Still	200270_EC_19_002	57	-	377 640.8	5 871 151.5	377 642.8	5 871 151.5	2.0	-
11/08/2020	21:32	EC_19	Still	200270_EC_19_003	58	-	377 640.8	5 871 151.5	377 640.3	5 871 154.3	2.8	-
11/08/2020	21:32	EC_19	Still	200270_EC_19_004	59	-	377 640.8	5 871 151.5	377 637.7	5 871 155.9	5.4	-
11/08/2020	21:32	EC_19	Still	200270_EC_19_005	60	-	377 640.8	5 871 151.5	377 635.4	5 871 157.7	8.2	-
11/08/2020	21:33	EC_19	Still	200270_EC_19_006	61	-	377 640.8	5 871 151.5	377 633.4	5 871 158.8	10.4	-
11/08/2020	21:33	EC_19	Still	200270_EC_19_007	62	-	377 640.8	5 871 151.5	377 629.8	5 871 161.0	14.5	-
11/08/2020	21:33	EC_19	Video	EOL	63	11.4	377 640.8	5 871 151.5	377 626.0	5 871 163.8	19.2	-
11/08/2020	21:41	EC_19	HG	FA/PDSA	64	11.5	377 640.8	5 871 151.5	377 645.1	5 871 138.5	13.7	-
11/08/2020	21:59	EC_19	HG	FB/PSDB	65	11.4	377 640.8	5 871 151.5	377 651.8	5 871 144.3	13.2	-
11/08/2020	22:13	EC_19	HG	FC/PSDC	66	11.4	377 640.8	5 871 151.5	377 652.5	5 871 148.2	12.2	-
11/08/2020	23:24	EC_25	Video	SOL	67	13.0	378 753.7	5 871 926.7	378 783.9	5 871 921.1	30.7	-
11/08/2020	23:24	EC_25	Still	200270_EC_25_001	68	-	378 753.7	5 871 926.7	378 776.0	5 871 921.7	22.9	-
11/08/2020	23:24	EC_25	Still	200270_EC_25_002	69	-	378 753.7	5 871 926.7	378 769.2	5 871 923.1	15.9	-
11/08/2020	23:24	EC_25	Still	200270_EC_25_003	70	-	378 753.7	5 871 926.7	378 761.9	5 871 924.6	8.5	-
11/08/2020	23:25	EC_25	Still	200270_EC_25_004	71	-	378 753.7	5 871 926.7	378 754.1	5 871 924.5	2.2	-
11/08/2020	23:25	EC_25	Still	200270_EC_25_005	72	-	378 753.7	5 871 926.7	378 745.6	5 871 923.6	8.7	-
11/08/2020	23:25	EC_25	Still	200270_EC_25_006	73	-	378 753.7	5 871 926.7	378 737.9	5 871 923.1	16.2	-
11/08/2020	23:26	EC_25	Video	EOL	74	13.0	378 753.7	5 871 926.7	378 736.6	5 871 920.0	18.4	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
11/08/2020	23:38	EC_25	HG	PSDA	75	13.0	378 753.7	5 871 926.7	378 764.4	5 871 922.8	11.5	-
11/08/2020	23:46	EC_25	HG	NS	76	13.0	378 753.7	5 871 926.7	378 754.2	5 871 918.3	8.4	-
11/08/2020	23:54	EC_25	HG	NS	77	13.0	378 753.7	5 871 926.7	378 763.5	5 871 925.3	10.0	-
12/08/2020	00:08	EC_25	HG	NS	78	13.0	378 753.7	5 871 926.7	378 771.4	5 871 925.0	17.8	-
12/08/2020	00:34	EC_04	Video	SOL	79	13.0	379 042.9	5 872 313.8	379 070.5	5 872 311.4	27.7	-
12/08/2020	00:34	EC_04	Still	200270_EC_04_001	80	-	379 042.9	5 872 313.8	379 058.9	5 872 311.4	16.1	-
12/08/2020	00:34	EC_04	Still	200270_EC_04_002	81	-	379 042.9	5 872 313.8	379 052.0	5 872 308.8	10.4	-
12/08/2020	00:34	EC_04	Still	200270_EC_04_003	82	-	379 042.9	5 872 313.8	379 045.3	5 872 306.2	8.0	-
12/08/2020	00:35	EC_04	Still	200270_EC_04_004	83	-	379 042.9	5 872 313.8	379 035.6	5 872 304.3	12.0	-
12/08/2020	00:35	EC_04	Still	200270_EC_04_005	84	-	379 042.9	5 872 313.8	379 026.1	5 872 304.5	19.3	-
12/08/2020	00:35	EC_04	Still	200270_EC_04_006	85	-	379 042.9	5 872 313.8	379 020.7	5 872 304.1	24.2	-
12/08/2020	00:35	EC_04	Video	EOL	86	13.0	379 042.9	5 872 313.8	379 014.6	5 872 302.9	30.3	-
12/08/2020	00:47	EC_04	HG	PSDA	87	13.0	379 042.9	5 872 313.8	379 053.6	5 872 309.6	11.5	-
12/08/2020	00:54	EC_04	HG	NS	88	13.0	379 042.9	5 872 313.8	379 056.9	5 872 317.0	14.3	-
12/08/2020	01:01	EC_04	HG	NS	89	13.0	379 042.9	5 872 313.8	379 041.4	5 872 317.4	3.8	-
12/08/2020	01:21	EC_24	Video	SOL	90	13.5	379 764.0	5 872 417.2	379 790.3	5 872 412.4	26.7	-
12/08/2020	01:21	EC_24	Still	200270_EC_24_001	91	-	379 764.0	5 872 417.2	379 783.6	5 872 413.3	20.0	-
12/08/2020	01:22	EC_24	Still	200270_EC_24_002	92	-	379 764.0	5 872 417.2	379 775.6	5 872 411.6	12.8	-
12/08/2020	01:22	EC_24	Still	200270_EC_24_003	93	-	379 764.0	5 872 417.2	379 770.6	5 872 411.5	8.8	-
12/08/2020	01:22	EC_24	Still	200270_EC_24_004	94	-	379 764.0	5 872 417.2	379 764.9	5 872 411.1	6.1	-
12/08/2020	01:22	EC_24	Still	200270_EC_24_005	95	-	379 764.0	5 872 417.2	379 760.6	5 872 410.9	7.1	-
12/08/2020	01:22	EC_24	Still	200270_EC_24_006	96	-	379 764.0	5 872 417.2	379 754.6	5 872 411.6	11.0	-
12/08/2020	01:23	EC_24	Still	200270_EC_24_007	97	-	379 764.0	5 872 417.2	379 748.5	5 872 412.0	16.4	-
12/08/2020	01:23	EC_24	Still	200270_EC_24_008	98	-	379 764.0	5 872 417.2	379 742.7	5 872 411.9	22.0	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
12/08/2020	01:23	EC_24	Video	EOL	99	13.5	379 764.0	5 872 417.2	379 734.9	5 872 411.2	29.7	-
12/08/2020	01:31	EC_24	HG	PSDA	100	13.5	379 764.0	5 872 417.2	379 768.0	5 872 403.2	14.5	-
12/08/2020	01:43	EC_24	HG	PSDB	101	13.5	379 764.0	5 872 417.2	379 769.6	5 872 412.3	7.5	-
12/08/2020	01:50	EC_24	HG	NS	102	13.5	379 764.0	5 872 417.2	379 770.2	5 872 423.6	8.8	-
12/08/2020	02:18	EC_24	HG	PSDC	103	13.5	379 764.0	5 872 417.2	379 771.0	5 872 413.7	7.8	-
12/08/2020	02:45	EC_05	Video	SOL	104	15.7	380 734.6	5 873 797.0	380 755.2	5 873 777.7	28.2	-
12/08/2020	02:46	EC_05	Still	200270_EC_05_001	105	-	380 734.6	5 873 797.0	380 750.6	5 873 785.4	19.8	-
12/08/2020	02:46	EC_05	Still	200270_EC_05_002	106	-	380 734.6	5 873 797.0	380 747.5	5 873 793.6	13.3	-
12/08/2020	02:46	EC_05	Still	200270_EC_05_003	107	-	380 734.6	5 873 797.0	380 744.6	5 873 795.7	10.1	-
12/08/2020	02:46	EC_05	Still	200270_EC_05_004	108	-	380 734.6	5 873 797.0	380 741.8	5 873 797.8	7.2	-
12/08/2020	02:46	EC_05	Still	200270_EC_05_005	109	-	380 734.6	5 873 797.0	380 739.4	5 873 801.6	6.7	-
12/08/2020	02:47	EC_05	Still	200270_EC_05_006	110	-	380 734.6	5 873 797.0	380 739.4	5 873 806.8	11.0	-
12/08/2020	02:47	EC_05	Still	200270_EC_05_007	111	-	380 734.6	5 873 797.0	380 740.1	5 873 809.4	13.6	-
12/08/2020	02:47	EC_05	Still	200270_EC_05_008	112	-	380 734.6	5 873 797.0	380 741.7	5 873 812.0	16.7	-
12/08/2020	02:47	EC_05	Still	200270_EC_05_009	113	-	380 734.6	5 873 797.0	380 747.1	5 873 816.6	23.3	-
12/08/2020	02:47	EC_05	Video	EOL	114	15.7	380 734.6	5 873 797.0	380 751.2	5 873 818.8	27.5	-
12/08/2020	02:57	EC_05	HG	FA/PDSA	115	15.7	380 734.6	5 873 797.0	380 741.4	5 873 793.5	7.6	-
12/08/2020	03:24	EC_18	Video	SOL	116	16.6	381 737.9	5 874 884.4	381 772.9	5 874 880.4	35.2	-
12/08/2020	03:24	EC_18	Still	200270_EC_18_001	117	-	381 737.9	5 874 884.4	381 760.9	5 874 882.9	23.0	-
12/08/2020	03:25	EC_18	Still	200270_EC_18_002	118	-	381 737.9	5 874 884.4	381 750.3	5 874 884.5	12.4	-
12/08/2020	03:25	EC_18	Still	200270_EC_18_003	119	-	381 737.9	5 874 884.4	381 745.5	5 874 884.8	7.5	-
12/08/2020	03:25	EC_18	Still	200270_EC_18_004	120	-	381 737.9	5 874 884.4	381 740.4	5 874 884.0	2.5	-
12/08/2020	03:25	EC_18	Still	200270_EC_18_005	121	-	381 737.9	5 874 884.4	381 735.9	5 874 885.0	2.1	-
12/08/2020	03:25	EC_18	Still	200270_EC_18_006	122	-	381 737.9	5 874 884.4	381 730.9	5 874 885.0	7.0	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
12/08/2020	03:25	EC_18	Still	200270_EC_18_007	123	-	381 737.9	5 874 884.4	381 726.5	5 874 885.2	11.5	-
12/08/2020	03:26	EC_18	Still	200270_EC_18_008	124	-	381 737.9	5 874 884.4	381 718.9	5 874 885.2	19.1	-
12/08/2020	03:26	EC_18	Still	200270_EC_18_009	125	-	381 737.9	5 874 884.4	381 714.3	5 874 884.4	23.6	-
12/08/2020	03:26	EC_18	Video	EOL	126	16.6	381 737.9	5 874 884.4	381 707.4	5 874 881.8	30.6	-
12/08/2020	03:37	EC_18	HG	PSDA	127	16.6	381 737.9	5 874 884.4	381 736.1	5 874 877.2	7.4	-
12/08/2020	03:44	EC_18	HG	NS	128	16.6	381 737.9	5 874 884.4	381 738.2	5 874 876.6	7.8	-
12/08/2020	03:53	EC_18	HG	NS	130	16.6	381 737.9	5 874 884.4	381 744.1	5 874 890.9	9.0	-
12/08/2020	04:17	EC_13	Video	SOL	131	17.6	381 442.7	5 875 396.8	381 471.7	5 875 397.7	29.1	-
12/08/2020	04:18	EC_13	Still	200270_EC_13_001	132	-	381 442.7	5 875 396.8	381 459.4	5 875 398.1	16.8	-
12/08/2020	04:18	EC_13	Still	200270_EC_13_002	133	-	381 442.7	5 875 396.8	381 454.1	5 875 398.1	11.5	-
12/08/2020	04:18	EC_13	Still	200270_EC_13_003	134	-	381 442.7	5 875 396.8	381 449.7	5 875 398.1	7.1	-
12/08/2020	04:18	EC_13	Still	200270_EC_13_004	135	-	381 442.7	5 875 396.8	381 444.9	5 875 398.4	2.8	-
12/08/2020	04:18	EC_13	Still	200270_EC_13_005	136	-	381 442.7	5 875 396.8	381 440.5	5 875 398.0	2.5	-
12/08/2020	04:18	EC_13	Still	200270_EC_13_006	137	-	381 442.7	5 875 396.8	381 435.8	5 875 399.3	7.3	-
12/08/2020	04:18	EC_13	Still	200270_EC_13_007	138	-	381 442.7	5 875 396.8	381 429.8	5 875 400.0	13.3	-
12/08/2020	04:19	EC_13	Still	200270_EC_13_008	139	-	381 442.7	5 875 396.8	381 422.7	5 875 401.4	20.5	-
12/08/2020	04:19	EC_13	Still	200270_EC_13_009	140	-	381 442.7	5 875 396.8	381 418.4	5 875 401.2	24.7	-
12/08/2020	04:19	EC_13	Video	EOL	141	17.6	381 442.7	5 875 396.8	381 413.2	5 875 401.8	29.8	-
12/08/2020	04:37	EC_17	Video	SOL	142	19.1	381 287.8	5 875 866.8	381 322.4	5 875 847.2	39.8	-
12/08/2020	04:38	EC_17	Still	200270_EC_17_001	143	-	381 287.8	5 875 866.8	381 300.8	5 875 850.3	21.0	-
12/08/2020	04:38	EC_17	Still	200270_EC_17_002	144	-	381 287.8	5 875 866.8	381 290.5	5 875 857.9	9.3	-
12/08/2020	04:38	EC_17	Still	200270_EC_17_003	145	-	381 287.8	5 875 866.8	381 285.9	5 875 862.4	4.8	-
12/08/2020	04:38	EC_17	Still	200270_EC_17_004	146	-	381 287.8	5 875 866.8	381 281.9	5 875 868.2	6.1	-
12/08/2020	04:38	EC_17	Still	200270_EC_17_005	147	-	381 287.8	5 875 866.8	381 278.1	5 875 877.7	14.6	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
12/08/2020	04:39	EC_17	Still	200270_EC_17_006	148	-	381 287.8	5 875 866.8	381 275.2	5 875 884.4	21.7	-
12/08/2020	04:39	EC_17	Still	200270_EC_17_007	149	-	381 287.8	5 875 866.8	381 272.1	5 875 889.7	27.8	-
12/08/2020	04:39	EC_17	Video	EOL	150	19.1	381 287.8	5 875 866.8	381 266.4	5 875 895.7	36.0	-
12/08/2020	04:50	EC_17	HG	FA/PDSA	151	19.1	381 287.8	5 875 866.8	381 267.3	5 875 855.3	23.6	-
12/08/2020	05:25	EC_06	Video	SOL	152	19.7	382 464.5	5 876 008.3	382 440.8	5 876 011.3	24.0	-
12/08/2020	05:26	EC_06	Still	200270_EC_06_001	154	-	382 464.5	5 876 008.3	382 451.4	5 876 009.9	13.3	-
12/08/2020	05:26	EC_06	Still	200270_EC_06_002	155	-	382 464.5	5 876 008.3	382 461.0	5 876 008.0	3.5	-
12/08/2020	05:26	EC_06	Still	200270_EC_06_003	156	-	382 464.5	5 876 008.3	382 465.0	5 876 007.4	1.0	-
12/08/2020	05:26	EC_06	Still	200270_EC_06_004	157	-	382 464.5	5 876 008.3	382 472.9	5 876 007.6	8.4	-
12/08/2020	05:27	EC_06	Still	200270_EC_06_005	158	-	382 464.5	5 876 008.3	382 479.0	5 876 006.5	14.5	-
12/08/2020	05:27	EC_06	Still	200270_EC_06_006	159	-	382 464.5	5 876 008.3	382 482.6	5 876 006.5	18.1	-
12/08/2020	05:27	EC_06	Still	200270_EC_06_007	160	-	382 464.5	5 876 008.3	382 488.7	5 876 006.1	24.2	-
12/08/2020	05:27	EC_06	Video	EOL	161	19.7	382 464.5	5 876 008.3	382 496.4	5 876 004.7	32.0	-
12/08/2020	05:49	EC_07	Video	SOL	162	19.1	382 237.7	5 876 411.4	382 215.1	5 876 420.1	24.2	-
12/08/2020	05:49	EC_07	Still	200270_EC_07_001	163	-	382 237.7	5 876 411.4	382 219.7	5 876 418.6	19.4	-
12/08/2020	05:50	EC_07	Still	200270_EC_07_002	164	-	382 237.7	5 876 411.4	382 223.2	5 876 417.2	15.6	-
12/08/2020	05:50	EC_07	Still	200270_EC_07_003	165	-	382 237.7	5 876 411.4	382 228.0	5 876 415.6	10.6	-
12/08/2020	05:50	EC_07	Still	200270_EC_07_004	166	-	382 237.7	5 876 411.4	382 229.5	5 876 414.9	9.0	-
12/08/2020	05:50	EC_07	Still	200270_EC_07_005	167	-	382 237.7	5 876 411.4	382 234.0	5 876 412.6	3.9	-
12/08/2020	05:50	EC_07	Still	200270_EC_07_006	168	-	382 237.7	5 876 411.4	382 239.3	5 876 411.0	1.6	-
12/08/2020	05:50	EC_07	Still	200270_EC_07_007	169	-	382 237.7	5 876 411.4	382 244.1	5 876 409.4	6.6	-
12/08/2020	05:51	EC_07	Still	200270_EC_07_008	170	-	382 237.7	5 876 411.4	382 253.4	5 876 404.4	17.2	-
12/08/2020	05:51	EC_07	Still	200270_EC_07_009	171	-	382 237.7	5 876 411.4	382 256.3	5 876 403.0	20.4	-
12/08/2020	05:51	EC_07	Still	200270_EC_07_010	172	-	382 237.7	5 876 411.4	382 261.0	5 876 400.4	25.8	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
12/08/2020	05:51	EC_07	Video	EOL	173	19.1	382 237.7	5 876 411.4	382 269.4	5 876 397.2	34.8	-
12/08/2020	05:58	EC_07	HG	NS	174	19.1	382 237.7	5 876 411.4	382 228.2	5 876 433.3	23.8	-
12/08/2020	06:05	EC_07	HG	PSDA	175	19.5	382 237.7	5 876 411.4	382 233.7	5 876 410.7	4.1	-
12/08/2020	06:10	EC_07	HG	PSDB	176	19.5	382 237.7	5 876 411.4	382 240.9	5 876 414.5	4.4	-
12/08/2020	06:21	EC_07	HG	PSDC/FA	177	19.4	382 237.7	5 876 411.4	382 236.9	5 876 395.1	16.4	-
12/08/2020	06:35	EC_07	HG	FB	178	19.6	382 237.7	5 876 411.4	382 237.1	5 876 397.6	13.9	-
12/08/2020	07:26	EC_07	HG	FC	179	19.9	382 237.7	5 876 411.4	382 228.5	5 876 394.5	19.4	-
12/08/2020	07:32	EC_07	HG	NS	180	19.5	382 237.7	5 876 411.4	382 231.2	5 876 401.3	12.0	-
12/08/2020	08:05	EC_08	Video	SOL	181	17.3	382 390.2	5 877 158.9	382 373.5	5 877 156.6	16.9	-
12/08/2020	08:05	EC_08	Still	200270_EC_08_001	182	-	382 390.2	5 877 158.9	382 382.3	5 877 158.1	8.0	-
12/08/2020	08:05	EC_08	Still	200270_EC_08_002	183	-	382 390.2	5 877 158.9	382 385.6	5 877 159.0	4.7	-
12/08/2020	08:05	EC_08	Still	200270_EC_08_003	184	-	382 390.2	5 877 158.9	382 390.0	5 877 160.4	1.5	-
12/08/2020	08:05	EC_08	Still	200270_EC_08_004	185	-	382 390.2	5 877 158.9	382 391.9	5 877 161.0	2.6	-
12/08/2020	08:06	EC_08	Still	200270_EC_08_005	186	-	382 390.2	5 877 158.9	382 398.7	5 877 162.1	9.0	-
12/08/2020	08:06	EC_08	Still	200270_EC_08_006	187	-	382 390.2	5 877 158.9	382 405.6	5 877 162.3	15.7	-
12/08/2020	08:06	EC_08	Still	200270_EC_08_007	188	-	382 390.2	5 877 158.9	382 409.8	5 877 162.6	19.9	-
12/08/2020	08:06	EC_08	Still	200270_EC_08_008	189	-	382 390.2	5 877 158.9	382 414.5	5 877 162.9	24.5	-
12/08/2020	08:06	EC_08	Video	EOL	190	17.3	382 390.2	5 877 158.9	382 419.7	5 877 163.2	29.8	-
12/08/2020	08:14	EC_08	HG	FA/PSDA	191	17.7	382 390.2	5 877 158.9	382 374.1	5 877 164.5	17.1	-
12/08/2020	10:27:05	EC_02	Video	SOL	192	9.5	376 639.3	5 869 674.2	376 649.2	5 869 674.6	9.9	-
12/08/2020	10:27:14	EC_02	Still	200270_EC_02_001	193	-	376 639.3	5 869 674.2	376 643.3	5 869 676.9	4.8	-
12/08/2020	10:27:19	EC_02	Still	200270_EC_02_002	194	-	376 639.3	5 869 674.2	376 640.4	5 869 678.5	4.4	-
12/08/2020	10:27:23	EC_02	Still	200270_EC_02_003	195	-	376 639.3	5 869 674.2	376 638.3	5 869 680.3	6.2	-
12/08/2020	10:27:27	EC_02	Still	200270_EC_02_004	196	-	376 639.3	5 869 674.2	376 634.8	5 869 681.6	8.7	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
12/08/2020	10:27:31	EC_02	Still	200270_EC_02_005	197	-	376 639.3	5 869 674.2	376 633.0	5 869 682.5	10.4	-
12/08/2020	10:27:36	EC_02	Still	200270_EC_02_006	198	-	376 639.3	5 869 674.2	376 630.1	5 869 684.2	13.6	-
12/08/2020	10:27:40	EC_02	Still	200270_EC_02_007	199	-	376 639.3	5 869 674.2	376 627.4	5 869 684.6	15.8	-
12/08/2020	10:27:44	EC_02	Still	200270_EC_02_008	200	-	376 639.3	5 869 674.2	376 624.6	5 869 685.6	18.7	-
12/08/2020	10:27:49	EC_02	Still	200270_EC_02_009	201	-	376 639.3	5 869 674.2	376 622.9	5 869 687.6	21.2	-
12/08/2020	10:27:59	EC_02	Still	200270_EC_02_010	203	-	376 639.3	5 869 674.2	376 618.0	5 869 690.3	26.7	-
12/08/2020	10:28	EC_02	Video	EOL	204	9.5	376 639.3	5 869 674.2	376 612.9	5 869 693.2	32.6	-
12/08/2020	11:38	EC_15	Video	SOL	205	8.1	375 756.3	5 869 290.6	375 779.5	5 869 281.5	24.9	-
12/08/2020	11:38	EC_15	Still	200270_EC_15_001	206	-	375 756.3	5 869 290.6	375 762.3	5 869 286.7	7.1	-
12/08/2020	11:39	EC_15	Still	200270_EC_15_002	207	-	375 756.3	5 869 290.6	375 757.3	5 869 287.3	3.5	-
12/08/2020	11:39	EC_15	Still	200270_EC_15_003	208	-	375 756.3	5 869 290.6	375 752.0	5 869 287.9	5.1	-
12/08/2020	11:39	EC_15	Still	200270_EC_15_004	209	-	375 756.3	5 869 290.6	375 747.9	5 869 288.7	8.7	-
12/08/2020	11:39	EC_15	Still	200270_EC_15_005	210	-	375 756.3	5 869 290.6	375 744.7	5 869 289.2	11.8	-
12/08/2020	11:39	EC_15	Still	200270_EC_15_006	211	-	375 756.3	5 869 290.6	375 740.4	5 869 291.3	16.0	-
12/08/2020	11:39	EC_15	Still	200270_EC_15_007	212	-	375 756.3	5 869 290.6	375 732.4	5 869 293.9	24.2	-
12/08/2020	11:39	EC_15	Still	200270_EC_15_008	213	-	375 756.3	5 869 290.6	375 729.9	5 869 294.9	26.8	-
12/08/2020	11:40	EC_15	Video	EOL	214	8.1	375 756.3	5 869 290.6	375 725.7	5 869 295.9	31.1	-
12/08/2020	11:46	EC_15	HG	NS	215	8.1	375 756.3	5 869 290.6	375 754.8	5 869 281.0	9.8	-
12/08/2020	11:50	EC_15	HG	FA/PSDA	216	8.1	375 756.3	5 869 290.6	375 757.7	5 869 284.6	6.2	-
12/08/2020	11:59	EC_15	HG	NS	217	8.1	375 756.3	5 869 290.6	375 759.2	5 869 278.9	12.1	-
12/08/2020	13:26	EC_15	SG	PC	218	7.5	375 756.3	5 869 290.6	375 743.6	5 869 292.7	12.9	-
12/08/2020	14:03	EC_26	Video	SOL	219	2.8	-	-	375 233.3	5 868 469.0		-
12/08/2020	14:04	EC_26	Still	200270_EC_26_001	220	-	-	-	375 248.6	5 868 493.4		-
12/08/2020	14:04	EC_26	Still	200270_EC_26_002	221	-	-	-	375 249.3	5 868 495.4		-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
12/08/2020	14:04	EC_26	Still	200270_EC_26_003	222	-	-	-	375 251.8	5 868 502.6		-
12/08/2020	14:04	EC_26	Still	200270_EC_26_004	223	-	-	-	375 253.8	5 868 511.1		-
12/08/2020	14:04	EC_26	Still	200270_EC_26_005	224	-	-	-	375 253.9	5 868 520.6		-
12/08/2020	14:05	EC_26	Still	200270_EC_26_006	225	-	-	-	375 253.1	5 868 531.6		-
12/08/2020	14:05	EC_26	Still	200270_EC_26_007	226	-	-	-	375 252.6	5 868 539.7		-
12/08/2020	14:05	EC_26	Still	200270_EC_26_008	227	-	-	-	375 251.4	5 868 547.2		-
12/08/2020	14:05	EC_26	Still	200270_EC_26_009	228	-	-	-	375 248.6	5 868 559.2		-
12/08/2020	14:05	EC_26	Still	200270_EC_26_010	229	-	-	-	375 246.9	5 868 565.6		-
12/08/2020	14:05	EC_26	Still	200270_EC_26_011	230	-	-	-	375 246.5	5 868 571.4		-
12/08/2020	14:06	EC_26	Still	200270_EC_26_012	231	-	-	-	375 246.4	5 868 578.8		-
12/08/2020	14:06	EC_26	Still	200270_EC_26_013	232	-	-	-	375 243.8	5 868 588.3		-
12/08/2020	14:06	EC_26	Still	200270_EC_26_014	233	-	-	-	375 243.1	5 868 597.0		-
12/08/2020	14:06	EC_26	Still	200270_EC_26_015	234	-	-	-	375 244.7	5 868 617.2		-
12/08/2020	14:06	EC_26	Still	200270_EC_26_016	235	-	-	-	375 248.4	5 868 632.5		-
12/08/2020	14:07	EC_26	Still	200270_EC_26_017	236	-	-	-	375 249.3	5 868 644.1		-
12/08/2020	14:07	EC_26	Still	200270_EC_26_018	237	-	-	-	375 246.7	5 868 663.1		-
12/08/2020	14:07	EC_26	Video	EOL	238	5.5	-	-	375 245.1	5 868 675.1		-
12/08/2020	14:48	EC_04	SG	NS	239	11.2	379 042.9	5 872 313.8	379 061.4	5 872 316.4	18.7	-
12/08/2020	14:57	EC_04	SG	PC	240	12.3	379 042.9	5 872 313.8	379 048.7	5 872 298.6	16.3	-
12/08/2020	15:29	EC_05	SG	NS	241	15.6	380 734.6	5 873 797.0	380 742.0	5 873 813.7	18.3	Shipek grab station moved from EC_07 to EC_05
12/08/2020	15:36	EC_05	SG	PC	242	15.6	380 734.6	5 873 797.0	380 731.4	5 873 796.9	3.1	-
12/08/2020	18:12	EC_09	Video	SOL	243	15.8	382 642.0	5 877 808.2	382 617.8	5 877 813.4	24.7	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
12/08/2020	18:12	EC_09	Still	200270_EC_09_001	244	-	382 642.0	5 877 808.2	382 626.8	5 877 818.0	18.1	-
12/08/2020	18:12	EC_09	Still	200270_EC_09_002	245	-	382 642.0	5 877 808.2	382 629.6	5 877 817.3	15.4	-
12/08/2020	18:12	EC_09	Still	200270_EC_09_003	246	-	382 642.0	5 877 808.2	382 631.9	5 877 816.5	13.1	-
12/08/2020	18:12	EC_09	Still	200270_EC_09_004	247	-	382 642.0	5 877 808.2	382 634.3	5 877 816.2	11.1	-
12/08/2020	18:12	EC_09	Still	200270_EC_09_005	248	-	382 642.0	5 877 808.2	382 635.0	5 877 815.7	10.3	-
12/08/2020	18:13	EC_09	Video	EOL	249	15.8	382 642.0	5 877 808.2	382 628.7	5 877 832.2	27.5	-
12/08/2020	18:21	EC_09	HG	FA/PSDA	250	16.9	382 642.0	5 877 808.2	382 648.5	5 877 828.2	21.1	-
12/08/2020	18:51	EC_09	HG	FB/PSDB	251	16.9	382 642.0	5 877 808.2	382 639.9	5 877 830.3	22.2	-
12/08/2020	19:33	EC_09	HG	FC/PSDC	252	16.9	382 642.0	5 877 808.2	382 639.9	5 877 823.9	15.8	-
12/08/2020	19:59	EC_16	Video	SOL	253	19.2	383 039.3	5 879 023.8	383 035.3	5 879 019.9	5.6	-
12/08/2020	19:59	EC_16	Still	200270_EC_16_001	254	-	383 039.3	5 879 023.8	383 039.4	5 879 020.2	3.6	-
12/08/2020	19:59	EC_16	Still	200270_EC_16_002	255	-	383 039.3	5 879 023.8	383 041.9	5 879 020.7	4.0	-
12/08/2020	19:59	EC_16	Still	200270_EC_16_003	256	-	383 039.3	5 879 023.8	383 043.4	5 879 021.1	4.9	-
12/08/2020	19:59	EC_16	Still	200270_EC_16_004	257	-	383 039.3	5 879 023.8	383 045.4	5 879 021.6	6.5	-
12/08/2020	19:59	EC_16	Still	200270_EC_16_005	258	-	383 039.3	5 879 023.8	383 047.2	5 879 022.1	8.1	-
12/08/2020	20:00	EC_16	Still	200270_EC_16_006	259	-	383 039.3	5 879 023.8	383 048.6	5 879 022.5	9.4	-
12/08/2020	20:00	EC_16	Still	200270_EC_16_007	260	-	383 039.3	5 879 023.8	383 051.0	5 879 022.4	11.8	-
12/08/2020	20:00	EC_16	Still	200270_EC_16_008	261	-	383 039.3	5 879 023.8	383 053.2	5 879 022.0	14.1	-
12/08/2020	20:00	EC_16	Video	EOL	262	19.5	383 039.3	5 879 023.8	383 056.1	5 879 021.3	17.0	-
12/08/2020	20:08	EC_16	HG	FA/PSDA	263	19.5	383 039.3	5 879 023.8	383 032.4	5 879 027.5	7.8	-
12/08/2020	20:18	EC_16	HG	NS	264	19.4	383 039.3	5 879 023.8	383 041.0	5 879 026.2	2.9	-
12/08/2020	20:24	EC_16	HG	NS	265	19.4	383 039.3	5 879 023.8	383 026.0	5 879 033.6	16.5	-
12/08/2020	20:48	EC_10	Video	SOL	266	20.2	383 290.2	5 879 858.9	383 244.1	5 879 866.8	46.8	-
12/08/2020	20:49	EC_10	Still	200270_EC_10_001	267	-	383 290.2	5 879 858.9	383 269.6	5 879 870.0	23.4	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
12/08/2020	20:49	EC_10	Still	200270_EC_10_002	268	-	383 290.2	5 879 858.9	383 273.1	5 879 868.2	19.5	-
12/08/2020	20:49	EC_10	Still	200270_EC_10_003	269	-	383 290.2	5 879 858.9	383 282.2	5 879 862.7	8.9	-
12/08/2020	20:49	EC_10	Still	200270_EC_10_004	270	-	383 290.2	5 879 858.9	383 285.6	5 879 860.2	4.8	-
12/08/2020	20:50	EC_10	Still	200270_EC_10_005	271	-	383 290.2	5 879 858.9	383 288.6	5 879 858.2	1.8	-
12/08/2020	20:50	EC_10	Still	200270_EC_10_006	272	-	383 290.2	5 879 858.9	383 291.3	5 879 856.1	3.0	-
12/08/2020	20:50	EC_10	Still	200270_EC_10_007	273	-	383 290.2	5 879 858.9	383 295.8	5 879 854.2	7.3	-
12/08/2020	20:50	EC_10	Still	200270_EC_10_008	274	-	383 290.2	5 879 858.9	383 300.1	5 879 852.1	12.0	-
12/08/2020	20:50	EC_10	Still	200270_EC_10_009	275	-	383 290.2	5 879 858.9	383 304.8	5 879 850.6	16.8	-
12/08/2020	20:50	EC_10	Still	200270_EC_10_010	276	-	383 290.2	5 879 858.9	383 308.7	5 879 849.2	20.9	-
12/08/2020	20:51	EC_10	Video	EOL	277	20.2	383 290.2	5 879 858.9	383 312.4	5 879 847.4	25.0	-
12/08/2020	20:57	EC_10	HG	NS	278	20.2	383 290.2	5 879 858.9	383 284.2	5 879 876.6	18.6	-
12/08/2020	21:05	EC_10	HG	FA/PSDA	279	20.2	383 290.2	5 879 858.9	383 284.5	5 879 879.4	21.2	-
12/08/2020	21:36	EC_12	Video	SOL	280	19.7	383 617.8	5 879 951.0	383 599.1	5 879 948.6	18.8	-
12/08/2020	21:36	EC_12	Still	200270_EC_12_001	281	-	383 617.8	5 879 951.0	383 613.2	5 879 949.5	4.9	-
12/08/2020	21:36	EC_12	Still	200270_EC_12_002	282	-	383 617.8	5 879 951.0	383 615.6	5 879 949.3	2.8	-
12/08/2020	21:37	EC_12	Still	200270_EC_12_003	283	-	383 617.8	5 879 951.0	383 618.6	5 879 949.6	1.6	-
12/08/2020	21:37	EC_12	Still	200270_EC_12_004	284	-	383 617.8	5 879 951.0	383 620.2	5 879 950.0	2.6	-
12/08/2020	21:37	EC_12	Still	200270_EC_12_005	285	-	383 617.8	5 879 951.0	383 624.1	5 879 950.4	6.3	-
12/08/2020	21:37	EC_12	Still	200270_EC_12_006	286	-	383 617.8	5 879 951.0	383 626.7	5 879 950.6	8.9	-
12/08/2020	21:37	EC_12	Still	200270_EC_12_007	287	-	383 617.8	5 879 951.0	383 629.4	5 879 951.3	11.7	-
12/08/2020	21:37	EC_12	Still	200270_EC_12_008	288	-	383 617.8	5 879 951.0	383 632.1	5 879 951.7	14.3	-
12/08/2020	21:37	EC_12	Still	200270_EC_12_009	289	-	383 617.8	5 879 951.0	383 634.8	5 879 951.9	17.0	-
12/08/2020	21:37	EC_12	Still	200270_EC_12_010	290	-	383 617.8	5 879 951.0	383 638.9	5 879 952.4	21.1	-
12/08/2020	21:37	EC_12	Still	200270_EC_12_011	291	-	383 617.8	5 879 951.0	383 640.5	5 879 952.8	22.8	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
12/08/2020	21:37	EC_12	Video	EOL	292	19.7	383 617.8	5 879 951.0	383 644.1	5 879 953.6	26.4	-
12/08/2020	21:43	EC_12	HG	NS	293	19.5	383 617.8	5 879 951.0	383 618.0	5 879 960.3	9.3	-
12/08/2020	21:47	EC_12	HG	FA/PSDA	294	19.5	383 617.8	5 879 951.0	383 611.4	5 879 937.8	14.7	-
12/08/2020	21:53	EC_12	HG	NS	295	19.5	383 617.8	5 879 951.0	383 622.1	5 879 961.1	11.0	-
12/08/2020	22:36	EC_23	Video	SOL	296	19.9	384 081.8	5 881 917.6	384 078.5	5 881 909.2	9.0	-
12/08/2020	22:37	EC_23	Still	200270_EC_23_001	297	-	384 081.8	5 881 917.6	384 088.4	5 881 917.8	6.5	-
12/08/2020	22:37	EC_23	Still	200270_EC_23_002	298	-	384 081.8	5 881 917.6	384 093.5	5 881 923.6	13.1	-
12/08/2020	22:37	EC_23	Still	200270_EC_23_003	299	-	384 081.8	5 881 917.6	384 095.6	5 881 927.2	16.8	-
12/08/2020	22:37	EC_23	Still	200270_EC_23_004	300	-	384 081.8	5 881 917.6	384 097.7	5 881 931.0	20.8	-
12/08/2020	22:37	EC_23	Still	200270_EC_23_005	301	-	384 081.8	5 881 917.6	384 098.9	5 881 932.3	22.5	-
12/08/2020	22:37	EC_23	Still	200270_EC_23_006	302	-	384 081.8	5 881 917.6	384 099.9	5 881 934.1	24.5	-
12/08/2020	22:37	EC_23	Video	EOL	303	19.9	384 081.8	5 881 917.6	384 104.8	5 881 939.3	31.6	-
12/08/2020	23:55	EC_23	HG	FA/PSDA	304	20.0	384 081.8	5 881 917.6	384 088.9	5 881 917.1	7.1	-
13/08/2020	00:14	EC_23	HG	FB/PSDB	305	20.0	384 081.8	5 881 917.6	384 082.7	5 881 919.0	1.6	-
13/08/2020	00:30	EC_23	HG	FC/PSDC	306	20.0	384 081.8	5 881 917.6	384 078.8	5 881 918.0	3.0	-
13/08/2020	01:06	EC_11	Video	SOL	307	22.0	384 200.7	5 882 432.2	384 209.5	5 882 423.1	12.7	-
13/08/2020	01:06	EC_11	Still	200270_EC_11_001	308	-	384 200.7	5 882 432.2	384 207.7	5 882 423.8	11.0	-
13/08/2020	01:06	EC_11	Still	200270_EC_11_002	309	-	384 200.7	5 882 432.2	384 202.6	5 882 426.3	6.2	-
13/08/2020	01:07	EC_11	Still	200270_EC_11_003	310	-	384 200.7	5 882 432.2	384 199.5	5 882 428.3	4.1	-
13/08/2020	01:07	EC_11	Still	200270_EC_11_004	311	-	384 200.7	5 882 432.2	384 190.7	5 882 432.6	10.0	-
13/08/2020	01:07	EC_11	Still	200270_EC_11_005	312	-	384 200.7	5 882 432.2	384 184.2	5 882 435.5	16.8	-
13/08/2020	01:07	EC_11	Still	200270_EC_11_006	313	-	384 200.7	5 882 432.2	384 179.1	5 882 437.4	22.1	-
13/08/2020	01:07	EC_11	Video	EOL	314	22.0	384 200.7	5 882 432.2	384 172.0	5 882 441.6	30.1	-
13/08/2020	01:15	EC_11	HG	FA/PSDA	315	22.0	384 200.7	5 882 432.2	384 200.9	5 882 429.5	2.7	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
13/08/2020	01:23	EC_11	HG	NS	316	22.0	384 200.7	5 882 432.2	384 195.0	5 882 415.0	18.2	-
13/08/2020	01:28	EC_11	HG	NS	317	22.0	384 200.7	5 882 432.2	384 222.0	5 882 426.3	22.2	-
16/08/2020	22:19	CC_14	Video	SOL	599	16.5	382 631.6	5 901 740.8	382 607.5	5 901 768.8	36.9	-
16/08/2020	22:19	CC_14	Still	200270_CC_14_001	600	-	382 631.6	5 901 740.8	382 619.5	5 901 758.9	21.8	-
16/08/2020	22:19	CC_14	Still	200270_CC_14_002	601	-	382 631.6	5 901 740.8	382 622.5	5 901 756.1	17.8	-
16/08/2020	22:19	CC_14	Still	200270_CC_14_003	602	-	382 631.6	5 901 740.8	382 626.5	5 901 752.5	12.8	-
16/08/2020	22:20	CC_14	Still	200270_CC_14_004	603	-	382 631.6	5 901 740.8	382 630.4	5 901 746.2	5.6	-
16/08/2020	22:20	CC_14	Still	200270_CC_14_005	604	-	382 631.6	5 901 740.8	382 632.0	5 901 744.9	4.2	-
16/08/2020	22:20	CC_14	Still	200270_CC_14_006	605	-	382 631.6	5 901 740.8	382 634.2	5 901 741.4	2.7	-
16/08/2020	22:20	CC_14	Still	200270_CC_14_007	606	-	382 631.6	5 901 740.8	382 634.9	5 901 738.8	3.9	-
16/08/2020	22:20	CC_14	Still	200270_CC_14_008	607	-	382 631.6	5 901 740.8	382 638.8	5 901 733.3	10.3	-
16/08/2020	22:20	CC_14	Still	200270_CC_14_009	608	-	382 631.6	5 901 740.8	382 641.5	5 901 730.1	14.6	-
16/08/2020	22:20	CC_14	Still	200270_CC_14_010	609	-	382 631.6	5 901 740.8	382 642.1	5 901 727.5	16.9	-
16/08/2020	22:20	CC_14	Video	EOL	610	16.5	382 631.6	5 901 740.8	382 644.0	5 901 724.8	20.2	-
16/08/2020	22:30	CC_14	HG	NS	611	-	382 631.6	5 901 740.8	382 625.8	5 901 741.1	5.7	-
16/08/2020	22:40	CC_14	HG	NS	612	-	382 631.6	5 901 740.8	382 621.2	5 901 750.6	14.3	-
16/08/2020	22:47	CC_14	HG	NS	613	-	382 631.6	5 901 740.8	382 633.4	5 901 757.2	16.6	-
16/08/2020	22:55	CC_14	HG	NS	614	-	382 631.6	5 901 740.8	382 676.8	5 901 759.6	49.0	-
17/08/2020	02:05	D_17	Video	SOL	616	19.0	391 098.1	5 908 649.9	391 096.9	5 908 630.2	19.7	-
17/08/2020	02:05	D_17	Still	200270_D_17_001	617	-	391 098.1	5 908 649.9	391 112.3	5 908 633.8	21.5	-
17/08/2020	02:05	D_17	Still	200270_D_17_002	618	-	391 098.1	5 908 649.9	391 116.1	5 908 636.1	22.7	-
17/08/2020	02:05	D_17	Still	200270_D_17_003	619	-	391 098.1	5 908 649.9	391 119.5	5 908 640.3	23.5	-
17/08/2020	02:05	D_17	Still	200270_D_17_004	620	-	391 098.1	5 908 649.9	391 119.4	5 908 642.6	22.5	-
17/08/2020	02:05	D_17	Still	200270_D_17_005	621	-	391 098.1	5 908 649.9	391 118.3	5 908 645.6	20.7	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	02:06	D_17	Still	200270_D_17_006	622	-	391 098.1	5 908 649.9	391 115.0	5 908 651.3	17.0	-
17/08/2020	02:06	D_17	Still	200270_D_17_007	623	-	391 098.1	5 908 649.9	391 112.9	5 908 656.0	16.0	-
17/08/2020	02:06	D_17	Still	200270_D_17_008	624	-	391 098.1	5 908 649.9	391 111.4	5 908 659.3	16.3	-
17/08/2020	02:06	D_17	Still	200270_D_17_009	625	-	391 098.1	5 908 649.9	391 110.0	5 908 662.8	17.6	-
17/08/2020	02:06	D_17	Video	EOL	626	18.0	391 098.1	5 908 649.9	391 109.9	5 908 666.4	20.3	-
17/08/2020	02:14	D_17	DG	PC	627	-	391 098.1	5 908 649.9	391 090.0	5 908 643.0	10.6	-
17/08/2020	03:25	D_26	Video	SOL	628	24.0	381 334.2	5 910 574.4	381 335.8	5 910 526.6	47.8	-
17/08/2020	03:26	D_26	Still	200270_D_26_001	629	-	381 334.2	5 910 574.4	381 347.6	5 910 556.6	22.2	-
17/08/2020	03:26	D_26	Still	200270_D_26_002	630	-	381 334.2	5 910 574.4	381 345.6	5 910 569.5	12.4	-
17/08/2020	03:26	D_26	Still	200270_D_26_003	631	-	381 334.2	5 910 574.4	381 345.7	5 910 573.7	11.5	-
17/08/2020	03:26	D_26	Still	200270_D_26_004	632	-	381 334.2	5 910 574.4	381 345.8	5 910 576.5	11.8	-
17/08/2020	03:26	D_26	Still	200270_D_26_005	633	-	381 334.2	5 910 574.4	381 343.8	5 910 582.2	12.4	-
17/08/2020	03:26	D_26	Still	200270_D_26_006	634	-	381 334.2	5 910 574.4	381 342.4	5 910 584.6	13.1	-
17/08/2020	03:26	D_26	Still	200270_D_26_007	635	-	381 334.2	5 910 574.4	381 341.3	5 910 587.3	14.7	-
17/08/2020	03:27	D_26	Still	200270_D_26_008	636	-	381 334.2	5 910 574.4	381 341.4	5 910 590.2	17.4	-
17/08/2020	03:27	D_26	Still	200270_D_26_009	637	-	381 334.2	5 910 574.4	381 346.9	5 910 594.6	23.9	-
17/08/2020	03:27	D_26	Video	EOL	638	24.0	381 334.2	5 910 574.4	381 356.1	5 910 591.5	27.8	-
17/08/2020	03:41	D_26	DG	PC	639	-	381 334.2	5 910 574.4	381 334.5	5 910 566.1	8.2	-
17/08/2020	04:25	D_26	HG	FA/PSDA	640	-	381 334.2	5 910 574.4	381 341.5	5 910 571.7	7.8	-
17/08/2020	05:11	D_26	HG	FB/PSDB	641	-	381 334.2	5 910 574.4	381 341.0	5 910 559.5	16.4	-
17/08/2020	05:15	D_26	HG	FC/PSDC	642	-	381 334.2	5 910 574.4	381 347.5	5 910 587.3	18.5	-
17/08/2020	06:02	CC_15	Video	SOL	643	17.1	384 503.2	5 908 088.7	384 514.8	5 908 057.1	33.6	-
17/08/2020	06:03	CC_15	Still	200270_CC_15_001	644	-	384 503.2	5 908 088.7	384 514.4	5 908 062.5	28.5	-
17/08/2020	06:03	CC_15	Still	200270_CC_15_002	645	-	384 503.2	5 908 088.7	384 512.4	5 908 072.4	18.7	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	06:03	CC_15	Still	200270_CC_15_003	646	-	384 503.2	5 908 088.7	384 511.8	5 908 075.4	15.8	-
17/08/2020	06:03	CC_15	Still	200270_CC_15_004	647	-	384 503.2	5 908 088.7	384 510.8	5 908 080.4	11.2	-
17/08/2020	06:04	CC_15	Still	200270_CC_15_005	648	-	384 503.2	5 908 088.7	384 504.1	5 908 094.4	5.8	-
17/08/2020	06:04	CC_15	Still	200270_CC_15_006	649	-	384 503.2	5 908 088.7	384 503.5	5 908 097.3	8.7	-
17/08/2020	06:04	CC_15	Still	200270_CC_15_007	650	-	384 503.2	5 908 088.7	384 503.0	5 908 100.3	11.7	-
17/08/2020	06:04	CC_15	Still	200270_CC_15_008	651	-	384 503.2	5 908 088.7	384 501.9	5 908 104.6	16.0	-
17/08/2020	06:05	CC_15	Video	EOL	652	14.1	384 503.2	5 908 088.7	384 502.3	5 908 115.6	26.9	-
17/08/2020	06:10	CC_15	HG	FA/PSDA	653	-	384 503.2	5 908 088.7	384 513.8	5 908 098.7	14.6	-
17/08/2020	06:41	CC_16	Video	SOL	654	14.3	384 562.7	5 908 890.8	384 602.5	5 908 870.8	44.6	-
17/08/2020	06:42	CC_16	Still	200270_CC_16_001	655	-	384 562.7	5 908 890.8	384 576.2	5 908 878.3	18.4	-
17/08/2020	06:42	CC_16	Still	200270_CC_16_002	656	-	384 562.7	5 908 890.8	384 572.3	5 908 883.3	12.2	-
17/08/2020	06:42	CC_16	Still	200270_CC_16_003	657	-	384 562.7	5 908 890.8	384 567.9	5 908 887.8	6.0	-
17/08/2020	06:42	CC_16	Still	200270_CC_16_004	658	-	384 562.7	5 908 890.8	384 565.6	5 908 890.3	2.9	-
17/08/2020	06:43	CC_16	Still	200270_CC_16_005	659	-	384 562.7	5 908 890.8	384 557.9	5 908 897.3	8.0	-
17/08/2020	06:43	CC_16	Still	200270_CC_16_006	660	-	384 562.7	5 908 890.8	384 549.3	5 908 905.6	19.9	-
17/08/2020	06:43	CC_16	Video	EOL	661	16.2	384 562.7	5 908 890.8	384 539.8	5 908 913.1	31.9	-
17/08/2020	06:48	CC_16	HG	FA/PSDA	662	-	384 562.7	5 908 890.8	384 559.1	5 908 886.3	5.7	-
17/08/2020	07:10	CC_17	Video	SOL	663	13.0	384 929.1	5 909 386.0	384 964.7	5 909 373.4	37.7	-
17/08/2020	07:11	CC_17	Still	200270_CC_17_001	664	-	384 929.1	5 909 386.0	384 950.1	5 909 379.6	22.0	-
17/08/2020	07:11	CC_17	Still	200270_CC_17_002	665	-	384 929.1	5 909 386.0	384 946.9	5 909 381.0	18.5	-
17/08/2020	07:11	CC_17	Still	200270_CC_17_003	666	-	384 929.1	5 909 386.0	384 941.4	5 909 383.7	12.6	-
17/08/2020	07:11	CC_17	Still	200270_CC_17_004	667	-	384 929.1	5 909 386.0	384 933.2	5 909 388.4	4.8	-
17/08/2020	07:12	CC_17	Still	200270_CC_17_005	668	-	384 929.1	5 909 386.0	384 925.5	5 909 393.8	8.6	-
17/08/2020	07:12	CC_17	Still	200270_CC_17_006	669	-	384 929.1	5 909 386.0	384 917.9	5 909 397.9	16.3	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	07:12	CC_17	Still	200270_CC_17_007	670	-	384 929.1	5 909 386.0	384 911.7	5 909 401.8	23.6	-
17/08/2020	07:12	CC_17	Video	EOL	671	13.7	384 929.1	5 909 386.0	384 904.1	5 909 406.2	32.1	-
17/08/2020	07:18	CC_17	HG	FA/PSDA	672	-	384 929.1	5 909 386.0	384 939.3	5 909 368.7	20.1	-
17/08/2020	07:40	CC_18	Video	SOL	673	15.3	384 374.5	5 909 663.3	384 397.2	5 909 641.2	31.7	-
17/08/2020	07:41	CC_18	Still	200270_CC_18_001	674	-	384 374.5	5 909 663.3	384 388.4	5 909 653.0	17.3	-
17/08/2020	07:41	CC_18	Still	200270_CC_18_002	675	-	384 374.5	5 909 663.3	384 383.0	5 909 661.1	8.8	-
17/08/2020	07:41	CC_18	Still	200270_CC_18_003	676	-	384 374.5	5 909 663.3	384 378.4	5 909 667.8	6.0	-
17/08/2020	07:41	CC_18	Still	200270_CC_18_004	677	-	384 374.5	5 909 663.3	384 374.1	5 909 674.3	11.0	-
17/08/2020	07:41	CC_18	Still	200270_CC_18_005	678	-	384 374.5	5 909 663.3	384 369.5	5 909 683.1	20.5	-
17/08/2020	07:41	CC_18	Still	200270_CC_18_006	679	-	384 374.5	5 909 663.3	384 367.4	5 909 686.9	24.6	-
17/08/2020	07:42	CC_18	Video	EOL	680	15.3	384 374.5	5 909 663.3	384 362.1	5 909 696.8	35.7	-
17/08/2020	07:48	CC_18	HG	FA/PSDA	681	-	384 374.5	5 909 663.3	384 376.2	5 909 665.1	2.5	-
17/08/2020	08:08	CC_19	Video	SOL	682	10.4	384 486.4	5 910 425.4	384 514.1	5 910 412.5	30.6	-
17/08/2020	08:08	CC_19	Still	200270_CC_19_001	683	-	384 486.4	5 910 425.4	384 505.0	5 910 422.7	18.8	-
17/08/2020	08:08	CC_19	Still	200270_CC_19_002	684	-	384 486.4	5 910 425.4	384 501.6	5 910 426.9	15.3	-
17/08/2020	08:09	CC_19	Still	200270_CC_19_003	685	-	384 486.4	5 910 425.4	384 486.5	5 910 439.1	13.8	-
17/08/2020	08:09	CC_19	Still	200270_CC_19_004	686	-	384 486.4	5 910 425.4	384 483.3	5 910 443.0	17.9	-
17/08/2020	08:09	CC_19	Still	200270_CC_19_005	687	-	384 486.4	5 910 425.4	384 482.4	5 910 445.5	20.5	-
17/08/2020	08:09	CC_19	Still	200270_CC_19_006	688	-	384 486.4	5 910 425.4	384 480.9	5 910 448.9	24.1	-
17/08/2020	08:09	CC_19	Video	EOL	689	12.0	384 486.4	5 910 425.4	384 477.6	5 910 457.2	33.0	-
17/08/2020	08:14	CC_19	HG	FA/PSDA	690	-	384 486.4	5 910 425.4	384 506.0	5 910 421.7	20.0	-
17/08/2020	08:40	D_24	Video	SOL	691	12.9	383 263.1	5 911 574.1	383 273.9	5 911 605.6	33.3	-
17/08/2020	08:40	D_24	Still	200270_D_24_001	692	-	383 263.1	5 911 574.1	383 273.1	5 911 592.0	20.5	-
17/08/2020	08:40	D_24	Still	200270_D_24_002	693	-	383 263.1	5 911 574.1	383 272.8	5 911 587.1	16.2	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	08:41	D_24	Still	200270_D_24_003	694	-	383 263.1	5 911 574.1	383 272.5	5 911 581.7	12.1	-
17/08/2020	08:41	D_24	Still	200270_D_24_004	695	-	383 263.1	5 911 574.1	383 270.5	5 911 570.8	8.1	-
17/08/2020	08:41	D_24	Still	200270_D_24_005	696	-	383 263.1	5 911 574.1	383 266.9	5 911 562.3	12.4	-
17/08/2020	08:41	D_24	Still	200270_D_24_006	697	-	383 263.1	5 911 574.1	383 265.2	5 911 554.7	19.5	-
17/08/2020	08:41	D_24	Video	EOL	698	13.2	383 263.1	5 911 574.1	383 262.4	5 911 540.2	33.9	-
17/08/2020	08:56	D_25	Video	SOL	699	13.4	382 631.6	5 911 742.9	382 640.9	5 911 724.2	21.0	-
17/08/2020	08:57	D_25	Still	200270_D_25_001	700	-	382 631.6	5 911 742.9	382 638.6	5 911 741.5	7.2	-
17/08/2020	08:57	D_25	Still	200270_D_25_002	701	-	382 631.6	5 911 742.9	382 638.1	5 911 744.8	6.8	-
17/08/2020	08:57	D_25	Still	200270_D_25_003	702	-	382 631.6	5 911 742.9	382 637.0	5 911 753.2	11.6	-
17/08/2020	08:57	D_25	Still	200270_D_25_004	703	-	382 631.6	5 911 742.9	382 635.7	5 911 759.8	17.3	-
17/08/2020	08:57	D_25	Still	200270_D_25_005	704	-	382 631.6	5 911 742.9	382 634.9	5 911 767.7	25.0	-
17/08/2020	08:58	D_25	Video	EOL	705	13.4	382 631.6	5 911 742.9	382 633.6	5 911 776.6	33.7	-
17/08/2020	09:03	D_25	HG	FA/PSDA	706	-	382 631.6	5 911 742.9	382 637.8	5 911 740.3	6.8	-
17/08/2020	09:30	D_23	Video	SOL	707	16.6	385 553.0	5 912 673.8	385 524.2	5 912 692.7	34.4	-
17/08/2020	09:30	D_23	Still	200270_D_23_001	708	-	385 553.0	5 912 673.8	385 536.6	5 912 684.8	19.7	-
17/08/2020	09:31	D_23	Still	200270_D_23_002	709	-	385 553.0	5 912 673.8	385 544.3	5 912 678.6	9.9	-
17/08/2020	09:31	D_23	Still	200270_D_23_003	710	-	385 553.0	5 912 673.8	385 548.9	5 912 674.5	4.1	-
17/08/2020	09:31	D_23	Still	200270_D_23_004	711	-	385 553.0	5 912 673.8	385 551.6	5 912 672.0	2.4	-
17/08/2020	09:31	D_23	Still	200270_D_23_005	712	-	385 553.0	5 912 673.8	385 564.2	5 912 662.3	16.1	-
17/08/2020	09:31	D_23	Still	200270_D_23_006	713	-	385 553.0	5 912 673.8	385 568.1	5 912 660.1	20.4	-
17/08/2020	09:32	D_23	Still	200270_D_23_007	714	-	385 553.0	5 912 673.8	385 576.5	5 912 655.1	30.1	-
17/08/2020	09:32	D_23	Video	EOL	715	16.6	385 553.0	5 912 673.8	385 579.7	5 912 653.4	33.7	-
17/08/2020	09:37	D_23	HG	NS	716	-	385 553.0	5 912 673.8	385 544.0	5 912 679.0	10.4	-
17/08/2020	09:42	D_23	HG	FA/PSDA	717	-	385 553.0	5 912 673.8	385 550.4	5 912 676.6	3.8	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	10:01	D_22	Video	SOL	718	18.5	386 880.0	5 911 376.5	386 863.4	5 911 402.4	30.8	-
17/08/2020	10:01	D_22	Still	200270_D_22_001	719	-	386 880.0	5 911 376.5	386 868.0	5 911 398.4	25.0	-
17/08/2020	10:01	D_22	Still	200270_D_22_002	720	-	386 880.0	5 911 376.5	386 872.0	5 911 391.5	17.0	-
17/08/2020	10:02	D_22	Still	200270_D_22_003	721	-	386 880.0	5 911 376.5	386 877.5	5 911 386.0	9.8	-
17/08/2020	10:02	D_22	Still	200270_D_22_004	722	-	386 880.0	5 911 376.5	386 890.5	5 911 377.3	10.6	-
17/08/2020	10:02	D_22	Still	200270_D_22_005	723	-	386 880.0	5 911 376.5	386 908.0	5 911 367.3	29.5	-
17/08/2020	10:03	D_22	Video	EOL	724	18.5	386 880.0	5 911 376.5	386 915.6	5 911 360.8	38.9	-
17/08/2020	10:07	D_22	HG	FA/PSDA	725	-	386 880.0	5 911 376.5	386 864.6	5 911 397.5	26.0	-
17/08/2020	10:30	D_18	Video	SOL	726	17.0	388 458.0	5 909 139.7	388 438.8	5 909 174.9	40.1	-
17/08/2020	10:30	D_18	Still	200270_D_18_001	727	-	388 458.0	5 909 139.7	388 441.1	5 909 152.3	21.1	-
17/08/2020	10:31	D_18	Still	200270_D_18_002	728	-	388 458.0	5 909 139.7	388 444.6	5 909 146.4	15.0	-
17/08/2020	10:31	D_18	Still	200270_D_18_003	729	-	388 458.0	5 909 139.7	388 446.0	5 909 136.9	12.4	-
17/08/2020	10:31	D_18	Still	200270_D_18_004	730	-	388 458.0	5 909 139.7	388 442.7	5 909 125.0	21.3	-
17/08/2020	10:31	D_18	Still	200270_D_18_005	731	-	388 458.0	5 909 139.7	388 439.3	5 909 118.2	28.5	-
17/08/2020	10:31	D_18	Video	EOL	732	17.0	388 458.0	5 909 139.7	388 434.3	5 909 105.6	41.6	-
17/08/2020	10:37	D_18	HG	FA/PSDA	733	-	388 458.0	5 909 139.7	388 465.4	5 909 137.0	7.9	-
17/08/2020	12:02	D_19	Video	SOL	734	17.4	390 118.3	5 912 218.3	390 069.2	5 912 225.6	49.7	-
17/08/2020	12:03	D_19	Still	200270_D_19_001	735	-	390 118.3	5 912 218.3	390 095.9	5 912 221.5	22.7	-
17/08/2020	12:03	D_19	Still	200270_D_19_002	736	-	390 118.3	5 912 218.3	390 101.6	5 912 220.9	17.0	-
17/08/2020	12:03	D_19	Still	200270_D_19_003	737	-	390 118.3	5 912 218.3	390 107.7	5 912 220.9	10.9	-
17/08/2020	12:03	D_19	Still	200270_D_19_004	738	-	390 118.3	5 912 218.3	390 112.4	5 912 221.0	6.5	-
17/08/2020	12:03	D_19	Still	200270_D_19_005	739	-	390 118.3	5 912 218.3	390 115.9	5 912 220.7	3.4	-
17/08/2020	12:03	D_19	Still	200270_D_19_006	740	-	390 118.3	5 912 218.3	390 121.1	5 912 220.2	3.4	-
17/08/2020	12:04	D_19	Still	200270_D_19_007	741	-	390 118.3	5 912 218.3	390 130.1	5 912 220.9	12.0	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	12:04	D_19	Still	200270_D_19_008	742	-	390 118.3	5 912 218.3	390 135.4	5 912 221.3	17.4	-
17/08/2020	12:04	D_19	Still	200270_D_19_009	743	-	390 118.3	5 912 218.3	390 141.3	5 912 221.5	23.2	-
17/08/2020	12:04	D_19	Video	EOL	744	18.6	390 118.3	5 912 218.3	390 144.7	5 912 221.8	26.6	-
17/08/2020	12:10	D_19	HG	FA/PSDA	745	-	390 118.3	5 912 218.3	390 125.4	5 912 233.2	16.5	-
17/08/2020	12:27	D_21	Video	SOL	746	20.3	391 814.9	5 913 533.5	391 766.4	5 913 544.8	49.8	-
17/08/2020	12:28	D_21	Still	200270_D_21_001	747	-	391 814.9	5 913 533.5	391 799.6	5 913 550.9	23.1	-
17/08/2020	12:28	D_21	Still	200270_D_21_002	748	-	391 814.9	5 913 533.5	391 803.9	5 913 549.6	19.5	-
17/08/2020	12:28	D_21	Still	200270_D_21_003	749	-	391 814.9	5 913 533.5	391 805.8	5 913 549.0	17.9	-
17/08/2020	12:28	D_21	Still	200270_D_21_004	750	-	391 814.9	5 913 533.5	391 810.7	5 913 550.4	17.4	-
17/08/2020	12:28	D_21	Still	200270_D_21_005	751	-	391 814.9	5 913 533.5	391 818.3	5 913 554.3	21.1	-
17/08/2020	12:29	D_21	Still	200270_D_21_006	752	-	391 814.9	5 913 533.5	391 831.9	5 913 564.3	35.1	-
17/08/2020	12:29	D_21	Video	EOL	753	20.3	391 814.9	5 913 533.5	391 836.6	5 913 568.9	41.5	-
17/08/2020	12:35	D_21	HG	FA/PSDA	754	-	391 814.9	5 913 533.5	391 814.1	5 913 552.4	18.9	-
17/08/2020	12:54	D_20	Video	SOL	755	23.3	393 039.8	5 913 208.6	393 018.7	5 913 237.5	35.7	-
17/08/2020	12:55	D_20	Still	200270_D_20_001	756	-	393 039.8	5 913 208.6	393 025.8	5 913 220.3	18.3	-
17/08/2020	12:55	D_20	Still	200270_D_20_002	757	-	393 039.8	5 913 208.6	393 027.0	5 913 215.6	14.5	-
17/08/2020	12:55	D_20	Still	200270_D_20_003	758	-	393 039.8	5 913 208.6	393 027.9	5 913 211.1	12.1	-
17/08/2020	12:55	D_20	Still	200270_D_20_004	759	-	393 039.8	5 913 208.6	393 028.7	5 913 207.7	11.1	-
17/08/2020	12:55	D_20	Still	200270_D_20_005	760	-	393 039.8	5 913 208.6	393 029.8	5 913 200.6	12.7	-
17/08/2020	12:55	D_20	Still	200270_D_20_006	761	-	393 039.8	5 913 208.6	393 030.2	5 913 196.3	15.6	-
17/08/2020	12:55	D_20	Still	200270_D_20_007	762	-	393 039.8	5 913 208.6	393 031.1	5 913 187.0	23.3	-
17/08/2020	12:55	D_20	Still	200270_D_20_008	763	-	393 039.8	5 913 208.6	393 033.0	5 913 181.1	28.3	-
17/08/2020	12:55	D_20	Still	200270_D_20_009	764	-	393 039.8	5 913 208.6	393 034.3	5 913 177.1	32.0	-
17/08/2020	12:56	D_20	Video	EOL	765	23.3	393 039.8	5 913 208.6	393 036.0	5 913 168.5	40.3	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	13:03	D_20	HG	FA/PSDA	766	-	393 039.8	5 913 208.6	393 028.4	5 913 193.4	19.0	-
17/08/2020	13:33	D_16	Video	SOL	767	19.3	391 237.4	5 909 287.0	391 224.3	5 909 310.9	27.2	-
17/08/2020	13:34	D_16	Still	200270_D_16_001	768	-	391 237.4	5 909 287.0	391 227.1	5 909 296.3	13.9	-
17/08/2020	13:34	D_16	Still	200270_D_16_002	769	-	391 237.4	5 909 287.0	391 226.3	5 909 290.7	11.7	-
17/08/2020	13:34	D_16	Still	200270_D_16_003	770	-	391 237.4	5 909 287.0	391 224.4	5 909 285.7	13.1	-
17/08/2020	13:34	D_16	Still	200270_D_16_004	771	-	391 237.4	5 909 287.0	391 222.4	5 909 282.4	15.6	-
17/08/2020	13:34	D_16	Still	200270_D_16_005	772	-	391 237.4	5 909 287.0	391 220.8	5 909 276.3	19.8	-
17/08/2020	13:34	D_16	Still	200270_D_16_006	773	-	391 237.4	5 909 287.0	391 220.9	5 909 270.8	23.1	-
17/08/2020	13:34	D_16	Video	EOL	774	19.3	391 237.4	5 909 287.0	391 217.6	5 909 261.2	32.5	-
17/08/2020	13:41	D_16	HG	FA/PSDA	775	-	391 237.4	5 909 287.0	391 238.9	5 909 297.7	10.8	-
17/08/2020	14:29	D_17	HG	FA/PSDA	776	-	391 098.1	5 908 649.9	391 082.1	5 908 647.1	16.3	-
17/08/2020	14:46	D_15	Video	SOL	777	21.5	392 078.0	5 909 373.6	392 065.5	5 909 361.6	17.4	-
17/08/2020	14:47	D_15	Still	200270_D_15_001	778	-	392 078.0	5 909 373.6	392 069.0	5 909 368.0	10.6	-
17/08/2020	14:47	D_15	Still	200270_D_15_002	779	-	392 078.0	5 909 373.6	392 070.7	5 909 370.9	7.7	-
17/08/2020	14:47	D_15	Still	200270_D_15_003	780	-	392 078.0	5 909 373.6	392 072.6	5 909 374.2	5.4	-
17/08/2020	14:47	D_15	Still	200270_D_15_004	781	-	392 078.0	5 909 373.6	392 074.0	5 909 377.5	5.5	-
17/08/2020	14:47	D_15	Still	200270_D_15_005	782	-	392 078.0	5 909 373.6	392 075.5	5 909 381.0	7.7	-
17/08/2020	14:47	D_15	Still	200270_D_15_006	783	-	392 078.0	5 909 373.6	392 077.1	5 909 384.9	11.3	-
17/08/2020	14:47	D_15	Still	200270_D_15_007	784	-	392 078.0	5 909 373.6	392 078.0	5 909 389.1	15.4	-
17/08/2020	14:47	D_15	Still	200270_D_15_008	785	-	392 078.0	5 909 373.6	392 078.0	5 909 395.8	22.1	-
17/08/2020	14:47	D_15	Still	200270_D_15_009	786	-	392 078.0	5 909 373.6	392 077.3	5 909 399.5	25.9	-
17/08/2020	14:47	D_15	Still	200270_D_15_010	787	-	392 078.0	5 909 373.6	392 076.4	5 909 402.9	29.3	-
17/08/2020	14:47	D_15	Video	EOL	788	21.5	392 078.0	5 909 373.6	392 075.1	5 909 406.1	32.6	-
17/08/2020	14:53	D_15	HG	FA/PSDA	789	-	392 078.0	5 909 373.6	392 070.3	5 909 358.7	16.8	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	15:31	D_14	Video	SOL	790	28.3	393 412.9	5 909 065.4	393 398.4	5 909 062.5	14.8	-
17/08/2020	15:31	D_14	Still	200270_D_14_001	791	-	393 412.9	5 909 065.4	393 403.3	5 909 064.1	9.7	-
17/08/2020	15:31	D_14	Still	200270_D_14_002	792	-	393 412.9	5 909 065.4	393 407.3	5 909 065.8	5.7	-
17/08/2020	15:31	D_14	Still	200270_D_14_003	793	-	393 412.9	5 909 065.4	393 410.1	5 909 067.0	3.3	-
17/08/2020	15:31	D_14	Still	200270_D_14_004	794	-	393 412.9	5 909 065.4	393 412.0	5 909 068.1	2.9	-
17/08/2020	15:31	D_14	Still	200270_D_14_005	795	-	393 412.9	5 909 065.4	393 416.9	5 909 071.0	6.8	-
17/08/2020	15:31	D_14	Still	200270_D_14_006	796	-	393 412.9	5 909 065.4	393 419.9	5 909 072.4	9.9	-
17/08/2020	15:31	D_14	Still	200270_D_14_007	797	-	393 412.9	5 909 065.4	393 423.8	5 909 074.6	14.3	-
17/08/2020	15:31	D_14	Still	200270_D_14_008	798	-	393 412.9	5 909 065.4	393 428.8	5 909 077.7	20.1	-
17/08/2020	15:31	D_14	Still	200270_D_14_009	799	-	393 412.9	5 909 065.4	393 431.5	5 909 079.8	23.5	-
17/08/2020	15:32	D_14	Still	200270_D_14_010	800	-	393 412.9	5 909 065.4	393 435.0	5 909 082.8	28.1	-
17/08/2020	15:32	D_14	Video	EOL	801	28.3	393 412.9	5 909 065.4	393 439.9	5 909 087.3	34.8	-
17/08/2020	15:44	D_13	Video	SOL	802	23.2	393 940.9	5 907 930.2	393 932.0	5 907 962.2	33.2	-
17/08/2020	15:44	D_13	Still	200270_D_13_001	803	-	393 940.9	5 907 930.2	393 933.2	5 907 955.4	26.4	-
17/08/2020	15:44	D_13	Still	200270_D_13_002	804	-	393 940.9	5 907 930.2	393 933.6	5 907 952.2	23.2	-
17/08/2020	15:45	D_13	Still	200270_D_13_003	805	-	393 940.9	5 907 930.2	393 934.1	5 907 948.1	19.2	-
17/08/2020	15:45	D_13	Still	200270_D_13_004	806	-	393 940.9	5 907 930.2	393 934.7	5 907 944.6	15.6	-
17/08/2020	15:45	D_13	Still	200270_D_13_005	807	-	393 940.9	5 907 930.2	393 934.3	5 907 942.0	13.5	-
17/08/2020	15:45	D_13	Still	200270_D_13_006	808	-	393 940.9	5 907 930.2	393 934.4	5 907 936.9	9.4	-
17/08/2020	15:45	D_13	Still	200270_D_13_007	809	-	393 940.9	5 907 930.2	393 934.3	5 907 931.2	6.7	-
17/08/2020	15:45	D_13	Still	200270_D_13_008	810	-	393 940.9	5 907 930.2	393 934.4	5 907 921.6	10.8	-
17/08/2020	15:45	D_13	Still	200270_D_13_009	811	-	393 940.9	5 907 930.2	393 934.7	5 907 918.0	13.7	-
17/08/2020	15:45	D_13	Still	200270_D_13_010	812	-	393 940.9	5 907 930.2	393 934.9	5 907 910.4	20.7	-
17/08/2020	15:45	D_13	Still	200270_D_13_011	813	-	393 940.9	5 907 930.2	393 935.2	5 907 906.2	24.7	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	15:45	D_13	Still	200270_D_13_012	814	-	393 940.9	5 907 930.2	393 935.1	5 907 901.7	29.1	-
17/08/2020	15:45	D_13	Still	200270_D_13_013	815	-	393 940.9	5 907 930.2	393 934.9	5 907 898.0	32.7	-
17/08/2020	15:46	D_13	Video	EOL	816	23.2	393 940.9	5 907 930.2	393 934.8	5 907 893.8	36.9	-
17/08/2020	15:55	D_12	Video	SOL	817	22.0	394 505.4	5 907 870.8	394 511.7	5 907 827.9	43.3	-
17/08/2020	15:55	D_12	Still	200270_D_12_001	818	-	394 505.4	5 907 870.8	394 511.3	5 907 842.3	29.1	-
17/08/2020	15:56	D_12	Still	200270_D_12_002	819	-	394 505.4	5 907 870.8	394 512.7	5 907 850.3	21.7	-
17/08/2020	15:56	D_12	Still	200270_D_12_003	820	-	394 505.4	5 907 870.8	394 513.1	5 907 857.1	15.7	-
17/08/2020	15:56	D_12	Still	200270_D_12_004	821	-	394 505.4	5 907 870.8	394 513.7	5 907 861.3	12.7	-
17/08/2020	15:56	D_12	Still	200270_D_12_005	822	-	394 505.4	5 907 870.8	394 514.6	5 907 869.9	9.2	-
17/08/2020	15:56	D_12	Still	200270_D_12_006	823	-	394 505.4	5 907 870.8	394 515.8	5 907 876.1	11.7	-
17/08/2020	15:56	D_12	Still	200270_D_12_007	824	-	394 505.4	5 907 870.8	394 517.4	5 907 881.0	15.8	-
17/08/2020	15:56	D_12	Still	200270_D_12_008	825	-	394 505.4	5 907 870.8	394 518.1	5 907 883.8	18.2	-
17/08/2020	15:56	D_12	Still	200270_D_12_009	826	-	394 505.4	5 907 870.8	394 518.8	5 907 885.4	19.8	-
17/08/2020	15:57	D_12	Still	200270_D_12_010	827	-	394 505.4	5 907 870.8	394 519.7	5 907 887.3	21.8	-
17/08/2020	15:57	D_12	Still	200270_D_12_011	828	-	394 505.4	5 907 870.8	394 519.4	5 907 890.7	24.3	-
17/08/2020	15:57	D_12	Video	EOL	829	22.0	394 505.4	5 907 870.8	394 519.5	5 907 892.7	26.0	-
17/08/2020	16:06	D_11	Video	SOL	830	22.0	394 079.6	5 907 207.3	394 089.5	5 907 193.1	17.4	-
17/08/2020	16:06	D_11	Still	200270_D_11_001	831	-	394 079.6	5 907 207.3	394 085.4	5 907 194.0	14.5	-
17/08/2020	16:06	D_11	Still	200270_D_11_002	832	-	394 079.6	5 907 207.3	394 081.7	5 907 194.4	13.1	-
17/08/2020	16:06	D_11	Still	200270_D_11_003	833	-	394 079.6	5 907 207.3	394 077.1	5 907 194.5	13.0	-
17/08/2020	16:06	D_11	Still	200270_D_11_004	834	-	394 079.6	5 907 207.3	394 071.8	5 907 194.4	15.1	-
17/08/2020	16:06	D_11	Still	200270_D_11_005	835	-	394 079.6	5 907 207.3	394 067.8	5 907 194.3	17.6	-
17/08/2020	16:06	D_11	Still	200270_D_11_006	836	-	394 079.6	5 907 207.3	394 061.1	5 907 195.5	21.9	-
17/08/2020	16:07	D_11	Still	200270_D_11_007	837	-	394 079.6	5 907 207.3	394 056.5	5 907 194.4	26.4	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	16:07	D_11	Still	200270_D_11_008	838	-	394 079.6	5 907 207.3	394 052.3	5 907 193.1	30.7	-
17/08/2020	16:07	D_11	Still	200270_D_11_009	839	-	394 079.6	5 907 207.3	394 048.0	5 907 191.1	35.5	-
17/08/2020	16:07	D_11	Still	200270_D_11_010	840	-	394 079.6	5 907 207.3	394 042.7	5 907 189.2	41.1	-
17/08/2020	16:07	D_11	Video	EOL	841	22.0	394 079.6	5 907 207.3	394 038.0	5 907 186.6	46.5	-
17/08/2020	16:13	D_11	HG	NS	842	-	394 079.6	5 907 207.3	394 090.3	5 907 221.5	17.8	-
17/08/2020	16:19	D_11	HG	FA/PSDA	843	-	394 079.6	5 907 207.3	394 077.7	5 907 210.2	3.5	-
17/08/2020	16:40	D_10	Video	SOL	844	23.2	395 317.5	5 905 771.3	395 345.2	5 905 745.2	38.1	-
17/08/2020	16:41	D_10	Still	200270_D_10_001	845	-	395 317.5	5 905 771.3	395 332.9	5 905 756.5	21.4	-
17/08/2020	16:41	D_10	Still	200270_D_10_002	846	-	395 317.5	5 905 771.3	395 330.2	5 905 758.9	17.8	-
17/08/2020	16:41	D_10	Still	200270_D_10_003	847	-	395 317.5	5 905 771.3	395 326.3	5 905 761.4	13.3	-
17/08/2020	16:41	D_10	Still	200270_D_10_004	848	-	395 317.5	5 905 771.3	395 322.7	5 905 764.6	8.5	-
17/08/2020	16:41	D_10	Still	200270_D_10_005	849	-	395 317.5	5 905 771.3	395 320.7	5 905 766.7	5.6	-
17/08/2020	16:41	D_10	Still	200270_D_10_006	850	-	395 317.5	5 905 771.3	395 316.5	5 905 769.9	1.7	-
17/08/2020	16:41	D_10	Still	200270_D_10_007	851	-	395 317.5	5 905 771.3	395 313.9	5 905 772.2	3.7	-
17/08/2020	16:41	D_10	Still	200270_D_10_008	852	-	395 317.5	5 905 771.3	395 311.4	5 905 773.7	6.5	-
17/08/2020	16:41	D_10	Still	200270_D_10_009	853	-	395 317.5	5 905 771.3	395 307.3	5 905 776.8	11.6	-
17/08/2020	16:41	D_10	Still	200270_D_10_010	854	-	395 317.5	5 905 771.3	395 303.3	5 905 779.7	16.5	-
17/08/2020	16:42	D_10	Still	200270_D_10_011	855	-	395 317.5	5 905 771.3	395 301.3	5 905 780.5	18.6	-
17/08/2020	16:42	D_10	Still	200270_D_10_012	856	-	395 317.5	5 905 771.3	395 299.7	5 905 782.2	20.8	-
17/08/2020	16:42	D_10	Still	200270_D_10_013	857	-	395 317.5	5 905 771.3	395 298.0	5 905 783.8	23.2	-
17/08/2020	16:42	D_10	Still	200270_D_10_014	858	-	395 317.5	5 905 771.3	395 296.6	5 905 785.0	25.0	-
17/08/2020	16:42	D_10	Video	EOL	859	23.2	395 317.5	5 905 771.3	395 295.7	5 905 785.7	26.2	-
17/08/2020	16:46	D_10	HG	FA/PSDA	860	-	395 317.5	5 905 771.3	395 312.8	5 905 751.5	20.3	-
17/08/2020	17:59	CC_14	HG	FA/PSDA	861	-	382 631.6	5 901 740.8	382 625.6	5 901 733.4	9.4	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	18:50	CC_13	Video	SOL	862	21.0	381 837.5	5 897 266.6	381 857.3	5 897 248.2	27.0	-
17/08/2020	18:50	CC_13	Still	200270_CC_13_01	863	-	381 837.5	5 897 266.6	381 847.7	5 897 255.0	15.5	-
17/08/2020	18:50	CC_13	Still	200270_CC_13_02	864	-	381 837.5	5 897 266.6	381 843.3	5 897 257.9	10.4	-
17/08/2020	18:50	CC_13	Still	200270_CC_13_03	865	-	381 837.5	5 897 266.6	381 841.3	5 897 259.2	8.3	-
17/08/2020	18:50	CC_13	Still	200270_CC_13_04	866	-	381 837.5	5 897 266.6	381 838.9	5 897 260.6	6.2	-
17/08/2020	18:50	CC_13	Still	200270_CC_13_05	867	-	381 837.5	5 897 266.6	381 836.1	5 897 262.1	4.7	-
17/08/2020	18:50	CC_13	Still	200270_CC_13_06	868	-	381 837.5	5 897 266.6	381 832.7	5 897 263.6	5.6	-
17/08/2020	18:50	CC_13	Still	200270_CC_13_07	869	-	381 837.5	5 897 266.6	381 828.1	5 897 265.1	9.6	-
17/08/2020	18:51	CC_13	Still	200270_CC_13_08	870	-	381 837.5	5 897 266.6	381 824.0	5 897 266.0	13.5	-
17/08/2020	18:51	CC_13	Still	200270_CC_13_09	871	-	381 837.5	5 897 266.6	381 821.9	5 897 266.6	15.6	-
17/08/2020	18:51	CC_13	Still	200270_CC_13_10	872	-	381 837.5	5 897 266.6	381 815.7	5 897 268.2	21.9	-
17/08/2020	18:51	CC_13	Still	200270_CC_13_11	873	-	381 837.5	5 897 266.6	381 813.4	5 897 268.8	24.2	-
17/08/2020	18:51	CC_13	Still	200270_CC_13_12	874	-	381 837.5	5 897 266.6	381 811.3	5 897 269.4	26.3	-
17/08/2020	18:51	CC_13	Video	EOL	875	21.0	381 837.5	5 897 266.6	381 807.9	5 897 270.3	29.8	-
17/08/2020	18:56	CC_13	HG	FA/PSDA	876	-	381 837.5	5 897 266.6	381 830.6	5 897 268.6	7.2	-
17/08/2020	19:30	CC_12	Video	SOL	877	29.7	381 069.0	5 895 297.4	381 097.3	5 895 276.9	35.0	-
17/08/2020	19:31	CC_12	Still	200270_CC_12_01	878	-	381 069.0	5 895 297.4	381 078.6	5 895 288.3	13.2	-
17/08/2020	19:31	CC_12	Still	200270_CC_12_02	879	-	381 069.0	5 895 297.4	381 075.5	5 895 291.1	9.1	-
17/08/2020	19:31	CC_12	Still	200270_CC_12_03	880	-	381 069.0	5 895 297.4	381 072.3	5 895 294.2	4.6	-
17/08/2020	19:31	CC_12	Still	200270_CC_12_04	881	-	381 069.0	5 895 297.4	381 069.2	5 895 297.4	0.1	-
17/08/2020	19:31	CC_12	Still	200270_CC_12_05	882	-	381 069.0	5 895 297.4	381 066.9	5 895 300.2	3.5	-
17/08/2020	19:31	CC_12	Still	200270_CC_12_06	883	-	381 069.0	5 895 297.4	381 064.5	5 895 302.5	6.8	-
17/08/2020	19:31	CC_12	Still	200270_CC_12_07	884	-	381 069.0	5 895 297.4	381 062.6	5 895 304.0	9.2	-
17/08/2020	19:32	CC_12	Still	200270_CC_12_08	885	-	381 069.0	5 895 297.4	381 059.9	5 895 307.5	13.6	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	19:32	CC_12	Still	200270_CC_12_09	886	-	381 069.0	5 895 297.4	381 057.7	5 895 310.2	17.1	-
17/08/2020	19:32	CC_12	Still	200270_CC_12_10	887	-	381 069.0	5 895 297.4	381 055.5	5 895 313.4	20.9	-
17/08/2020	19:32	CC_12	Still	200270_CC_12_11	888	-	381 069.0	5 895 297.4	381 054.6	5 895 315.2	22.9	-
17/08/2020	19:32	CC_12	Still	200270_CC_12_12	889	-	381 069.0	5 895 297.4	381 053.9	5 895 317.0	24.7	-
17/08/2020	19:32	CC_12	Still	200270_CC_12_13	890	-	381 069.0	5 895 297.4	381 052.7	5 895 318.6	26.8	-
17/08/2020	19:32	CC_12	Video	EOL	891	29.7	381 069.0	5 895 297.4	381 051.5	5 895 320.6	29.1	-
17/08/2020	19:39	CC_12	HG	FA/PSDA	892	-	381 069.0	5 895 297.4	381 060.8	5 895 299.4	8.5	-
17/08/2020	20:09	CC_11	Video	SOL	893	27.5	381 249.1	5 894 745.1	381 277.4	5 894 730.4	31.9	-
17/08/2020	20:10	CC_11	Still	200270_CC_11_01	894	-	381 249.1	5 894 745.1	381 272.5	5 894 731.9	26.8	-
17/08/2020	20:10	CC_11	Still	200270_CC_11_02	895	-	381 249.1	5 894 745.1	381 269.2	5 894 732.2	23.8	-
17/08/2020	20:10	CC_11	Still	200270_CC_11_03	896	-	381 249.1	5 894 745.1	381 262.6	5 894 735.2	16.7	-
17/08/2020	20:10	CC_11	Still	200270_CC_11_04	897	-	381 249.1	5 894 745.1	381 259.5	5 894 736.7	13.3	-
17/08/2020	20:10	CC_11	Still	200270_CC_11_05	898	-	381 249.1	5 894 745.1	381 252.9	5 894 739.7	6.6	-
17/08/2020	20:10	CC_11	Still	200270_CC_11_06	899	-	381 249.1	5 894 745.1	381 246.6	5 894 742.3	3.8	-
17/08/2020	20:10	CC_11	Still	200270_CC_11_07	900	-	381 249.1	5 894 745.1	381 243.7	5 894 744.2	5.5	-
17/08/2020	20:10	CC_11	Still	200270_CC_11_08	901	-	381 249.1	5 894 745.1	381 240.4	5 894 745.9	8.8	-
17/08/2020	20:10	CC_11	Still	200270_CC_11_09	902	-	381 249.1	5 894 745.1	381 236.1	5 894 747.5	13.2	-
17/08/2020	20:11	CC_11	Still	200270_CC_11_10	903	-	381 249.1	5 894 745.1	381 229.8	5 894 750.5	20.1	-
17/08/2020	20:11	CC_11	Still	200270_CC_11_11	904	-	381 249.1	5 894 745.1	381 226.7	5 894 751.4	23.3	-
17/08/2020	20:11	CC_11	Still	200270_CC_11_12	905	-	381 249.1	5 894 745.1	381 223.7	5 894 753.5	26.8	-
17/08/2020	20:11	CC_11	Still	200270_CC_11_13	906	-	381 249.1	5 894 745.1	381 221.8	5 894 753.8	28.7	-
17/08/2020	20:11	CC_11	Video	EOL	907	27.5	381 249.1	5 894 745.1	381 218.8	5 894 755.6	32.1	-
17/08/2020	20:16	CC_11	HG	FA/PSDA	908	-	381 249.1	5 894 745.1	381 263.4	5 894 741.9	14.6	-
17/08/2020	20:45	CC_10	Video	SOL	909	27.0	381 621.4	5 894 661.0	381 657.6	5 894 671.3	37.7	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	20:45	CC_10	Still	200270_CC_10_01	910	-	381 621.4	5 894 661.0	381 644.9	5 894 665.7	24.0	-
17/08/2020	20:45	CC_10	Still	200270_CC_10_02	911	-	381 621.4	5 894 661.0	381 638.6	5 894 664.3	17.5	-
17/08/2020	20:45	CC_10	Still	200270_CC_10_03	912	-	381 621.4	5 894 661.0	381 635.1	5 894 662.8	13.8	-
17/08/2020	20:45	CC_10	Still	200270_CC_10_04	913	-	381 621.4	5 894 661.0	381 631.9	5 894 662.1	10.6	-
17/08/2020	20:45	CC_10	Still	200270_CC_10_05	914	-	381 621.4	5 894 661.0	381 629.6	5 894 661.8	8.3	-
17/08/2020	20:46	CC_10	Still	200270_CC_10_06	915	-	381 621.4	5 894 661.0	381 623.0	5 894 661.2	1.6	-
17/08/2020	20:46	CC_10	Still	200270_CC_10_07	916	-	381 621.4	5 894 661.0	381 616.1	5 894 660.0	5.4	-
17/08/2020	20:46	CC_10	Still	200270_CC_10_08	917	-	381 621.4	5 894 661.0	381 612.6	5 894 659.6	8.8	-
17/08/2020	20:46	CC_10	Still	200270_CC_10_09	918	-	381 621.4	5 894 661.0	381 608.2	5 894 658.6	13.4	-
17/08/2020	20:46	CC_10	Still	200270_CC_10_10	919	-	381 621.4	5 894 661.0	381 605.6	5 894 658.2	16.0	-
17/08/2020	20:46	CC_10	Still	200270_CC_10_11	920	-	381 621.4	5 894 661.0	381 600.6	5 894 657.3	21.1	-
17/08/2020	20:46	CC_10	Still	200270_CC_10_12	921	-	381 621.4	5 894 661.0	381 598.9	5 894 656.9	22.9	-
17/08/2020	20:47	CC_10	Still	200270_CC_10_13	922	-	381 621.4	5 894 661.0	381 596.9	5 894 656.3	24.9	-
17/08/2020	20:47	CC_10	Still	200270_CC_10_14	923	-	381 621.4	5 894 661.0	381 593.1	5 894 656.2	28.7	-
17/08/2020	20:47	CC_10	Video	EOL	924	27.0	381 621.4	5 894 661.0	381 590.7	5 894 655.0	31.2	-
17/08/2020	20:53	CC_10	HG	FA/PSDA	925	-	381 621.4	5 894 661.0	381 627.5	5 894 657.3	7.2	-
17/08/2020	21:21	CC_01	Video	SOL	926	17.2	382 221.7	5 891 743.3	382 254.6	5 891 775.3	45.9	-
17/08/2020	21:22	CC_01	Still	200270_CC_01_01	927	-	382 221.7	5 891 743.3	382 238.3	5 891 771.2	32.5	-
17/08/2020	21:22	CC_01	Still	200270_CC_01_02	928	-	382 221.7	5 891 743.3	382 232.9	5 891 767.2	26.4	-
17/08/2020	21:22	CC_01	Still	200270_CC_01_03	929	-	382 221.7	5 891 743.3	382 230.0	5 891 764.9	23.1	-
17/08/2020	21:22	CC_01	Still	200270_CC_01_04	930	-	382 221.7	5 891 743.3	382 225.2	5 891 761.4	18.5	-
17/08/2020	21:22	CC_01	Still	200270_CC_01_05	931	-	382 221.7	5 891 743.3	382 221.0	5 891 759.0	15.8	-
17/08/2020	21:22	CC_01	Still	200270_CC_01_06	932	-	382 221.7	5 891 743.3	382 217.7	5 891 757.3	14.6	-
17/08/2020	21:22	CC_01	Still	200270_CC_01_07	933	-	382 221.7	5 891 743.3	382 213.0	5 891 755.0	14.7	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	21:22	CC_01	Still	200270_CC_01_08	934	-	382 221.7	5 891 743.3	382 209.0	5 891 753.4	16.2	-
17/08/2020	21:22	CC_01	Still	200270_CC_01_09	935	-	382 221.7	5 891 743.3	382 206.2	5 891 751.7	17.7	-
17/08/2020	21:22	CC_01	Still	200270_CC_01_10	936	-	382 221.7	5 891 743.3	382 204.2	5 891 751.3	19.3	-
17/08/2020	21:22	CC_01	Still	200270_CC_01_11	937	-	382 221.7	5 891 743.3	382 200.7	5 891 749.5	21.9	-
17/08/2020	21:23	CC_01	Still	200270_CC_01_12	938	-	382 221.7	5 891 743.3	382 196.5	5 891 747.3	25.6	-
17/08/2020	21:23	CC_01	Still	200270_CC_01_13	939	-	382 221.7	5 891 743.3	382 193.3	5 891 746.2	28.5	-
17/08/2020	21:23	CC_01	Still	200270_CC_01_14	940	-	382 221.7	5 891 743.3	382 190.1	5 891 745.1	31.7	-
17/08/2020	21:23	CC_01	Still	200270_CC_01_15	941	-	382 221.7	5 891 743.3	382 184.8	5 891 744.0	36.9	-
17/08/2020	21:23	CC_01	Viid	EOL	942	17.2	382 221.7	5 891 743.3	382 180.2	5 891 743.6	41.6	-
17/08/2020	21:28	CC_01	HG	NS	943	-	382 221.7	5 891 743.3	382 206.3	5 891 735.0	17.5	-
17/08/2020	21:32	CC_01	HG	FA/PSDA	944	-	382 221.7	5 891 743.3	382 227.9	5 891 762.4	20.1	-
17/08/2020	22:14	CC_02	Video	SOL	945	20.2	384 046.8	5 892 259.6	384 027.2	5 892 312.7	56.6	-
17/08/2020	22:14	CC_02	Still	200270_CC_02_01	946	-	384 046.8	5 892 259.6	384 030.8	5 892 303.1	46.4	-
17/08/2020	22:15	CC_02	Still	200270_CC_02_02	947	-	384 046.8	5 892 259.6	384 038.2	5 892 285.5	27.3	-
17/08/2020	22:15	CC_02	Still	200270_CC_02_03	948	-	384 046.8	5 892 259.6	384 041.7	5 892 278.6	19.7	-
17/08/2020	22:15	CC_02	Still	200270_CC_02_04	949	-	384 046.8	5 892 259.6	384 043.5	5 892 274.4	15.2	-
17/08/2020	22:15	CC_02	Still	200270_CC_02_05	950	-	384 046.8	5 892 259.6	384 044.8	5 892 270.9	11.5	-
17/08/2020	22:15	CC_02	Still	200270_CC_02_06	951	-	384 046.8	5 892 259.6	384 046.2	5 892 267.6	8.0	-
17/08/2020	22:15	CC_02	Still	200270_CC_02_07	952	-	384 046.8	5 892 259.6	384 048.8	5 892 262.1	3.2	-
17/08/2020	22:15	CC_02	Still	200270_CC_02_08	953	-	384 046.8	5 892 259.6	384 049.7	5 892 259.8	2.9	-
17/08/2020	22:16	CC_02	Still	200270_CC_02_09	954	-	384 046.8	5 892 259.6	384 052.3	5 892 253.2	8.4	-
17/08/2020	22:16	CC_02	Still	200270_CC_02_10	955	-	384 046.8	5 892 259.6	384 053.3	5 892 250.3	11.3	-
17/08/2020	22:16	CC_02	Still	200270_CC_02_11	956	-	384 046.8	5 892 259.6	384 054.1	5 892 247.6	14.0	-
17/08/2020	22:16	CC_02	Still	200270_CC_02_12	957	-	384 046.8	5 892 259.6	384 055.2	5 892 245.4	16.4	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
17/08/2020	22:16	CC_02	Still	200270_CC_02_13	958	-	384 046.8	5 892 259.6	384 056.0	5 892 242.0	19.8	-
17/08/2020	22:16	CC_02	Still	200270_CC_02_14	959	-	384 046.8	5 892 259.6	384 056.4	5 892 240.4	21.5	-
17/08/2020	22:16	CC_02	Video	EOL	960	20.2	384 046.8	5 892 259.6	384 057.3	5 892 237.8	24.1	-
17/08/2020	22:22	CC_02	HG	NS	961	-	384 046.8	5 892 259.6	384 050.9	5 892 267.0	8.5	-
17/08/2020	22:28	CC_02	HG	FA/PSDA	962	-	384 046.8	5 892 259.6	384 051.6	5 892 261.6	5.2	-
17/08/2020	23:45	CC_03	Video	SOL	963	18.3	384 479.1	5 892 619.8	384 452.3	5 892 657.9	46.5	-
17/08/2020	23:45	CC_03	Still	200270_CC_03_01	964	-	384 479.1	5 892 619.8	384 467.2	5 892 642.4	25.6	-
17/08/2020	23:45	CC_03	Still	200270_CC_03_02	965	-	384 479.1	5 892 619.8	384 471.3	5 892 636.2	18.1	-
17/08/2020	23:46	CC_03	Still	200270_CC_03_03	966	-	384 479.1	5 892 619.8	384 476.5	5 892 626.6	7.3	-
17/08/2020	23:46	CC_03	Still	200270_CC_03_04	967	-	384 479.1	5 892 619.8	384 481.6	5 892 619.3	2.6	-
17/08/2020	23:46	CC_03	Still	200270_CC_03_05	968	-	384 479.1	5 892 619.8	384 484.1	5 892 615.6	6.5	-
17/08/2020	23:46	CC_03	Still	200270_CC_03_06	969	-	384 479.1	5 892 619.8	384 485.9	5 892 613.3	9.5	-
17/08/2020	23:47	CC_03	Still	200270_CC_03_07	970	-	384 479.1	5 892 619.8	384 492.7	5 892 606.1	19.3	-
17/08/2020	23:47	CC_03	Still	200270_CC_03_08	971	-	384 479.1	5 892 619.8	384 494.7	5 892 602.6	23.3	-
17/08/2020	23:48	CC_03	Video	EOL	972	21.8	384 479.1	5 892 619.8	384 497.4	5 892 595.3	30.5	-
17/08/2020	23:54	CC_03	HG	FA/PSDA	973	-	384 479.1	5 892 619.8	384 475.9	5 892 623.1	4.6	-
18/08/2020	00:12	CC_04	Video	SOL	974	19.7	384 959.4	5 892 727.9	384 920.2	5 892 761.6	51.7	-
18/08/2020	00:13	CC_04	Still	200270_CC_04_01	975	-	384 959.4	5 892 727.9	384 935.2	5 892 744.6	29.4	-
18/08/2020	00:13	CC_04	Still	200270_CC_04_02	976	-	384 959.4	5 892 727.9	384 940.8	5 892 738.5	21.4	-
18/08/2020	00:13	CC_04	Still	200270_CC_04_03	977	-	384 959.4	5 892 727.9	384 948.0	5 892 731.2	11.9	-
18/08/2020	00:14	CC_04	Still	200270_CC_04_04	978	-	384 959.4	5 892 727.9	384 952.4	5 892 725.9	7.3	-
18/08/2020	00:14	CC_04	Still	200270_CC_04_05	979	-	384 959.4	5 892 727.9	384 957.4	5 892 721.0	7.1	-
18/08/2020	00:14	CC_04	Still	200270_CC_04_06	980	-	384 959.4	5 892 727.9	384 959.5	5 892 718.7	9.2	-
18/08/2020	00:14	CC_04	Still	200270_CC_04_07	981	-	384 959.4	5 892 727.9	384 967.3	5 892 710.0	19.5	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
18/08/2020	00:15	CC_04	Still	200270_CC_04_08	982	-	384 959.4	5 892 727.9	384 971.4	5 892 706.4	24.6	-
18/08/2020	00:15	CC_04	Video	EOL	983	20.3	384 959.4	5 892 727.9	384 974.1	5 892 703.3	28.6	-
18/08/2020	00:20	CC_04	HG	FA/PSDA	984	-	384 959.4	5 892 727.9	384 960.7	5 892 734.8	7.1	-
18/08/2020	00:46	CC_05	Video	SOL	985	16.5	385 896.0	5 893 280.2	385 843.3	5 893 297.6	55.4	-
18/08/2020	00:47	CC_05	Still	200270_CC_05_01	986	-	385 896.0	5 893 280.2	385 878.9	5 893 291.8	20.6	-
18/08/2020	00:47	CC_05	Still	200270_CC_05_02	987	-	385 896.0	5 893 280.2	385 883.9	5 893 290.6	15.9	-
18/08/2020	00:48	CC_05	Still	200270_CC_05_03	988	-	385 896.0	5 893 280.2	385 890.5	5 893 292.5	13.5	-
18/08/2020	00:48	CC_05	Still	200270_CC_05_04	989	-	385 896.0	5 893 280.2	385 895.9	5 893 296.3	16.1	-
18/08/2020	00:48	CC_05	Still	200270_CC_05_05	990	-	385 896.0	5 893 280.2	385 898.1	5 893 302.6	22.5	-
18/08/2020	00:48	CC_05	Still	EOL	991	16.5	385 896.0	5 893 280.2	385 896.8	5 893 317.1	36.9	-
18/08/2020	00:52	CC_05a	Still	SOL	992	16.0	385 896.0	5 893 280.2	385 865.5	5 893 303.6	38.4	-
18/08/2020	00:52	CC_05a	Still	200270_CC_05a_01	993	-	385 896.0	5 893 280.2	385 880.7	5 893 291.3	18.9	-
18/08/2020	00:53	CC_05a	Still	200270_CC_05a_02	994	-	385 896.0	5 893 280.2	385 887.2	5 893 286.7	10.9	-
18/08/2020	00:53	CC_05a	Still	200270_CC_05a_03	995	-	385 896.0	5 893 280.2	385 890.0	5 893 285.0	7.6	-
18/08/2020	00:53	CC_05a	Still	200270_CC_05a_04	996	-	385 896.0	5 893 280.2	385 894.2	5 893 281.9	2.4	-
18/08/2020	00:53	CC_05a	Still	200270_CC_05a_05	997	-	385 896.0	5 893 280.2	385 898.9	5 893 278.3	3.6	-
18/08/2020	00:53	CC_05a	Still	200270_CC_05a_06	998	-	385 896.0	5 893 280.2	385 902.9	5 893 274.3	9.1	-
18/08/2020	00:53	CC_05a	Still	200270_CC_05a_07	999	-	385 896.0	5 893 280.2	385 910.6	5 893 265.9	20.5	-
18/08/2020	00:54	CC_05a	Still	200270_CC_05a_08	1000	-	385 896.0	5 893 280.2	385 912.8	5 893 263.5	23.7	-
18/08/2020	00:54	CC_05a	Still	200270_CC_05a_09	1001	-	385 896.0	5 893 280.2	385 915.0	5 893 259.6	28.1	-
18/08/2020	00:54	CC_05a	Video	EOL	1002	16.9	385 896.0	5 893 280.2	385 916.7	5 893 256.4	31.6	-
18/08/2020	01:01	CC_05	HG	FA/PSDA	1003	17.0	385 896.0	5 893 280.2	385 888.2	5 893 273.1	10.5	-
18/08/2020	01:07	CC_05	HG	NS	1004	16.9	385 896.0	5 893 280.2	385 898.7	5 893 293.4	13.4	-
18/08/2020	01:13	CC_05	HG	FB/PSDB	1005	17.3	385 896.0	5 893 280.2	385 907.2	5 893 289.7	14.7	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
18/08/2020	01:18	CC_05	HG	NS	1006	17.2	385 896.0	5 893 280.2	385 891.5	5 893 278.3	4.9	-
18/08/2020	01:36	CC_05	HG	FC/PSDC	1007	17.1	385 896.0	5 893 280.2	385 873.2	5 893 274.7	23.4	-
18/08/2020	02:08	CC_06	Video	SOL	1008	21.2	387 012.6	5 893 472.3	386 981.7	5 893 513.9	51.9	-
18/08/2020	02:09	CC_06	Still	200270_CC_06_01	1009	-	387 012.6	5 893 472.3	386 998.7	5 893 491.3	23.5	-
18/08/2020	02:09	CC_06	Still	200270_CC_06_02	1010	-	387 012.6	5 893 472.3	387 001.3	5 893 488.2	19.5	-
18/08/2020	02:09	CC_06	Still	200270_CC_06_03	1011	-	387 012.6	5 893 472.3	387 004.0	5 893 485.0	15.3	-
18/08/2020	02:09	CC_06	Still	200270_CC_06_04	1012	-	387 012.6	5 893 472.3	387 009.3	5 893 478.4	7.0	-
18/08/2020	02:09	CC_06	Still	200270_CC_06_05	1013	-	387 012.6	5 893 472.3	387 011.6	5 893 476.8	4.6	-
18/08/2020	02:10	CC_06	Still	200270_CC_06_06	1014	-	387 012.6	5 893 472.3	387 018.8	5 893 470.1	6.6	-
18/08/2020	02:10	CC_06	Still	200270_CC_06_07	1015	-	387 012.6	5 893 472.3	387 026.0	5 893 463.9	15.8	-
18/08/2020	02:10	CC_06	Still	200270_CC_06_08	1016	-	387 012.6	5 893 472.3	387 030.2	5 893 461.0	20.9	-
18/08/2020	02:10	CC_06	Still	200270_CC_06_09	1017	-	387 012.6	5 893 472.3	387 033.8	5 893 458.4	25.4	-
18/08/2020	02:11	CC_06	Video	EOL	1018	21.1	387 012.6	5 893 472.3	387 040.2	5 893 454.2	33.0	-
18/08/2020	02:17	CC_06	HG	FA/PSDA	1019	-	387 012.6	5 893 472.3	387 016.3	5 893 475.0	4.5	-
18/08/2020	02:55	CC_07	Video	SOL	1020	21.2	391 653.3	5 895 155.2	391 612.5	5 895 136.4	44.9	-
18/08/2020	02:55	CC_07	Still	200270_CC_07_01	1021	-	391 653.3	5 895 155.2	391 629.6	5 895 147.2	25.1	-
18/08/2020	02:55	CC_07	Still	200270_CC_07_02	1022	-	391 653.3	5 895 155.2	391 638.1	5 895 153.4	15.3	-
18/08/2020	02:56	CC_07	Still	200270_CC_07_03	1023	-	391 653.3	5 895 155.2	391 647.4	5 895 158.8	7.0	-
18/08/2020	02:56	CC_07	Still	200270_CC_07_04	1024	-	391 653.3	5 895 155.2	391 654.8	5 895 162.6	7.6	-
18/08/2020	02:56	CC_07	Still	200270_CC_07_05	1025	-	391 653.3	5 895 155.2	391 657.5	5 895 164.3	10.0	-
18/08/2020	02:56	CC_07	Still	200270_CC_07_06	1026	-	391 653.3	5 895 155.2	391 660.2	5 895 165.7	12.5	-
18/08/2020	02:56	CC_07	Still	200270_CC_07_07	1027	-	391 653.3	5 895 155.2	391 664.1	5 895 167.2	16.1	-
18/08/2020	02:56	CC_07	Still	200270_CC_07_08	1028	-	391 653.3	5 895 155.2	391 670.4	5 895 169.9	22.5	-
18/08/2020	02:57	CC_07	Video	EOL	1029	21.6	391 653.3	5 895 155.2	391 682.8	5 895 176.0	36.1	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
18/08/2020	03:06	CC_07	HG	FA/PSDA	1030	21.0	391 653.3	5 895 155.2	391 657.0	5 895 154.1	3.9	-
18/08/2020	03:47	CC_08	Video	SOL	1031	20.9	392 851.6	5 895 680.0	392 895.0	5 895 680.9	43.4	-
18/08/2020	03:48	CC_08	Still	200270_CC_08_01	1032	-	392 851.6	5 895 680.0	392 874.5	5 895 683.3	23.2	-
18/08/2020	03:48	CC_08	Still	200270_CC_08_02	1033	-	392 851.6	5 895 680.0	392 868.3	5 895 683.4	17.0	-
18/08/2020	03:48	CC_08	Still	200270_CC_08_03	1034	-	392 851.6	5 895 680.0	392 862.9	5 895 684.5	12.2	-
18/08/2020	03:48	CC_08	Still	200270_CC_08_04	1035	-	392 851.6	5 895 680.0	392 860.4	5 895 684.2	9.7	-
18/08/2020	03:48	CC_08	Still	200270_CC_08_05	1036	-	392 851.6	5 895 680.0	392 853.3	5 895 685.7	5.9	-
18/08/2020	03:48	CC_08	Still	200270_CC_08_06	1037	-	392 851.6	5 895 680.0	392 848.4	5 895 687.7	8.3	-
18/08/2020	03:48	CC_08	Still	200270_CC_08_07	1038	-	392 851.6	5 895 680.0	392 842.5	5 895 689.8	13.3	-
18/08/2020	03:49	CC_08	Still	200270_CC_08_08	1039	-	392 851.6	5 895 680.0	392 838.1	5 895 690.8	17.3	-
18/08/2020	03:49	CC_08	Still	200270_CC_08_09	1040	-	392 851.6	5 895 680.0	392 831.5	5 895 689.3	22.1	-
18/08/2020	03:49	CC_08	Still	200270_CC_08_10	1041	-	392 851.6	5 895 680.0	392 823.9	5 895 689.0	29.1	-
18/08/2020	03:49	CC_08	Video	EOL	1042	20.2	392 851.6	5 895 680.0	392 820.0	5 895 691.7	33.7	-
18/08/2020	03:57	CC_08	HG	NS	1043	20.5	392 851.6	5 895 680.0	392 861.0	5 895 680.9	9.4	-
18/08/2020	04:03	CC_08	HG	FA/PSDA	1044	20.5	392 851.6	5 895 680.0	392 850.8	5 895 663.8	16.3	-
18/08/2020	04:31	CC_09	Video	SOL	1045	21.0	395 089.7	5 896 462.4	395 134.8	5 896 444.7	48.4	-
18/08/2020	04:31	CC_09	Still	200270_CC_09_01	1046	-	395 089.7	5 896 462.4	395 110.4	5 896 446.0	26.4	-
18/08/2020	04:31	CC_09	Still	200270_CC_09_02	1047	-	395 089.7	5 896 462.4	395 101.0	5 896 449.8	16.9	-
18/08/2020	04:32	CC_09	Still	200270_CC_09_03	1048	-	395 089.7	5 896 462.4	395 095.3	5 896 452.1	11.7	-
18/08/2020	04:32	CC_09	Still	200270_CC_09_04	1049	-	395 089.7	5 896 462.4	395 092.0	5 896 453.9	8.8	-
18/08/2020	04:32	CC_09	Still	200270_CC_09_05	1050	-	395 089.7	5 896 462.4	395 088.0	5 896 456.2	6.4	-
18/08/2020	04:32	CC_09	Still	200270_CC_09_06	1051	-	395 089.7	5 896 462.4	395 084.6	5 896 458.8	6.3	-
18/08/2020	04:32	CC_09	Still	200270_CC_09_07	1052	-	395 089.7	5 896 462.4	395 080.3	5 896 461.1	9.5	-
18/08/2020	04:32	CC_09	Still	200270_CC_09_08	1053	-	395 089.7	5 896 462.4	395 077.3	5 896 462.6	12.4	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
18/08/2020	04:33	CC_09	Still	200270_CC_09_09	1054	-	395 089.7	5 896 462.4	395 072.8	5 896 465.6	17.2	-
18/08/2020	04:33	CC_09	Still	200270_CC_09_10	1055	-	395 089.7	5 896 462.4	395 071.4	5 896 466.8	18.9	-
18/08/2020	04:33	CC_09	Still	200270_CC_09_11	1056	-	395 089.7	5 896 462.4	395 070.8	5 896 467.7	19.6	-
18/08/2020	04:33	CC_09	Still	200270_CC_09_12	1057	-	395 089.7	5 896 462.4	395 069.6	5 896 469.2	21.2	-
18/08/2020	04:34	CC_09	Video	EOL	1058	21.0	395 089.7	5 896 462.4	395 063.3	5 896 476.2	29.9	-
18/08/2020	04:43	CC_09	HG	FA/PSDA	1059	21.0	395 089.7	5 896 462.4	395 091.8	5 896 445.2	17.3	-
18/08/2020	04:47	CC_09	HG	NS	1060	21.1	395 089.7	5 896 462.4	395 090.9	5 896 465.4	3.2	-
18/08/2020	04:52	CC_09	HG	FB/PSDB	1061	21.0	395 089.7	5 896 462.4	395 087.8	5 896 448.5	14.0	-
18/08/2020	04:56	CC_09	HG	NS	1062	21.0	395 089.7	5 896 462.4	395 095.7	5 896 454.8	9.6	-
18/08/2020	05:03	CC_09	HG	FC/PSDC	1063	21.3	395 089.7	5 896 462.4	395 092.2	5 896 454.3	8.5	-
18/08/2020	05:40	D_07	Video	SOL	1064	22.3	395 287.8	5 895 779.1	395 327.5	5 895 748.3	50.2	-
18/08/2020	05:40	D_07	Still	200270_D_07_01	1065	-	395 287.8	5 895 779.1	395 313.1	5 895 759.1	32.2	-
18/08/2020	05:40	D_07	Still	200270_D_07_02	1066	-	395 287.8	5 895 779.1	395 303.8	5 895 765.7	20.9	-
18/08/2020	05:41	D_07	Still	200270_D_07_03	1067	-	395 287.8	5 895 779.1	395 301.7	5 895 766.8	18.6	-
18/08/2020	05:41	D_07	Still	200270_D_07_04	1068	-	395 287.8	5 895 779.1	395 295.1	5 895 772.2	10.1	-
18/08/2020	05:41	D_07	Still	200270_D_07_05	1069	-	395 287.8	5 895 779.1	395 290.2	5 895 776.6	3.4	-
18/08/2020	05:41	D_07	Still	200270_D_07_06	1070	-	395 287.8	5 895 779.1	395 285.0	5 895 780.2	3.1	-
18/08/2020	05:41	D_07	Still	200270_D_07_07	1071	-	395 287.8	5 895 779.1	395 277.2	5 895 788.9	14.5	-
18/08/2020	05:42	D_07	Still	200270_D_07_08	1072	-	395 287.8	5 895 779.1	395 275.5	5 895 791.1	17.2	-
18/08/2020	05:42	D_07	Still	200270_D_07_09	1073	-	395 287.8	5 895 779.1	395 270.3	5 895 797.1	25.1	-
18/08/2020	05:42	D_07	Still	EOL	1074	22.4	395 287.8	5 895 779.1	395 265.5	5 895 806.0	34.9	-
18/08/2020	05:48	D_07	HG	FA/PSDA	1075	22.7	395 287.8	5 895 779.1	395 293.4	5 895 782.1	6.4	-
18/08/2020	06:09	D_08	Video	SOL	1076	21.0	396 715.8	5 895 888.0	396 732.1	5 895 859.1	33.1	-
18/08/2020	06:09	D_08	Still	200270_D_08_01	1077	-	396 715.8	5 895 888.0	396 733.0	5 895 876.7	20.5	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
18/08/2020	06:10	D_08	Still	200270_D_08_02	1078	-	396 715.8	5 895 888.0	396 731.4	5 895 888.2	15.6	-
18/08/2020	06:10	D_08	Still	200270_D_08_03	1079	-	396 715.8	5 895 888.0	396 726.1	5 895 891.4	10.9	-
18/08/2020	06:10	D_08	Still	200270_D_08_04	1080	-	396 715.8	5 895 888.0	396 721.3	5 895 896.4	10.0	-
18/08/2020	06:10	D_08	Still	200270_D_08_05	1081	-	396 715.8	5 895 888.0	396 718.8	5 895 907.8	20.0	-
18/08/2020	06:10	D_08	Still	200270_D_08_06	1082	-	396 715.8	5 895 888.0	396 718.1	5 895 913.5	25.6	-
18/08/2020	06:11	D_08	Video	EOL	1083	18.9	396 715.8	5 895 888.0	396 717.3	5 895 921.1	33.2	-
18/08/2020	06:16	D_08	HG	FA/PSDA	1084	17.7	396 715.8	5 895 888.0	396 714.5	5 895 871.4	16.6	-
18/08/2020	06:51	D_09	Video	SOL	1085	15.0	396 743.5	5 896 838.7	396 758.2	5 896 800.8	40.6	-
18/08/2020	06:51	D_09	Still	200270_D_09_01	1086	-	396 743.5	5 896 838.7	396 755.6	5 896 823.5	19.4	-
18/08/2020	06:51	D_09	Still	200270_D_09_02	1087	-	396 743.5	5 896 838.7	396 754.3	5 896 826.6	16.2	-
18/08/2020	06:51	D_09	Still	200270_D_09_03	1088	-	396 743.5	5 896 838.7	396 751.4	5 896 830.9	11.1	-
18/08/2020	06:52	D_09	Still	200270_D_09_04	1089	-	396 743.5	5 896 838.7	396 744.8	5 896 839.4	1.4	-
18/08/2020	06:52	D_09	Still	200270_D_09_05	1090	-	396 743.5	5 896 838.7	396 740.1	5 896 848.3	10.2	-
18/08/2020	06:52	D_09	Still	200270_D_09_06	1091	-	396 743.5	5 896 838.7	396 737.8	5 896 855.4	17.6	-
18/08/2020	06:52	D_09	Still	200270_D_09_07	1092	-	396 743.5	5 896 838.7	396 735.8	5 896 861.7	24.3	-
18/08/2020	06:52	D_09	Video	EOL	1093	15.2	396 743.5	5 896 838.7	396 735.1	5 896 871.5	33.9	-
18/08/2020	06:58	D_09	HG	FA/PSDA	1094	15.2	396 743.5	5 896 838.7	396 748.1	5 896 833.7	6.7	-
18/08/2020	07:19	D_06	Video	SOL	1095	23.6	398 385.4	5 895 811.3	398 406.7	5 895 785.6	33.3	-
18/08/2020	07:20	D_06	Still	200270_D_06_01	1096	-	398 385.4	5 895 811.3	398 401.3	5 895 791.4	25.5	-
18/08/2020	07:20	D_06	Still	200270_D_06_02	1097	-	398 385.4	5 895 811.3	398 397.6	5 895 796.4	19.2	-
18/08/2020	07:20	D_06	Still	200270_D_06_03	1098	-	398 385.4	5 895 811.3	398 393.1	5 895 804.8	10.0	-
18/08/2020	07:20	D_06	Still	200270_D_06_04	1099	-	398 385.4	5 895 811.3	398 391.9	5 895 808.1	7.2	-
18/08/2020	07:20	D_06	Still	200270_D_06_05	1100	-	398 385.4	5 895 811.3	398 388.6	5 895 814.5	4.6	-
18/08/2020	07:21	D_06	Still	200270_D_06_06	1101	-	398 385.4	5 895 811.3	398 383.5	5 895 824.2	13.1	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
18/08/2020	07:21	D_06	Still	200270_D_06_07	1102	-	398 385.4	5 895 811.3	398 382.0	5 895 827.2	16.3	-
18/08/2020	07:21	D_06	Still	200270_D_06_08	1103	-	398 385.4	5 895 811.3	398 380.0	5 895 832.9	22.3	-
18/08/2020	07:21	D_06	Video	EOL	1104	23.0	398 385.4	5 895 811.3	398 376.4	5 895 841.4	31.5	-
18/08/2020	07:27	D_06	HG	FA/PSDA	1105	23.7	398 385.4	5 895 811.3	398 377.2	5 895 808.2	8.7	-
18/08/2020	07:51	D_03	Video	SOL	1106	22.5	400 539.1	5 893 490.5	400 558.2	5 893 457.3	38.3	-
18/08/2020	07:51	D_03	Still	200270_D_03_01	1107	-	400 539.1	5 893 490.5	400 552.7	5 893 475.2	20.5	-
18/08/2020	07:52	D_03	Still	200270_D_03_02	1108	-	400 539.1	5 893 490.5	400 549.4	5 893 479.6	15.0	-
18/08/2020	07:52	D_03	Still	200270_D_03_03	1109	-	400 539.1	5 893 490.5	400 545.9	5 893 483.0	10.1	-
18/08/2020	07:52	D_03	Still	200270_D_03_04	1110	-	400 539.1	5 893 490.5	400 542.1	5 893 490.4	3.0	-
18/08/2020	07:52	D_03	Still	200270_D_03_05	1111	-	400 539.1	5 893 490.5	400 540.2	5 893 496.5	6.2	-
18/08/2020	07:52	D_03	Still	200270_D_03_06	1112	-	400 539.1	5 893 490.5	400 538.0	5 893 506.7	16.3	-
18/08/2020	07:52	D_03	Still	200270_D_03_07	1113	-	400 539.1	5 893 490.5	400 537.0	5 893 513.1	22.8	-
18/08/2020	07:53	D_03	Video	EOL	1114	22.5	400 539.1	5 893 490.5	400 537.2	5 893 528.6	38.2	-
18/08/2020	07:59	D_03	HG	FA/PSDA	1115	22.6	400 539.1	5 893 490.5	400 539.0	5 893 490.1	0.4	-
18/08/2020	08:02	D_03	HG	NS	1116	21.8	400 539.1	5 893 490.5	400 529.5	5 893 472.6	20.3	-
18/08/2020	08:06	D_03	HG	FB/PSDB	1117	22.0	400 539.1	5 893 490.5	400 559.2	5 893 487.6	20.3	-
18/08/2020	08:10	D_03	HG	FC/PSDC	1118	22.8	400 539.1	5 893 490.5	400 538.4	5 893 488.9	1.7	-
18/08/2020	08:57	D_02	Video	SOL	1119	21.3	399 025.9	5 891 930.9	399 046.8	5 891 928.6	20.9	-
18/08/2020	08:57	D_02	Still	200270_D_02_01	1120	-	399 025.9	5 891 930.9	399 037.6	5 891 930.8	11.7	-
18/08/2020	08:57	D_02	Still	200270_D_02_02	1121	-	399 025.9	5 891 930.9	399 034.8	5 891 931.4	8.9	-
18/08/2020	08:57	D_02	Still	200270_D_02_03	1122	-	399 025.9	5 891 930.9	399 030.4	5 891 932.8	4.8	-
18/08/2020	08:57	D_02	Still	200270_D_02_04	1123	-	399 025.9	5 891 930.9	399 022.2	5 891 935.4	5.8	-
18/08/2020	08:58	D_02	Still	200270_D_02_05	1124	-	399 025.9	5 891 930.9	399 014.2	5 891 936.8	13.1	-
18/08/2020	08:58	D_02	Still	200270_D_02_06	1125	-	399 025.9	5 891 930.9	399 008.9	5 891 937.7	18.4	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
18/08/2020	08:58	D_02	Still	200270_D_02_07	1126	-	399 025.9	5 891 930.9	399 005.6	5 891 938.0	21.6	-
18/08/2020	08:58	D_02	Still	200270_D_02_08	1127	-	399 025.9	5 891 930.9	399 001.1	5 891 939.3	26.2	-
18/08/2020	08:58	D_02	Video	EOL	1128	21.9	399 025.9	5 891 930.9	398 989.6	5 891 943.8	38.6	-
18/08/2020	09:26	D_01	Video	SOL	1129	21.8	395 239.1	5 892 020.3	395 258.2	5 892 037.7	25.9	-
18/08/2020	09:27	D_01	Still	200270_D_01_01	1130	-	395 239.1	5 892 020.3	395 248.7	5 892 025.5	11.0	-
18/08/2020	09:27	D_01	Still	200270_D_01_02	1131	-	395 239.1	5 892 020.3	395 242.1	5 892 018.8	3.3	-
18/08/2020	09:27	D_01	Still	200270_D_01_03	1132	-	395 239.1	5 892 020.3	395 237.7	5 892 014.5	5.9	-
18/08/2020	09:27	D_01	Still	200270_D_01_04	1133	-	395 239.1	5 892 020.3	395 235.2	5 892 012.4	8.8	-
18/08/2020	09:27	D_01	Still	200270_D_01_05	1134	-	395 239.1	5 892 020.3	395 233.3	5 892 009.7	12.1	-
18/08/2020	09:27	D_01	Still	200270_D_01_06	1135	-	395 239.1	5 892 020.3	395 229.6	5 892 005.2	17.8	-
18/08/2020	09:27	D_01	Still	200270_D_01_07	1136	-	395 239.1	5 892 020.3	395 225.9	5 892 000.4	23.9	-
18/08/2020	09:27	D_01	Still	200270_D_01_08	1137	-	395 239.1	5 892 020.3	395 223.1	5 891 996.9	28.3	-
18/08/2020	09:28	D_01	Video	EOL	1138	21.8	395 239.1	5 892 020.3	395 218.4	5 891 989.2	37.3	-
18/08/2020	09:33	D_01	HG	FA/PSDA	1139	21.6	395 239.1	5 892 020.3	395 240.7	5 892 021.0	1.8	-
18/08/2020	09:54	D_05	Video	SOL	1140	20.0	395 364.6	5 893 842.2	395 371.1	5 893 822.4	20.9	-
18/08/2020	09:54	D_05	Still	200270_D_05_01	1141	-	395 364.6	5 893 842.2	395 368.6	5 893 826.5	16.3	-
18/08/2020	09:55	D_05	Still	200270_D_05_02	1142	-	395 364.6	5 893 842.2	395 366.6	5 893 831.9	10.6	-
18/08/2020	09:55	D_05	Still	200270_D_05_03	1143	-	395 364.6	5 893 842.2	395 364.8	5 893 838.1	4.1	-
18/08/2020	09:55	D_05	Still	200270_D_05_04	1144	-	395 364.6	5 893 842.2	395 362.2	5 893 844.4	3.2	-
18/08/2020	09:55	D_05	Still	200270_D_05_05	1145	-	395 364.6	5 893 842.2	395 360.0	5 893 853.5	12.2	-
18/08/2020	09:55	D_05	Still	200270_D_05_06	1146	-	395 364.6	5 893 842.2	395 358.1	5 893 859.3	18.3	-
18/08/2020	09:55	D_05	Still	200270_D_05_07	1147	-	395 364.6	5 893 842.2	395 356.9	5 893 863.4	22.5	-
18/08/2020	09:55	D_05	Still	200270_D_05_08	1148	-	395 364.6	5 893 842.2	395 355.6	5 893 866.7	26.1	-
18/08/2020	09:56	D_05	Video	EOL	1149	20.4	395 364.6	5 893 842.2	395 353.2	5 893 872.2	32.0	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
18/08/2020	10:04	D_05	HG	NS	1150	20.0	395 364.6	5 893 842.2	395 349.2	5 893 842.6	15.4	-
18/08/2020	10:08	D_05	HG	FA/PSDA	1151	20.0	395 364.6	5 893 842.2	395 370.6	5 893 835.2	9.2	-
18/08/2020	10:31	D_04	Video	SOL	1152	18.0	398 301.8	5 893 379.1	398 251.0	5 893 392.8	52.6	Re-run due to tides
18/08/2020	10:32	D_04	Still	200270_D_04_01	1153	-	398 301.8	5 893 379.1	398 272.6	5 893 391.3	31.7	-
18/08/2020	10:32	D_04	Still	200270_D_04_02	1154	-	398 301.8	5 893 379.1	398 283.4	5 893 395.0	24.3	-
18/08/2020	10:32	D_04	Still	200270_D_04_03	1155	-	398 301.8	5 893 379.1	398 290.1	5 893 399.4	23.5	-
18/08/2020	10:32	D_04	Still	200270_D_04_04	1156	-	398 301.8	5 893 379.1	398 291.9	5 893 401.3	24.4	-
18/08/2020	10:32	D_04	Still	200270_D_04_05	1157	-	398 301.8	5 893 379.1	398 294.2	5 893 403.7	25.8	-
18/08/2020	10:32	D_04	Still	EOL	1158	18.0	398 301.8	5 893 379.1	398 296.3	5 893 407.7	29.2	-
18/08/2020	10:37	D_04a	Still	SOL	1159	18.0	398 301.8	5 893 379.1	398 276.6	5 893 367.7	27.7	Re-run due to tides
18/08/2020	10:38	D_04a	Still	EOL	1160	18.0	398 301.8	5 893 379.1	398 290.0	5 893 395.2	20.0	-
18/08/2020	10:43	D_04b	Still	SOL	1161	18.0	398 301.8	5 893 379.1	398 296.5	5 893 413.3	34.7	-
18/08/2020	10:44	D_04b	Still	200270_D_04b_01	1162	-	398 301.8	5 893 379.1	398 295.1	5 893 399.4	21.4	-
18/08/2020	10:44	D_04b	Still	200270_D_04b_02	1163	-	398 301.8	5 893 379.1	398 294.6	5 893 391.1	14.1	-
18/08/2020	10:44	D_04b	Still	200270_D_04b_03	1164	-	398 301.8	5 893 379.1	398 294.6	5 893 386.2	10.1	-
18/08/2020	10:44	D_04b	Still	200270_D_04b_04	1165	-	398 301.8	5 893 379.1	398 296.1	5 893 380.1	5.8	-
18/08/2020	10:44	D_04b	Still	200270_D_04b_05	1166	-	398 301.8	5 893 379.1	398 296.1	5 893 376.5	6.3	-
18/08/2020	10:44	D_04b	Still	200270_D_04b_06	1167	-	398 301.8	5 893 379.1	398 295.8	5 893 370.6	10.4	-
18/08/2020	10:44	D_04b	Still	200270_D_04b_07	1168	-	398 301.8	5 893 379.1	398 295.2	5 893 367.1	13.7	-
18/08/2020	10:44	D_04b	Still	200270_D_04b_08	1169	-	398 301.8	5 893 379.1	398 294.5	5 893 362.4	18.2	-
18/08/2020	10:45	D_04b	Still	200270_D_04b_09	1170	-	398 301.8	5 893 379.1	398 293.5	5 893 354.7	25.8	-
18/08/2020	10:45	D_04b	Video	EOL	1171	18.3	398 301.8	5 893 379.1	398 292.6	5 893 347.9	32.5	-
18/08/2020	10:50	D_04	HG	NS	1172	18.0	398 301.8	5 893 379.1	398 304.2	5 893 392.7	13.8	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
18/08/2020	10:54	D_04	HG	NS	1173	18.0	398 301.8	5 893 379.1	398 287.0	5 893 375.1	15.4	-
18/08/2020	10:58	D_04	HG	NS	1174	18.0	398 301.8	5 893 379.1	398 299.9	5 893 384.2	5.5	-
18/08/2020	11:08	D_04	HG	FA/PSDA	1175	17.7	398 301.8	5 893 379.1	398 307.7	5 893 364.9	15.3	-
18/08/2020	11:36	D_04	HG	NS	1176	17.3	398 301.8	5 893 379.1	398 297.1	5 893 357.9	21.7	-
18/08/2020	11:39	D_04	HG	NS	1177	17.3	398 301.8	5 893 379.1	398 300.0	5 893 373.7	5.7	-
18/08/2020	11:44	D_04	HG	NS	1178	17.8	398 301.8	5 893 379.1	398 295.0	5 893 359.7	20.6	-
18/08/2020	11:48	D_04	HG	NS	1179	17.8	398 301.8	5 893 379.1	398 318.6	5 893 393.2	21.9	-
18/08/2020	12:13	D_04	HG	FB/PSDB	1180	17.8	398 301.8	5 893 379.1	398 302.0	5 893 379.8	0.7	-
18/08/2020	12:18	D_04	HG	FC/PSDC	1181	17.3	398 301.8	5 893 379.1	398 304.0	5 893 367.6	11.7	-
18/08/2020	13:11	D_04	DG	NS	1182	17.5	398 301.8	5 893 379.1	398 292.9	5 893 380.0	9.0	-
18/08/2020	13:16	D_04	DG	NS	1183	17.4	398 301.8	5 893 379.1	398 312.3	5 893 389.5	14.8	-
18/08/2020	13:21	D_04	DG	NS	1184	17.5	398 301.8	5 893 379.1	398 295.8	5 893 385.7	9.0	-
18/08/2020	13:26	D_04	DG	NS	1185	17.5	398 301.8	5 893 379.1	398 348.3	5 893 415.1	58.8	-
18/08/2020	14:39	CC_06	DG	PC	1186	21.0	387 012.6	5 893 472.3	387 017.1	5 893 466.9	7.0	-
18/08/2020	14:44	CC_06	DG	NS	1187	21.0	387 012.6	5 893 472.3	387 008.3	5 893 487.3	15.6	-
18/08/2020	14:58	CC_06	DG	PC	1188	21.0	387 012.6	5 893 472.3	387 005.6	5 893 472.0	7.1	-
19/08/2020	14:06	D_03	DG	NS	3252	20.2	400 539.1	5 893 490.5	400 528.5	5 893 506.4	19.1	-
19/08/2020	14:12	D_03	DG	NS	3253	20.2	400 539.1	5 893 490.5	400 544.8	5 893 494.0	6.7	-
19/08/2020	14:16	D_03	DG	NS	3254	20.2	400 539.1	5 893 490.5	400 541.5	5 893 497.8	7.7	-
19/08/2020	14:20	D_03	DG	NS	3255	19.3	400 539.1	5 893 490.5	400 593.1	5 893 507.1	56.5	-

Notes
UTC = Coordinated Universal Time
SOL = Start of line
DG = Day grab
SG = Shipek grab
FA/FB/FC = Faunal sample A, B or C
BSL = Below sea level
EOL = End of line
HG = Hamon grab
PC, PCA, PCB = Chemistry sample
PSDA, PSDB, PSDC = Particle size distribution sample A, B or C

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]												
Date	Time [UTC]	Station	Type	Sample Rep/ Still No.	Fix No.	Water Depth [m BSL]	Proposed Location		Actual Location		Offset [m]	Notes
							Easting	Northing	Easting	Northing		
NS = No sample												

C.2 Grab Log

Date	Station	Sample Rep	Sample Depth [L]	Sediment Description (including stratigraphy)		Comments (fauna, smell, bioturbation, debris)
				Sediment Type	Sediment Description	
11/08/2020	EC_14	NS	0	-	-	-
11/08/2020	EC_14	NS	2	gS	Gravelly sand	-
11/08/2020	EC_14	FA/PSDA	4	gS	Gravelly sand	-
11/08/2020	EC_14	NT	-	-	-	-
11/08/2020	EC_14	NS	1	gS	Gravelly sand	-
11/08/2020	EC_14	PSDB	2	gS	Gravelly sand	-
11/08/2020	EC_14	NS	1	-	Sand	-
11/08/2020	EC_14	NS	< 1	-	-	Moved location
11/08/2020	EC_03	NS	0	-	-	-
11/08/2020	EC_03	NS	0	-	-	-
11/08/2020	EC_03	PSDA	2	gS	Gravelly sand	-
11/08/2020	EC_03	NS	< 1	gS	Gravelly sand	-
11/08/2020	EC_03	NS	0	-	-	-
11/08/2020	EC_03	NS	0	-	-	-
11/08/2020	EC_03	PSDB	1	gS	Gravelly sand	-
11/08/2020	EC_03	PSDC	2	gS	Gravelly sand	-
11/08/2020	EC_19	FA/PSDA	6	S	Sand with shell fragments	-
11/08/2020	EC_19	FB/PSDB	5	S	Sand with shell fragments	-
11/08/2020	EC_19	FC/PSDC	5	S	Sand with shell fragments	-
11/08/2020	EC_25	PSDA	2	gS	Gravelly sand	-
11/08/2020	EC_25	NS	< 1	gS	Gravelly sand	-

Date	Station	Sample Rep	Sample Depth [L]	Sediment Description (including stratigraphy)		Comments (fauna, smell, bioturbation, debris)
				Sediment Type	Sediment Description	
12/08/2020	EC_25	NS	2	gS	Gravelly sand	Crab (Brachyura)
12/08/2020	EC_25	NS	1	gS	Gravelly sand	Crab (*Carcinus maenas*), squat lobster (Galatheoidea), slipper limpet (*Crepidual fornicata*)
12/08/2020	EC_04	PSDA	2	gS	Gravelly sand	Crab (Brachyura)
12/08/2020	EC_04	NS	2	gS	Gravelly sand	-
12/08/2020	EC_04	NS	2	gS	Gravelly sand	-
12/08/2020	EC_24	PSDA	2	sG	Sandy gravel	Slipper limpet (*Crepidula fornicata*)
12/08/2020	EC_24	PSDB	2	gS	Gravelly sand	-
12/08/2020	EC_24	NS	< 1	gS	Gravelly sand	-
12/08/2020	EC_24	PSDC	2	gS	Gravelly sand	-
12/08/2020	EC_05	FA/PSDA	4	sG	Sandy gravel	Crab (Brachyura)
12/08/2020	EC_18	PSDA	2	gS	Gravelly sand	-
12/08/2020	EC_18	NS	2	gS	Gravelly sand	-
12/08/2020	EC_18	NS	2	gS	Gravelly sand	-
12/08/2020	EC_17	FA/PSDA	5	(g)S	Slightly gravelly sand	*Sabellaria spinulosa* tube fragments
12/08/2020	EC_07	NS	3	(g)S	Slightly gravelly sand	Out of target tolerance
12/08/2020	EC_07	PSDA	3	(g)S	Slightly gravelly sand	-
12/08/2020	EC_07	PSDB	3	(g)S	Slightly gravelly sand	-
12/08/2020	EC_07	FA/PSDC	5	(g)S	Slightly gravelly sand	-
12/08/2020	EC_07	FB	4	(g)S	Slightly gravelly sand	-
12/08/2020	EC_07	FC	3	gS	Gravelly sand	-
12/08/2020	EC_07	NS	2	gS	Gravelly sand	-
12/08/2020	EC_08	FA/PSDA	6	S	Sand with shell fragments	-

Date	Station	Sample Rep	Sample Depth [L]	Sediment Description (including stratigraphy)		Comments (fauna, smell, bioturbation, debris)
				Sediment Type	Sediment Description	
12/08/2020	EC_15	NS	1	S	Sand with shell fragments	-
12/08/2020	EC_15	FA/PSDA	4	S	Sand with shell fragments	-
12/08/2020	EC_15	NS	< 1	S	Sand	-
12/08/2020	EC_15	PC	5	gS	Gravelly sand	Shipek
12/08/2020	EC_04	NS	< 1	gS	Gravelly sand	Shipek
12/08/2020	EC_04	PC	3	gS	Gravelly sand	Shipek
12/08/2020	EC_05	NS	< 1	gS	Gravelly sand	Shipek
12/08/2020	EC_05	PC	3	gS	Gravelly sand	Shipek
12/08/2020	EC_09	FA/PSDA	6	S	Sand with shell fragments	-
12/08/2020	EC_09	FB/PSDB	6	S	Sand with shell fragments	Crab (Brachyura)
12/08/2020	EC_09	FC/PSDC	6	S	Sand with shell fragments	-
12/08/2020	EC_16	NS	2	msG	Muddy sandy gravel	-
12/08/2020	EC_16	NS	2	msG	Muddy sandy gravel	-
12/08/2020	EC_16	FA/PSDA	4	mS	Muddy sand with shell fragments	Lumps of clay
12/08/2020	EC_10	NS	3	(g)mS	Slightly gravelly muddy sand with shell fragments	-
12/08/2020	EC_10	FA/PSDA	5	(g)mS	Slightly gravelly muddy sand with shell fragments	-
12/08/2020	EC_12	NS	< 1	(g)mS	Slightly gravelly muddy sand with shell fragments	-
12/08/2020	EC_12	FA/PSDA	4	(g)mS	Slightly gravelly muddy sand with shell fragments	-
12/08/2020	EC_12	NS	3	(g)mS	Slightly gravelly muddy sand with shell fragments	-
13/08/2020	EC_23	FA/PSDA	5	gS	Gravelly sand	*Sabellaria spinulosa* tube fragments
13/08/2020	EC_23	FB/PSDB	6	gS	Gravelly sand	Crab (*Liocarcinus* sp.)
13/08/2020	EC_23	FC/PSDC	6	gS	Gravelly sand	-

Date	Station	Sample Rep	Sample Depth [L]	Sediment Description (including stratigraphy)		Comments (fauna, smell, bioturbation, debris)
				Sediment Type	Sediment Description	
13/08/2020	EC_11	FA/PSDA	4	gS	Gravelly sand with shell fragments	-
13/08/2020	EC_11	NS	1	gS	Gravelly sand with shell fragments	-
13/08/2020	EC_11	NS	0	-	-	-
16/08/2020	CC_14	NS	2	(g)sM	Slightly gravelly sandy mud	Day grab
16/08/2020	CC_14	NS	2	(g)sM	Slightly gravelly sandy mud	Day grab - cobble in jaw
16/08/2020	CC_14	NS	0	-	-	Day grab - cobble in jaw
16/08/2020	CC_14	NS	0	-	-	Day grab - cobble in jaw
17/08/2020	D_17	PC	7	S	Sand	Day grab
17/08/2020	D_26	PC	7	S	Sand with shell fragments	Day grab
17/08/2020	D_26	FA/PSDA	6	S	Sand with shell fragments	-
17/08/2020	D_26	FB/PSDB	5	gS	Gravelly sand with shell fragments	-
17/08/2020	D_26	FC/PSDC	6	gS	Gravelly sand with shell fragments	-
17/08/2020	CC_15	FA/PSDA	5	mS	Muddy sand with cobbles	-
17/08/2020	CC_16	FA/PSDA	7	S	Sand with shell fragments	-
17/08/2020	CC_17	FA/PSDA	7	S	Sand with shell fragments	-
17/08/2020	CC_18	FA/PSDA	9	gS	Gravelly sand with shell fragments	-
17/08/2020	CC_19	FA/PSDA	5	S	Sand	Sand eel (Ammodytidae)
17/08/2020	D_25	FA/PSDA	6	S	Sand	Sand eel (Ammodytidae)
17/08/2020	D_23	FA/PSDA	5	gS	Gravelly sand with shell fragments	-
17/08/2020	D_22	FA/PSDA	7	gS	Gravelly sand	-
17/08/2020	D_18	FA/PSDA	5	gS	Gravelly sand	Anoxic patches
17/08/2020	D_19	FA/PSDA	5	S	Sand	Sand eel (Ammodytidae)

Date	Station	Sample Rep	Sample Depth [L]	Sediment Description (including stratigraphy)		Comments (fauna, smell, bioturbation, debris)
				Sediment Type	Sediment Description	
17/08/2020	D_21	FA/PSDA	6	mS	Muddy sand	Slipper limpet (*Crepidula fornicata*)
17/08/2020	D_20	FA/PSDA	6	S	Sand with shell fragments	-
17/08/2020	D_16	FA/PSDA	8	S	Sand with shell fragments	-
17/08/2020	D_17	FA/PSDA	5	S	Sand with shell fragments	-
17/08/2020	D_15	FA/PSDA	10	S	Sand with shell fragments	-
17/08/2020	D_11	NS	3	gS	Gravelly sand with shell fragments	-
17/08/2020	D_11	FA/PSDA	5	gS	Gravelly sand with shell fragments	-
17/08/2020	D_10	FA/PSDA	5	(g)mS	Slightly gravelly muddy sand with shell fragments	-
17/08/2020	CC_14	FA/PSDA	5	(g)S	Slightly gravelly sand with shell fragments	-
17/08/2020	CC_13	FA/PSDA	6	(g)S	Slightly gravelly sand with shell fragments	-
17/08/2020	CC_12	FA/PSDA	7	S	Sand with shell fragments	-
17/08/2020	CC_11	FA/PSDA	5	gS	Gravelly sand with shell fragments	-
17/08/2020	CC_10	FA/PSDA	5	gS	Gravelly sand with shell fragments	-
17/08/2020	CC_01	NS	2	gS	Gravelly sand with shell fragments	-
17/08/2020	CC_01	FA/PSDA	7	gS	Gravelly sand with shell fragments	-
17/08/2020	CC_02	NS	3	gS	Gravelly sand	Stone in jaw
17/08/2020	CC_02	FA/PSDA	5	(g)mS	Slightly gravelly muddy sand	-
18/08/2020	CC_03	FA/PSDA	10	S	Sand with shell fragments	-
18/08/2020	CC_04	FA/PSDA	5	gS	Gravelly sand	-
18/08/2020	CC_05	FA/PSDA	6	(g)mS	Slightly gravelly muddy sand	-
18/08/2020	CC_05	NS	< 1	(g)mS	Slightly gravelly muddy sand	-
18/08/2020	CC_05	FB/PSDB	5	S	Sand with shell fragments	-

Date	Station	Sample Rep	Sample Depth [L]	Sediment Description (including stratigraphy)		Comments (fauna, smell, bioturbation, debris)
				Sediment Type	Sediment Description	
18/08/2020	CC_05	FC/PSDC	10	gS	Gravelly sand with shell fragments	-
18/08/2020	CC_06	FA/PSDA	5	gS	Gravelly sand with shell fragments and cobbles	-
18/08/2020	CC_07	FA/PSDA	5	(g)mS	Slightly gravelly muddy sand	-
18/08/2020	CC_08	NS	1	(g)mS	Slightly gravelly muddy sand	-
18/08/2020	CC_08	FA/PSDA	5	(g)mS	Slightly gravelly muddy sand	-
18/08/2020	CC_09	FA/PSDA	8	(g)mS	Slightly gravelly muddy sand	-
18/08/2020	CC_09	NS	4	(g)mS	Slightly gravelly muddy sand	-
18/08/2020	CC_09	FB/PSDB	6	(g)mS	Slightly gravelly muddy sand	-
18/08/2020	CC_09	NS	1	(g)mS	Slightly gravelly muddy sand	-
18/08/2020	CC_09	FC/PSDC	6	(g)mS	Slightly gravelly muddy sand	Squat lobster (Galatheoidea) and hermit crab (Paguridae)
18/08/2020	D_07	FA/PSDA	6	(g)mS	Slightly gravelly muddy sand	Hermit crab (Paguridae) and crab (*Liocarcinus* sp.)
18/08/2020	D_08	FA/PSDA	6	S	Sand with shell fragments	-
18/08/2020	D_09	FA/PSDA	6	S	Sand with shell fragments	-
18/08/2020	D_06	FA/PSDA	8	S	Sand	Sand eels (Ammodytidae)
18/08/2020	D_03	FA/PSDA	6	S	Sand	Sea urchin (Brissidina)
18/08/2020	D_03	NS	4	S	Sand	-
18/08/2020	D_03	FB/PSDB	5	(g)mS	Slightly gravelly muddy sand with shell fragments	-
18/08/2020	D_03	FC/PSDC	5	(g)mS	Slightly gravelly muddy sand with shell fragments	-
18/08/2020	D_01	FA/PSDA	5	gS	Gravelly sand	-
18/08/2020	D_05	NS	3	gS	Gravelly sand	-
18/08/2020	D_05	FA/PSDA	5	(g)mS	Slightly gravelly muddy sand	-
18/08/2020	D_04	NS	0	-	-	Rock in jaw

Date	Station	Sample Rep	Sample Depth [L]	Sediment Description (including stratigraphy)		Comments (fauna, smell, bioturbation, debris)
				Sediment Type	Sediment Description	
18/08/2020	D_04	NS	0	-	-	Rock in jaw
18/08/2020	D_04	NS	0	-	-	-
18/08/2020	D_04	FA/PSDA	4	S	Sand with shell fragments	*Sabellaria spinulosa* tube fragments
18/08/2020	D_04	NS	0	-	-	Rock in jaw
18/08/2020	D_04	NS	0	-	-	Rock in jaw
18/08/2020	D_04	NS	2	gS	Gravelly sand	Rock in jaw
18/08/2020	D_04	NS	0	-	-	Rock in jaw
18/08/2020	D_04	FB/PSDB	5	gS	Gravelly sand with shell fragments and cobbles	-
18/08/2020	D_04	FC/PSDC	5	S	Sand with shell fragments and cobbles	-
18/08/2020	D_04	PC	1	S	Sand with shell fragments and cobbles	-
18/08/2020	D_04	NS	0	-	-	-
18/08/2020	D_04	NS	0	-	-	-
18/08/2020	D_04	NS	0	-	-	-
18/08/2020	CC_06	PC	6	gS	Gravelly sand with shell fragments and cobbles	-
18/08/2020	CC_06	NS	< 1	gS	Gravelly sand with shell fragments and cobbles	-
18/08/2020	CC_06	PC	5	gS	Gravelly sand with shell fragments and cobbles	-
19/08/2020	D_03	NS	< 1	gS	Gravelly sand	Stone in jaw
19/08/2020	D_03	NS	< 1	gS	Gravelly sand	Stone in jaw
19/08/2020	D_03	NS	< 1	gS	Gravelly sand	Stone in jaw
19/08/2020	D_03	NS	< 1	gS	Gravelly sand	Stone in jaw

Notes
UTC = Coordinated Universal Time
PSDA, PSDB, PSDC = Particle size distribution sample A, B or C
NS = No sample
FA/FB/FC = Fauna sample A, B and C
PC = Physico-chemical sample

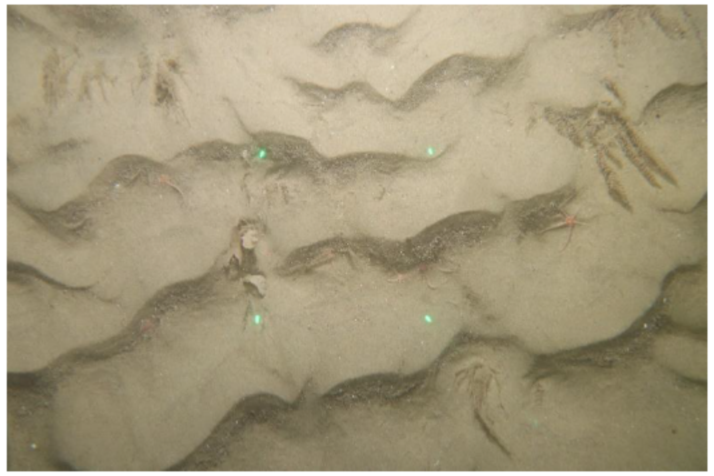
C.3 Video and Photographic Log

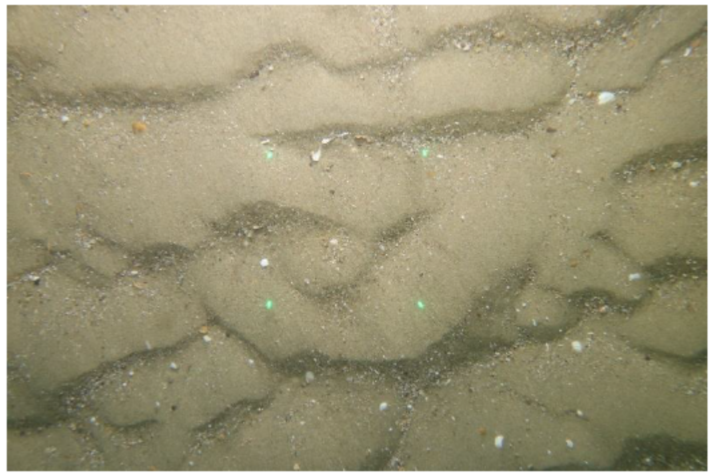
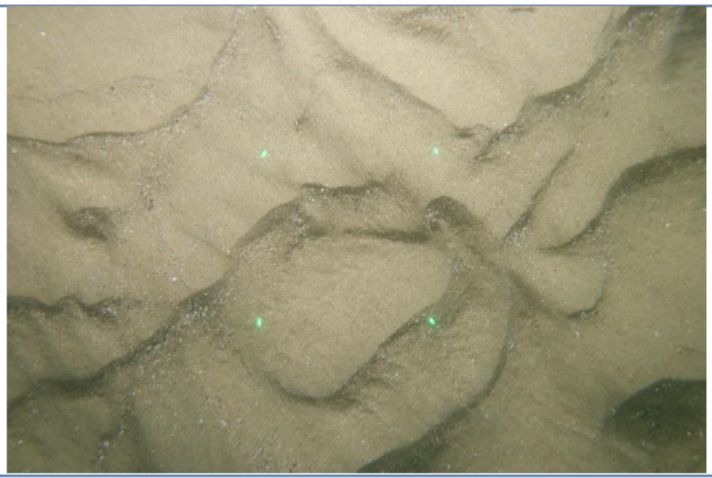
C.3.1 Dudgeon Extension Project (DEP) Survey Areas

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E

Station		Easting	Northing	Detailed Sediment Notes and EUNIS Classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance*	Representative Image
D_01	SOL EOL	395 256.40 395 219.13	5 892 035.54 5 891 990.35	Coarse sediment (Gravelly sand, with shell fragments and pebbles) Circalittoral mixed sediments (A5.44)	Anemone (*Urticina* sp.) Bryozoan (Flustridae inc. *Flustra foliacea*) Nut crab (*Ebalia* sp.) Bryozoan (*Alcyonidium diaphanum*) Starfish (*Asterias rubens*) Faunal turf (Hydrozoa/Bryozoa) Faunal tubes (Serpulidae) Sea squirts (?*Dendrodoa grossularia*) Painted topshell (*Calliostoma zizyphinum*) Anemone (Actiniaria) Hydroid (*Hydrallmania falcata*) Hermit crab (Paguridae) Sponge (?*Sycon ciliatum*) Edible crab (*Cancer pagurus*) Barnacles (Sessilia) Faunal tubes (?*Sabellaria spinulosa*) Faunal burrows	8 < 1 % P < 1 % 4 1 – 5 % P P P P < 1 % P < 1 % 1 P < 1 % P	F R P R F O P P P P R P R F P R P	
D_02	SOL EOL	399 044.10 398 991.39	5 891 928.79 5 891 942.57	Rippled sand with shell fragments pebbles and cobbles Sublittoral coarse sediment (A5.1)	Starfish (*Asterias rubens*) Bryozoan (Flustridae inc. *Flustra foliacea*) Faunal turf (Hydrozoa/Bryozoa) Dragonet (*Callionymus* sp.) Barnacles (Sessilia) Goby (Gobiidae) Hydroid (*Hydrallmania falcata*) Hydroid (Tubulariidae) Anemone (*Urticina* sp.) Painted topshell (*Calliostoma zizyphinum*) Crab (Brachyura) Slipper limpet (*Crepidula fornicata*) Faunal tubes (?*Sabellaria spinulosa*) Hydroid (?Sertulariidae)	3 < 1 % < 1 % P P P < 1 % P 3 P 1 < 1 % < 1 % < 1 %	F R R P P P R P O P O R R R	
D_03	SOL EOL	400 557.72 400 536.88	5 893 458.99 5 893 526.60	Rippled sand with shell fragments and pebbles Sublittoral coarse sediment (A5.1)	Bryozoan (Flustridae inc. *Flustra foliacea*) Anemones (*Urticina* sp.) Painted topshell (*Calliostoma zizyphinum*) Faunal turf (Hydrozoa/Bryozoa) Goby (Gobiidae) Hydroid (*Hydrallmania falcata*) Faunal tubes (?*Sabellaria spinulosa*)	< 1 % 7 P < 1 % P < 1 % <1%	R F P R P R R	

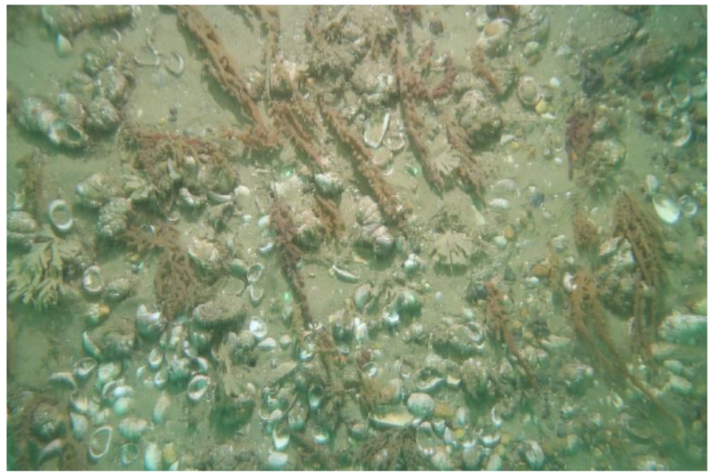
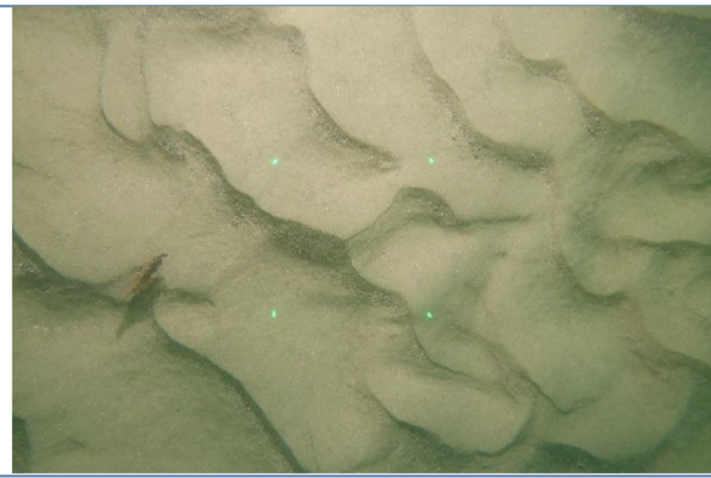
Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station		Easting	Northing	Detailed Sediment Notes and EUNIS Classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance*	Representative Image
D_04B	SOL	398 296.50	5 893 411.16	Rippled sand with shell fragments pebbles and cobbles Sublittoral coarse sediment (A5.1)	Faunal turf (Hydrozoa/Bryozoa)	< 1 %	R	
	EOL	398 293.02	5 893 349.17		Starfish (*Asterias rubens*)	2	F	
					Bryozoan (Flustridae inc. *Flustra foliacea*)	< 1 %	R	
					Anemones (*Urticina* sp.)	19	F	
					Faunal tubes (Serpulidae)	P	P	
					Painted topshell (*Calliostoma zizyphinum*)	P	P	
					Hydroid (Tubulariidae)	P	P	
					Goby (Gobiidae)	P	P	
					Barnacles (Sessilia)	P	P	
					Sea squirts (Ascidiacea)	P	P	
					Hydroid (*Hydrallmania falcata*)	< 1 %	R	
					Faunal tubes (?*Sabellaria spinulosa*)	< 1 %	R	
					Bryozoan (*Alcyonidium diaphanum*)	< 1 %	R	
					Crab (Brachyura)	1	O	
					Possible slipper limpet (?*Crepidula fornicata*)	< 1 %	R	
D_05	SOL	395 370.14	5 893 823.85	Coarse sediment (Gravelly sand, with shell fragments and pebbles) Circalittoral mixed sediments (A5.44)	Starfish (*Asterias rubens*)	3	F	
	EOL	395 353.22	5 893 871.21		Bryozoan (Flustridae inc. *Flustra foliacea*)	< 1 %	R	
					Anemone (*Urticina* sp.)	2	O	
					Faunal turf (Hydrozoa/Bryozoa)	1 – 5 %	O	
					Common sunstar (*Crossaster papposus*)	1	F	
					Faunal tubes (Serpulidae)	P	P	
					Bryozoan (*Alcyonidium diaphanum*)	< 1 %	R	
					Hydroids (Tubulariidae)	P	P	
					Shrimp (Caridea)	P	P	
					Sea squirts (?*Dendrodoa grossularia*)	P	P	
					Sea squirt (Ascidiacea)	P	P	
					Hydroid (?Sertulariidae)	< 1 %	R	
					Spider crab (Inachidae)	P	P	
					Topshell (Trochidae)	P	P	
					Swimming crab (*Liocarcinus* sp.)	1	O	
					Small burrows	P	P	

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station		Easting	Northing	Detailed Sediment Notes and EUNIS Classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance*	Representative Image
D_06	SOL	398 405.75	5 895 785.93	Rippled sand and shell fragments Sublittoral sand (A5.2)	Bryozoan (Flustridae) Brittlestar (Ophiuroidea) Brittlestar (*Ophiura albida*) Bryozoan (Hydrozoa/Bryozoa) Bryozoan (*Vesicularia spinulosa*) Bryozoan (*Alcyonidium diaphanum*) Goby (Gobiidae)	< 1 % P P < 1 % < 1 % < 1 % P	R P P R R R P	
	EOL	398 377.15	5 895 839.72					
D_07	SOL	395 325.98	5 895 748.86	Coarse sediment (Gravelly sand, with shell fragment, pebbles and cobbles) Circalittoral mixed sediments (A5.44)	Anemone (*Urticina* sp.) Anemone (Actiniaria) Bryozoan (Flustridae inc. *Flustra foliacea*) Painted topshell (*Calliostoma zizyphinum*) Slipper limpet (*Crepidula fornicata*) Faunal tubes (Serpulidae) Barnacles (Sessilia) Sea squirts (?*Dendrodoa grossularia*) Faunal turf (Hydrozoa/Bryozoa) Sculpin (Scorpaeniformes) Spider crab (?*Inachus* sp.) Anemone (Sagartiidae) Common sunstar (*Crossaster papposus*) Soft coral (*Alcyonium digitatum*) Hydroid (*Hydrallmania falcata*) Swimming crab (*Liocarcinus* sp.) Squat lobster (Galatheoidea) Scallop (*Pecten maximus*) Hydroid (?Sertulariidae) Topshell (Trochidae) Crab (Brachyura) Faunal tubes (?*Sabellaria spinulosa*) Faunal burrows	16 P < 1 % P < 1 % P P P 1 – 5 % 1 P P 1 < 1 % < 1 % 2 P 1 < 1 % P 1 < 1 % P	F P R P R P P P O O P P F R R O P O R P O R P	
	EOL	395 265.89	5 895 804.25					

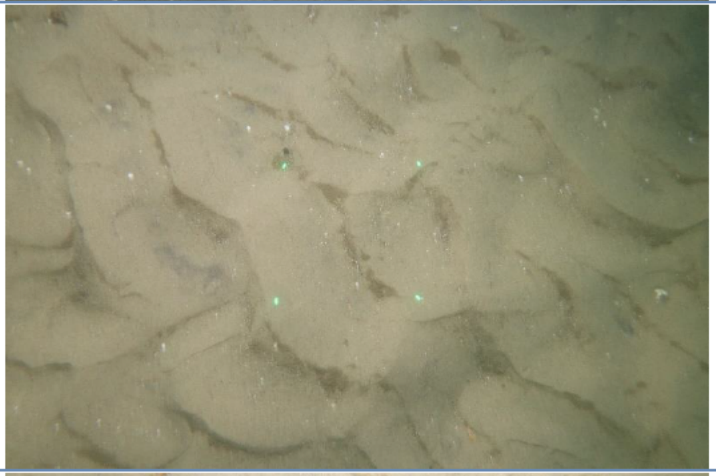
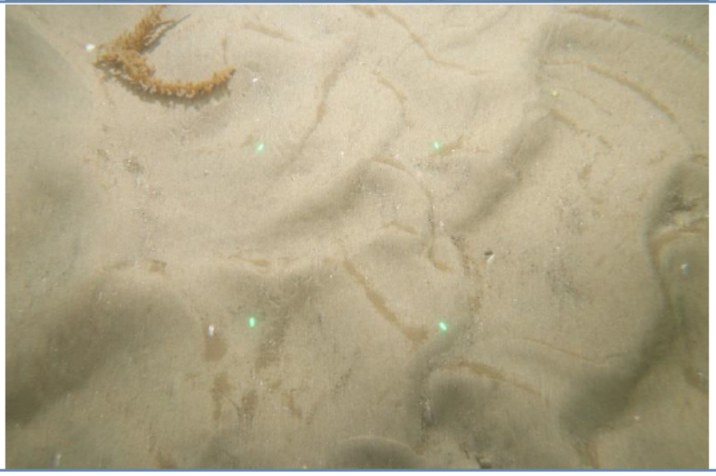
Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station		Easting	Northing	Detailed Sediment Notes and EUNIS Classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance*	Representative Image
D_08	SOL	396 732.54	5 895 861.14	Rippled sand and shell fragments Sublittoral sand (A5.2)	No visible fauna	-	-	
	EOL	396 717.20	5 895 919.73					
D_09	SOL	396 757.60	5 896 802.39	Rippled sand and shell fragments Sublittoral sand (A5.2)	Fish (Pisces)	2	O	
	EOL	396 734.80	5 896 870.77					
D_10	SOL	395 343.46	5 905 747.46	Rippled sand, patches of pebbles and shell fragments Circalittoral mixed sediments (A5.44)	Starfish (*Asterias rubens*) Bryozoan (*Alcyonidium diaphanum*) Hydroid (*Hydrallmania falcata*) Anemone (Actiniaria) Faunal tubes (Serpulidae) Bryozoan (*Vesicularia spinulosa*) Bryozoan (Flustridae inc. *Flustra foliacea*) Soft coral (*Alcyonium digitatum*) Faunal turf (Hydrozoa/Bryozoa) Faunal tubes (*Lanice conchilega*) Barnacles (Sessilia) Sea squirts (?*Dendrodoa grossularia*) Faunal tubes (?*Sabellaria spinulosa*) Topshell (Trochidae) Hermit crab (Paguridae) Goby (Gobiidae) Faunal burrows	2 1 – 5 % < 1 % P P < 1 % < 1 % < 1 % < 1 % P P P < 1 % P P P P	F O R P P R R R R P P P R P P P P	
	EOL	395 295.72	5 905 785.28					

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station		Easting	Northing	Detailed Sediment Notes and EUNIS Classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance*	Representative Image
D_11	SOL EOL	394 087.33 394 038.70	5 907 193.06 5 907 186.69	Coarse sediment (Rippled sand, patches of pebbles and shell fragments) Sublittoral coarse sediment (A5.1)	Starfish (Asteroidea) Bryozoan (*Alcyonidium diaphanum*) Faunal turf (Hydrozoa/Bryozoa) Bryozoan (Flustridae inc. *Flustra foliacea*) Starfish (*Asterias rubens*) Anemone (?Sagartiidae) Anemone (*Urticina* sp.) Sea slug (Nudibranchia) Bryozoan (*Vesicularia spinulosa*) Faunal tubes (?*Sabellaria spinulosa*) Faunal tubes (Serpulidae) Barnacles (Sessilia) Possible sea squirt (?*Dendrodoa grossularia*) Faunal burrows	1 1 – 5 % < 1 % < 1 % 1 P 1 P < 1 % < 1 % P P P P	O O R R F P O P R R P P P P	
D_12	SOL EOL	394 511.77 394 519.38	5 907 829.44 5 907 892.01	Coarse sediment (Rippled sand, patches of pebbles and shell fragments) Sublittoral coarse sediment (A5.1)	Bryozoan (*Alcyonidium diaphanum*) Faunal turf (Hydrozoa/Bryozoa) Bryozoan (Flustridae inc. *Flustra foliacea*) Starfish (*Asterias rubens*) Sea slug (Nudibranchia) Goby (Gobiidae) Hydroid (*Hydrallmania falcata*) Bryozoan (*Vesicularia spinulosa*) Swimming crab (*Liocarcinus* sp.) Barnacles (Sessilia) Faunal tubes (?*Sabellaria spinulosa*) Faunal burrows	1 – 5 % < 1 % < 1 % 3 P P < 1 % < 1 % 1 P < 1 % P	O R R F P P R R O P R P	
D_13	SOL EOL	393 932.24 393 934.77	5 907 960.19 5 907 894.50	Rippled sand, patches of pebbles and shell fragments Sublittoral coarse sediment (A5.1)	Bryozoan (*Alcyonidium diaphanum*) Anemone (Actiniaria) Starfish (*Asterias rubens*) Hermit crab (Paguridae) Faunal turf (Hydrozoa/Bryozoa) Bryozoan (Flustridae inc. *Flustra foliacea*) Scallop (Pectinidae) Anemone (*Urticina* sp.) Swimming crab (*Liocarcinus* sp.) Faunal tubes (?*Sabellaria spinulosa*) Hydroid (*Hydrallmania falcata*) Topshell (Trochidae) Barnacles (Sessilia) Possible sea squirt (?*Dendrodoa grossularia*) Possible soft coral (?*Alcyonium digitatum*) Goby (Gobiidae) Sea slug (Nudibranchia) Faunal burrows	1 – 5 % P 5 P < 1 % < 1 % 2 1 1 < 1 % < 1 % P P P < 1 % P P P	O P F P R R O O O R R P P P R P P P	

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station/Transect		Easting	Northing	Detailed Sediment Notes and EUNIS Classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance*	Representative Image
D_14	SOL	393 400.58	5 909 063.04	Rippled sand and shell fragments Sublittoral coarse sediment (A5.1)	Anemone (*Urticina* sp.) Bryozoan (*Alcyonidium diaphanum*) Bryozoan (Flustridae inc. *Flustra foliacea*) Flatfish (Pleuronectiformes) Faunal turf (Hydrozoa/Bryozoa) Snail (Gastropoda: ?Trochidae) Faunal tubes (*Lanice conchilega*)	2 < 1 % < 1 % 1 < 1 % P P	O R R F R P P	
	EOL	393 438.47	5 909 086.17					
D_15	SOL	392 066.42	5 909 363.16	Rippled sand and shell fragments, patches of pebbles Sublittoral coarse sediment (A5.1)	Bryozoan (*Alcyonidium diaphanum*) Bryozoan (Flustridae inc. *Flustra foliacea*) Faunal turf (Hydrozoa/Bryozoa) Goby (Gobiidae) Dragonet (*Callionymus* sp.)	< 1 % < 1 % < 1 % P P	R R R P P	
	EOL	392 075.34	5 909 404.61					
D_16	SOL	391 233.68	5 909 303.16	Rippled sand and shell fragments Sublittoral sand (A5.2)	Faunal turf (Hydrozoa/Bryozoa) Bryozoan (*Alcyonidium diaphanum*)	< 1 % < 1 %	R R	
	EOL	391 224.14	5 909 254.25					

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station/Transect		Easting	Northing	Detailed Sediment Notes and EUNIS Classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance*	Representative Image
D_17	SOL	391 100.64	5 908 629.97	Rippled sand and shell fragments Sublittoral sand (A5.2)	Bryozoan (*Alcyonidium diaphanum*) Hermit crab (Paguridae)	< 1 % P	R P	
	EOL	391 109.70	5 908 665.96					
D_18	SOL	388 438.28	5 909 172.50	Coarse sediment (Sand, shell fragments) Sublittoral coarse sediment (A5.1)	Slipper limpet (*Crepidula fornicata*) Bryozoan (*Alcyonidium diaphanum*) Common sunstar (*Crossaster papposus*) Bryozoan (Flustridae inc. *Flustra foliacea*) Faunal turf (Hydrozoa/Bryozoa) Anemone (Sagartidae) Faunal tubes (Serpulidae) Hydroid (*Hydrallmania falcata*) Barnacles (Sessilia) Encrusting sponge (Porifera) Goby (Gobiidae) Anemone (*Urticina* sp.) Squat lobster (Galatheoidea) Topshell (Trochidae) Possible sea slug (Nudibranchia) Possible soft coral (?*Alcyonium digitatum*) Hydroid (?Sertulariidae) Faunal burrows	< 1 % 1 – 5 % 1 < 1 % < 1 % P P < 1 % P < 1 % P 1 P P P < 1 % < 1 % P	R O F R R P P R P R P O P P P R R P	
	EOL	388 434.54	5 909 107.40					
D_19	SOL	390 071.29	5 912 224.63	Rippled sand and shell fragments Sublittoral sand (A5.2)	Faunal turf (Hydrozoa/Bryozoa) Bryozoan (*Alcyonidium diaphanum*) Goby (Gobiidae) Faunal tubes (*Lanice conchilega*) Brittlestar (*Ophiura* sp.)	< 1 % < 1 % P P P	R R P P P	
	EOL	390 143.92	5 912 221.73					

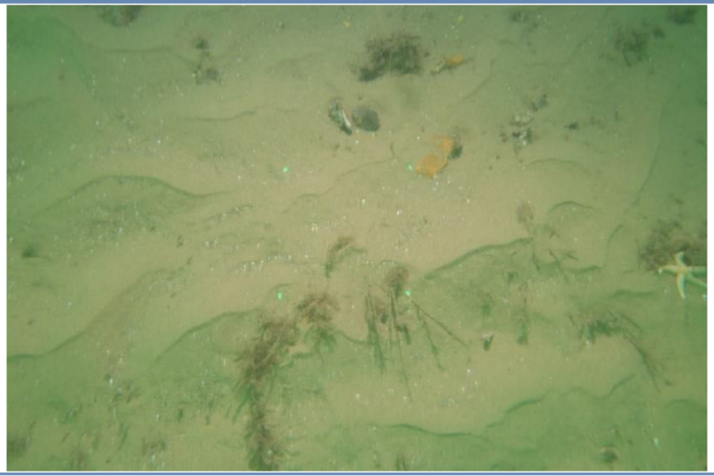
Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station/Transect		Easting	Northing	Detailed Sediment Notes and EUNIS Classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance*	Representative Image
D_20	SOL	393 019.73	5 913 235.69	Gravelly rippled sand and shell fragments Sublittoral sand (A5.2)	Faunal turf (Hydrozoa/Bryozoa) Goby (Gobiidae) Dragonet (*Callionymus* sp.)	< 1 % P P	R P P	
	EOL	393 035.71	5 913 170.38					
D_21	SOL	391 768.52	5 913 545.86	Coarse sediment (Gravelly sand, with shell fragments and pebbles) Circalittoral mixed sediments (A5.44)	Bryozoan (*Alcyonidium diaphanum*) Slipper limpet (*Crepidula fornicata*) Soft coral (*Alcyonium digitatum*) Barnacles (Sessilia) Starfish (Asteroidea) Bryozoan (Flustridae inc. *Flustra foliacea*) Anemone (*Urticina* sp.) Faunal tubes (Serpulidae) Dragonet (*Callionymus* sp.) Common sunstar (*Crossaster papposus*) Faunal turf (Hydrozoa/Bryozoa) Sea squirt (Ascidiacea)	1 – 5 % < 1 % < 1 % P 1 < 1 % 2 P P 1 < 1 % P	O R R P O R O P P F R P	
	EOL	391 835.39	5 913 567.22					
D_22	SOL	386 865.96	5 911 402.29	Gravelly rippled sand and shell fragments Sublittoral coarse sediment (A5.1)	Faunal turf (Hydrozoa/Bryozoa)	< 1 %	R	
	EOL	386 915.05	5 911 361.25					

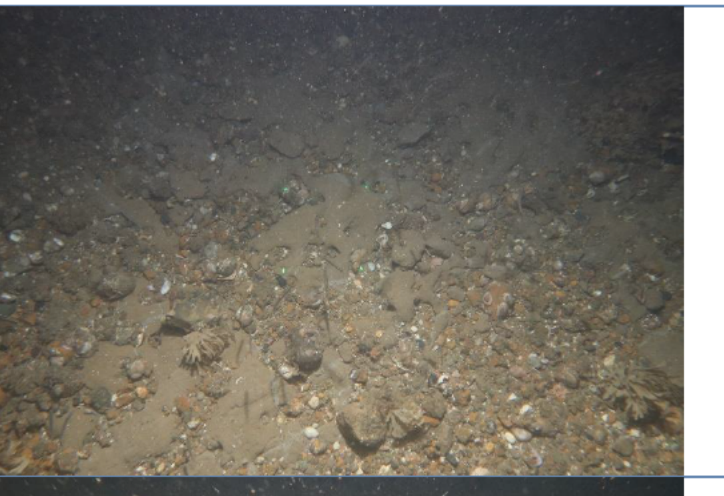
Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station/Transect		Easting	Northing	Detailed Sediment Notes and EUNIS Classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance*	Representative Image
D_23	SOL	385 525.98	5 912 691.23	Gravelly rippled sand and shell fragments Sublittoral sand (A5.2)	Faunal turf (Hydrozoa/Bryozoa) Bryozoan (*Alcyonidium diaphanum*) Dragonet (*Callionymus* sp.) Goby (Gobiidae)	< 1 % < 1 % P P	R R P P	
	EOL	385 578.72	5 912 653.81					
D_24	SOL	383 273.87	5 911 603.24	Rippled sand and shell fragments Sublittoral sand (A5.2)	Possible bryozoan (?*Alcyonidium diaphanum*)	< 1 %	R	
	EOL	383 262.74	5 911 541.10					
D_25	SOL	382 640.19	5 911 727.47	Rippled sand and shell fragments Sublittoral sand (A5.2)	Bryozoan (*Alcyonidium diaphanum*) Crab (Brachyura)	< 1 % 1	R O	
	EOL	382 633.64	5 911 775.98					

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station/Transect		Easting	Northing	Detailed Sediment Notes and EUNIS Classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance*	Representative Image
D_26	SOL	381 337.92	5 910 528.68	Gravelly rippled sand and shell fragments Sublittoral sand (A5.2)	Faunal turf (Hydrozoa/Bryozoa) Bryozoan (Flustridae inc. *Flustra foliacea*) Fish (Perciformes) Hydroid (*Hydrallmania falcata*) Bryozoan (*Vesicularia spinulosa*) Hydroid (Tubulariidae) Brittlestar (*Ophiura ?albida*) Bryozoan (*Alcyonidium diaphanum*) Hermit crab (Paguridae)	< 1 % < 1 % P < 1 % < 1 % P P < 1 % P	R R P R R P P R P	
	EOL	381355.15	5 910 591.57					

Notes
* = Abundance using the Superabundant, abundant, common, frequent, occasional and rare (semi-quantitative abundance scale)
SOL = Start of line
EOL = End of line
? = Identification of taxon uncertain

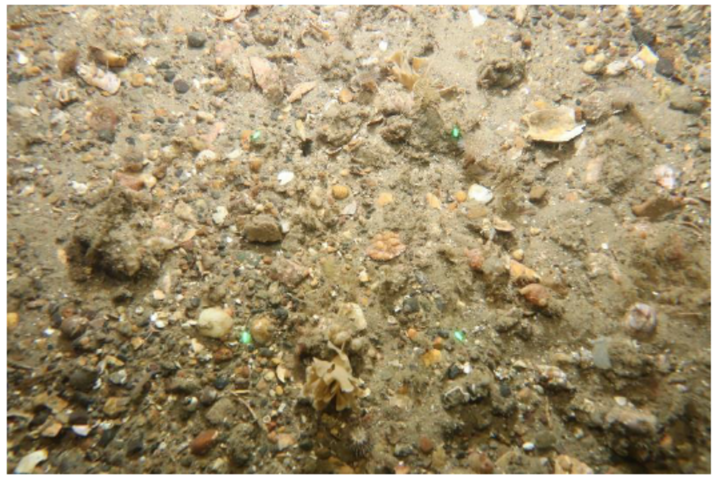
C.3.2 Export Cable (EC) Corridors

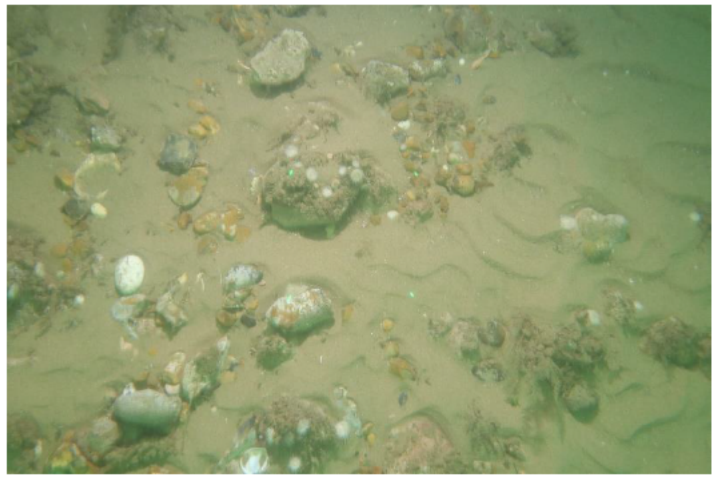
Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station/Transect		Easting	Northing	Detailed Sediment Notes and EUNIS Classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance*	Representative Image
EC_02	SOL	376 649.2	5 869 674.6	Rippled sand with shell fragments and pebbles and occasional cobbles Sublittoral coarse sediment (A5.1)	Starfish (*Asterias rubens*) Bryozoan (Flustridae inc. *Flustra foliacea*) Anemone (*Urticina* sp.) Bryozoan (*Alcyonidium diaphanum*) Faunal turf (Hydrozoa/Bryozoa) Red algae (Rhodophyta) Encrusting bryozoans (Bryozoa) Hydroid (*Nemertesia antennina*) Anemone (Actiniaria) Coralline algae (Corallinaceae) Fish (Pisces)	57 < 1 % 2 < 1 % < 1 % < 1 % < 1 % < 1 % P < 1 % P	F R O R R R R R P R P	
	EOL	376 612.9	5 869 693.2					
EC_03	SOL	378 242.7	5 870 764.4	Rippled sand with shells, pebbles and occasional cobbles Sublittoral coarse sediment (A5.1)	Starfish (*Asterias rubens*) Faunal turf (Hydrozoa/Bryozoa) Bryozoan (*Vesicularia spinosa*) Anemone (*Sagartia* sp.) Anemone (*Urticina felina*) Anemones (*Urticina* sp.) Sea squirt (Ascidiacea) Bryozoan (*Alcyonidium diaphanum*) Sponge (Porifera) Goby (Gobiidae) Bryozoan (Flustridae inc. *Flustra foliacea*) Barnacles (Sessilia) Ross worm (*Sabellaria spinulosa*) Dragonet (*Callionymus* sp.) Crab (*Carcinus maenas*) Hermit crab (Paguridae) Common sunstar (*Crossaster papposus*) Edible crab (*Cancer pagurus*) Spider crab (Inachidae) Crab (*Necora puber*) Coralline algae (Corallinaceae) Bryozoan (*Flustra foliacea*) Red algae (Rhodophyta) Soft coral (*Alcyonium digitatum*)	6 < 1 % < 1 % > 700 2 63 < 1 % < 1 % < 1 % P < 1 % P < 1 % 2 1 P 1 2 P 1 < 1 % < 1 % < 1 % < 1 %	O R R A O F R R R P R P R O O P F F P O R R R R	
	EOL	378 303.8	5 870 767.3					

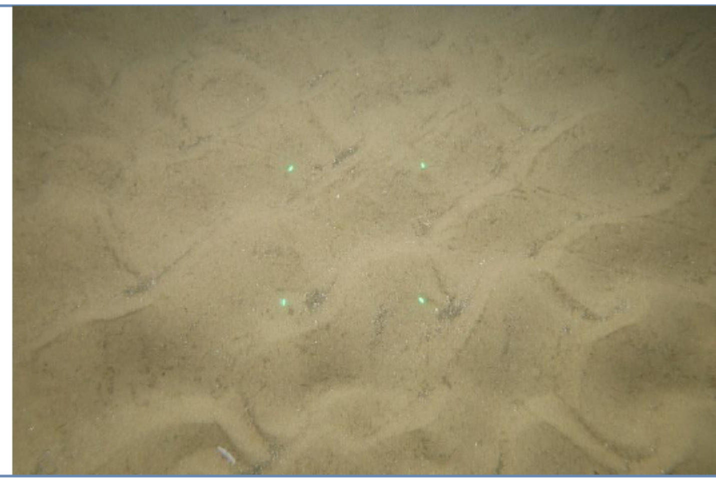
Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station/Transect		Easting	Northing	Detailed Sediment Notes and EUNIS classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance	Representative Image
EC_04	SOL EOL	379 070.5 379 014.6	5 872 311.4 5 872 302.9	Sandy gravel with cobbles and occasional boulders Sublittoral coarse sediment (A5.1)	Bryozoan (Flustridae inc. *Flustra foliacea*) Faunal turf (Hydrozoa/Bryozoa) Sea squirt (?*Dendrodoa grossularia*) Brittlestars (Ophiuroidea) Common sunstar (*Crossaster papposus*) Sea squirt (*Clavelina lepadiformis*) Anemone (*Urticina* sp.) Encrusting bryozoans (Bryozoa) Coralline algae (Corallinaceae) Spider crab (Inachidae) Sea squirts (Ascidiacea) Hydroid (*Hydrallmania falcata*) Squat lobster (Galatheoidea) Encrusting sponges (Porifera) Nut crab (*Ebalia* sp.) Anemone (Sagartiidae) Faunal tubes (Serpulidae) Ross worm (*Sabellaria spinulosa*) Sea squirts (Didemnidae)	< 1 % 10 - 19 % P P 1 P 12 < 1 % < 1 % P P < 1 % P < 1 % P P < 1 % < 1 % P	R C O P F P O R R P P R P R P P R R P	
EC_05	SOL EOL	380 755.2 380 751.2	5 873 777.7 5 873 818.8	Sandy gravel with exposed low-lying clay and occasional cobbles Circalittoral mixed sediments (A5.44)	Bryozoan (Flustridae inc. *Flustra foliacea*) Faunal turf (Hydrozoa/Bryozoa) Anemone (*Urticina* sp.) Slipper limpet (*Crepidula fornicata*) Faunal tubes (Serpulidae) Brittlestars (Ophiuroidea) Fish (Pisces)	< 1 % < 1 % 16 < 1 % P P P	R R O R P P P	
EC_06	SOL EOL	382 440.8 382 496.4	5 876 011.3 5 876 004.7	Sandy gravel with exposed low-lying clay and occasional cobbles Circalittoral mixed sediments (A5.44)	Bryozoan (Flustridae inc. *Flustra foliacea*) Faunal turf (Hydrozoa/Bryozoa) Encrusting bryozoans (Bryozoa) Faunal tubes (Serpulidae) Common sunstar (*Crossaster papposus*) Bryozoan (*Vesicularia spinosa*) Bryozoan (*Alcyonidium diaphanum*) Anemone (*Urticina* sp.) Starfish (*Henricia* sp.)	< 1 % < 1 % < 1 % P 1 < 1 % < 1 % 10 1	R R R P F R R O R	

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station/Transect		Easting	Northing	Detailed Sediment Notes and EUNIS classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance	Representative Image
EC_07	SOL	382 215.1	5 876 420.1	Rippled sand with shell, pebbles and occasional cobbles Sublittoral coarse sediment (A5.1)	Bryozoan (Flustridae inc. *Flustra foliacea*) Faunal turf (Hydrozoa/Bryozoa) Bryozoan (*Vesicularia spinosa*) Hydroid (*Hydrallmania falcata*) Bryozoan (*Alcyonidium diaphanum*) Brittlestars (Ophiuroidea) Hydroid (*Nemertesia antennina*) Anemone (*Urticina felina*) Anemone (*Urticina* sp.) Common sunstar (*Crossaster papposus*)	< 1 % 1 - 5 % < 1 % < 1 % < 1 % P < 1 % 2 4 2	R O R R R P R O O O	
	EOL	382 269.4	5 876 397.2					
EC_08	SOL	382 373.5	5 877 156.6	Rippled sand with shell fragments and a small patch of gravelly sand Sublittoral sand (A5.2)	No visible fauna	-	-	
	EOL	382 419.7	5 877 163.2					
EC_09	SOL	382 617.8	5 877 813.4	Rippled sand with shell fragments Sublittoral sand (A5.2)	No visible fauna	-	-	
	EOL	382 628.7	5 877 832.2					

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station/Transect		Easting	Northing	Detailed Sediment Notes and EUNIS classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance	Representative Image
EC_10	SOL	383 244.1	5 879 866.8	Sandy gravel with occasional cobbles Sublittoral coarse sediment (A5.1)	Bryozoan (Flustridae inc. *Flustra foliacea*)	< 1 %	R	
					Faunal turf (Hydrozoa/Bryozoa)	1 - 5 %	O	
					Faunal tubes (Serpulidae)	P	P	
					Encrusting bryozoans (Bryozoa)	< 1 %	R	
					Sea squirt (?*Dendrodoa grossularia*)	P	P	
					Bryozoan (*Alcyonidium diaphanum*)	< 1 %	R	
					Sponge (*Sycon ciliatum*)	P	P	
					Anemones (*Urticina* sp.)	13	F	
					Edible crab (*Cancer pagurus*)	1	F	
					Anemone (Actiniaria)	P	P	
					Hydroid (*Nemertesia antennina*)	< 1 %	R	
	EOL	383 312.4	5 879 847.4		Barnacles (Sessilia)	P	P	
					Comon sunstar (*Crossaster papposus*)	1	F	
					Painted topshell (*Calliostoma zizyphinum*)	P	P	
					Sea squirt (Ascidiacea)	P	P	
					Crab (*Macropodia* sp.)	P	P	
					Ross worm (*Sabellaria spinulosa*)	< 1 %	R	
					Sea slug (Nudibranchia)	P	P	
					Sponge (Porifera)	< 1 %	R	
					Starfish (*Asterias rubens*)	1	O	
					Goby (Gobiidae)	P	P	
EC_11	SOL	384 209.5	5 882 423.1	Rippled sand with shell fragments and a varying proportion of gravel Sublittoral coarse sediment (A5.1)	Faunal turf (Hydrozoa/Bryozoa)	< 1 %	R	
					Bryozoan (*Vesicularia spinosa*)	< 1 %	R	
					Bryozoan (Flustridae inc. *Flustra foliacea*)	< 1 %	R	
	EOL	384 172.0	5 882 441.6		Barnacles (Sessilia)	P	P	
					Anemones (*Urticina* sp.)	9	F	
					Anemone (*Sagartia* sp.)	P	P	

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station/Transect		Easting	Northing	Detailed Sediment Notes and EUNIS classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance	Representative Image
C_12	SOL	383 599.1	5 879 948.6	Sandy gravel with occasional cobbles Circalittoral mixed sediments (A5.44)	Faunal turf (Hydrozoa/Bryozoa)	1 - 5 %	O	
					Bryozoan (Flustridae inc. *Flustra foliacea*)	1 - 5 %	O	
					Anemone (*Sagartia* sp.)	P	P	
					Anemone (Sagartiidae)	P	P	
					Slipper limpet (*Crepidula fornicata*)	< 1 %	R	
					Sea squirt (?*Pyura* sp.)	P	P	
					Ross worm (*Sabellaria spinulosa*)	< 1 %	R	
					Hermit crab (Paguridae)	P	P	
					Sea squirt (?*Dendrodoa grossularia*)	P	P	
					Spider crab (*Macropodia* sp.)	P	P	
					Bryozoan (*Alcyonidium diaphanum*)	< 1 %	R	
					Sea squirt (Ascidiacea)	P	P	
					Faunal tubes (Sabellidae)	P	P	
	EOL	383 644.1	5 879 953.6		Encrusting sponge (Porifera)	< 1 %	R	
					Encrusting bryozoan (Bryozoa)	< 1 %	R	
					Hydroid (*Hydrallmania falcata*)	< 1 %	R	
					Hydroid (*Nemertesia antennina*)	< 1 %	R	
					Sunstar (*Crossaster papposus*)	1	F	
					Hydroid (*Abietiniaria* sp.)	< 1 %	R	
					Painted topshell (*Calliostoma zizyphinum*)	P	P	
					Anemones (*Urticina* sp.)	3	O	
					Shrimp (Caridea)	P	P	
					Starfish (*Asterias rubens*)	1	O	
C_13	SOL	381 471.7	5 875 397.7	Sandy gravel with occasional cobbles Circalittoral mixed sediments (A5.44)	Faunal turf (Hydrozoa/Bryozoa)	5 - 9 %	F	
					Bryozoan (Flustridae inc. *Flustra foliacea*)	< 1 %	R	
					Faunal turf (Hydrozoa/Bryozoa)	< 1 %	R	
					Anemone (Sagartiidae)	P	P	
					Slipper limpet (*Crepidula fornicata*)	< 1 %	R	
					Sea squirt (?*Dendrodoa grossularia*)	P	P	
					Bryozoan (*Alcyonidium diaphanum*)	< 1 %	R	
					Spider crab (Inachidae)	P	P	
					Anemones (*Urticina* sp.)	5	O	
	EOL	381 413.2	5 875 401.8		Anemone (*Urtcina felina*)	3	O	
					Brittlestars (Ophiuroidea)	P	P	
					Starfish (*Asterias rubens*)	1	O	
					Ross worm (*Sabellaria spinulosa*)	< 1 %	R	
					Hydroid (*Thuiaria thuja*)	< 1 %	R	
					Goby (Gobiidae)	P	P	
					Dragonet (*Callionymus* sp.)	1	O	
					Flatfish (Pleuronectiformes)	1	F	
					Common sunstar (*Crossaster papposus*)	2	F	
					Starfish (*Henricia* sp.)	1	O	

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station/Transect		Easting	Northing	Detailed Sediment Notes and EUNIS classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance	Representative Image
EC_14	SOL	377 336.3	5 870 616.4	Rippled sand with occasional cobbles and boulders Sublittoral coarse sediment (A5.1)	Faunal turf (Hydrozoa/Bryozoa)	< 1 %	R	
					Soft coral (*Alcyonium digitatum*)	< 1 %	R	
					Edible crab (*Cancer pagurus*)	1	O	
					Starfish (*Asterias rubens*)	33	F	
					Anemone (*Metridium* sp.)	1	R	
					Bryozoan (Flustridae inc. *Flustra foliacea*)	< 1 %	R	
					Bryozoan (*Alcyonidium diaphanum*)	< 1 %	R	
					Encrusting sponge (Porifera)	< 1 %	R	
					Anemones (*Urticina* sp.)	18	F	
					Anemone (*Sagartia* sp.)	P	P	
					Sea squirt (Ascidiacea)	P	P	
					Sponge (Porifera)	< 1 %	R	
	EOL	377 474.2	5 870 635.0		Coralline algae (Corallinaceae)	< 1 %	R	
					Barnacles (Sessilia)	P	P	
					Encrusting bryozoan (Bryozoa)	< 1 %	R	
					Faunal tubes (Serpulidae)	P	P	
					Comon sunstar (*Crossaster papposus*)	1	O	
EC_15	SOL	375 779.5	5 869 281.5	Rippled sand with occasional cobbles Sublittoral sand (A5.2)	Faunal turf (Hydrozoa/Bryozoa)	< 1 %	R	
					Anemone (Sagartiidae)	3	O	
					Bryozoan (*Alcyonidium diaphanum*)	< 1 %	R	
					Coralline algae (Corallinaceae)	< 1 %	R	
					Anemones (*Urticina* sp.)	1	O	
					Barnacles (Sessilia)	P	P	
					Faunal tubes (Serpulidae)	P	P	
					Anemone (*Metridium* sp.)	6	F	
					Dragonet (*Callionymus* sp.)	1	O	
	EOL	375 725.7	5 869 295.9		Starfish (*Asterias rubens*)	1	O	
					Hermit crab (Paguridae)	P	P	
					Fish (Pisces)	1	O	
EC_16	SOL	383 035.3	5 879 019.9	Sandy gravel with occasional cobbles Circalittoral mixed sediments (A5.44)	Faunal turf (Hydrozoa/Bryozoa)	1 - 5 %	O	
					Bryozoan (Flustridae inc. *Flustra foliacea*)	< 1 %	R	
					Slipper limpets (*Crepidula fornicata*)	< 1 %	R	
					Anemones (*Urticina* sp.)	5	F	
					Anemone (*Urticina felina*)	1	O	
					Faunal tubes (Serpulidae)	P	P	
					Barnacles (Sessilia)	P	P	
					Sea squirt (?*Dendrodoa grossularia*)	P	P	
					Anemone (*Sagartia* sp.)	P	P	
					Hydroid (*Hydrallmania falcata*)	< 1 %	R	
					Encrusting bryozoan (Bryozoa)	< 1 %	R	
					Sea squirt (*Pyura/Polycrpa* sp.)	P	P	
					Goby (Gobiidae)	P	P	
	EOL	383 056.1	5 879 021.3		Faunal tubes (*Lanice conchilega*)	P	P	
					Ross worm (*Sabellaria spinulosa*)	< 1 %	R	
					Anemone (Sagartiidae)	P	P	
					Shrimp (Caridea)	P	P	
					Starfish (*Henricia* sp.)	1	O	

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station/Transect		Easting	Northing	Detailed Sediment Notes and EUNIS classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance	Representative Image
EC_17	SOL EOL	381 322.4 381 266.4	5 875 847.2 5 875 895.7	Sandy gravel with occasional cobbles Circalittoral mixed sediments (A5.44)	Faunal turf (Hydrozoa/Bryozoa) Bryozoan (Flustridae inc. *Flustra foliacea*) Sponge (*Amphilectus fucorum*) Anemone (Sagartiidae) Faunal tubes (*Lanice conchilega*) Hydroid (*Nemertesia antennina*) Swimming crab (*Liocarcinus depurator*) Slipper limpets (*Crepidula fornicata*) Encrusting sponge (Porifera) Bryozoan (*Alcyonidium diaphanum*) Hermit crab (Paguridae) Shrimp (Caridea) Sea squirt (Didemnidae) Sunstar (*Crossaster papposus*) Starfish (*Asterias rubens*) Anemone (*Urticina* sp.)	10 - 19 % < 1 % < 1 % P P < 1 % 1 < 1 % < 1 % < 1 % P P P 1 1 3	C R R P P R O R R R P P P F O O	
EC_18	SOL EOL	381 772.9 381 707.4	5 874 880.4 5 874 881.8	Sandy gravel with occasional cobbles Circalittoral mixed sediments (A5.44)	Faunal turf (Hydrozoa/Bryozoa) Bryozoan (Flustridae inc. *Flustra foliacea*) Slipper limpets (*Crepidula fornicata*) Anemone (*Sagartia* sp.) Anemone (Sagartiidae) Sea squirt (?*Dendrodoa grossularia*) Hydroid (*Nemertesia antennina*) Sandeels (Ammodytidae) Faunal tubes (Serpulidae) Encrusting sponges (Porifera) Draonet (*Callionymus* sp.) Hermit crab (Paguridae) Faunal tube (Sabellidae) Anemones (*Urticina* sp.) Lemon sole (*Microstomus kitt*) Hydroid (*Hydrallmania falcata*) Mackerel (*Scomber scombrus*) Sunstar (*Crossaster papposus*) Starfish (*Asterias rubens*)	5 - 9 % 1 - 5 % < 1 % P P P < 1 % P P < 1 % P P P 14 1 < 1 % 1 1 1	F O R P P P R P P R P P P F F R F F O	
EC_19	SOL EOL	377 661.7 377 626.0	5 871 139.9 5 871 163.8	Rippled sand with shell fragments Sublittoral sand (A5.2)	Starfish (*Asterias rubens*) Fish (Pisces)	4 2	F O	

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station/Transect		Easting	Northing	Detailed Sediment Notes and EUNIS classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance	Representative Image
EC_23	SOL	384 078.5	5 881 909.2	Rippled sand with a varying proportion of gravel and occasional cobbles Sublittoral coarse sediment (A5.1)	Faunal turf (Hydrozoa/Bryozoa) Bryozoan (Flustridae inc. *Flustra foliacea*) Slipper limpets (*Crepidula fornicata*) Anemone (Sagartiidae) Sea slug (Nudibranchia) Hermit crab (Paguridae) Barnacles (Sessilia) Anemones (*Urticina* sp.) Edible crab (*Cancer pagurus*)	< 1 % < 1 % < 1 % P P P P 1 1	R R R P P P P O F	
	EOL	384 104.8	5 881 939.3					
EC_24	SOL	379 790.3	5 872 412.4	Sandy gravel with cobbles Small areas of exposed low-lying dark substrate (peat) Circalittoral mixed sediments (A5.44)	Faunal turf (Hydrozoa/Bryozoa) Bryozoan (Flustridae inc. *Flustra foliacea*) Barnacles (Sessilia) Slipper limpets (*Crepidula fornicata*) Faunal tubes (Serpulidae) Sea squirt (?*Dendrodoa grossularia*) Anemones (*Urticina* sp.) Anemone (Sagartiidae) Encrusting bryozoan (Bryozoa) Spider crab (Macropodia sp.) Squat lobster (Galatheoidea) Encrusting sponge (Porifera) Faunal tubes (*Lanice conchilega*) Edible crab (*Cancer pagurus*) Common sunstar (*Crossaster papposus*)	< 1 % < 1 % P < 1 % P P 19 P < 1 % P P < 1 % P 4 2	R R P R P P F P R P P R P F f	
	EOL	379 734.9	5 872 411.2					
EC_25	SOL	378 783.9	5 871 921.1	Gravel with cobbles Circalittoral mixed sediments (A5.44)	Faunal turf (Hydrozoa/Bryozoa) Bryozoan (Flustridae inc. *Flustra foliacea*) Common sunstar (*Crossaster papposus*) Faunal tubes (Serpulidae) Encrusting bryozoan (Bryozoa) Slipper limpets (*Crepidula fornicata*) Sea squirt (?*Dendrodoa grossularia*) Anemones (*Urticina* sp.) Coralline algae (Corallinaceae) Sea squirt (*Clavelina lapediformis*) Swimming crab (*Liocarcinus* sp.) Painted topshell (*Calliostoma zizyphinum*) Starfish (*Asterias rubens*) Edible crab (*Cancer pagurus*)	< 1 % < 1 % 3 P < 1 % < 1 % P 34 < 1 % P P P 3 1	R R F P R R P F R P P P O F	
	EOL	378 736.6	5 871 920.0					

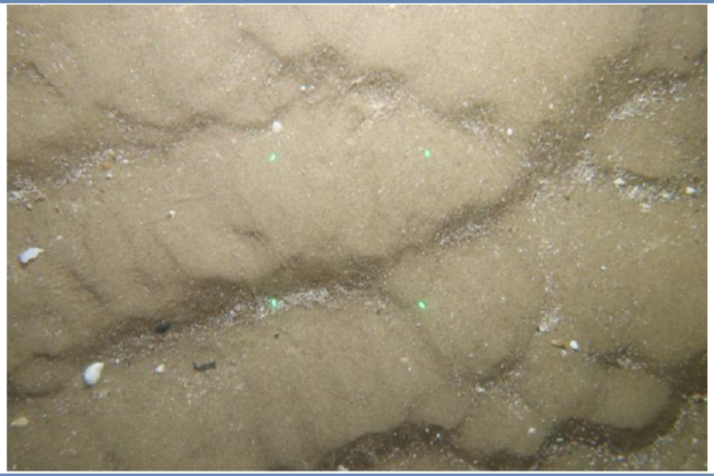
Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E								
Station/Transect		Easting	Northing	Detailed Sediment Notes and EUNIS classification	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance	Representative Image
EC_26	SOL	375 233.3 375 247.4	5 868 469.0 5 868 564.1	Rippled sand with exposed chalk and cobbles and boulders Infralittoral rock and other hard substrata (A3)	Starfish (*Asterias rubens*) Red algae (Rhodophycota) Faunal turf (Hydrozoa/Bryozoa) Tube-building worm (Sabella sp.) Anemone (Sagartiidae) Brown algae (*Cutleria multifida*) Anemones (*Urticina* sp.) Red algae (*Phyllophora* sp.) Anemone (*Sagartia* sp.) Red algae (*Asparagopsis* sp. Red algae (*Osmundea* sp.)	3 1 - 5 % < 1 % P P < 1 % 1 < 1 % P P P	O O R P P P O R P P P	
		375 247.4 375 242.9	5 868 564.1 5 868 601.1	Rippled sand with a varying proportion of gravel and cobbles and boulders Sublittoral coarse sediment (A5.1)	Starfish (*Asterias rubens*) Faunal tubes (Serpulidae) Red algae (Rhodophycota) Faunal turf (Hydrozoa/Bryozoa) Goby (Gobiidae)	4 P < 1 % < 1 % P	F P R R P	
	EOL	375 242.9 375 245.1	5 868 601.1 5 868 675.1	Rippled sand with a varying proportion of gravel Sublittoral sand (A5.2)	Starfish (*Asterias rubens*)	3	O	

Notes
* = Abundance using the Superabundant, abundant, common, frequent, occasional and rare (semi-quantitative abundance scale)
SOL = Start of line
EOL = End of line
? = Identification of taxon uncertain

C.3.3 Interconnector Cable (CC) Corridor

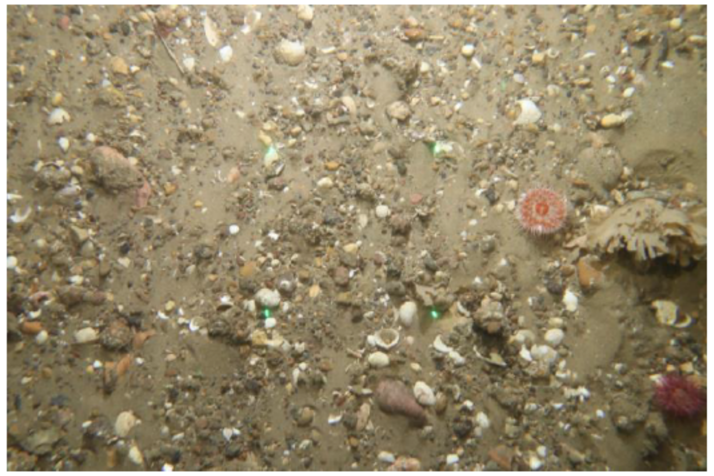
Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]								
Station/Transect		**Easting**	**Northing**	**Detailed Sediment Notes**	**Conspicuous Species**	**Counts or Percentage Cover**	**Estimated Abundance**	**Representative Image**
CC_01	SOL EOL	382 254.6 382 180.2	5 891 775.3 5 891 743.6	Coarse sediment (Gravelly sand, with shell, shell fragments and pebbles). Circalittoral mixed sediments (A5.44)	Bryozoan (Flustridae inc. *Flustra foliacea*) Anemone (Actiniaria) Starfish (*Henricia* sp.) Faunal turf (Hydrozoa/Bryozoa) Anemone (*Urticina* sp.) Goby (Gobiidae) Edible crab (*Cancer pagurus*) Crab (Brachyura) Sea squirts (?*Dendrodoa grossularia*) Barnacles (Sessilia) Common sunstar (*Crossaster papposus*) Swimming crab (*Liocarcinus* sp.) Painted topshell (*Calliostoma zizyphinum*) Shrimp (Caridea) Squat lobster (Galatheoidea) Topshell (Trochidae) Ross worm (*Sabellaria spinulosa*) Faunal tubes (Serpulidae) Faunal burrows Sponge (?Polymastiidae) Sponge (Porifera: ?*Sycon ciliatum* Slipper limpet (*Crepidula fornicata*) Hydroid (*Hydrallmania falcata*) Spider crab (Inachidae)	5 % 1 1 1 – 5 % 13 P 2 P P P 1 2 P P P P < 1 % P P < 1 % P < 1 % < 1 % P	O O F O F P F P P P F O P P P P R P P R P R R P	
CC_02	SOL EOL	384 027.2 384 057.3	5 892 312.7 5 892 237.8	Coarse sediment (Gravelly sand, with shell, shell fragments and pebbles.) Circalittoral mixed sediments (A5.44)	Bryozoan (Flustridae inc. *Flustra foliacea*) Faunal turf (Hydrozoa/Bryozoa) Anemone (Sagartiidae.) Anemone (*Urticina* sp.) Starfish (*Asterias rubens*) Swimming crab (*Liocarcinus* sp.) Shrimp (Caridea) Squat lobster (Galatheoidea) Barnacles (Sessilia) Sea squirts ((?*Dendrodoa grossularia*) Sponge (Polymastiidae: ?*Polymastia* sp.) Painted topshell (*Calliostoma zizyphinum*) Hydroid (*Hydrallmania falcata*) Hydroid (?Sertulariidae) Bryozoan (*Vesicularia spinulosa*) Nut crab (*Ebalia* sp.) ?Goby (Gobiidae) Faunal tubes (Serpulidae) Faunal burrows	1 – 5 % 1 – 5 % P 3 1 1 P P P P < 1 % P < 1 % < 1 % < 1% P P P P	O O P O F O P P P P R P R R R P P P P	

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]

Station/Transect		Easting	Northing	Detailed Sediment Notes	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance	Representative Image
CC_03	SOL	384 452.3	5 892 657.9	Rippled sand with varying proportions of shell fragments. Sublittoral sand (A5.2)	Bryozoan (Flustridae inc. *Flustra foliacea*) Faunal turf (Hydrozoa/Bryozoa) Edible crab (*Cancer pagurus*) Hermit crab (Paguridae) Hydroid (?*Hydrallmania falcata*) Possible hydroid (?Tubulariidae) Bryozoan (*Vesicularia spinulosa*) Anemone (*Urticina* sp.)	< 1 % < 1 % 1 P < 1 % < 1 % < 1 % P	R R F P R R R P	
	EOL	384 497.4	5 892 595.3					
CC_04	SOL	384 920.2	5 892 761.6	Coarse sediment (Sandy gravel with shell and pebbles) A5.1 - Sublittoral coarse sediment	Scallop (Pectinidae) Sea squirt (Ascidiacea) Sea squirt (?*Dendrodoa grossularia*) Crab (*Liocarcinus* sp.) Barnacles (Sessilia) Slipper limpet (*Crepidula fornicata*) Bryozoan (Flustridae inc. *Flustra foliacea*) Faunal turf (Hydrozoa/Bryozoa) Hydroid (*Hydrallmania falcata*) Brittlestar (Ophiuridae) Sponge (Porifera inc. ?*Dysidea fragilis*) Anemone (Sagartiidae Faunal tube (Sabellidae) Faunal tube (Serpulidae) Hydroid (?Sertulariidae) Anemone (*Urticina* sp.) Shrimp (Caridea)	1 P P 2 P < 1 % 1 - 5 % < 1 % < 1 % 1 P P P P < 1 % 1 P	O P P O P R O R R F P P P P R O P	
	EOL	384 974.1	5 892 703.3					
CC_05A	SOL	385 865.5	5 893 303.6	Sand with shell fragments and varying proportions of gravel (pebbles and cobbles) A5.1 - Sublittoral coarse sediment	Faunal turf (Hydrozoa/Bryozoa) Bryozoan (Flustridae inc. *Flustra foliacea*) Painted topshell (*Calliostoma zizyphinum*) Barnacles (Sessilia) Hydroid (?Tubulariidae) Anemone (?*Urticina* sp.) Faunal tube (Serpulidae)	< 1 % < 1 % P P < 1 % P P	R R P P R P P	
	EOL	385 916.7	5 893 256.4					

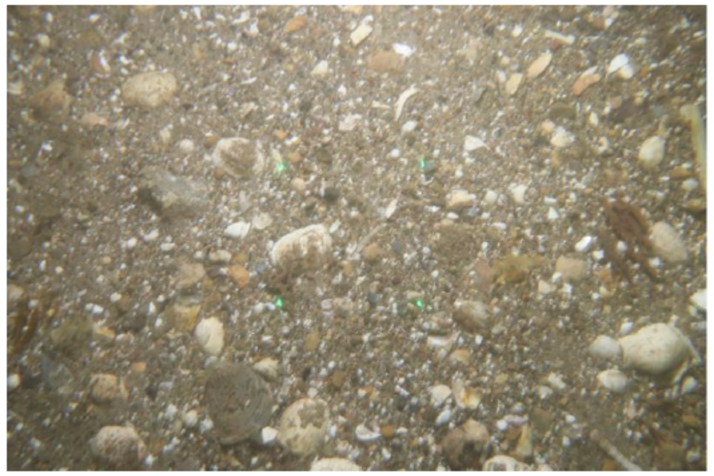
Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]								
Station/Transect		Easting	Northing	Detailed Sediment Notes	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance	Representative Image
CC_06	SOL	386 981.7	5 893 513.9	Rippled sand with shell and pebbles A5.1 - Sublittoral coarse sediment	Bryozoan (*Alcyonidium diaphanum*) Sea squirt (Ascidiacea) Barnacles (Sessilia) Slipper limpet (*Crepidula fornicata*) Encrusting bryozoan (Bryozoa) Bryozoan (Flustridae inc. *Flustra foliacea*) Faunal turf (Hydrozoa/Bryozoa) Sponge (?*Haliclona oculata*) Sponge (?*Sycon ciliatum*) Sponge (Porifera) Anemone (*Urticina* sp.) Goby (Gobiidae) Sea squirt (?*Dendrodoa grossularia*) Faunal tube (?*Sabellaria spinulosa*)	< 1% P P < 1 % < 1% 1 – 5 % < 1 % < 1% P P 3 P P < 1 %	R P P R R O R R P P O P P R	
	EOL	387 040.2	5 893 454.2					
CC_07	SOL	391 612.5	5 895 136.4	Coarse sediment (Sandy gravel with shell and pebbles) Circalittoral mixed sediments (A5.44)	Anemone (*Urticina* sp.) Bryozoan (*Alcyonidium diaphanum*) Bryozoan (Bugulidae) Bryozoan (Flustridae) Sponge (?*Dysidea fragilis*) Sponge (?*Haliclona oculata*) Faunal turf (Hydrozoa/Bryozoa) Anemone (Sagartiidae Sea squirt (?*Dendrodoa grossularia*) Sea squirt (?Styelidae) Hydroid (*Hydrallmania falcata*) Faunal tube (Serpulidae) Faunal burrows	P 1 – 5 % < 1 % 1 – 5 % P < 1 % 1 – 5 % 1 P P < 1 % P P	P O R O P R O R P P R P P	
	EOL	391 682.8	5 895 176.0					
CC_08	SOL	392 895.0	5 895 680.9	Coarse sediment (Sandy gravel/ gravelly sand with shell and pebbles) Circalittoral mixed sediments (A5.44)	Bryozoan (*Alcyonidium diaphanum*) Sea squirt (?*Dendrodoa grossularia*) Starfish (*Asterias rubens*) Crab (Brachyura: ?*Liocarcinus* sp.) Painted topshell (*Calliostoma zizyphinum*) Sponge (Porifera inc. ?*Haliclona oculata*) Hydroid (?*Hydrallmania falcata*) Barnacles (Sessilia) Slipper limpet (*Crepidula fornicata*) Sponge (?*Dysidea fragilis*) Bryozoan (*Flustra foliacea*) Faunal turf (Hydrozoa/Bryozoa Anemone (?*Urticina* sp.) Anemone (Sagartiidae Sponge (?*Sycon ciliatum*) Bryozoan/Hydrozoan (Sertularia/Bugulidae) Faunal tubes (Serpuliidae) Squat lobster (Galatheoidea) Faunal burrows	1 - 5 % P 1 1 P P < 1 % P < 1 % P < 1 % 5 % P 2 P < 1 % P P P	O P F O P P R P R P R O P R P R P P P	
	EOL	392 820.0	5 895 691.7					

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]									
Station/Transect		Easting	Northing	Detailed Sediment Notes	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance	Representative Image
CC_09	SOL	395 134.8	5 896 444.7	Coarse sediment (Gravelly sand with shell and pebbles) Circalittoral mixed sediments (A5.44)	Soft coral (*Alcyonium digitatum*	< 1 %	R	
					Sea squirt (?*Dendrodoa grossularia*)	P	P	
					Starfish (*Asterias rubens*)	1	F	
					Starfish (Asteroidea)	2	O	
					Crab (Brachyura)	1	O	
					Bryozoa (Bugulidae)	< 1 %	R	
					Dragonet (*Callionymus* sp.)	1	O	
					Barnacles (Sessilia)	P	P	
					Faunal turf (Hydrozoa/Bryozoa)	1 - 5 %	O	
					Bryozoan (Flustridae inc. *Flustra foliacea*)	5 %	O	
					Goby (Gobiidae)	1	O	
					Hydroid (*Hydrallmania falcata*)	< 1%	R	
					Swimming crab (*Liocarcinus* sp.)	2	O	
					Topshell (Trochidae)Hermit crab (Paguridae)	P	P	
	EOL	395 063.3	5 896 476.2		Sponge (Porifera)	P	P	
					Faunal tube (Sabellidae)	P	P	
					Faunal tube (Serpulidae)	P	P	
					Faunal tube (*Lanice conchilega*)	P	P	
					Anemone (Sagartiidae)	2	R	
					Anemone (*Urticina* sp.)	11	O	
					Faunal tubes (?*Sabellaria spinulosa*)	< 1 %	R	
					Faunal burrows	P	P	
CC_10	SOL	381 657.6	5 894 671.3	Rippled sand with varying proportions of shell, gravel (pebbles) A5.1 - Sublittoral coarse sediment	Anemone (*Urticina* sp.)	3	O	
	EOL	381 590.7	5 894 655.0		Crab (Brachyura: ?*Liocarcinus* sp.)	1	O	
					Faunal turf (Bryozoa/Hydrozoa)	< 1%	R	
					Barnacles (Sessilia)	P	P	
					Slipper limpet (*Crepidula fornicata*)	< 1 %	R	
					Common sunstar (*Crossaster papposus*)	1	F	
					Anemone (Edwardsiidae)	1	R	
					Bryozoan (Flustridae inc. *Flustra foliacea*)	< 1%	R	
					Velvet swimming crab (*Necora puber*)	1	O	
					Brittlestar (Ophiuridae inc. *Ophiura albida*)	3	F	
					Anemone (Sagartiidae	2	O	
					Gurnard (Triglidae)	1	O	
					Hydroid (Tubulariidae)	P	P	
					Sea squirt (?*Dendrodoa grossularia*)	P	P	
					Faunal tubes (?*Sabellaria spinulosa*)	P	P	
					Faunal burrows	P	P	

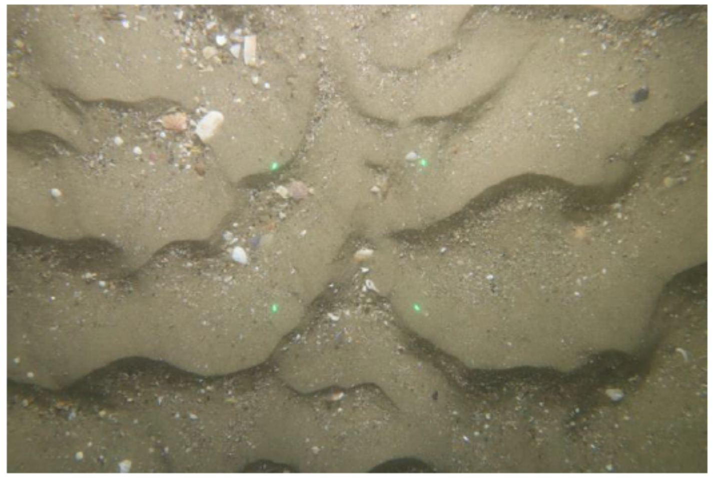
Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]								
Station/Transect		Easting	Northing	Detailed Sediment Notes	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance	Representative Image
CC_11	SOL	381 277.4	5 894 730.4	Coarse sediment (Gravelly sand with shell and pebbles) A5.1 - Sublittoral coarse sediment	Anemone (?Ceriantharia) Barnacles (Sessilia) Slipper limpet (*Crepidula fornicata*) Possible dragonet (?*Callionymus* sp.) Spider crab (?Inachinae) Bryozoan (Flustridae inc. *Flustra foliacea*) Hydroid (*Hydrallmania falcata*) Spider crab (*Inachus* sp.) Swimming crab (*Liocarcinus* sp.) Brittlestar (Ophiuridae inc. *Ophiura albida*) Edible crab (*Cancer pagurus*) Anemone (?Sagartiidae) Anemone (*Urticina* sp.) Faunal turf (Hydrozoa/Bryozoa) Sea squirts (?*Dendrodoa grossularia*) Squat lobster (Galatheoidea) Faunal tube (Sabellidae) Faunal tubes (?*Sabellaria spinulosa*)	1 P < 1 % 1 3 1 – 5 % < 1 % 1 1 2 1 1 25 < 1 % P P P < 1 %	R P R O F O R O O F F R F R P P P R	
	EOL	381 218.8	5 894 755.6					
CC_12	SOL	381 097.3	5 895 276.9	Sand with varying proportions of shell fragments A5.1 - Sublittoral coarse sediment	Anemone (?*Urticina* sp.) Bryozoan (*Flustra foliacea*) Barnacles (Sessilia) Topshell (Trochidae)	1 < 1 % P P	O R P P	
	EOL	381 051.5	5 895 320.6					
CC_13	SOL	381 857.3	5 897 248.2	Coarse sediment (Sandy gravel with shell and pebbles) Circalittoral mixed sediments (A5.44)	Anemone (Actiniaria) Sea squirt (?*Dendrodoa grossularia*) Painted topshell (*Calliostoma zizyphinum*) Barnacles (Sessilia) Slipper limpet (*Crepidula fornicata*) Bryozoan (*Flustra foliacea*) Faunal turf (Hydrozoa/Bryozoa) Possible snail (?Gastropoda) Hydroids (*Hydrallmania falcata*) Anemone (Sagartiidae Sponge (*Sycon ciliatum*) Faunal tubes (Serpuliidae) Possible dragonet (?*Callionymus* sp.)	3 P P < 1 % < 1 % 1 – 5 % < 1 % 1 < 1 % 1 P P 1	R P P R R O R R R R P P O	
	EOL	381 807.9	5 897 270.3					

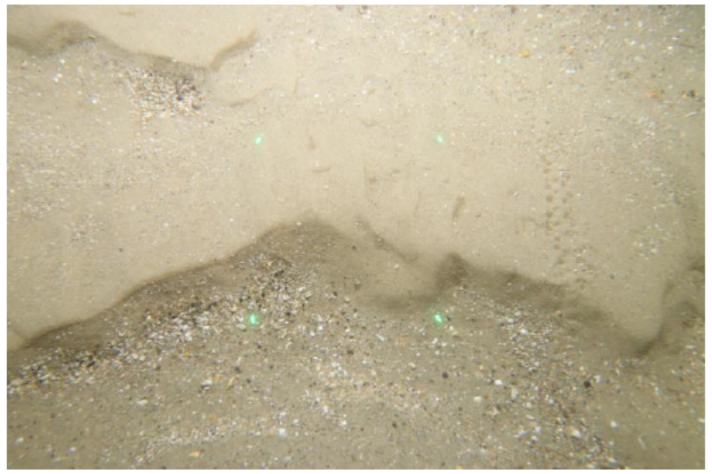
Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]								
Station/Transect		Easting	Northing	Detailed Sediment Notes	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance	Representative Image
CC_14	SOL	382 607.5	5 901 768.8	Coarse sediment (Gravelly sand with shell and pebbles. Circalittoral mixed sediments (A5.44)	Anemone (Actiniaria)	1	O	
					Sea squirt (?*Dendrodoa grossularia*)	P	P	
					Dragonet (*Callionymus* sp.)	1	O	
					Painted topshell (*Calliostoma zizyphinum*)	P	P	
					Shrimp (Caridea)	1	P	
					Barnacles (Sessilia)	P	P	
					Anemone (?Ceriantharia)	1	R	
					Slipper limpet (*Crepidula fornicata*)	< 1 %	R	
					Common sunstar (*Crossaster papposus*)	1	F	
					Nut crab (*Ebalia* sp.)	1	O	
					Bryozoan (Flustridae inc. *Flustra foliacea*)	1 – 5 %	O	
					Squat lobster (Galatheoidea)	1	F	
					Snail (Gastropoda)	P	P	
	EOL	382 644.0	5 901 724.8		Goby (Gobiidae)	P	P	
					Starfish (Asteroidea.)	2	O	
					Hydroids (*Hydrallmania falcata*)	< 1 %	R	
					Topshell (Trochidae)	P	P	
					Hermit crab (Paguridae)	P	P	
					Sponge (Porifera)	P	P	
					Anemone (Sagartiidae)	2	R	
					Sponge (*Sycon ciliatum*)	P	P	
					Anemone (*Urticina* sp.)	2	F	
					Faunal turf (Hydrozoa/Bryozoa)	< 1 %	R	
					Sort coral (*Alcyonium digitatum*)	< 1 %	R	
					Faunal tubes (Serpulidae)	P	P	
					Bryozoan (*Alcyonidium diaphanum*)	< 1 %	R	
					Faunal burrows	P	P	

<table>
<tr><th colspan="9">Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]</th></tr>
<tr><th colspan="2">Station/Transect</th><th>Easting</th><th>Northing</th><th>Detailed Sediment Notes</th><th>Conspicuous Species</th><th>Counts or Percentage Cover</th><th>Estimated Abundance</th><th>Representative Image</th></tr>
<tr><td rowspan="4">CC_15</td><td>SOL</td><td>384 514.8</td><td>5 908 057.1</td><td rowspan="2">Coarse sediment (Gravelly sand with shell and pebbles)

A5.1 - Sublittoral coarse sediment</td><td rowspan="2">Anemone (Sagartiidae)
Bryozoan (Alcyonidium diaphanum)
Starfish (Asterias rubens)
Barnacles (Sessilia)
Hydroids (Nemertesia antennina)
Faunal turf (Hydrozoa/Bryozoa)</td><td rowspan="2">1
< 1 %
1
P
< 1 %
< 1 %</td><td rowspan="2">R
R
F
P
R
R</td><td rowspan="2"></td></tr>
<tr><td>EOL</td><td>384 503.6</td><td>5 908 098.59</td></tr>
<tr><td>SOL</td><td>384 503.6</td><td>5 908 098.59</td><td rowspan="2">Sand with shell fragments

Sublittoral sand (A5.2)</td><td rowspan="2">No visible fauna</td><td rowspan="2">-</td><td rowspan="2">-</td><td rowspan="2"></td></tr>
<tr><td>EOL</td><td>384 502.3</td><td>5 908 115.6</td></tr>
<tr><td rowspan="2">CC_16</td><td>SOL</td><td>384 602.5</td><td>5 908 870.8</td><td rowspan="2">Rippled sand with shell fragments

A5.1 - Sublittoral coarse sediment</td><td rowspan="2">No visible fauna</td><td rowspan="2">-</td><td rowspan="2">-</td><td rowspan="2"></td></tr>
<tr><td>EOL</td><td>384 539.8</td><td>5 908 913.1</td></tr>
</table>

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]								
Station/Transect		Easting	Northing	Detailed Sediment Notes	Conspicuous Species	Counts or Percentage Cover	Estimated Abundance	Representative Image
CC_17	SOL	384 964.7	5 909 373.4	Rippled sand with shell fragments Sublittoral sand (A5.2)	Bryozoan (*Alcyonidium diaphanum*)	< 1 %	R	
	EOL	384 904.1	5 909 406.2					
CC_18	SOL	384 397.2	5 909 641.2	Rippled sand with shell fragments Sublittoral sand (A5.2)	Faunal tracks No visible fauna	-	-	
	EOL	384 362.1	5 909 696.8					
CC_19	SOL	384 514.1	5 910 412.5	Rippled sand Sublittoral sand (A5.2)	Edible crab (*Cancer pagurus*) Brittlestar (Ophiuridae)	1 1	F F	
	EOL	384 477.6	5 910 457.2					

Notes
* = Abundance using the Superabundant, abundant, common, frequent, occasional and rare (semi-quantitative abundance scale)
SOL = Start of line
EOL = End of line
? = Identification of taxon is uncertain

C.4 Stony Reef Assessment

C.4.1 Dudgeon Extension Project (DEP) Survey Areas

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
D_01	1	395 248.7	5 892 025.5	0	Flat seabed	< 80	-
	2	395 242.1	5 892 018.8	0	Flat seabed	< 80	-
	3	395 237.7	5 892 014.5	0	Flat seabed	< 80	-
	4	395 235.2	5 892 012.4	0	Flat seabed	< 80	-
	5	395 233.3	5 892 009.7	0	Flat seabed	< 80	-
	6	395 229.6	5 892 005.2	0	Flat seabed	< 80	-
	7	395 225.9	5 892 000.4	0	Flat seabed	< 80	-
	8	395 223.1	5 891 996.9	0	Flat seabed	< 80	-
	Mean	-	-	**0**	**Flat seabed**	**< 80**	**Not a Reef**
D_02	1	399 037.6	5 891 930.8	0	Flat seabed	< 80	-
	2	399 034.8	5 891 931.4	0	Flat seabed	< 80	-
	3	399 030.4	5 891 932.8	0	Flat seabed	< 80	-
	4	399 022.2	5 891 935.4	0	Flat seabed	< 80	-
	5	399 014.2	5 891 936.8	0	Flat seabed	< 80	-
	6	399 008.9	5 891 937.7	1	Flat seabed	< 80	-
	7	399 005.6	5 891 938.0	0	Flat seabed	< 80	-
	8	399 001.1	5 891 939.3	0	Flat seabed	< 80	-
	Mean	-	-	**0**	**Flat seabed**	**< 80**	**Not a Reef**
D_04B	1	398 295.1	5 893 399.4	0	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	2	398 294.6	5 893 391.1	0	Flat seabed	< 80	-
	3	398 294.6	5 893 386.2	5	< 64 mm	< 80	-
	4	398 296.1	5 893 380.1	1	Flat seabed	< 80	-
	5	398 296.1	5 893 376.5	3	Flat seabed	< 80	-
	6	398 295.8	5 893 370.6	2	Flat seabed	< 80	-
	7	398 295.2	5 893 367.1	4	< 64 mm	< 80	-
	8	398 294.5	5 893 362.4	5	Flat seabed	< 80	-
	9	398 293.5	5 893 354.7	9	< 64 mm	< 80	-
	Mean	-	-	**3**	**Flat seabed**	**< 80**	**Not a Reef**
D_05	1	395 368.6	5 893 826.5	0	Flat seabed	< 80	-
	2	395 366.6	5 893 831.9	0	Flat seabed	< 80	-
	3	395 364.8	5 893 838.1	0	Flat seabed	< 80	-
	4	395 362.2	5 893 844.4	0	Flat seabed	< 80	-
	5	395 360.0	5 893 853.5	0	Flat seabed	< 80	-
	6	395 358.1	5 893 859.3	0	Flat seabed	< 80	-
	7	395 356.9	5 893 863.4	0	Flat seabed	< 80	-
	8	395 355.6	5 893 866.7	0	Flat seabed	< 80	-
	Mean	-	-	**0**	**Flat seabed**	**< 80**	**Not a Reef**
D_07	1	395 313.1	5 895 759.1	2	< 64 mm	< 80	-
	2	395 303.8	5 895 765.7	0	Flat seabed	< 80	-
	3	395 301.7	5 895 766.8	1	Flat seabed	< 80	-
	4	395 295.1	5 895 772.2	0	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	5	395 290.2	5 895 776.6	2	Flat seabed	< 80	-
	6	395 285.0	5 895 780.2	1	Flat seabed	< 80	-
	7	395 277.2	5 895 788.9	0	Flat seabed	< 80	-
	8	395 275.5	5 895 791.1	0	Flat seabed	< 80	-
	9	395 270.3	5 895 797.1	0	Flat seabed	< 80	-
	Mean	-	-	**1**	**Flat seabed**	**< 80**	**Not a Reef**
D_10	1	395 332.9	5 905 756.5	0	Flat seabed	< 80	-
	2	395 330.2	5 905 758.9	0	Flat seabed	< 80	-
	3	395 326.3	5 905 761.4	0	Flat seabed	< 80	-
	4	395 322.7	5 905 764.6	0	Flat seabed	< 80	-
	5	395 320.7	5 905 766.7	0	Flat seabed	< 80	-
	6	395 316.5	5 905 769.9	0	Flat seabed	< 80	-
	7	395 313.9	5 905 772.2	0	Flat seabed	< 80	-
	8	395 311.4	5 905 773.7	0	Flat seabed	< 80	-
	9	395 307.3	5 905 776.8	0	Flat seabed	< 80	-
	10	395 303.3	5 905 779.7	0	Flat seabed	< 80	-
	11	395 301.3	5 905 780.5	0	Flat seabed	< 80	-
	12	395 299.7	5 905 782.2	0	Flat seabed	< 80	-
	13	395 298.0	5 905 783.8	0	Flat seabed	< 80	-
	14	395 296.6	5 905 785.0	0	Flat seabed	< 80	-
	Mean	-	-	**0**	**Flat seabed**	**< 80**	**Not a Reef**
D_11	1	394 085.4	5 907 194.0	0	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	2	394 081.7	5 907 194.4	0	Flat seabed	< 80	-
	3	394 077.1	5 907 194.5	0	Flat seabed	< 80	-
	4	394 071.8	5 907 194.4	0	Flat seabed	< 80	-
	5	394 067.8	5 907 194.3	0	Flat seabed	< 80	-
	6	394 061.1	5 907 195.5	0	Flat seabed	< 80	-
	7	394 056.5	5 907 194.4	0	Flat seabed	< 80	-
	8	394 052.3	5 907 193.1	0	Flat seabed	< 80	-
	9	394 048.0	5 907 191.1	0	Flat seabed	< 80	-
	10	394 042.7	5 907 189.2	0	Flat seabed	< 80	-
	Mean	-	-	**0**	**Flat seabed**	**< 80**	**Not a Reef**
D_12	1	394 511.3	5 907 842.3	0	Flat seabed	< 80	-
	2	394 512.7	5 907 850.3	0	Flat seabed	< 80	-
	3	394 513.1	5 907 857.1	0	Flat seabed	< 80	-
	4	394 513.7	5 907 861.3	0	Flat seabed	< 80	-
	5	394 514.6	5 907 869.9	0	Flat seabed	< 80	-
	6	394 515.8	5 907 876.1	0	Flat seabed	< 80	-
	7	394 517.4	5 907 881.0	0	Flat seabed	< 80	-
	8	394 518.1	5 907 883.8	0	Flat seabed	< 80	-
	9	394 518.8	5 907 885.4	0	Flat seabed	< 80	-
	10	394 519.7	5 907 887.3	0	Flat seabed	< 80	-
	11	394 519.4	5 907 890.7	0	Flat seabed	< 80	-
	Mean	-	-	**0**	**Flat seabed**	**< 80**	**Not a Reef**

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
D_13	1	393 933.2	5 907 955.4	0	Flat seabed	< 80	-
	2	393 933.6	5 907 952.2	0	Flat seabed	< 80	-
	3	393 934.1	5 907 948.1	0	Flat seabed	< 80	-
	4	393 934.7	5 907 944.6	0	Flat seabed	< 80	-
	5	393 934.3	5 907 942.0	0	Flat seabed	< 80	-
	6	393 934.4	5 907 936.9	0	Flat seabed	< 80	-
	7	393 934.3	5 907 931.2	0	Flat seabed	< 80	-
	8	393 934.4	5 907 921.6	0	Flat seabed	< 80	-
	9	393 934.7	5 907 918.0	0	Flat seabed	< 80	-
	10	393 934.9	5 907 910.4	0	Flat seabed	< 80	-
	11	393 935.2	5 907 906.2	0	Flat seabed	< 80	-
	12	393 935.1	5 907 901.7	0	Flat seabed	< 80	-
	13	393 934.9	5 907 898.0	0	Flat seabed	< 80	-
	Mean	-	-	**0**	**Flat seabed**	**< 80**	**Not a Reef**
D_15	1	392 069.0	5 909 368.0	0	Flat seabed	< 80	-
	2	392 070.7	5 909 370.9	0	Flat seabed	< 80	-
	3	392 072.6	5 909 374.2	0	Flat seabed	< 80	-
	4	392 074.0	5 909 377.5	0	Flat seabed	< 80	-
	5	392 075.5	5 909 381.0	0	Flat seabed	< 80	-
	6	392 077.1	5 909 384.9	0	Flat seabed	< 80	-
	7	392 078.0	5 909 389.1	0	Flat seabed	< 80	-
	8	392 078.0	5 909 395.8	0	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	9	392 077.3	5 909 399.5	0	Flat seabed	< 80	-
	10	392 076.4	5 909 402.9	0	Flat seabed	< 80	-
	Mean	-	-	**0**	**Flat seabed**	**< 80**	**Not a Reef**
D_21	1	391 799.6	5 913 550.9	0	Flat seabed	< 80	-
	2	391 803.9	5 913 549.6	0	Flat seabed	< 80	-
	3	391 805.8	5 913 549.0	0	Flat seabed	< 80	-
	4	391 810.7	5 913 550.4	0	Flat seabed	< 80	-
	5	391 818.3	5 913 554.3	0	Flat seabed	< 80	-
	6	391 831.9	5 913 564.3	0	Flat seabed	< 80	-
	Mean	-	-	**0**	**Flat seabed**	**< 80**	**Not a Reef**
Key:	Not a reef				Low		

C.4.2 Export Cable (EC) Corridors

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
EC_02	200270_EC_02_001	376 643.3	5 869 676.9	1	Flat seabed	< 80	-
	200270_EC_02_002	376 640.4	5 869 678.5	2	Flat seabed	< 80	-
	200270_EC_02_003	376 638.3	5 869 680.3	7	< 64 mm	< 80	-
	200270_EC_02_004	376 634.8	5 869 681.6	1	< 64 mm	< 80	-
	200270_EC_02_005	376 633.0	5 869 682.5	1	< 64 mm	< 80	-
	200270_EC_02_006	376 630.1	5 869 684.2	1	Flat seabed	< 80	-
	200270_EC_02_007	376 627.4	5 869 684.6	1	Flat seabed	< 80	-
	200270_EC_02_008	376 624.6	5 869 685.6	3	Flat seabed	< 80	-
	200270_EC_02_009	376 622.9	5 869 687.6	0	Flat seabed	< 80	-
	200270_EC_02_010	376 618.0	5 869 690.3	0	Flat seabed	< 80	-
	Mean			**< 10**	**Flat seabed**	**< 80**	**Not a Reef**
EC_03	200270_EC_03_01	378 255.2	5 870 766.2	0	Flat seabed	< 80	-
	200270_EC_03_02	378 258.5	5 870 766.4	1	Flat seabed	< 80	-
	200270_EC_03_03	378 262.7	5 870 767.2	12	< 64 mm	< 80	-
	200270_EC_03_04	378 265.4	5 870 767.2	1	Flat seabed	< 80	-
	200270_EC_03_05	378 268.4	5 870 767.2	12	Flat seabed	< 80	-
	200270_EC_03_06	378 271.3	5 870 767.2	7	Flat seabed	< 80	-
	200270_EC_03_07	378 274.3	5 870 767.3	32	< 64 mm	< 80	-
	200270_EC_03_08	378 280.3	5 870 767.2	6	Flat seabed	< 80	-
	200270_EC_03_09	378 287.3	5 870 767.2	15	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	200270_EC_03_10	378 291.0	5 870 766.7	35	< 64 mm	< 80	-
	200270_EC_03_11	378 295.4	5 870 766.8	14	< 64 mm	< 80	-
	200270_EC_03_12	378 297.8	5 870 766.8	7	< 64 mm	< 80	-
	200270_EC_03_13	378 301.5	5 870 767.1	2	< 64 mm	< 80	-
	Mean			**10 - 40**	**< 64 mm**	**< 80**	**Low reef**
EC_04	200270_EC_04_001	379 058.9	5 872 311.4	2	< 64 mm	< 80	-
	200270_EC_04_002	379 052.0	5 872 308.8	3	< 64 mm	< 80	-
	200270_EC_04_003	379 045.3	5 872 306.2	5	< 64 mm	< 80	-
	200270_EC_04_004	379 035.6	5 872 304.3	2	< 64 mm	< 80	-
	200270_EC_04_005	379 026.1	5 872 304.5	4	< 64 mm	< 80	-
	200270_EC_04_006	379 020.7	5 872 304.1	3	< 64 mm	< 80	-
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**
EC_05	200270_EC_05_001	380 750.6	5 873 785.4	-	-	-	-
	200270_EC_05_002	380 747.5	5 873 793.6	3	< 64 mm	< 80	-
	200270_EC_05_003	380 744.6	5 873 795.7	3	< 64 mm	< 80	-
	200270_EC_05_004	380 741.8	5 873 797.8	4	< 64 mm	< 80	-
	200270_EC_05_005	380 739.4	5 873 801.6	5	< 64 mm	< 80	-
	200270_EC_05_006	380 739.4	5 873 806.8	4	< 64 mm	< 80	-
	200270_EC_05_007	380 740.1	5 873 809.4	2	< 64 mm	< 80	-
	200270_EC_05_008	380 741.7	5 873 812.0	7	< 64 mm	< 80	-
	200270_EC_05_009	380 747.1	5 873 816.6	8	< 64 mm	< 80	-
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
EC_06	200270_EC_06_001	382 451.4	5 876 009.9	-	-	-	-
	200270_EC_06_002	382 461.0	5 876 008.0	2	< 64 mm	< 80	-
	200270_EC_06_003	382 465.0	5 876 007.4	-	-	-	-
	200270_EC_06_004	382 472.9	5 876 007.6	1	Flat seabed	< 80	-
	200270_EC_06_005	382 479.0	5 876 006.5	1	Flat seabed	< 80	-
	200270_EC_06_006	382 482.6	5 876 006.5	2	Flat seabed	< 80	-
	200270_EC_06_007	382 488.7	5 876 006.1	1	Flat seabed	< 80	-
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**
EC_07	200270_EC_07_001	382 219.7	5 876 418.6	1	Flat seabed	< 80	-
	200270_EC_07_002	382 223.2	5 876 417.2	0	Flat seabed	< 80	-
	200270_EC_07_003	382 228.0	5 876 415.6	1	Flat seabed	< 80	-
	200270_EC_07_004	382 229.5	5 876 414.9	0	Flat seabed	< 80	-
	200270_EC_07_005	382 234.0	5 876 412.6	0	Flat seabed	< 80	-
	200270_EC_07_006	382 239.3	5 876 411.0	0	Flat seabed	< 80	-
	200270_EC_07_007	382 244.1	5 876 409.4	0	Flat seabed	< 80	-
	200270_EC_07_008	382 253.4	5 876 404.4	1	Flat seabed	< 80	-
	200270_EC_07_009	382 256.3	5 876 403.0	0	Flat seabed	< 80	-
	200270_EC_07_010	382 261.0	5 876 400.4	0	Flat seabed	< 80	-
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**
EC_08	200270_EC_08_001	382 382.3	5 877 158.1	0	Flat seabed	< 80	-
	200270_EC_08_002	382 385.6	5 877 159.0	0	Flat seabed	< 80	-
	200270_EC_08_003	382 390.0	5 877 160.4	0	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	200270_EC_08_004	382 391.9	5 877 161.0	0	Flat seabed	< 80	-
	200270_EC_08_005	382 398.7	5 877 162.1	0	Flat seabed	< 80	-
	200270_EC_08_006	382 405.6	5 877 162.3	0	Flat seabed	< 80	-
	200270_EC_08_007	382 409.8	5 877 162.6	0	Flat seabed	< 80	-
	200270_EC_08_008	382 414.5	5 877 162.9	0	Flat seabed	< 80	-
	Mean			**0**	**< 64 mm**	**< 80**	**Not a Reef**
EC_09	200270_EC_09_001	382 626.8	5 877 818.0	0	Flat seabed	< 80	-
	200270_EC_09_002	382 629.6	5 877 817.3	0	Flat seabed	< 80	-
	200270_EC_09_003	382 631.9	5 877 816.5	0	Flat seabed	< 80	-
	200270_EC_09_004	382 634.3	5 877 816.2	0	Flat seabed	< 80	-
	200270_EC_09_005	382 635.0	5 877 815.7	0	Flat seabed	< 80	-
	Mean			**0**	**< 64 mm**	**< 80**	**Not a Reef**
EC_10	200270_EC_10_001	383 269.6	5 879 870.0	3	Flat seabed	< 80	-
	200270_EC_10_002	383 273.1	5 879 868.2	3	< 64 mm	< 80	-
	200270_EC_10_003	383 282.2	5 879 862.7	1	Flat seabed	< 80	-
	200270_EC_10_004	383 285.6	5 879 860.2	1	Flat seabed	< 80	-
	200270_EC_10_005	383 288.6	5 879 858.2	1	Flat seabed	< 80	-
	200270_EC_10_006	383 291.3	5 879 856.1	4	< 64 mm	< 80	-
	200270_EC_10_007	383 295.8	5 879 854.2	5	< 64 mm	< 80	-
	200270_EC_10_008	383 300.1	5 879 852.1	2	< 64 mm	< 80	-
	200270_EC_10_009	383 304.8	5 879 850.6	3	< 64 mm	< 80	-
	200270_EC_10_010	383 308.7	5 879 849.2	1	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	Mean			< 10	< 64 mm	< 80	Not a Reef
EC_11	200270_EC_11_001	384 207.7	5 882 423.8	0	Flat seabed	< 80	-
	200270_EC_11_002	384 202.6	5 882 426.3	0	Flat seabed	< 80	-
	200270_EC_11_003	384 199.5	5 882 428.3	0	Flat seabed	< 80	-
	200270_EC_11_004	384 190.7	5 882 432.6	0	Flat seabed	< 80	-
	200270_EC_11_005	384 184.2	5 882 435.5	0	Flat seabed	< 80	-
	200270_EC_11_006	384 179.1	5 882 437.4	4	< 64 mm	< 80	-
	Mean			< 10	< 64 mm	< 80	Not a Reef
EC_12	200270_EC_12_001	383 613.2	5 879 949.5	-	-	-	-
	200270_EC_12_002	383 615.6	5 879 949.3	3	< 64 mm	< 80	-
	200270_EC_12_003	383 618.6	5 879 949.6	3	< 64 mm	< 80	-
	200270_EC_12_004	383 620.2	5 879 950.0	1	Flat seabed	< 80	-
	200270_EC_12_005	383 624.1	5 879 950.4	1	Flat seabed	< 80	-
	200270_EC_12_006	383 626.7	5 879 950.6	1	Flat seabed	< 80	-
	200270_EC_12_007	383 629.4	5 879 951.3	1	Flat seabed	< 80	-
	200270_EC_12_008	383 632.1	5 879 951.7	0	Flat seabed	< 80	-
	200270_EC_12_009	383 634.8	5 879 951.9	1	Flat seabed	< 80	-
	200270_EC_12_010	383 638.9	5 879 952.4	2	< 64 mm	< 80	-
	200270_EC_12_011	383 640.5	5 879 952.8	0	Flat seabed	< 80	-
	Mean			< 10	< 64 mm	< 80	Not a Reef
EC_13	200270_EC_13_001	381 459.4	5 875 398.1	1	Flat seabed	< 80	-
	200270_EC_13_002	381 454.1	5 875 398.1	0	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	200270_EC_13_003	381 449.7	5 875 398.1	3	< 64 mm	< 80	-
	200270_EC_13_004	381 444.9	5 875 398.4	2	< 64 mm	< 80	-
	200270_EC_13_005	381 440.5	5 875 398.0	1	Flat seabed	< 80	-
	200270_EC_13_006	381 435.8	5 875 399.3	1	Flat seabed	< 80	-
	200270_EC_13_007	381 429.8	5 875 400.0	7	< 64 mm	< 80	-
	200270_EC_13_008	381 422.7	5 875 401.4	3	< 64 mm	< 80	-
	200270_EC_13_009	381 418.4	5 875 401.2	1	Flat seabed	< 80	-
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**
EC_14	200270_EC_14_01	377 418.1	5 870 616.7	2	Flat seabed	< 80	-
	200270_EC_14_02	377 421.9	5 870 615.6	18	< 64 mm	< 80	-
	200270_EC_14_03	377 426.5	5 870 614.4	22	< 64 mm	< 80	-
	200270_EC_14_04	377 431.1	5 870 615.1	8	< 64 mm	< 80	-
	200270_EC_14_05	377 436.7	5 870 616.9	1	Flat seabed	< 80	-
	200270_EC_14_06	377 441.2	5 870 618.1	1	Flat seabed	< 80	-
	200270_EC_14_07	377 449.1	5 870 619.0	7	< 64 mm	< 80	-
	200270_EC_14_08	377 454.3	5 870 621.6	15	< 64 mm	< 80	-
	200270_EC_14_09	377 458.5	5 870 623.7	8	< 64 mm	< 80	-
	200270_EC_14_10	377 464.0	5 870 627.0	7	< 64 mm	< 80	-
	200270_EC_14_11	377 469.8	5 870 631.7	16	< 64 mm	< 80	-
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**
EC_15	200270_EC_15_001	375 762.3	5 869 286.7	4	< 64 mm	< 80	-
	200270_EC_15_002	375 757.3	5 869 287.3	10	< 64 mm	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	200270_EC_15_003	375 752.0	5 869 287.9	0	Flat seabed	< 80	-
	200270_EC_15_004	375 747.9	5 869 288.7	1	Flat seabed	< 80	-
	200270_EC_15_005	375 744.7	5 869 289.2	1	Flat seabed	< 80	-
	200270_EC_15_006	375 740.4	5 869 291.3	0	Flat seabed	< 80	-
	200270_EC_15_007	375 732.4	5 869 293.9	22	< 64 mm	< 80	-
	200270_EC_15_008	375 729.9	5 869 294.9	18	< 64 mm	< 80	-
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**
EC_16	200270_EC_16_001	383 039.4	5 879 020.2	1	Flat seabed	< 80	-
	200270_EC_16_002	383 041.9	5 879 020.7	1	< 64 mm	< 80	-
	200270_EC_16_003	383 043.4	5 879 021.1	2	< 64 mm	< 80	-
	200270_EC_16_004	383 045.4	5 879 021.6	6	< 64 mm	< 80	-
	200270_EC_16_005	383 047.2	5 879 022.1	3	< 64 mm	< 80	-
	200270_EC_16_006	383 048.6	5 879 022.5	8	< 64 mm	< 80	-
	200270_EC_16_007	383 051.0	5 879 022.4	3	< 64 mm	< 80	-
	200270_EC_16_008	383 053.2	5 879 022.0	3	Flat seabed	< 80	-
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**
EC_17	200270_EC_17_001	381 300.8	5 875 850.3	0	Flat seabed	< 80	-
	200270_EC_17_002	381 290.5	5 875 857.9	0	Flat seabed	< 80	-
	200270_EC_17_003	381 285.9	5 875 862.4	0	Flat seabed	< 80	-
	200270_EC_17_004	381 281.9	5 875 868.2	0	Flat seabed	< 80	-
	200270_EC_17_005	381 278.1	5 875 877.7	0	Flat seabed	< 80	-
	200270_EC_17_006	381 275.2	5 875 884.4	0	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	200270_EC_17_007	381 272.1	5 875 889.7	0	Flat seabed	< 80	-
	Mean			**0**	**< 64 mm**	**< 80**	**Not a Reef**
EC_18	200270_EC_18_001	381 760.9	5 874 882.9	2	Flat seabed	< 80	-
	200270_EC_18_002	381 750.3	5 874 884.5	0	Flat seabed	< 80	-
	200270_EC_18_003	381 745.5	5 874 884.8	0	Flat seabed	< 80	-
	200270_EC_18_004	381 740.4	5 874 884.0	1	Flat seabed	< 80	-
	200270_EC_18_005	381 735.9	5 874 885.0	2	Flat seabed	< 80	-
	200270_EC_18_006	381 730.9	5 874 885.0	2	Flat seabed	< 80	-
	200270_EC_18_007	381 726.5	5 874 885.2	2	Flat seabed	< 80	-
	200270_EC_18_008	381 718.9	5 874 885.2	1	Flat seabed	< 80	-
	200270_EC_18_009	381 714.3	5 874 884.4	0	Flat seabed	< 80	-
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**
EC_19	200270_EC_19_001	377 645.3	5 871 150.8	0	Flat seabed	< 80	-
	200270_EC_19_002	377 642.8	5 871 151.5	0	Flat seabed	< 80	-
	200270_EC_19_003	377 640.3	5 871 154.3	0	Flat seabed	< 80	-
	200270_EC_19_004	377 637.7	5 871 155.9	0	Flat seabed	< 80	-
	200270_EC_19_005	377 635.4	5 871 157.7	0	Flat seabed	< 80	-
	200270_EC_19_006	377 633.4	5 871 158.8	0	Flat seabed	< 80	-
	200270_EC_19_007	377 629.8	5 871 161.0	0	Flat seabed	< 80	-
	Mean			**0**	**< 64 mm**	**< 80**	**Not a Reef**
EC_23	200270_EC_23_001	384 088.4	5 881 917.8	1	Flat seabed	< 80	-
	200270_EC_23_002	384 093.5	5 881 923.6	1	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	200270_EC_23_003	384 095.6	5 881 927.2	1	Flat seabed	< 80	-
	200270_EC_23_004	384 097.7	5 881 931.0	1	Flat seabed	< 80	-
	200270_EC_23_005	384 098.9	5 881 932.3	1	Flat seabed	< 80	-
	200270_EC_23_006	384 099.9	5 881 934.1	0	Flat seabed	< 80	-
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**
EC_24	200270_EC_24_001	379 783.6	5 872 413.3	12	Flat seabed	< 80	-
	200270_EC_24_002	379 775.6	5 872 411.6	15	Flat seabed	< 80	-
	200270_EC_24_003	379 770.6	5 872 411.5	9	< 64 mm	< 80	-
	200270_EC_24_004	379 764.9	5 872 411.1	13	< 64 mm	< 80	-
	200270_EC_24_005	379 760.6	5 872 410.9	14	< 64 mm	< 80	-
	200270_EC_24_006	379 754.6	5 872 411.6	18	< 64 mm	< 80	-
	200270_EC_24_007	379 748.5	5 872 412.0	12	< 64 mm	< 80	-
	200270_EC_24_008	379 742.7	5 872 411.9	9	< 64 mm	< 80	-
	Mean			**10 - 40**	**< 64 mm**	**< 80**	**Low reef**
EC_25	200270_EC_25_001	378 776.0	5 871 921.7	7	-	< 80	-
	200270_EC_25_002	378 769.2	5 871 923.1	6	-	< 80	
	200270_EC_25_003	378 761.9	5 871 924.6	9	-	< 80	
	200270_EC_25_004	378 754.1	5 871 924.5	5	-	< 80	
	200270_EC_25_005	378 745.6	5 871 923.6	7	-	< 80	
	200270_EC_25_006	378 737.9	5 871 923.1	9	-	< 80	
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**
EC_26	200270_EC_26_001	375 248.6	5 868 493.4	24	64 mm – 5 m	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	200270_EC_26_002	375 249.3	5 868 495.4	-	-	-	-
	200270_EC_26_003	375 251.8	5 868 502.6	1	< 64	< 80	-
	200270_EC_26_004	375 253.8	5 868 511.1	8	< 64	< 80	-
	200270_EC_26_005	375 253.9	5 868 520.6	9	< 64	< 80	-
	200270_EC_26_006	375 253.1	5 868 531.6	17	64 mm – 5 m	< 80	-
	200270_EC_26_007	375 252.6	5 868 539.7	1	Flat seabed	< 80	-
	200270_EC_26_008	375 251.4	5 868 547.2	21	64 mm – 5 m	< 80	-
	200270_EC_26_009	375 248.6	5 868 559.2	31	64 mm – 5 m	< 80	-
	Mean			**10 - 40**	**< 64 mm**	**< 80**	**"Other geogenic reef"**
	200270_EC_26_010	375 246.9	5 868 565.6	1	Flat seabed	< 80	-
	200270_EC_26_011	375 246.5	5 868 571.4	5	< 64 mm	< 80	-
	200270_EC_26_012	375 246.4	5 868 578.8	6	< 64 mm	< 80	-
	200270_EC_26_013	375 243.8	5 868 588.3	8	< 64 mm	< 80	-
	200270_EC_26_014	375 243.1	5 868 597.0	3	< 64 mm	< 80	-
	200270_EC_26_015	375 244.7	5 868 617.2	0	Flat seabed	< 80	-
	200270_EC_26_016	375 248.4	5 868 632.5	0	Flat seabed	< 80	-
	200270_EC_26_017	375 249.3	5 868 644.1	0	Flat seabed	< 80	-
	200270_EC_26_018	375 246.7	5 868 663.1	0	Flat seabed	< 80	-
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**
Key:	Not a reef				Low		

C.4.3 Interconnector Cable (CC) Corridor

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
CC_01	200270_CC_01_01	382 238.3	5 891 771.2	2	< 64 mm	< 80	-
	200270_CC_01_02	382 232.9	5 891 767.2	3	< 64 mm	< 80	-
	200270_CC_01_03	382 230.0	5 891 764.9	4	< 64 mm	< 80	-
	200270_CC_01_04	382 225.2	5 891 761.4	2	< 64 mm	< 80	-
	200270_CC_01_05	382 221.0	5 891 759.0	5	< 64 mm	< 80	-
	200270_CC_01_06	382 217.7	5 891 757.3	5	< 64 mm	< 80	-
	200270_CC_01_07	382 213.0	5 891 755.0	7	< 64 mm	< 80	-
	200270_CC_01_08	382 209.0	5 891 753.4	2	< 64 mm	< 80	-
	200270_CC_01_09	382 206.2	5 891 751.7	0	Flat seabed	< 80	-
	200270_CC_01_10	382 204.2	5 891 751.3	0	Flat seabed	< 80	-
	200270_CC_01_11	382 200.7	5 891 749.5	3	< 64 mm	< 80	-
	200270_CC_01_12	382 196.5	5 891 747.3	1	Flat seabed	< 80	-
	200270_CC_01_13	382 193.3	5 891 746.2	4	< 64 mm	< 80	-
	200270_CC_01_14	382 190.1	5 891 745.1	0	Flat seabed	< 80	-
	200270_CC_01_15	382 184.8	5 891 744.0	4	< 64 mm	< 80	-
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**
CC_02	200270_CC_02_01	384 030.8	5 892 303.1	6	< 64 mm	< 80	-
	200270_CC_02_02	384 038.2	5 892 285.5	3	< 64 mm	< 80	-
	200270_CC_02_03	384 041.7	5 892 278.6	1	< 64 mm	< 80	-
	200270_CC_02_04	384 043.5	5 892 274.4	4	< 64 mm	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	200270_CC_02_05	384 044.8	5 892 270.9	2	Flat seabed	< 80	-
	200270_CC_02_06	384 046.2	5 892 267.6	4	< 64 mm	< 80	-
	200270_CC_02_07	384 048.8	5 892 262.1	3	< 64 mm	< 80	-
	200270_CC_02_08	384 049.7	5 892 259.8	4	< 64 mm	< 80	-
	200270_CC_02_09	384 052.3	5 892 253.2	1	Flat seabed	< 80	-
	200270_CC_02_10	384 053.3	5 892 250.3	0	Flat seabed	< 80	-
	200270_CC_02_11	384 054.1	5 892 247.6	2	< 64 mm	< 80	-
	200270_CC_02_12	384 055.2	5 892 245.4	2	< 64 mm	< 80	-
	200270_CC_02_13	384 056.0	5 892 242.0	2	< 64 mm	< 80	-
	200270_CC_02_14	384 056.4	5 892 240.4	3	< 64 mm	< 80	-
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**
CC_03	200270_CC_03_01	384 467.2	5 892 642.4	0	Flat seabed	< 80	-
	200270_CC_03_02	384 471.3	5 892 636.2	0	Flat seabed	< 80	-
	200270_CC_03_03	384 476.5	5 892 626.6	0	Flat seabed	< 80	-
	200270_CC_03_04	384 481.6	5 892 619.3	0	Flat seabed	< 80	-
	200270_CC_03_05	384 484.1	5 892 615.6	0	Flat seabed	< 80	-
	200270_CC_03_06	384 485.9	5 892 613.3	0	Flat seabed	< 80	-
	200270_CC_03_07	384 492.7	5 892 606.1	0	Flat seabed	< 80	-
	200270_CC_03_08	384 494.7	5 892 602.6	0	Flat seabed	< 80	-
	Mean			**< 10**	**Flat seabed**	**< 80**	**Not a Reef**
CC_04	200270_CC_04_01	384 935.2	5 892 744.6	1	Flat seabed	< 80	-
	200270_CC_04_02	384 940.8	5 892 738.5	0	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	200270_CC_04_03	384 948.0	5 892 731.2	0	Flat seabed	< 80	-
	200270_CC_04_04	384 952.4	5 892 725.9	3	Flat seabed	< 80	-
	200270_CC_04_05	384 957.4	5 892 721.0	0	Flat seabed	< 80	-
	200270_CC_04_06	384 959.5	5 892 718.7	1	Flat seabed	< 80	-
	200270_CC_04_07	384 967.3	5 892 710.0	0	Flat seabed	< 80	-
	200270_CC_04_08	384 971.4	5 892 706.4	1	Flat seabed	< 80	-
	Mean			**< 10**	**Flat seabed**	**< 80**	**Not a Reef**
CC_05	200270_CC_05_01	385 878.9	5 893 291.8	0	Flat seabed	< 80	-
	200270_CC_05_02	385 883.9	5 893 290.6	0	Flat seabed	< 80	-
	200270_CC_05_03	385 890.5	5 893 292.5	0	Flat seabed	< 80	-
	200270_CC_05_04	385 895.9	5 893 296.3	15	Flat seabed	< 80	-
	200270_CC_05_05	385 898.1	5 893 302.6	0	Flat seabed	< 80	-
	Mean			**< 10**	**Flat seabed**	**< 80**	**Not a Reef**
CC_05A	200270_CC_05a_01	385 880.7	5 893 291.3	0	Flat seabed	< 80	-
	200270_CC_05a_02	385 887.2	5 893 286.7	0	Flat seabed	< 80	-
	200270_CC_05a_03	385 890.0	5 893 285.0	0	Flat seabed	< 80	-
	200270_CC_05a_04	385 894.2	5 893 281.9	5	Flat seabed	< 80	-
	200270_CC_05a_05	385 898.9	5 893 278.3	0	Flat seabed	< 80	-
	200270_CC_05a_06	385 902.9	5 893 274.3	0	Flat seabed	< 80	-
	200270_CC_05a_07	385 910.6	5 893 265.9	8	< 64 mm	< 80	-
	200270_CC_05a_08	385 912.8	5 893 263.5	0	Flat seabed	< 80	-
	200270_CC_05a_09	385 915.0	5 893 259.6	0	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	Mean			**< 10**	**Flat seabed**	**< 80**	**Not a Reef**
CC_06	200270_CC_06_01	386 998.7	5 893 491.3	1	Flat seabed	< 80	-
	200270_CC_06_02	387 001.3	5 893 488.2	0	Flat seabed	< 80	-
	200270_CC_06_03	387 004.0	5 893 485.0	0	Flat seabed	< 80	-
	200270_CC_06_04	387 009.3	5 893 478.4	0	Flat seabed	< 80	-
	200270_CC_06_05	387 011.6	5 893 476.8	1	Flat seabed	< 80	-
	200270_CC_06_06	387 018.8	5 893 470.1	1	Flat seabed	< 80	-
	200270_CC_06_07	387 026.0	5 893 463.9	1	Flat seabed	< 80	-
	200270_CC_06_08	387 030.2	5 893 461.0	0	Flat seabed	< 80	-
	200270_CC_06_09	387 033.8	5 893 458.4	0	Flat seabed	< 80	-
	Mean			**< 10**	**Flat seabed**	**< 80**	**Not a Reef**
CC_07	200270_CC_07_01	391 629.6	5 895 147.2	0	Flat seabed	< 80	-
	200270_CC_07_02	391 638.1	5 895 153.4	1	Flat seabed	< 80	-
	200270_CC_07_03	391 647.4	5 895 158.8	0	Flat seabed	< 80	-
	200270_CC_07_04	391 654.8	5 895 162.6	2	< 64 mm	< 80	-
	200270_CC_07_05	391 657.5	5 895 164.3	0	Flat seabed	< 80	-
	200270_CC_07_06	391 660.2	5 895 165.7	0	Flat seabed	< 80	-
	200270_CC_07_07	391 664.1	5 895 167.2	0	Flat seabed	< 80	-
	200270_CC_07_08	391 670.4	5 895 169.9	0	Flat seabed	< 80	-
	Mean			**< 10**	**Flat seabed**	**< 80**	**Not a Reef**
CC_08	200270_CC_08_01	392 874.5	5 895 683.3	0	Flat seabed	< 80	-
	200270_CC_08_02	392 868.3	5 895 683.4	0	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	200270_CC_08_03	392 862.9	5 895 684.5	0	Flat seabed	< 80	-
	200270_CC_08_04	392 860.4	5 895 684.2	0	Flat seabed	< 80	-
	200270_CC_08_05	392 853.3	5 895 685.7	0	Flat seabed	< 80	-
	200270_CC_08_06	392 848.4	5 895 687.7	0	Flat seabed	< 80	-
	200270_CC_08_07	392 842.5	5 895 689.8	0	Flat seabed	< 80	-
	200270_CC_08_08	392 838.1	5 895 690.8	0	Flat seabed	< 80	-
	200270_CC_08_09	392 831.5	5 895 689.3	0	Flat seabed	< 80	-
	200270_CC_08_10	392 823.9	5 895 689.0	0	Flat seabed	< 80	-
	Mean			**0**	**Flat seabed**	**< 80**	**Not a Reef**
CC_09	200270_CC_09_01	395 110.4	5 896 446.0	2	Flat seabed	< 80	-
	200270_CC_09_02	395 101.0	5 896 449.8	4	< 64 mm	< 80	-
	200270_CC_09_03	395 095.3	5 896 452.1	0	Flat seabed	< 80	-
	200270_CC_09_04	395 092.0	5 896 453.9	1	Flat seabed	< 80	-
	200270_CC_09_05	395 088.0	5 896 456.2	3	< 64 mm	< 80	-
	200270_CC_09_06	395 084.6	5 896 458.8	4	< 64 mm	< 80	-
	200270_CC_09_07	395 080.3	5 896 461.1	0	Flat seabed	< 80	-
	200270_CC_09_08	395 077.3	5 896 462.6	1	< 64 mm	< 80	-
	200270_CC_09_09	395 072.8	5 896 465.6	1	< 64 mm	< 80	-
	200270_CC_09_10	395 071.4	5 896 466.8	3	< 64 mm	< 80	-
	200270_CC_09_11	395 070.8	5 896 467.7	5	< 64 mm	< 80	-
	200270_CC_09_12	395 069.6	5 896 469.2	6	< 64 mm	< 80	-
	Mean			**< 10**	**< 64 mm**	**< 80**	**Not a Reef**

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
CC_10	200270_CC_10_01	381 644.9	5 894 665.7	0	Flat seabed	< 80	-
	200270_CC_10_02	381 638.6	5 894 664.3	0	Flat seabed	< 80	-
	200270_CC_10_03	381 635.1	5 894 662.8	0	Flat seabed	< 80	-
	200270_CC_10_04	381 631.9	5 894 662.1	0	Flat seabed	< 80	-
	200270_CC_10_05	381 629.6	5 894 661.8	0	Flat seabed	< 80	-
	200270_CC_10_06	381 623.0	5 894 661.2	0	Flat seabed	< 80	-
	200270_CC_10_07	381 616.1	5 894 660.0	0	Flat seabed	< 80	-
	200270_CC_10_08	381 612.6	5 894 659.6	0	Flat seabed	< 80	-
	200270_CC_10_09	381 608.2	5 894 658.6	0	Flat seabed	< 80	-
	200270_CC_10_10	381 605.6	5 894 658.2	0	Flat seabed	< 80	-
	200270_CC_10_11	381 600.6	5 894 657.3	0	Flat seabed	< 80	-
	200270_CC_10_12	381 598.9	5 894 656.9	0	Flat seabed	< 80	-
	200270_CC_10_13	381 596.9	5 894 656.3	0	Flat seabed	< 80	-
	200270_CC_10_14	381 593.1	5 894 656.2	0	Flat seabed	< 80	-
	Mean			**0**	**Flat seabed**	**< 80**	**Not a Reef**
CC_11	200270_CC_11_01	381 272.5	5 894 731.9	0	Flat seabed	< 80	-
	200270_CC_11_02	381 269.2	5 894 732.2	0	Flat seabed	< 80	-
	200270_CC_11_03	381 262.6	5 894 735.2	0	Flat seabed	< 80	-
	200270_CC_11_04	381 259.5	5 894 736.7	0	Flat seabed	< 80	-
	200270_CC_11_05	381 252.9	5 894 739.7	0	Flat seabed	< 80	-
	200270_CC_11_06	381 246.6	5 894 742.3	0	Flat seabed	< 80	-
	200270_CC_11_07	381 243.7	5 894 744.2	0	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	200270_CC_11_08	381 240.4	5 894 745.9	0	Flat seabed	< 80	-
	200270_CC_11_09	381 236.1	5 894 747.5	0	Flat seabed	< 80	-
	200270_CC_11_10	381 229.8	5 894 750.5	0	Flat seabed	< 80	-
	200270_CC_11_11	381 226.7	5 894 751.4	0	Flat seabed	< 80	-
	200270_CC_11_12	381 223.7	5 894 753.5	0	Flat seabed	< 80	-
	200270_CC_11_13	381 221.8	5 894 753.8	0	Flat seabed	< 80	-
	Mean			**0**	**Flat seabed**	**< 80**	**Not a Reef**
CC_12	200270_CC_12_01	381 078.6	5 895 288.3	0	Flat seabed	< 80	-
	200270_CC_12_02	381 075.5	5 895 291.1	0	Flat seabed	< 80	-
	200270_CC_12_03	381 072.3	5 895 294.2	0	Flat seabed	< 80	-
	200270_CC_12_04	381 069.2	5 895 297.4	0	Flat seabed	< 80	-
	200270_CC_12_05	381 066.9	5 895 300.2	0	Flat seabed	< 80	-
	200270_CC_12_06	381 064.5	5 895 302.5	0	Flat seabed	< 80	-
	200270_CC_12_07	381 062.6	5 895 304.0	0	Flat seabed	< 80	-
	200270_CC_12_08	381 059.9	5 895 307.5	0	Flat seabed	< 80	-
	200270_CC_12_09	381 057.7	5 895 310.2	0	Flat seabed	< 80	-
	200270_CC_12_10	381 055.5	5 895 313.4	0	Flat seabed	< 80	-
	200270_CC_12_11	381 054.6	5 895 315.2	0	Flat seabed	< 80	-
	200270_CC_12_12	381 053.9	5 895 317.0	0	Flat seabed	< 80	-
	200270_CC_12_13	381 052.7	5 895 318.6	0	Flat seabed	< 80	-
	Mean			**0**	**Flat seabed**	**< 80**	**Not a Reef**
CC_13	200270_CC_13_01	381 847.7	5 897 255.0	-	-	-	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	200270_CC_13_02	381 843.3	5 897 257.9	1	Flat seabed	< 80	-
	200270_CC_13_03	381 841.3	5 897 259.2	0	Flat seabed	< 80	-
	200270_CC_13_04	381 838.9	5 897 260.6	1	Flat seabed	< 80	-
	200270_CC_13_05	381 836.1	5 897 262.1	0	Flat seabed	< 80	-
	200270_CC_13_06	381 832.7	5 897 263.6	1	Flat seabed	< 80	-
	200270_CC_13_07	381 828.1	5 897 265.1	1	Flat seabed	< 80	-
	200270_CC_13_08	381 824.0	5 897 266.0	1	Flat seabed	< 80	-
	200270_CC_13_09	381 821.9	5 897 266.6	0	Flat seabed	< 80	-
	200270_CC_13_10	381 815.7	5 897 268.2	1	Flat seabed	< 80	-
	200270_CC_13_11	381 813.4	5 897 268.8	0	Flat seabed	< 80	-
	200270_CC_13_12	381 811.3	5 897 269.4	0	Flat seabed	< 80	-
	Mean			< 10	< 64 mm	< 80	Not a Reef
CC_14	200270_CC_14_001	382 619.5	5 901 758.9	1	Flat seabed	< 80	-
	200270_CC_14_002	382 622.5	5 901 756.1	1	Flat seabed	< 80	-
	200270_CC_14_003	382 626.5	5 901 752.5	3	Flat seabed	< 80	-
	200270_CC_14_004	382 630.4	5 901 746.2	1	Flat seabed	< 80	-
	200270_CC_14_005	382 632.0	5 901 744.9	3	Flat seabed	< 80	-
	200270_CC_14_006	382 634.2	5 901 741.4	0	Flat seabed	< 80	-
	200270_CC_14_007	382 634.9	5 901 738.8	2	Flat seabed	< 80	-
	200270_CC_14_008	382 638.8	5 901 733.3	1	Flat seabed	< 80	-
	200270_CC_14_009	382 641.5	5 901 730.1	0	Flat seabed	< 80	-
	200270_CC_14_010	382 642.1	5 901 727.5	1	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	Mean			< 10	< 64 mm	< 80	Not a Reef
CC_15	200270_CC_15_001	384 514.4	5 908 062.5	0	Flat seabed	< 80	-
	200270_CC_15_002	384 512.4	5 908 072.4	0	Flat seabed	< 80	-
	200270_CC_15_003	384 511.8	5 908 075.4	0	Flat seabed	< 80	-
	200270_CC_15_004	384 510.8	5 908 080.4	0	Flat seabed	< 80	-
	200270_CC_15_005	384 504.1	5 908 094.4	0	Flat seabed	< 80	-
	200270_CC_15_006	384 503.5	5 908 097.3	0	Flat seabed	< 80	-
	200270_CC_15_007	384 503.0	5 908 100.3	0	Flat seabed	< 80	-
	200270_CC_15_008	384 501.9	5 908 104.6	0	Flat seabed	< 80	-
	Mean			0	Flat seabed	< 80	Not a Reef
CC_16	200270_CC_16_001	384 576.2	5 908 878.3	0	Flat seabed	< 80	-
	200270_CC_16_002	384 572.3	5 908 883.3	0	Flat seabed	< 80	-
	200270_CC_16_003	384 567.9	5 908 887.8	0	Flat seabed	< 80	-
	200270_CC_16_004	384 565.6	5 908 890.3	0	Flat seabed	< 80	-
	200270_CC_16_005	384 557.9	5 908 897.3	0	Flat seabed	< 80	-
	200270_CC_16_006	384 549.3	5 908 905.6	0	Flat seabed	< 80	-
	Mean			0	Flat seabed	< 80	Not a Reef
CC_17	200270_CC_17_001	384 950.1	5 909 379.6	0	Flat seabed	< 80	-
	200270_CC_17_002	384 946.9	5 909 381.0	0	Flat seabed	< 80	-
	200270_CC_17_003	384 941.4	5 909 383.7	0	Flat seabed	< 80	-
	200270_CC_17_004	384 933.2	5 909 388.4	0	Flat seabed	< 80	-
	200270_CC_17_005	384 925.5	5 909 393.8	0	Flat seabed	< 80	-

Geodetic Parameters: WGS84, UTM Zone 31N, CM 3°E [m]							
Transect	Still	Still Coordinates		Cobble/Boulders Cover [%]	Mean Elevation	Epifauna Cover [%]	Overall Reefiness
		Easting	Northing				
	200270_CC_17_006	384 917.9	5 909 397.9	0	Flat seabed	< 80	-
	200270_CC_17_007	384 911.7	5 909 401.8	0	Flat seabed	< 80	-
	Mean			**0**	**Flat seabed**	**< 80**	**Not a Reef**
CC_18	200270_CC_18_001	384 388.4	5 909 653.0	0	Flat seabed	< 80	-
	200270_CC_18_002	384 383.0	5 909 661.1	0	Flat seabed	< 80	-
	200270_CC_18_003	384 378.4	5 909 667.8	0	Flat seabed	< 80	-
	200270_CC_18_004	384 374.1	5 909 674.3	0	Flat seabed	< 80	-
	200270_CC_18_005	384 369.5	5 909 683.1	0	Flat seabed	< 80	-
	200270_CC_18_006	384 367.4	5 909 686.9	0	Flat seabed	< 80	-
	Mean			**0**	**Flat seabed**	**< 80**	**Not a Reef**
CC_19	200270_CC_19_001	384 505.0	5 910 422.7	0	Flat seabed	< 80	-
	200270_CC_19_002	384 501.6	5 910 426.9	0	Flat seabed	< 80	-
	200270_CC_19_003	384 486.5	5 910 439.1	0	Flat seabed	< 80	-
	200270_CC_19_004	384 483.3	5 910 443.0	0	Flat seabed	< 80	-
	200270_CC_19_005	384 482.4	5 910 445.5	0	Flat seabed	< 80	-
	200270_CC_19_006	384 480.9	5 910 448.9	0	Flat seabed	< 80	-
	Mean			**0**	**Flat seabed**	**< 80**	**Not a Reef**
Key	Not a reef				Low		

Appendix D

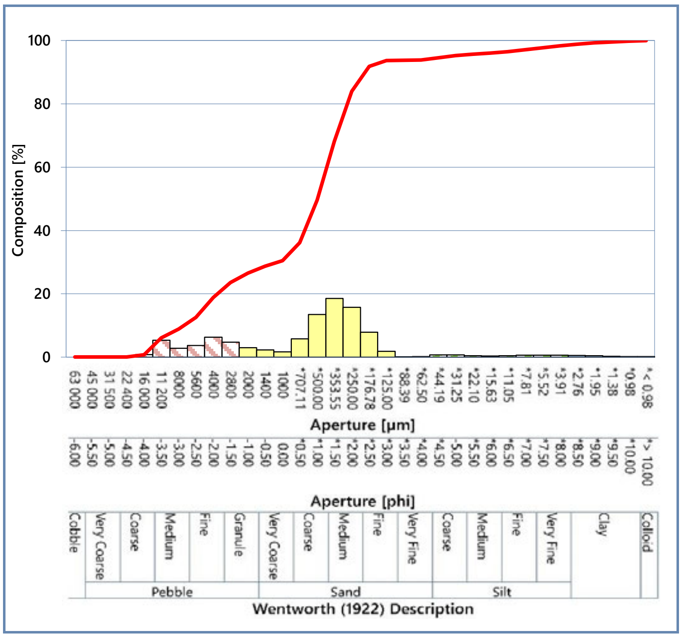
Sediment Particle Size and Grab Sample Photographs

STATION: D_01_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.76	0.76
11 200	-3.50	5.30	6.06
8000	-3.00	2.83	8.89
5600	-2.50	3.65	12.54
4000	-2.00	6.32	18.86
2800	-1.50	4.71	23.57
2000	-1.00	2.96	26.53
1400	-0.50	2.23	28.76
1000	0.00	1.67	30.43
*707.11	*0.50	5.76	36.19
*500.00	*1.00	13.44	49.63
*353.55	*1.50	18.55	68.18
*250.00	*2.00	15.77	83.95
*176.78	*2.50	7.89	91.84
*125.00	*3.00	1.83	93.67
*88.39	*3.50	0.07	93.74
*62.50	*4.00	0.15	93.89
*44.19	*4.50	0.66	94.55
*31.25	*5.00	0.70	95.24
*22.10	*5.50	0.47	95.71
*15.63	*6.00	0.36	96.07
*11.05	*6.50	0.44	96.51
*7.81	*7.00	0.57	97.08
*5.52	*7.50	0.64	97.72
*3.91	*8.00	0.63	98.35
*2.76	*8.50	0.54	98.89
*1.95	*9.00	0.41	99.30
*1.38	*9.50	0.29	99.59
*0.98	*10.00	0.20	99.80
*< 0.98	*> 10.00	0.20	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	4800	Fine pebble
Mode 3 [µm]†	13600	Medium pebble
Median [µm]†	497	Medium sand
Median [phi]†	1.01	
Mean [µm]†‡	832	Coarse sand
Mean [phi]†‡	0.26	
Sorting [µm]‡	5.03	Very poorly sorted
Sorting [phi]‡	2.33	
Skewness [µm]‡	0.31	Very coarse skewed
Skewness [phi]‡	-0.31	
Gravel [%]#	26.53	Gravelly sand
Sand [%]#	67.36	
Fines [%]#	6.11	

Notes

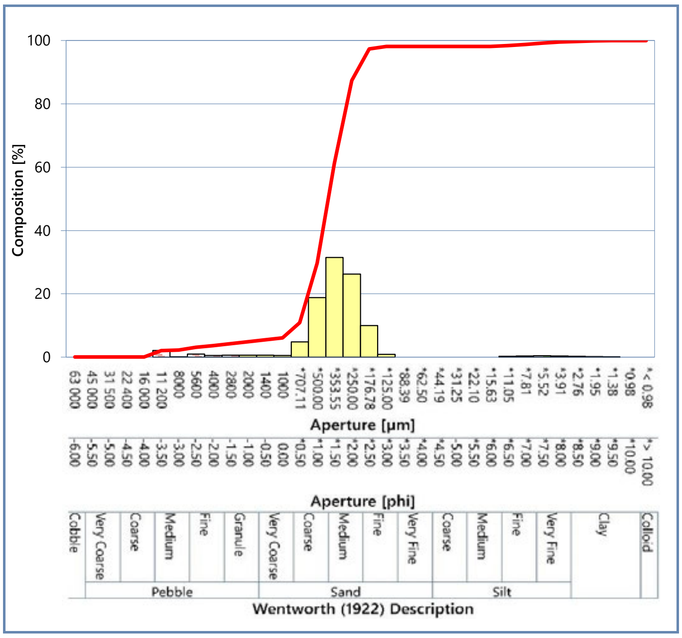
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_03_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	2.08	2.08
8000	-3.00	0.11	2.19
5600	-2.50	0.93	3.12
4000	-2.00	0.53	3.65
2800	-1.50	0.58	4.24
2000	-1.00	0.61	4.84
1400	-0.50	0.64	5.48
1000	0.00	0.56	6.04
*707.11	*0.50	4.81	10.84
*500.00	*1.00	18.81	29.65
*353.55	*1.50	31.49	61.14
*250.00	*2.00	26.23	87.37
*176.78	*2.50	9.96	97.33
*125.00	*3.00	0.86	98.19
*88.39	*3.50	0.00	98.19
*62.50	*4.00	0.00	98.19
*44.19	*4.50	0.00	98.19
*31.25	*5.00	0.00	98.19
*22.10	*5.50	0.00	98.19
*15.63	*6.00	0.00	98.19
*11.05	*6.50	0.22	98.42
*7.81	*7.00	0.37	98.79
*5.52	*7.50	0.40	99.19
*3.91	*8.00	0.33	99.52
*2.76	*8.50	0.25	99.77
*1.95	*9.00	0.17	99.94
*1.38	*9.50	0.06	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm][†]	427	Medium sand
Mode 2 [µm][†]	-	-
Mode 3 [µm][†]	-	-
Median [µm][†]	400	Medium sand
Median [phi][†]	1.32	
Mean [µm][‡]	407	Medium sand
Mean [phi][‡]	1.30	
Sorting [µm][‡]	1.76	Moderately sorted
Sorting [phi][‡]	0.82	
Skewness [µm][‡]	0.20	Coarse skewed
Skewness [phi][‡]	-0.20	
Gravel [%][#]	4.84	Sand
Sand [%][#]	93.35	
Fines [%][#]	1.81	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

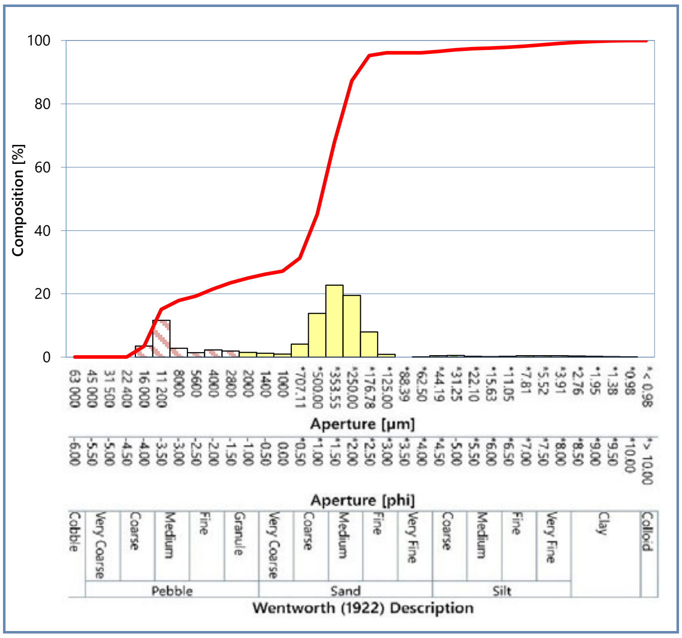
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_03_PSDB

FRACTIONAL DATA

Aperture [μm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	3.46	3.46
11 200	-3.50	11.62	15.08
8000	-3.00	2.80	17.88
5600	-2.50	1.40	19.28
4000	-2.00	2.31	21.59
2800	-1.50	1.88	23.47
2000	-1.00	1.47	24.93
1400	-0.50	1.23	26.16
1000	0.00	0.97	27.14
*707.11	*0.50	4.08	31.22
*500.00	*1.00	13.83	45.05
*353.55	*1.50	22.77	67.82
*250.00	*2.00	19.48	87.30
*176.78	*2.50	7.94	95.25
*125.00	*3.00	0.88	96.13
*88.39	*3.50	0.00	96.13
*62.50	*4.00	0.02	96.14
*44.19	*4.50	0.45	96.59
*31.25	*5.00	0.54	97.14
*22.10	*5.50	0.29	97.43
*15.63	*6.00	0.17	97.60
*11.05	*6.50	0.26	97.87
*7.81	*7.00	0.40	98.26
*5.52	*7.50	0.45	98.71
*3.91	*8.00	0.41	99.13
*2.76	*8.50	0.34	99.46
*1.95	*9.00	0.26	99.72
*1.38	*9.50	0.19	99.91
*0.98	*10.00	0.09	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		**100.00**	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [μm]†	427	Medium sand
Mode 2 [μm]†	13600	Medium pebble
Mode 3 [μm]†	-	-
Median [μm]†	464	Medium sand
Median [phi]†	1.11	
Mean [μm]‡	1072	Very coarse sand
Mean [phi]‡	-0.10	
Sorting [μm]‡	4.87	Very poorly sorted
Sorting [phi]‡	2.28	
Skewness [μm]‡	0.63	Very coarse skewed
Skewness [phi]‡	-0.63	
Gravel [%]#	24.93	Gravelly sand
Sand [%]#	71.21	
Fines [%]#	3.86	

Notes

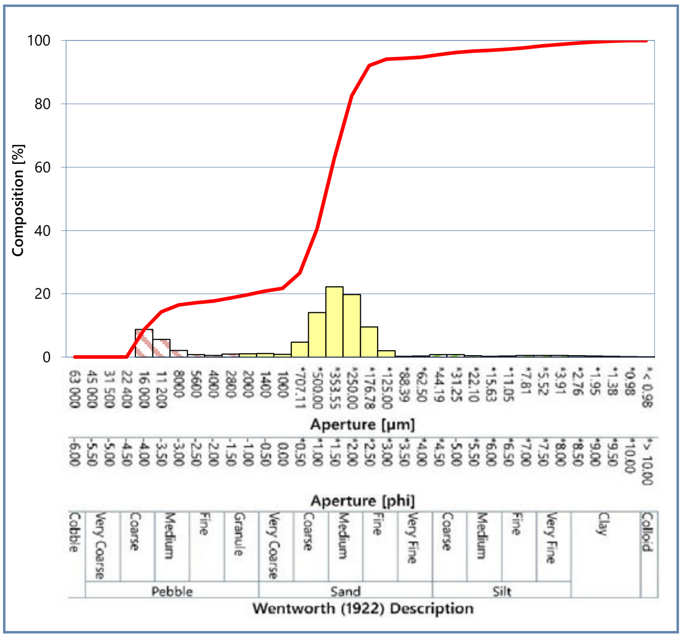
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_03_PSDC

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	8.71	8.71
11 200	-3.50	5.62	14.33
8000	-3.00	2.13	16.46
5600	-2.50	0.76	17.22
4000	-2.00	0.50	17.72
2800	-1.50	0.99	18.70
2000	-1.00	1.02	19.73
1400	-0.50	1.12	20.84
1000	0.00	0.91	21.75
*707.11	*0.50	4.76	26.51
*500.00	*1.00	14.10	40.60
*353.55	*1.50	22.24	62.84
*250.00	*2.00	19.75	82.59
*176.78	*2.50	9.49	92.08
*125.00	*3.00	2.04	94.12
*88.39	*3.50	0.27	94.40
*62.50	*4.00	0.33	94.73
*44.19	*4.50	0.76	95.49
*31.25	*5.00	0.74	96.23
*22.10	*5.50	0.42	96.65
*15.63	*6.00	0.26	96.91
*11.05	*6.50	0.35	97.26
*7.81	*7.00	0.49	97.75
*5.52	*7.50	0.55	98.29
*3.91	*8.00	0.51	98.81
*2.76	*8.50	0.43	99.23
*1.95	*9.00	0.32	99.56
*1.38	*9.50	0.23	99.79
*0.98	*10.00	0.17	99.96
*< 0.98	*> 10.00	0.04	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	19200	Coarse pebble
Mode 3 [µm]†	-	-
Median [µm]†	432	Medium sand
Median [phi]†	1.21	
Mean [µm]†‡	959	Coarse sand
Mean [phi]†‡	0.06	
Sorting [µm]‡	5.92	Very poorly sorted
Sorting [phi]‡	2.57	
Skewness [µm]‡	0.48	Very coarse skewed
Skewness [phi]‡	-0.48	
Gravel [%]#	19.73	Gravelly sand
Sand [%]#	75.00	
Fines [%]#	5.27	

Notes

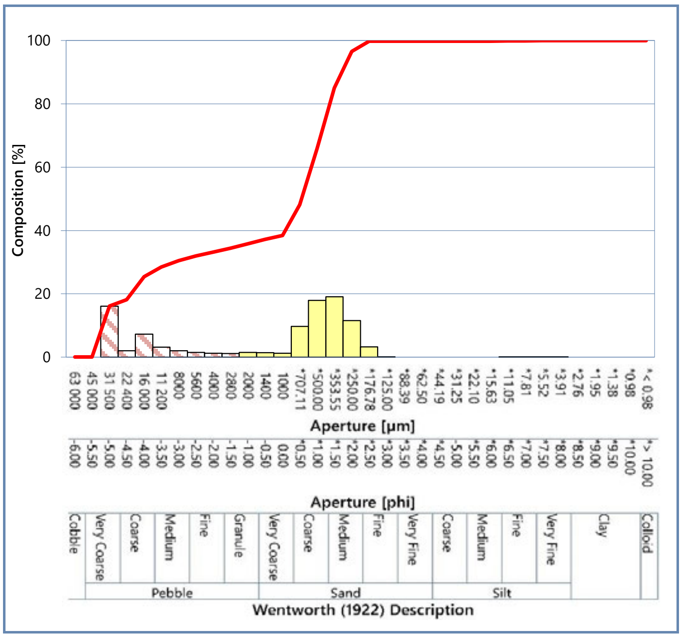
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_04_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	16.10	16.10
22 400	-4.50	2.03	18.13
16 000	-4.00	7.23	25.36
11 200	-3.50	3.10	28.46
8000	-3.00	2.02	30.48
5600	-2.50	1.50	31.98
4000	-2.00	1.25	33.22
2800	-1.50	1.15	34.37
2000	-1.00	1.47	35.84
1400	-0.50	1.37	37.21
1000	0.00	1.21	38.43
*707.11	*0.50	9.68	48.11
*500.00	*1.00	17.89	65.99
*353.55	*1.50	19.04	85.04
*250.00	*2.00	11.54	96.58
*176.78	*2.50	3.21	99.79
*125.00	*3.00	0.06	99.85
*88.39	*3.50	0.00	99.85
*62.50	*4.00	0.00	99.85
*44.19	*4.50	0.00	99.85
*31.25	*5.00	0.00	99.85
*22.10	*5.50	0.00	99.85
*15.63	*6.00	0.00	99.85
*11.05	*6.50	0.03	99.87
*7.81	*7.00	0.06	99.93
*5.52	*7.50	0.05	99.98
*3.91	*8.00	0.02	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		**100.00**	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	38250	Very coarse pebble
Mode 3 [µm]†	19200	Coarse pebble
Median [µm]†	682	Coarse sand
Median [phi]†	0.55	
Mean [µm]†‡	1979	Very coarse sand
Mean [phi]†‡	-0.98	
Sorting [µm]‡	6.56	Very poorly sorted
Sorting [phi]‡	2.71	
Skewness [µm]‡	0.67	Very coarse skewed
Skewness [phi]‡	-0.67	
Gravel [%]#	35.84	Sandy gravel
Sand [%]#	64.01	
Fines [%]#	0.15	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

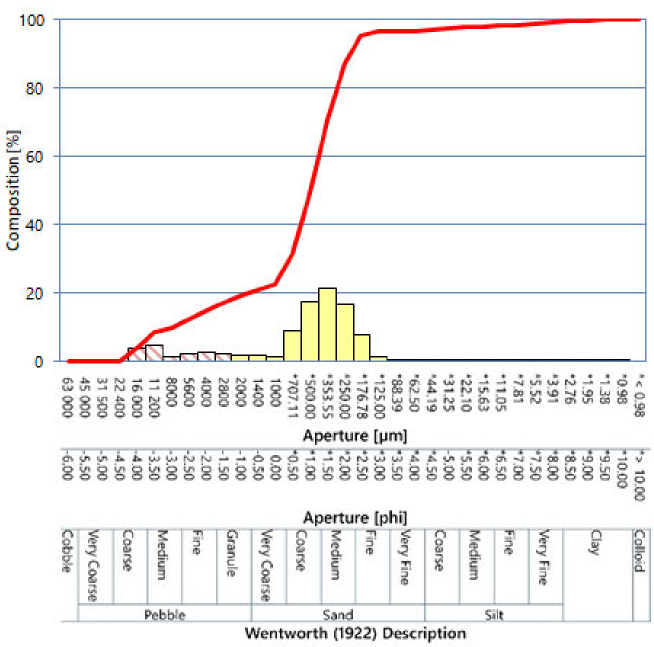
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_04_PSDB

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	4.17	4.17
11 200	-3.50	4.66	8.83
8000	-3.00	1.31	10.15
5600	-2.50	2.34	12.49
4000	-2.00	2.56	15.05
2800	-1.50	2.30	17.35
2000	-1.00	2.01	19.36
1400	-0.50	1.76	21.12
1000	0.00	1.61	22.72
*707.11	*0.50	9.11	31.83
*500.00	*1.00	17.47	49.31
*353.55	*1.50	21.39	70.70
*250.00	*2.00	16.78	87.48
*176.78	*2.50	7.81	95.29
*125.00	*3.00	1.53	96.82
*88.39	*3.50	0.01	96.83
*62.50	*4.00	0.01	96.84
*44.19	*4.50	0.35	97.19
*31.25	*5.00	0.42	97.61
*22.10	*5.50	0.25	97.85
*15.63	*6.00	0.16	98.02
*11.05	*6.50	0.23	98.24
*7.81	*7.00	0.33	98.58
*5.52	*7.50	0.38	98.95
*3.91	*8.00	0.36	99.31
*2.76	*8.50	0.30	99.61
*1.95	*9.00	0.22	99.83
*1.38	*9.50	0.15	99.99
*0.98	*10.00	0.01	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm][†]	427	Medium sand
Mode 2 [µm][†]	13600	Medium pebble
Mode 3 [µm][†]	-	-
Median [µm][†]	494	Medium sand
Median [phi][†]	1.02	
Mean [µm][‡]	771	Coarse sand
Mean [phi][‡]	0.38	
Sorting [µm][‡]	3.70	Poorly sorted
Sorting [phi][‡]	1.89	
Skewness [µm][‡]	0.53	Very coarse skewed
Skewness [phi][‡]	-0.53	
Gravel [%][#]	19.36	Gravelly sand
Sand [%][#]	77.49	
Fines [%][#]	3.16	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

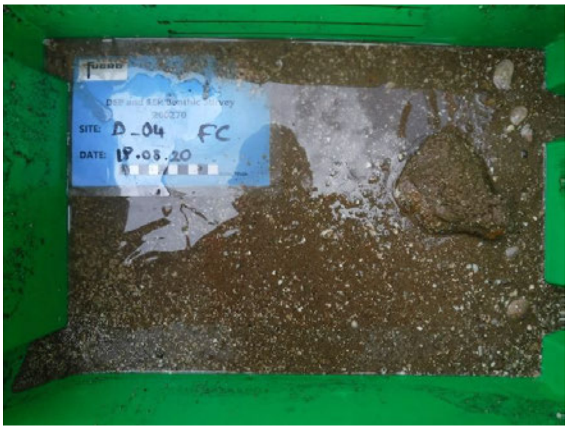
* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

\# = Description based on BGS modified Folk classification (Long, 2006)

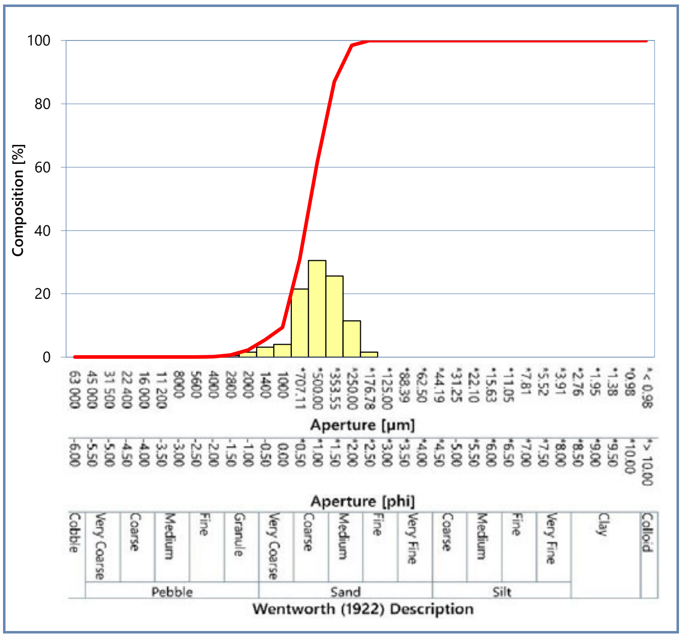
STATION: D_04_PSDC



FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.02	0.02
4000	-2.00	0.10	0.12
2800	-1.50	0.56	0.68
2000	-1.00	1.57	2.25
1400	-0.50	3.18	5.43
1000	0.00	4.01	9.44
*707.11	*0.50	21.51	30.94
*500.00	*1.00	30.49	61.43
*353.55	*1.50	25.58	87.01
*250.00	*2.00	11.46	98.47
*176.78	*2.50	1.53	100.00
*125.00	*3.00	0.00	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	604	Coarse sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	569	Coarse sand
Median [phi]†	0.81	
Mean [µm]‡	574	Coarse sand
Mean [phi]‡	0.80	
Sorting [µm]‡	1.61	Moderately well sorted
Sorting [phi]‡	0.69	
Skewness [µm]‡	0.08	Symmetrical
Skewness [phi]‡	-0.08	
Gravel [%]#	2.25	Sand
Sand [%]#	97.75	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

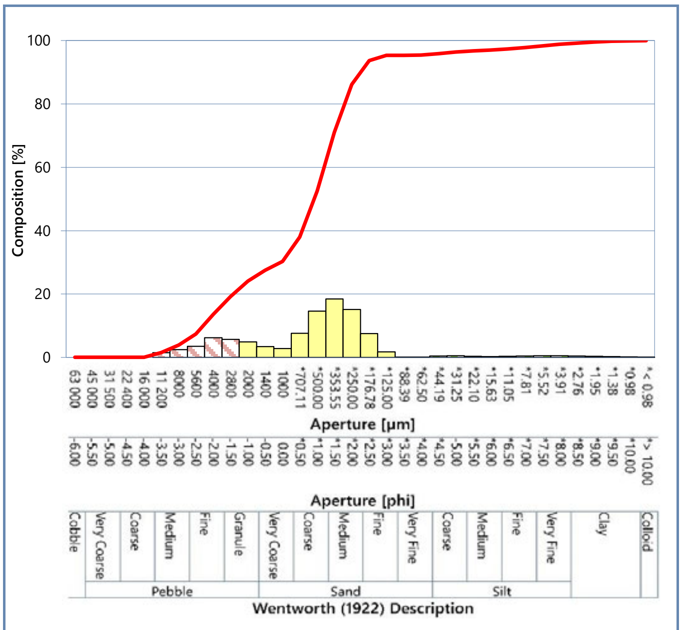
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_05_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	1.50	1.50
8000	-3.00	2.41	3.91
5600	-2.50	3.45	7.37
4000	-2.00	6.20	13.56
2800	-1.50	5.65	19.21
2000	-1.00	4.87	24.08
1400	-0.50	3.42	27.50
1000	0.00	2.83	30.33
*707.11	*0.50	7.64	37.97
*500.00	*1.00	14.57	52.55
*353.55	*1.50	18.48	71.03
*250.00	*2.00	15.16	86.18
*176.78	*2.50	7.48	93.66
*125.00	*3.00	1.71	95.37
*88.39	*3.50	0.02	95.38
*62.50	*4.00	0.02	95.41
*44.19	*4.50	0.46	95.87
*31.25	*5.00	0.54	96.41
*22.10	*5.50	0.36	96.77
*15.63	*6.00	0.27	97.04
*11.05	*6.50	0.34	97.38
*7.81	*7.00	0.45	97.83
*5.52	*7.50	0.51	98.34
*3.91	*8.00	0.49	98.83
*2.76	*8.50	0.41	99.24
*1.95	*9.00	0.31	99.55
*1.38	*9.50	0.22	99.77
*0.98	*10.00	0.15	99.92
*< 0.98	*> 10.00	0.08	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	4800	Fine pebble
Mode 3 [µm]†	-	-
Median [µm]†	531	Coarse sand
Median [phi]†	0.91	
Mean [µm]†‡	782	Coarse sand
Mean [phi]†‡	0.35	
Sorting [µm]‡	3.47	Poorly sorted
Sorting [phi]‡	1.79	
Skewness [µm]‡	0.38	Very coarse skewed
Skewness [phi]‡	-0.38	
Gravel [%]#	24.08	Gravelly sand
Sand [%]#	71.32	
Fines [%]#	4.59	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

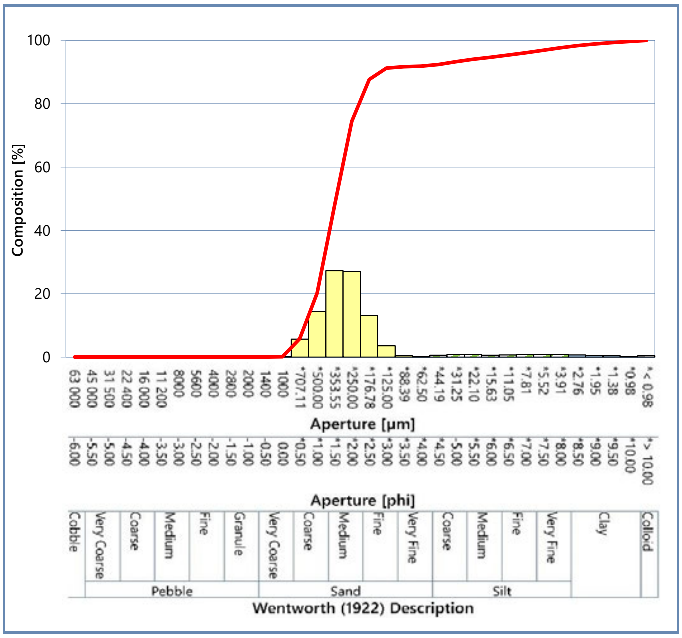
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_06_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.02	0.02
4000	-2.00	0.00	0.02
2800	-1.50	0.00	0.02
2000	-1.00	0.01	0.03
1400	-0.50	0.03	0.06
1000	0.00	0.04	0.10
*707.11	*0.50	5.70	5.79
*500.00	*1.00	14.46	20.25
*353.55	*1.50	27.27	47.52
*250.00	*2.00	26.98	74.50
*176.78	*2.50	13.14	87.63
*125.00	*3.00	3.62	91.25
*88.39	*3.50	0.47	91.72
*62.50	*4.00	0.09	91.81
*44.19	*4.50	0.58	92.40
*31.25	*5.00	0.84	93.24
*22.10	*5.50	0.76	94.01
*15.63	*6.00	0.65	94.66
*11.05	*6.50	0.66	95.32
*7.81	*7.00	0.74	96.06
*5.52	*7.50	0.81	96.87
*3.91	*8.00	0.79	97.65
*2.76	*8.50	0.69	98.35
*1.95	*9.00	0.55	98.89
*1.38	*9.50	0.40	99.30
*0.98	*10.00	0.30	99.60
*< 0.98	*> 10.00	0.40	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	342	Medium sand
Median [phi]†	1.55	
Mean [µm]‡	333	Medium sand
Mean [phi]‡	1.59	
Sorting [µm]‡	2.40	Poorly sorted
Sorting [phi]‡	1.26	
Skewness [µm]‡	-0.35	Very fine skewed
Skewness [phi]‡	0.35	
Gravel [%]#	0.03	Sand
Sand [%]#	91.78	
Fines [%]#	8.19	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

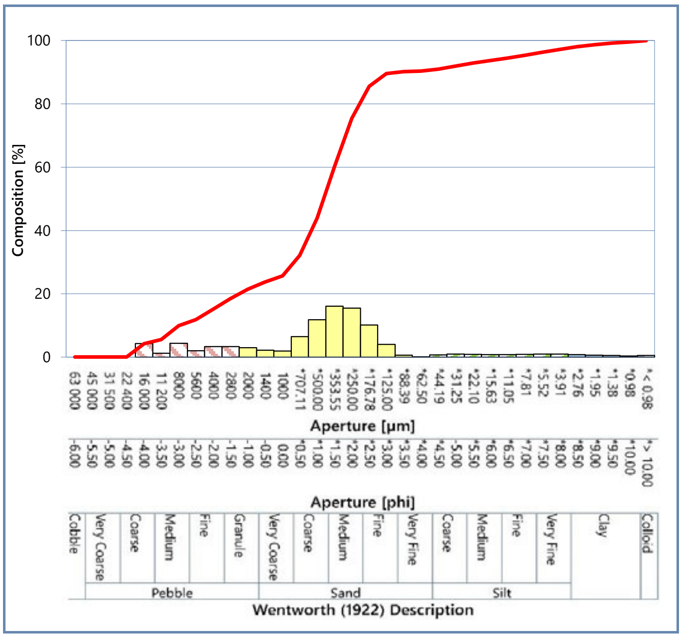
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_07_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	4.27	4.27
11 200	-3.50	1.25	5.52
8000	-3.00	4.37	9.89
5600	-2.50	2.00	11.89
4000	-2.00	3.28	15.17
2800	-1.50	3.34	18.51
2000	-1.00	2.99	21.50
1400	-0.50	2.21	23.72
1000	0.00	1.94	25.66
*707.11	*0.50	6.45	32.10
*500.00	*1.00	11.84	43.94
*353.55	*1.50	16.06	60.00
*250.00	*2.00	15.44	75.44
*176.78	*2.50	10.11	85.55
*125.00	*3.00	4.03	89.58
*88.39	*3.50	0.64	90.22
*62.50	*4.00	0.11	90.33
*44.19	*4.50	0.67	91.00
*31.25	*5.00	0.98	91.99
*22.10	*5.50	0.91	92.89
*15.63	*6.00	0.78	93.67
*11.05	*6.50	0.78	94.46
*7.81	*7.00	0.88	95.34
*5.52	*7.50	0.95	96.28
*3.91	*8.00	0.93	97.22
*2.76	*8.50	0.82	98.03
*1.95	*9.00	0.65	98.68
*1.38	*9.50	0.48	99.16
*0.98	*10.00	0.36	99.52
*< 0.98	*> 10.00	0.48	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	9600	Medium pebble
Mode 3 [µm]†	19200	Coarse pebble
Median [µm]†	439	Medium sand
Median [phi]†	1.19	
Mean [µm]†‡	669	Coarse sand
Mean [phi]†‡	0.58	
Sorting [µm]‡	6.35	Very poorly sorted
Sorting [phi]‡	2.67	
Skewness [µm]‡	0.18	Coarse skewed
Skewness [phi]‡	-0.18	
Gravel [%]#	21.50	Gravelly muddy sand
Sand [%]#	68.83	
Fines [%]#	9.67	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

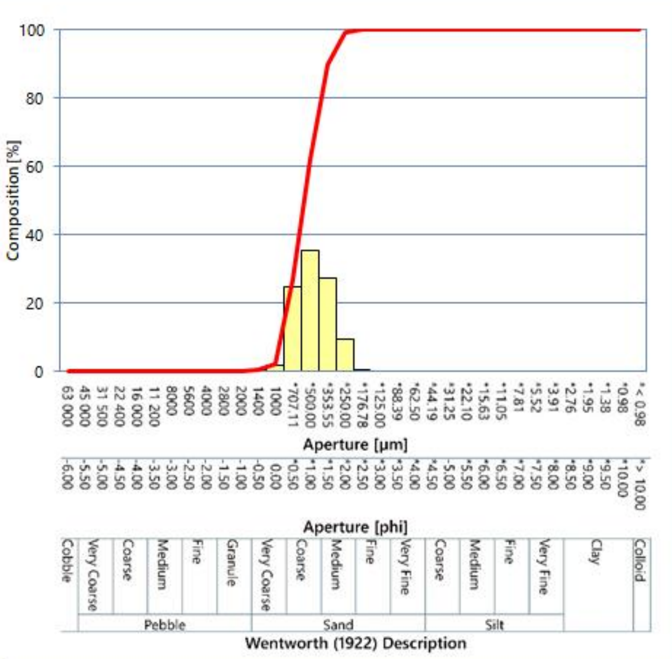
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_08_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.00	0.00
4000	-2.00	0.09	0.09
2800	-1.50	0.12	0.21
2000	-1.00	0.09	0.30
1400	-0.50	0.35	0.66
1000	0.00	1.70	2.36
*707.11	*0.50	24.68	27.04
*500.00	*1.00	35.39	62.42
*353.55	*1.50	27.52	89.95
*250.00	*2.00	9.52	99.47
*176.78	*2.50	0.53	100.00
*125.00	*3.00	0.00	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	604	Coarse sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	565	Coarse sand
Median [phi]†	0.82	
Mean [µm]‡	562	Coarse sand
Mean [phi]‡	0.83	
Sorting [µm]‡	1.45	Moderately well sorted
Sorting [phi]‡	0.54	
Skewness [µm]‡	-0.06	Symmetrical
Skewness [phi]‡	0.06	
Gravel [%]#	0.30	Sand
Sand [%]#	99.70	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

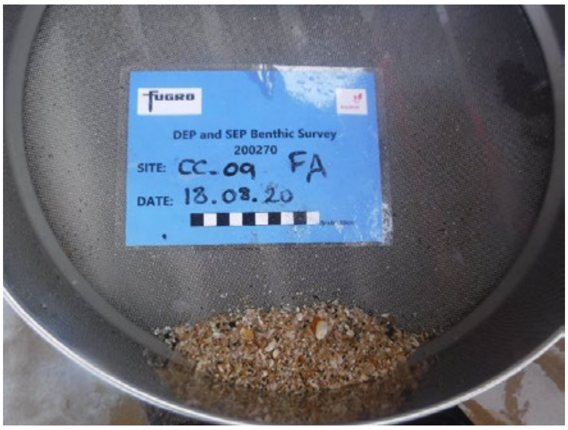
* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

\# = Description based on BGS modified Folk classification (Long, 2006)

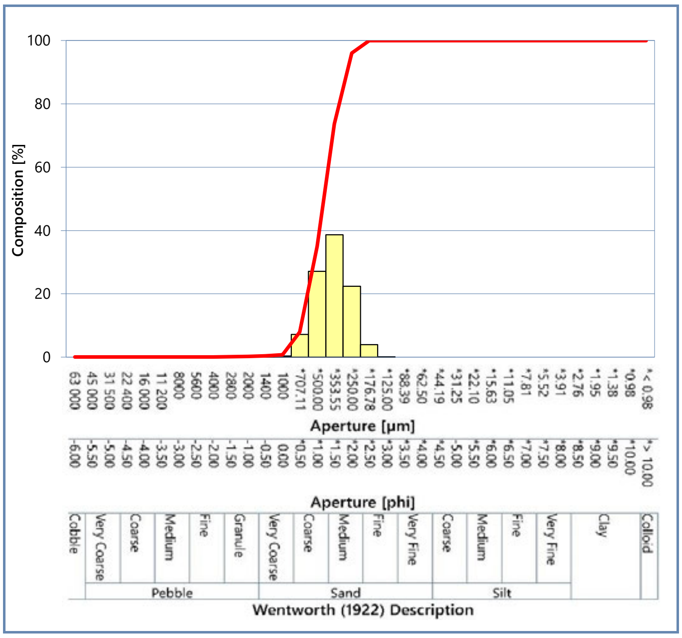
STATION: D_09_PSDA



FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.00	0.00
4000	-2.00	0.00	0.00
2800	-1.50	0.11	0.11
2000	-1.00	0.11	0.23
1400	-0.50	0.16	0.38
1000	0.00	0.35	0.73
*707.11	*0.50	7.17	7.90
*500.00	*1.00	27.08	34.97
*353.55	*1.50	38.68	73.66
*250.00	*2.00	22.38	96.04
*176.78	*2.50	3.95	99.99
*125.00	*3.00	0.01	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	437	Medium sand
Median [phi]†	1.19	
Mean [µm]†‡	438	Medium sand
Mean [phi]†‡	1.19	
Sorting [µm]‡	1.44	Moderately well sorted
Sorting [phi]‡	0.52	
Skewness [µm]‡	0.04	Symmetrical
Skewness [phi]‡	-0.04	
Gravel [%]#	0.23	Sand
Sand [%]#	99.77	
Fines [%]#	0.00	

Notes

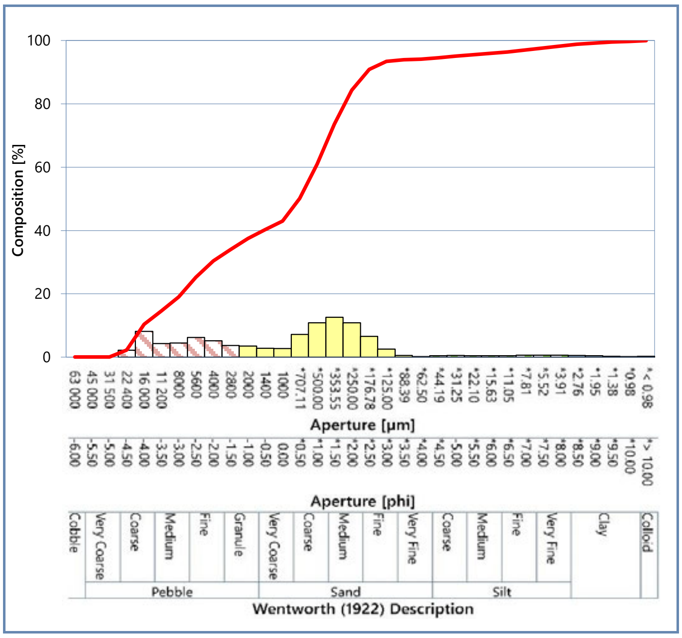
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_10_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	2.21	2.21
16 000	-4.00	8.11	10.32
11 200	-3.50	4.27	14.59
8000	-3.00	4.46	19.05
5600	-2.50	6.17	25.21
4000	-2.00	5.14	30.35
2800	-1.50	3.63	33.99
2000	-1.00	3.48	37.47
1400	-0.50	2.82	40.29
1000	0.00	2.69	42.98
*707.11	*0.50	7.14	50.13
*500.00	*1.00	10.82	60.95
*353.55	*1.50	12.59	73.54
*250.00	*2.00	10.82	84.36
*176.78	*2.50	6.55	90.91
*125.00	*3.00	2.52	93.43
*88.39	*3.50	0.49	93.92
*62.50	*4.00	0.19	94.11
*44.19	*4.50	0.45	94.56
*31.25	*5.00	0.54	95.10
*22.10	*5.50	0.46	95.56
*15.63	*6.00	0.41	95.97
*11.05	*6.50	0.47	96.44
*7.81	*7.00	0.57	97.01
*5.52	*7.50	0.64	97.65
*3.91	*8.00	0.63	98.28
*2.76	*8.50	0.55	98.82
*1.95	*9.00	0.42	99.24
*1.38	*9.50	0.30	99.54
*0.98	*10.00	0.21	99.75
*< 0.98	*> 10.00	0.25	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	19200	Coarse pebble
Mode 3 [µm]†	6800	Fine pebble
Median [µm]†	712	Coarse sand
Median [phi]†	0.49	
Mean [µm]‡	1219	Very coarse sand
Mean [phi]‡	-0.29	
Sorting [µm]‡	6.62	Very poorly sorted
Sorting [phi]‡	2.73	
Skewness [µm]‡	0.24	Coarse skewed
Skewness [phi]‡	-0.24	
Gravel [%]#	37.47	Sandy gravel
Sand [%]#	56.65	
Fines [%]#	5.89	

Notes

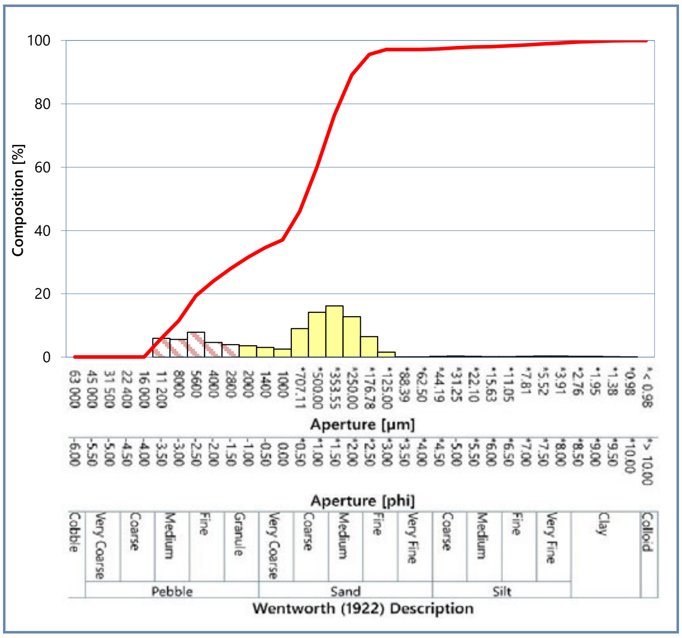
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_11_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	5.91	5.91
8000	-3.00	5.57	11.48
5600	-2.50	7.88	19.36
4000	-2.00	4.63	23.99
2800	-1.50	3.94	27.93
2000	-1.00	3.58	31.51
1400	-0.50	3.03	34.55
1000	0.00	2.51	37.06
*707.11	*0.50	8.98	46.04
*500.00	*1.00	14.16	60.20
*353.55	*1.50	16.15	76.36
*250.00	*2.00	12.79	89.15
*176.78	*2.50	6.44	95.59
*125.00	*3.00	1.58	97.17
*88.39	*3.50	0.01	97.18
*62.50	*4.00	0.01	97.18
*44.19	*4.50	0.22	97.40
*31.25	*5.00	0.32	97.73
*22.10	*5.50	0.22	97.94
*15.63	*6.00	0.15	98.09
*11.05	*6.50	0.19	98.29
*7.81	*7.00	0.28	98.57
*5.52	*7.50	0.34	98.91
*3.91	*8.00	0.34	99.24
*2.76	*8.50	0.29	99.53
*1.95	*9.00	0.23	99.76
*1.38	*9.50	0.16	99.92
*0.98	*10.00	0.08	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	6800	Fine pebble
Mode 3 [µm]†	13600	Medium pebble
Median [µm]†	642	Coarse sand
Median [phi]†	0.64	
Mean [µm]†‡	1063	Very coarse sand
Mean [phi]†‡	-0.09	
Sorting [µm]‡	4.11	Very poorly sorted
Sorting [phi]‡	2.04	
Skewness [µm]‡	0.44	Very coarse skewed
Skewness [phi]‡	-0.44	
Gravel [%]#	31.51	Sandy gravel
Sand [%]#	65.67	
Fines [%]#	2.82	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

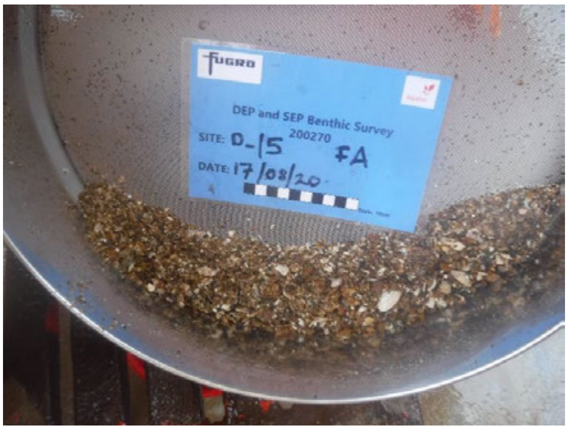
* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

= Description based on BGS modified Folk classification (Long, 2006)

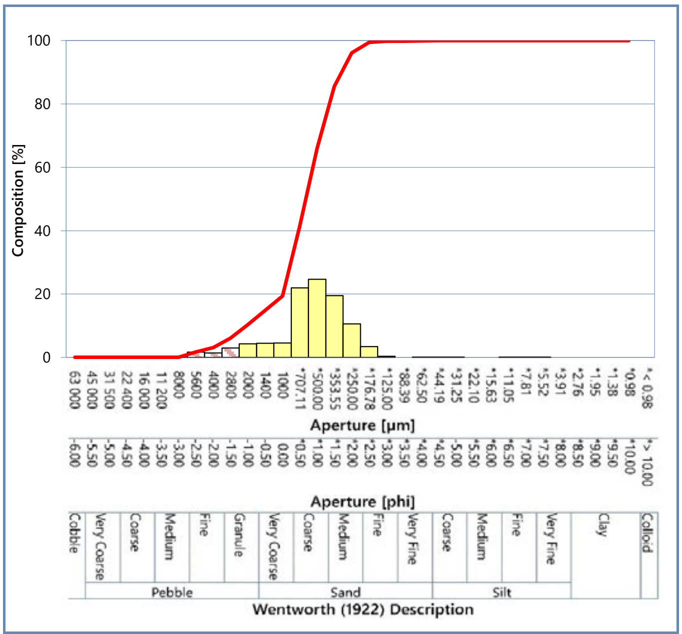
STATION: D_15_PSDA



FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.06	0.06
5600	-2.50	1.66	1.72
4000	-2.00	1.38	3.09
2800	-1.50	2.98	6.08
2000	-1.00	4.31	10.38
1400	-0.50	4.46	14.84
1000	0.00	4.56	19.40
*707.11	*0.50	21.99	41.39
*500.00	*1.00	24.65	66.04
*353.55	*1.50	19.52	85.56
*250.00	*2.00	10.55	96.12
*176.78	*2.50	3.39	99.50
*125.00	*3.00	0.30	99.81
*88.39	*3.50	0.00	99.81
*62.50	*4.00	0.05	99.86
*44.19	*4.50	0.09	99.95
*31.25	*5.00	0.01	99.96
*22.10	*5.50	0.00	99.96
*15.63	*6.00	0.00	99.96
*11.05	*6.50	0.01	99.97
*7.81	*7.00	0.02	99.99
*5.52	*7.50	0.01	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	604	Coarse sand
Mode 2 [µm]†	2400	Granule
Mode 3 [µm]†	-	-
Median [µm]†	627	Coarse sand
Median [phi]†	0.67	
Mean [µm]‡	664	Coarse sand
Mean [phi]‡	0.59	
Sorting [µm]‡	2.01	Poorly sorted
Sorting [phi]‡	1.00	
Skewness [µm]‡	0.22	Coarse skewed
Skewness [phi]‡	-0.22	
Gravel [%]#	10.38	Gravelly sand
Sand [%]#	89.47	
Fines [%]#	0.14	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

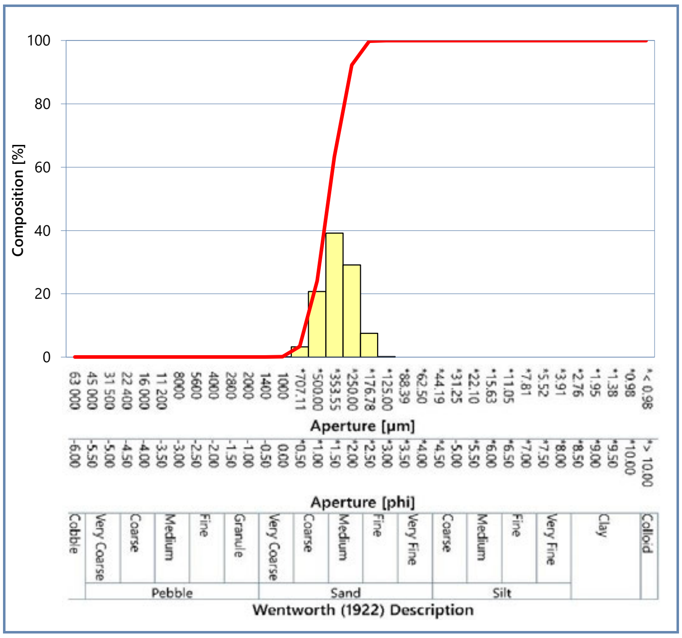
= Description based on BGS modified Folk classification (Long, 2006)

STATION: D_16_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.00	0.00
4000	-2.00	0.00	0.00
2800	-1.50	0.03	0.03
2000	-1.00	0.02	0.05
1400	-0.50	0.04	0.08
1000	0.00	0.02	0.10
*707.11	*0.50	3.25	3.35
*500.00	*1.00	20.76	24.11
*353.55	*1.50	39.14	63.25
*250.00	*2.00	29.08	92.33
*176.78	*2.50	7.50	99.83
*125.00	*3.00	0.17	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	398	Medium sand
Median [phi]†	1.33	
Mean [µm]‡	398	Medium sand
Mean [phi]‡	1.33	
Sorting [µm]‡	1.43	Moderately well sorted
Sorting [phi]‡	0.51	
Skewness [µm]‡	-0.02	Symmetrical
Skewness [phi]‡	0.02	
Gravel [%]#	0.05	Sand
Sand [%]#	99.95	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

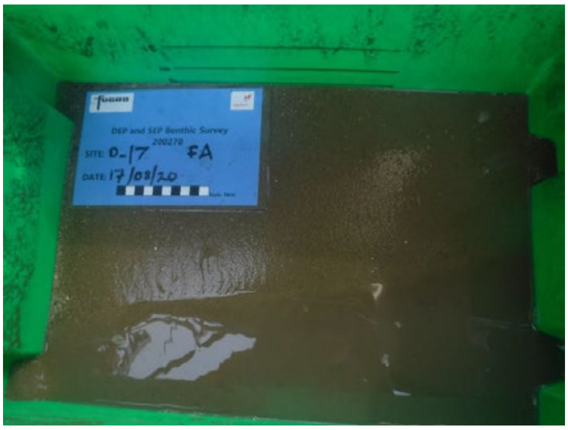
* = Determinand not included in UKAS Accreditation

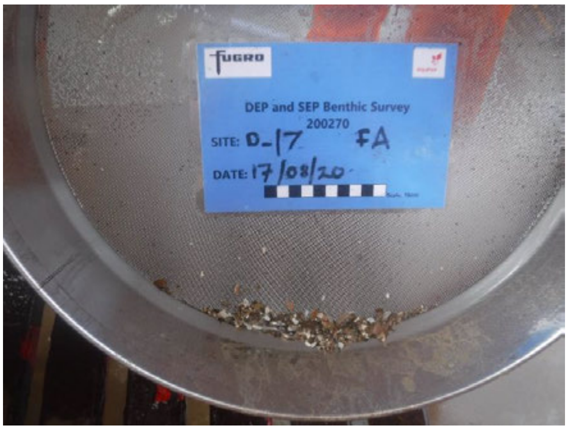
† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_17_PSDA

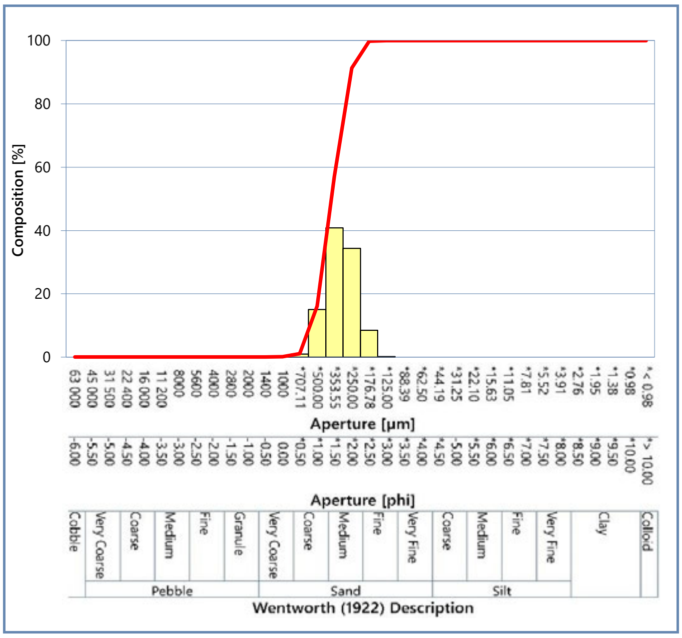




FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.00	0.00
4000	-2.00	0.00	0.00
2800	-1.50	0.00	0.00
2000	-1.00	0.01	0.01
1400	-0.50	0.06	0.07
1000	0.00	0.06	0.13
*707.11	*0.50	0.96	1.09
*500.00	*1.00	15.07	16.17
*353.55	*1.50	40.86	57.03
*250.00	*2.00	34.33	91.36
*176.78	*2.50	8.45	99.81
*125.00	*3.00	0.19	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	375	Medium sand
Median [phi]†	1.41	
Mean [µm]†‡	370	Medium sand
Mean [phi]†‡	1.43	
Sorting [µm]‡	1.38	Well sorted
Sorting [phi]‡	0.46	
Skewness [µm]‡	-0.04	Symmetrical
Skewness [phi]‡	0.04	
Gravel [%]#	0.01	Sand
Sand [%]#	99.99	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

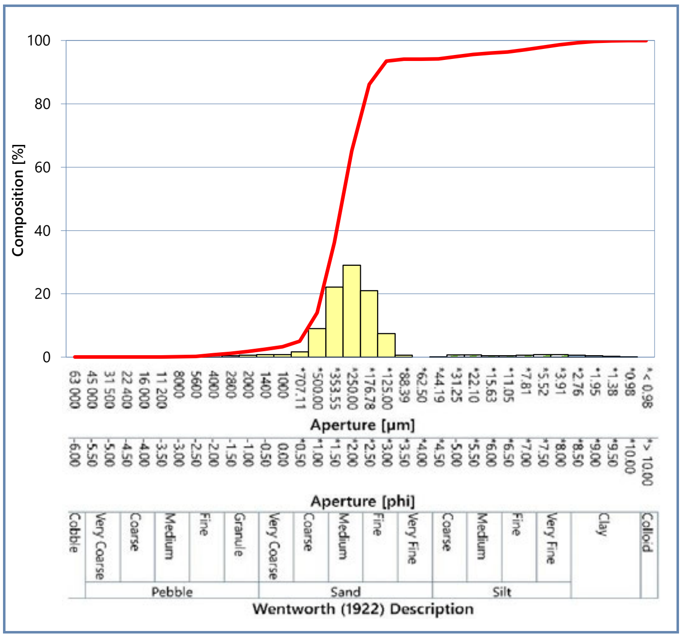
= Description based on BGS modified Folk classification (Long, 2006)

STATION: D_18_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.13	0.13
5600	-2.50	0.13	0.25
4000	-2.00	0.51	0.77
2800	-1.50	0.41	1.18
2000	-1.00	0.57	1.75
1400	-0.50	0.78	2.53
1000	0.00	0.78	3.30
*707.11	*0.50	1.68	4.98
*500.00	*1.00	9.02	14.00
*353.55	*1.50	22.14	36.14
*250.00	*2.00	29.04	65.18
*176.78	*2.50	20.97	86.15
*125.00	*3.00	7.40	93.55
*88.39	*3.50	0.59	94.14
*62.50	*4.00	0.00	94.14
*44.19	*4.50	0.07	94.21
*31.25	*5.00	0.71	94.92
*22.10	*5.50	0.68	95.60
*15.63	*6.00	0.42	96.02
*11.05	*6.50	0.41	96.44
*7.81	*7.00	0.63	97.07
*5.52	*7.50	0.81	97.88
*3.91	*8.00	0.79	98.67
*2.76	*8.50	0.61	99.28
*1.95	*9.00	0.40	99.69
*1.38	*9.50	0.25	99.93
*0.98	*10.00	0.07	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	302	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	300	Medium sand
Median [phi]†	1.74	
Mean [µm]‡	298	Medium sand
Mean [phi]‡	1.74	
Sorting [µm]‡	2.06	Poorly sorted
Sorting [phi]‡	1.04	
Skewness [µm]‡	-0.23	Fine skewed
Skewness [phi]‡	0.23	
Gravel [%]#	1.75	Sand
Sand [%]#	92.39	
Fines [%]#	5.86	

Notes

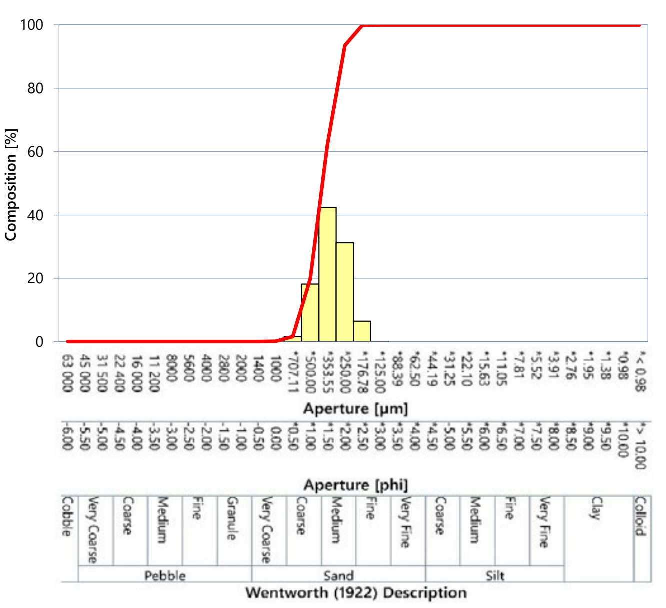
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_19_PSDA

FRACTIONAL DATA

Aperture [μm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.00	0.00
4000	-2.00	0.00	0.00
2800	-1.50	0.00	0.00
2000	-1.00	0.00	0.00
1400	-0.50	0.03	0.03
1000	0.00	0.06	0.08
*707.11	*0.50	1.57	1.65
*500.00	*1.00	18.18	19.84
*353.55	*1.50	42.41	62.24
*250.00	*2.00	31.23	93.48
*176.78	*2.50	6.44	99.92
*125.00	*3.00	0.08	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [μm]†	427	Medium sand
Mode 2 [μm]†	-	-
Mode 3 [μm]†	-	-
Median [μm]†	391	Medium sand
Median [phi]†	1.36	
Mean [μm]‡	388	Medium sand
Mean [phi]‡	1.37	
Sorting [μm]‡	1.38	Well sorted
Sorting [phi]‡	0.47	
Skewness [μm]‡	-0.02	Symmetrical
Skewness [phi]‡	0.02	
Gravel [%]#	0.00	Sand
Sand [%]#	100.00	
Fines [%]#	0.00	

Notes

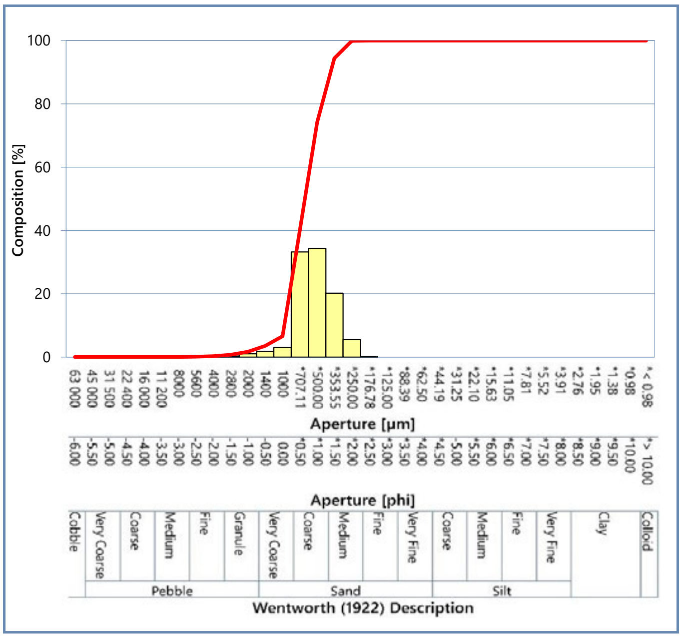
Particle Size Distribution by Dry Sieving (63 000 μm - 1000 μm) and Laser Diffraction* (< 1000 μm - < 0.98 μm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_20_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.16	0.16
4000	-2.00	0.15	0.31
2800	-1.50	0.39	0.70
2000	-1.00	1.01	1.71
1400	-0.50	1.83	3.54
1000	0.00	3.06	6.60
*707.11	*0.50	33.24	39.84
*500.00	*1.00	34.34	74.18
*353.55	*1.50	20.19	94.37
*250.00	*2.00	5.51	99.87
*176.78	*2.50	0.13	100.00
*125.00	*3.00	0.00	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	604	Coarse sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	638	Coarse sand
Median [phi]†	0.65	
Mean [µm]†‡	625	Coarse sand
Mean [phi]†‡	0.68	
Sorting [µm]‡	1.46	Moderately well sorted
Sorting [phi]‡	0.55	
Skewness [µm]‡	-0.04	Symmetrical
Skewness [phi]‡	0.04	
Gravel [%]#	1.71	Sand
Sand [%]#	98.29	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

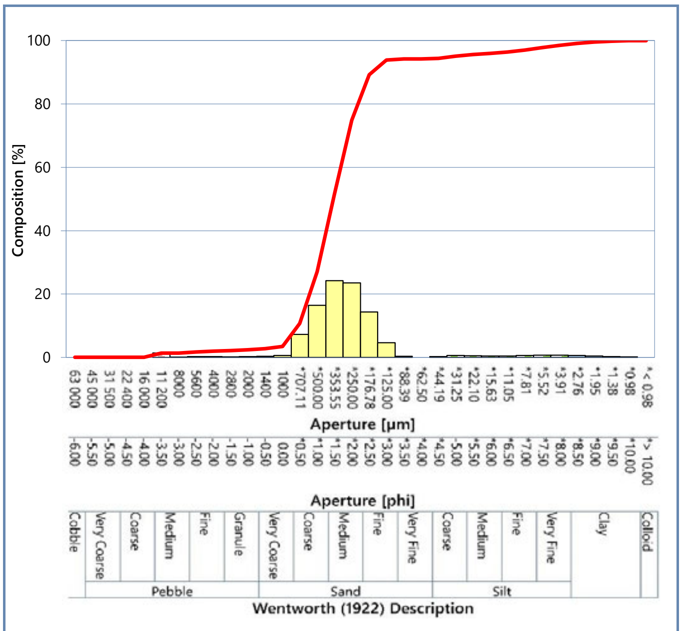
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_21_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	1.38	1.38
8000	-3.00	0.00	1.39
5600	-2.50	0.30	1.69
4000	-2.00	0.28	1.97
2800	-1.50	0.17	2.14
2000	-1.00	0.24	2.38
1400	-0.50	0.38	2.77
1000	0.00	0.64	3.41
*707.11	*0.50	7.28	10.69
*500.00	*1.00	16.41	27.10
*353.55	*1.50	24.23	51.33
*250.00	*2.00	23.54	74.87
*176.78	*2.50	14.37	89.24
*125.00	*3.00	4.63	93.87
*88.39	*3.50	0.33	94.19
*62.50	*4.00	0.00	94.19
*44.19	*4.50	0.24	94.43
*31.25	*5.00	0.63	95.06
*22.10	*5.50	0.54	95.60
*15.63	*6.00	0.39	95.99
*11.05	*6.50	0.44	96.44
*7.81	*7.00	0.62	97.05
*5.52	*7.50	0.74	97.79
*3.91	*8.00	0.72	98.51
*2.76	*8.50	0.60	99.11
*1.95	*9.00	0.43	99.54
*1.38	*9.50	0.29	99.83
*0.98	*10.00	0.17	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	360	Medium sand
Median [phi]†	1.47	
Mean [µm]†‡	357	Medium sand
Mean [phi]†‡	1.48	
Sorting [µm]‡	2.22	Poorly sorted
Sorting [phi]‡	1.15	
Skewness [µm]‡	-0.23	Fine skewed
Skewness [phi]‡	0.23	
Gravel [%]#	2.38	Sand
Sand [%]#	91.81	
Fines [%]#	5.81	

Notes

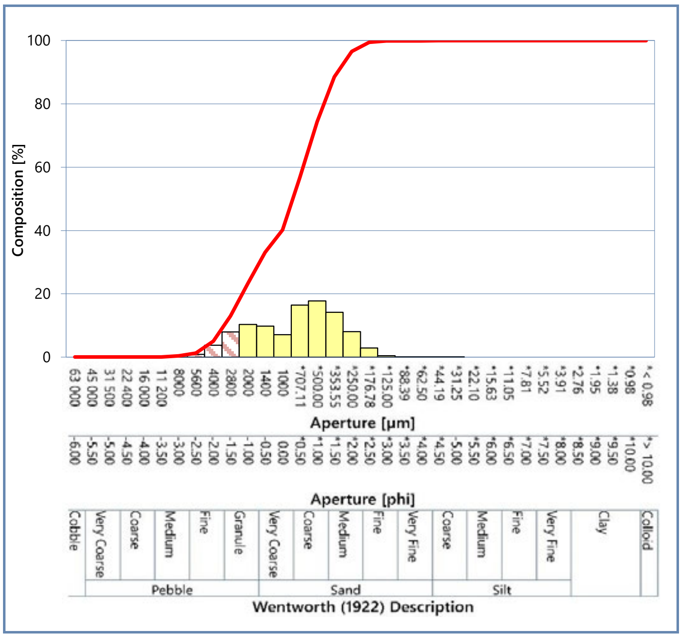
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_22_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.42	0.42
5600	-2.50	0.85	1.27
4000	-2.00	3.80	5.07
2800	-1.50	7.92	12.98
2000	-1.00	10.31	23.30
1400	-0.50	9.79	33.09
1000	0.00	7.12	40.20
*707.11	*0.50	16.45	56.65
*500.00	*1.00	17.72	74.37
*353.55	*1.50	14.16	88.54
*250.00	*2.00	8.03	96.57
*176.78	*2.50	2.91	99.48
*125.00	*3.00	0.42	99.90
*88.39	*3.50	0.00	99.90
*62.50	*4.00	0.03	99.93
*44.19	*4.50	0.06	99.99
*31.25	*5.00	0.01	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	604	Coarse sand
Mode 2 [µm]†	2400	Granule
Mode 3 [µm]†	-	-
Median [µm]†	813	Coarse sand
Median [phi]†	0.30	
Mean [µm]†‡	934	Coarse sand
Mean [phi]†‡	0.10	
Sorting [µm]‡	2.40	Poorly sorted
Sorting [phi]‡	1.26	
Skewness [µm]‡	0.20	Coarse skewed
Skewness [phi]‡	-0.20	
Gravel [%]#	23.30	Gravelly sand
Sand [%]#	76.63	
Fines [%]#	0.07	

Notes

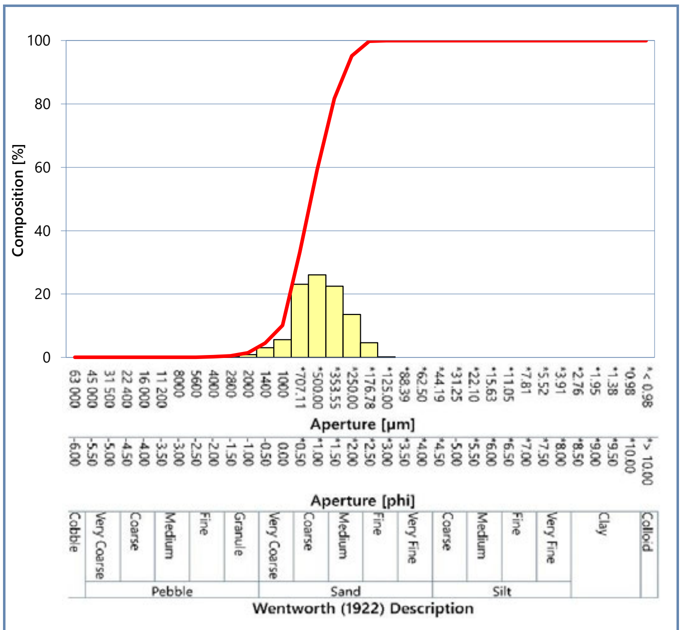
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_23_PSDA

FRACTIONAL DATA

Aperture [μm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.00	0.00
4000	-2.00	0.23	0.23
2800	-1.50	0.28	0.51
2000	-1.00	0.90	1.41
1400	-0.50	3.07	4.48
1000	0.00	5.60	10.09
*707.11	*0.50	23.04	33.13
*500.00	*1.00	26.07	59.20
*353.55	*1.50	22.49	81.70
*250.00	*2.00	13.51	95.21
*176.78	*2.50	4.61	99.82
*125.00	*3.00	0.18	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [μm]†	604	Coarse sand
Mode 2 [μm]†	-	-
Mode 3 [μm]†	-	-
Median [μm]†	565	Coarse sand
Median [phi]†	0.82	
Mean [μm]†‡	556	Coarse sand
Mean [phi]†‡	0.85	
Sorting [μm]‡	1.66	Moderately sorted
Sorting [phi]‡	0.73	
Skewness [μm]‡	0.00	Symmetrical
Skewness [phi]‡	0.00	
Gravel [%]#	1.41	Sand
Sand [%]#	98.59	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 μm - 1000 μm) and Laser Diffraction* (< 1000 μm - < 0.98 μm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

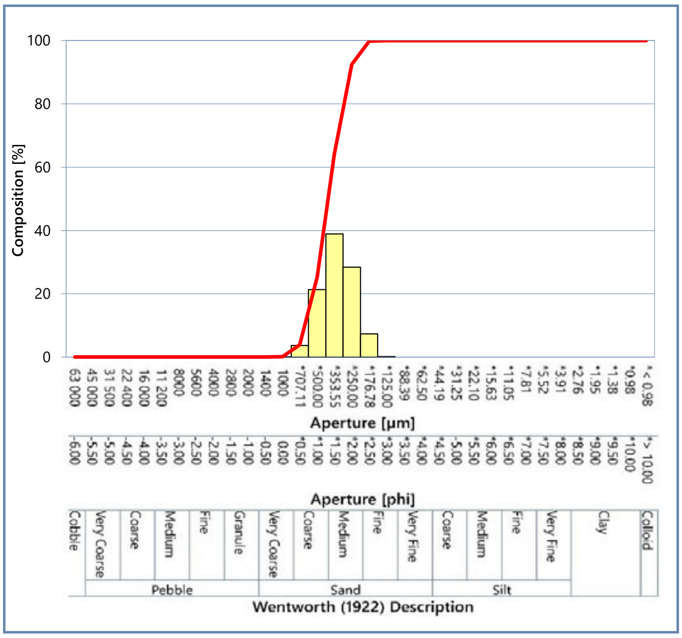
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_25_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.00	0.00
4000	-2.00	0.00	0.00
2800	-1.50	0.03	0.03
2000	-1.00	0.02	0.05
1400	-0.50	0.03	0.08
1000	0.00	0.09	0.17
*707.11	*0.50	3.68	3.85
*500.00	*1.00	21.37	25.22
*353.55	*1.50	38.88	64.10
*250.00	*2.00	28.40	92.49
*176.78	*2.50	7.33	99.82
*125.00	*3.00	0.18	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	401	Medium sand
Median [phi]†	1.32	
Mean [µm]†‡	401	Medium sand
Mean [phi]†‡	1.32	
Sorting [µm]‡	1.43	Moderately well sorted
Sorting [phi]‡	0.52	
Skewness [µm]‡	-0.02	Symmetrical
Skewness [phi]‡	0.02	
Gravel [%]#	0.05	Sand
Sand [%]#	99.95	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

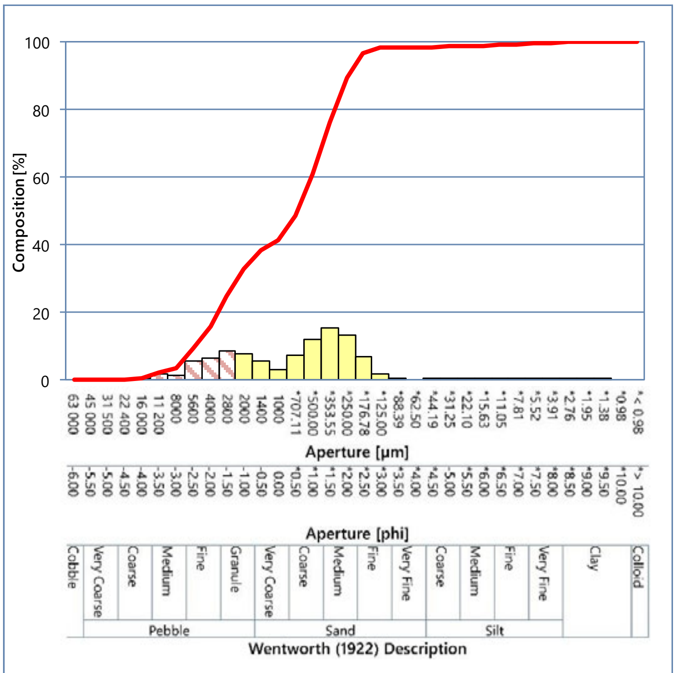
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_26_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.71	0.71
11 200	-3.50	1.70	2.40
8000	-3.00	1.37	3.78
5600	-2.50	5.83	9.61
4000	-2.00	6.49	16.09
2800	-1.50	8.77	24.87
2000	-1.00	8.01	32.88
1400	-0.50	5.51	38.39
1000	0.00	3.14	41.53
*707.11	*0.50	7.22	48.75
*500.00	*1.00	12.23	60.98
*353.55	*1.50	15.30	76.28
*250.00	*2.00	13.16	89.44
*176.78	*2.50	7.15	96.59
*125.00	*3.00	1.91	98.50
*88.39	*3.50	0.02	98.52
*62.50	*4.00	0.00	98.52
*44.19	*4.50	0.09	98.61
*31.25	*5.00	0.20	98.81
*22.10	*5.50	0.14	98.95
*15.63	*6.00	0.05	99.00
*11.05	*6.50	0.10	99.10
*7.81	*7.00	0.19	99.29
*5.52	*7.50	0.23	99.53
*3.91	*8.00	0.22	99.75
*2.76	*8.50	0.16	99.90
*1.95	*9.00	0.08	99.98
*1.38	*9.50	0.02	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	3400	Granule
Mode 3 [µm]†	0	-
Median [µm]†	683	Coarse sand
Median [phi]†	0.55	
Mean [µm]†‡	925	Coarse sand
Mean [phi]†‡	0.11	
Sorting [µm]‡	3.36	Poorly sorted
Sorting [phi]‡	1.75	
Skewness [µm]‡	0.33	Very corse skewed
Skewness [phi]‡	-0.33	
Gravel [%]#	32.88	Sandy gravel
Sand [%]#	65.64	
Fines [%]#	148.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

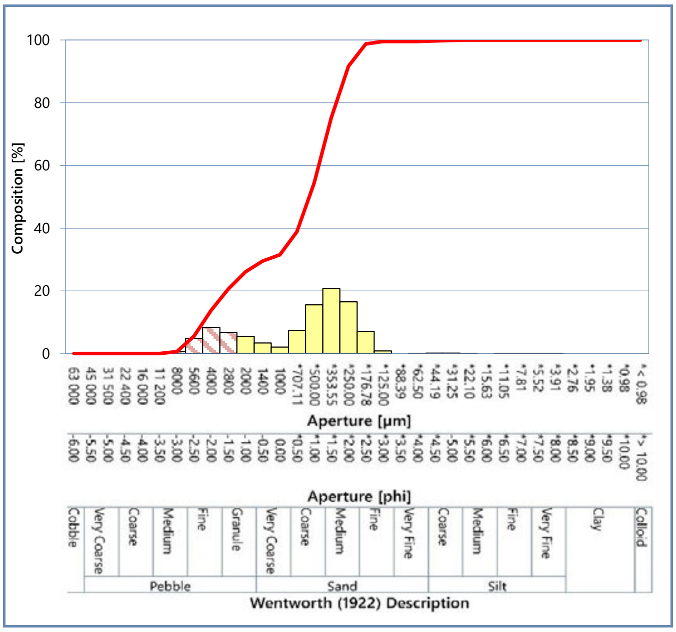
= Description based on BGS modified Folk classification (Long, 2006)

STATION: D_26_PSDB

FRACTIONAL DATA

Aperture [μm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.63	0.63
5600	-2.50	4.92	5.55
4000	-2.00	8.28	13.83
2800	-1.50	6.73	20.55
2000	-1.00	5.53	26.08
1400	-0.50	3.39	29.47
1000	0.00	2.08	31.55
*707.11	*0.50	7.33	38.88
*500.00	*1.00	15.58	54.46
*353.55	*1.50	20.71	75.17
*250.00	*2.00	16.52	91.68
*176.78	*2.50	7.05	98.73
*125.00	*3.00	0.84	99.58
*88.39	*3.50	0.00	99.58
*62.50	*4.00	0.01	99.58
*44.19	*4.50	0.17	99.76
*31.25	*5.00	0.16	99.92
*22.10	*5.50	0.04	99.96
*15.63	*6.00	0.00	99.96
*11.05	*6.50	0.00	99.96
*7.81	*7.00	0.02	99.98
*5.52	*7.50	0.01	99.99
*3.91	*8.00	0.01	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [μm]†	427	Medium sand
Mode 2 [μm]†	4800	Fine pebble
Mode 3 [μm]†	-	-
Median [μm]†	552	Coarse sand
Median [phi]†	0.86	
Mean [μm]†‡	833	Coarse sand
Mean [phi]†‡	0.26	
Sorting [μm]‡	3.08	Poorly sorted
Sorting [phi]‡	1.62	
Skewness [μm]‡	0.46	Very coarse skewed
Skewness [phi]‡	-0.46	
Gravel [%]#	26.08	Gravelly sand
Sand [%]#	73.50	
Fines [%]#	0.42	

Notes

Particle Size Distribution by Dry Sieving (63 000 μm - 1000 μm) and Laser Diffraction* (< 1000 μm - < 0.98 μm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

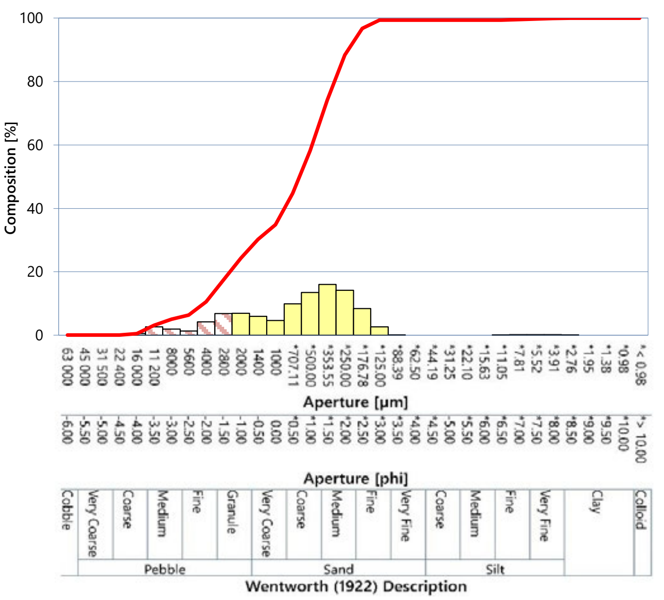
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: D_26_PSDC

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.49	0.49
11 200	-3.50	2.64	3.14
8000	-3.00	1.90	5.04
5600	-2.50	1.32	6.36
4000	-2.00	4.19	10.55
2800	-1.50	6.81	17.36
2000	-1.00	6.88	24.24
1400	-0.50	5.94	30.18
1000	0.00	4.67	34.85
*707.11	*0.50	9.87	44.72
*500.00	*1.00	13.49	58.21
*353.55	*1.50	15.95	74.17
*250.00	*2.00	14.19	88.36
*176.78	*2.50	8.43	96.79
*125.00	*3.00	2.60	99.39
*88.39	*3.50	0.02	99.41
*62.50	*4.00	0.00	99.41
*44.19	*4.50	0.00	99.41
*31.25	*5.00	0.00	99.41
*22.10	*5.50	0.00	99.41
*15.63	*6.00	0.00	99.41
*11.05	*6.50	0.00	99.42
*7.81	*7.00	0.14	99.56
*5.52	*7.50	0.18	99.74
*3.91	*8.00	0.16	99.90
*2.76	*8.50	0.10	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	2400	Granule
Mode 3 [µm]†	13600	Medium pebble
Median [µm]†	617	Coarse sand
Median [phi]†	0.70	
Mean [µm]‡	802	Coarse sand
Mean [phi]‡	0.32	
Sorting [µm]‡	3.20	Poorly sorted
Sorting [phi]‡	1.68	
Skewness [µm]‡	0.35	Very coarse skewed
Skewness [phi]‡	-0.35	
Gravel [%]#	24.24	Gravelly sand
Sand [%]#	75.17	
Fines [%]#	0.59	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

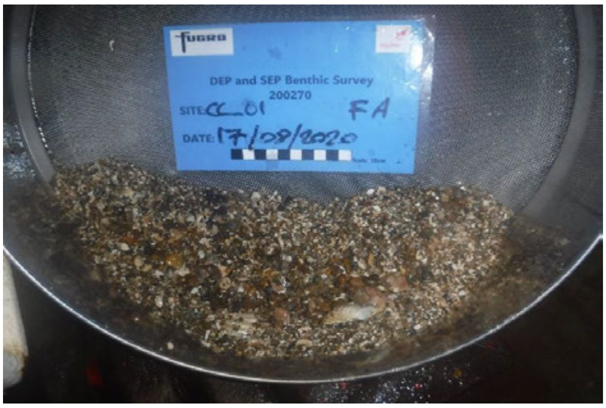
* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

= Description based on BGS modified Folk classification (Long, 2006)

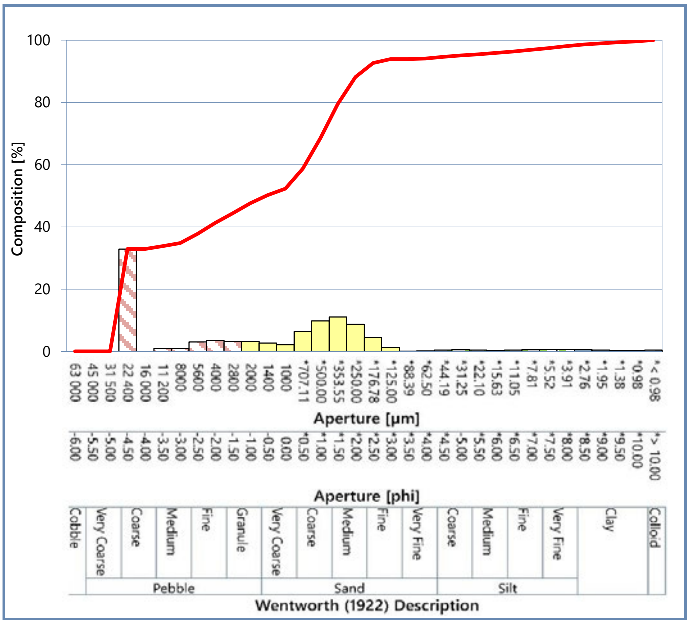
STATION: CC_01_PSDA



FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	32.90	32.90
16 000	-4.00	0.00	32.90
11 200	-3.50	0.93	33.83
8000	-3.00	0.93	34.76
5600	-2.50	3.05	37.81
4000	-2.00	3.45	41.25
2800	-1.50	3.11	44.36
2000	-1.00	3.18	47.54
1400	-0.50	2.67	50.21
1000	0.00	2.10	52.31
*707.11	*0.50	6.35	58.66
*500.00	*1.00	9.78	68.44
*353.55	*1.50	11.01	79.46
*250.00	*2.00	8.69	88.15
*176.78	*2.50	4.48	92.63
*125.00	*3.00	1.23	93.85
*88.39	*3.50	0.07	93.92
*62.50	*4.00	0.18	94.10
*44.19	*4.50	0.47	94.57
*31.25	*5.00	0.49	95.06
*22.10	*5.50	0.40	95.46
*15.63	*6.00	0.38	95.83
*11.05	*6.50	0.45	96.28
*7.81	*7.00	0.54	96.82
*5.52	*7.50	0.59	97.41
*3.91	*8.00	0.59	98.00
*2.76	*8.50	0.53	98.53
*1.95	*9.00	0.44	98.96
*1.38	*9.50	0.34	99.30
*0.98	*10.00	0.27	99.57
*< 0.98	*> 10.00	0.43	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION

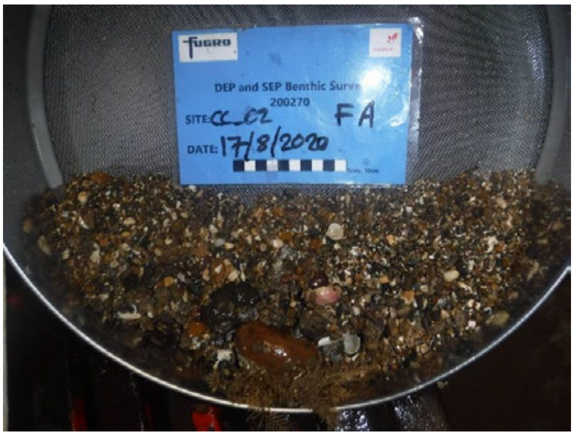


SUMMARY STATISTICS

Mode 1 [µm][†]	26950	Coarse pebble
Mode 2 [µm][†]	427	Medium sand
Mode 3 [µm][†]	-	-
Median [µm][†]	1440	Very coarse sand
Median [phi][†]	-0.53	
Mean [µm][†‡]	2246	Granule
Mean [phi][†‡]	-1.17	
Sorting [µm][‡]	8.67	Very poorly sorted
Sorting [phi][‡]	3.12	
Skewness [µm][‡]	0.09	Symmetrical
Skewness [phi][‡]	-0.09	
Gravel [%][#]	47.54	Muddy, sandy gravel
Sand [%][#]	46.56	
Fines [%][#]	5.90	

Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

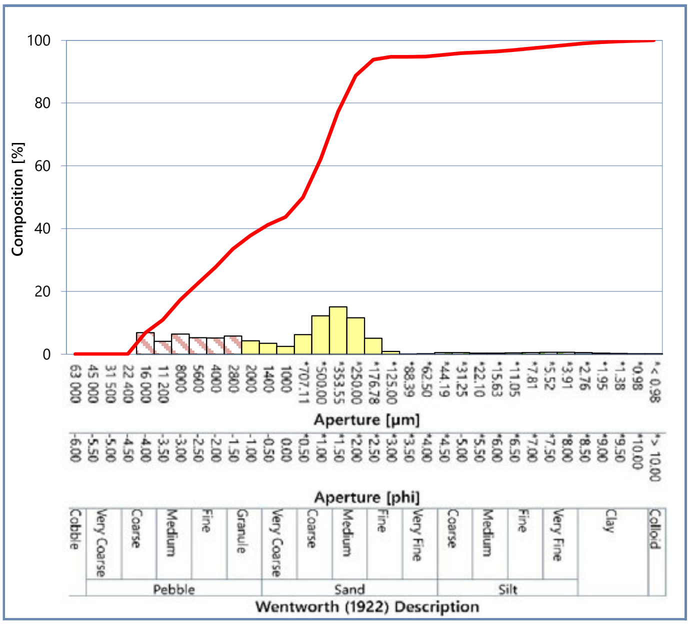
STATION: CC_02_PSDA



FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	6.84	6.84
11 200	-3.50	4.12	10.97
8000	-3.00	6.39	17.35
5600	-2.50	5.21	22.57
4000	-2.00	5.19	27.76
2800	-1.50	5.78	33.53
2000	-1.00	4.25	37.78
1400	-0.50	3.46	41.24
1000	0.00	2.44	43.68
*707.11	*0.50	6.25	49.93
*500.00	*1.00	12.18	62.10
*353.55	*1.50	15.08	77.19
*250.00	*2.00	11.60	88.79
*176.78	*2.50	5.06	93.86
*125.00	*3.00	0.85	94.71
*88.39	*3.50	0.00	94.71
*62.50	*4.00	0.14	94.85
*44.19	*4.50	0.52	95.37
*31.25	*5.00	0.49	95.86
*22.10	*5.50	0.33	96.19
*15.63	*6.00	0.29	96.48
*11.05	*6.50	0.39	96.87
*7.81	*7.00	0.51	97.38
*5.52	*7.50	0.58	97.96
*3.91	*8.00	0.56	98.52
*2.76	*8.50	0.48	99.00
*1.95	*9.00	0.37	99.36
*1.38	*9.50	0.26	99.62
*0.98	*10.00	0.18	99.80
*< 0.98	*> 10.00	0.20	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION

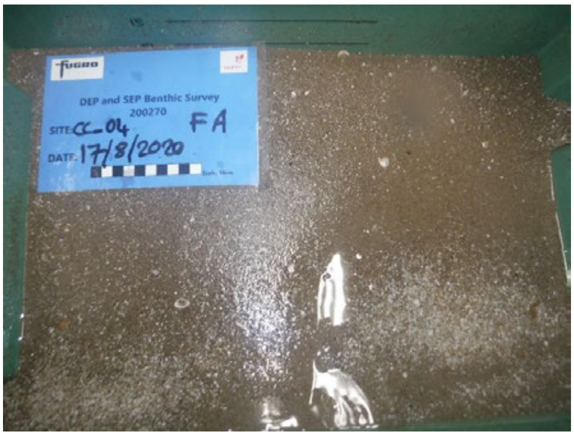


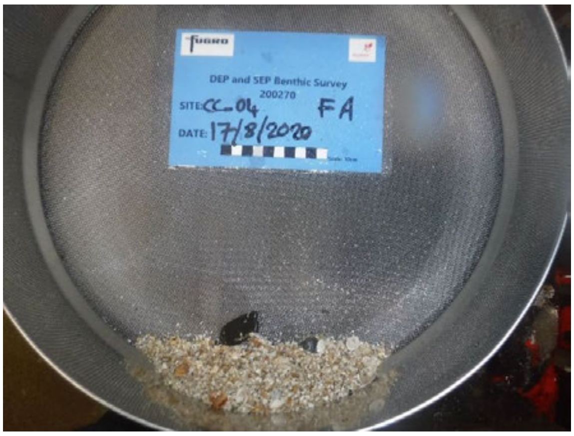
SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	19200	Coarse pebble
Mode 3 [µm]†	9600	Medium pebble
Median [µm]†	706	Coarse sand
Median [phi]†	0.50	
Mean [µm]†‡	1205	Very coarse sand
Mean [phi]†‡	-0.27	
Sorting [µm]‡	5.57	Very poorly sorted
Sorting [phi]‡	2.48	
Skewness [µm]‡	0.30	Coarse skewed
Skewness [phi]‡	-0.30	
Gravel [%]#	37.78	Sandy gravel
Sand [%]#	57.07	
Fines [%]#	5.15	

Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_03_PSDA

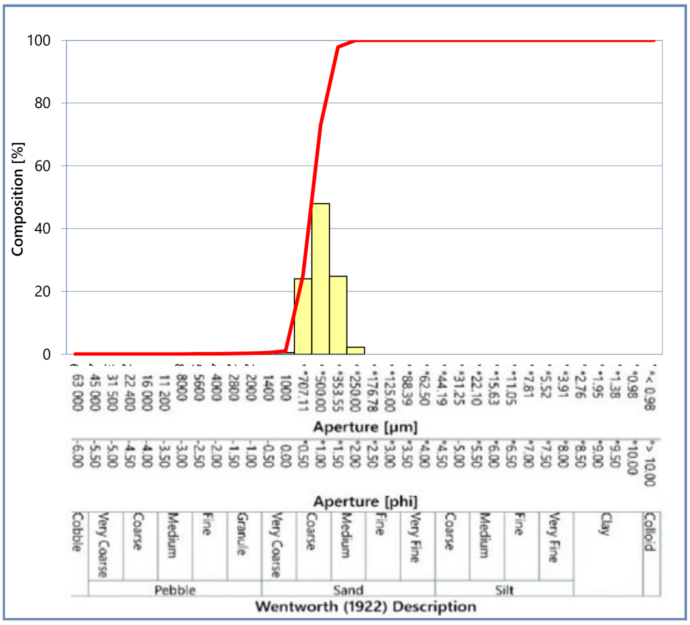




FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.09	0.09
4000	-2.00	0.00	0.09
2800	-1.50	0.09	0.17
2000	-1.00	0.11	0.28
1400	-0.50	0.22	0.50
1000	0.00	0.52	1.02
*707.11	*0.50	24.00	25.02
*500.00	*1.00	47.99	73.02
*353.55	*1.50	24.80	97.82
*250.00	*2.00	2.18	100.00
*176.78	*2.50	0.00	100.00
*125.00	*3.00	0.00	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	604	Coarse sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	590	Coarse sand
Median [phi]†	0.76	
Mean [µm]†‡	589	Coarse sand
Mean [phi]†‡	0.76	
Sorting [µm]‡	1.35	Well sorted
Sorting [phi]‡	0.43	
Skewness [µm]‡	-0.01	Symmetrical
Skewness [phi]‡	0.01	
Gravel [%]#	0.28	Sand
Sand [%]#	99.72	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

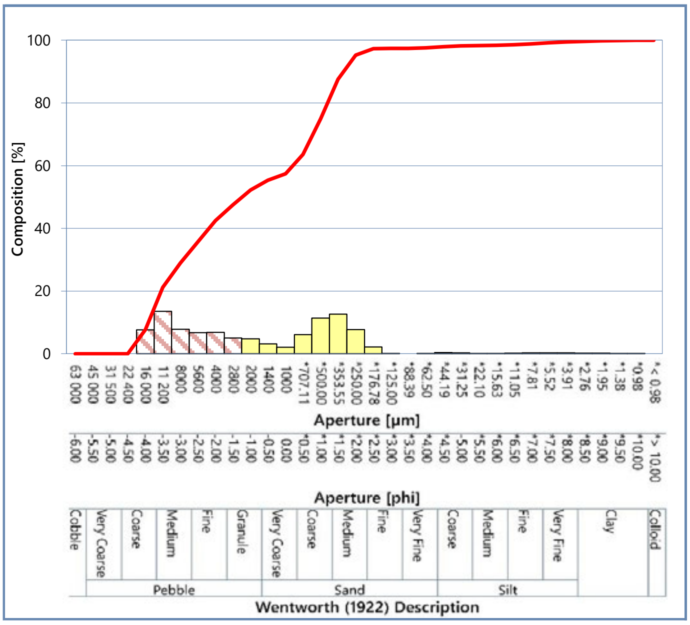
= Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_04_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	7.65	7.65
11 200	-3.50	13.53	21.18
8000	-3.00	7.79	28.97
5600	-2.50	6.70	35.67
4000	-2.00	6.79	42.46
2800	-1.50	5.01	47.47
2000	-1.00	4.77	52.24
1400	-0.50	3.12	55.36
1000	0.00	2.08	57.44
*707.11	*0.50	6.10	63.54
*500.00	*1.00	11.40	74.94
*353.55	*1.50	12.59	87.54
*250.00	*2.00	7.70	95.23
*176.78	*2.50	2.12	97.35
*125.00	*3.00	0.08	97.43
*88.39	*3.50	0.00	97.43
*62.50	*4.00	0.12	97.54
*44.19	*4.50	0.36	97.90
*31.25	*5.00	0.27	98.17
*22.10	*5.50	0.12	98.29
*15.63	*6.00	0.11	98.40
*11.05	*6.50	0.20	98.59
*7.81	*7.00	0.28	98.87
*5.52	*7.50	0.30	99.17
*3.91	*8.00	0.28	99.45
*2.76	*8.50	0.22	99.67
*1.95	*9.00	0.16	99.83
*1.38	*9.50	0.11	99.95
*0.98	*10.00	0.05	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	13600	Medium pebble
Mode 2 [µm]†	427	Medium sand
Mode 3 [µm]†	4800	Fine pebble
Median [µm]†	2342	Granule
Median [phi]†	-1.23	
Mean [µm]†‡	2271	Granule
Mean [phi]†‡	-1.18	
Sorting [µm]‡	4.57	Very poorly sorted
Sorting [phi]‡	2.19	
Skewness [µm]‡	-0.04	Symmetrical
Skewness [phi]‡	0.04	
Gravel [%]#	52.24	Sandy gravel
Sand [%]#	45.31	
Fines [%]#	2.46	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

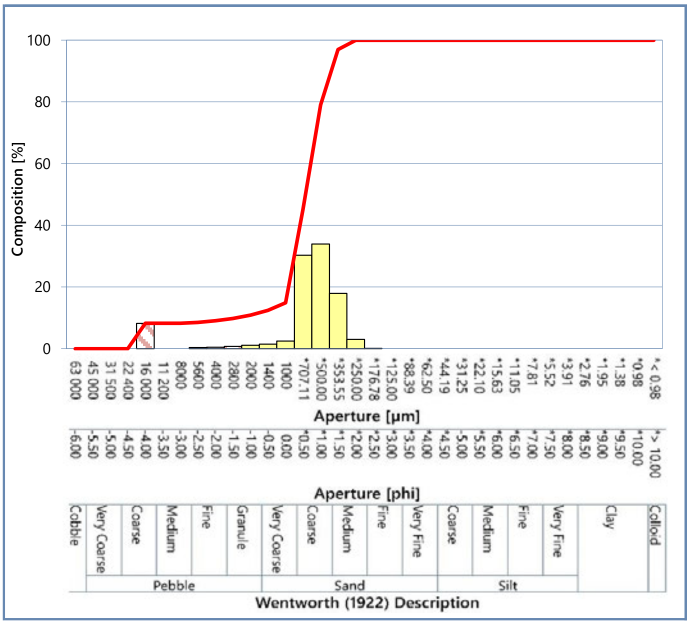
= Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_05_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	10.83	10.83
11 200	-3.50	5.00	15.83
8000	-3.00	0.18	16.00
5600	-2.50	1.71	17.71
4000	-2.00	2.05	19.76
2800	-1.50	5.62	25.38
2000	-1.00	4.94	30.32
1400	-0.50	4.37	34.69
1000	0.00	4.61	39.30
*707.11	*0.50	29.23	68.53
*500.00	*1.00	23.81	92.34
*353.55	*1.50	7.34	99.69
*250.00	*2.00	0.31	100.00
*176.78	*2.50	0.00	100.00
*125.00	*3.00	0.00	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	854	Coarse sand
Mode 2 [µm]†	19200	Coarse pebble
Mode 3 [µm]†	3400	Granule
Median [µm]†	881	Coarse sand
Median [phi]†	0.18	
Mean [µm]‡	1587	Very coarse sand
Mean [phi]‡	-0.67	
Sorting [µm]‡	3.44	Poorly sorted
Sorting [phi]‡	1.78	
Skewness [µm]‡	0.65	Very coarse skewed
Skewness [phi]‡	-0.65	
Gravel [%]#	30.32	Sandy gravel
Sand [%]#	69.68	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

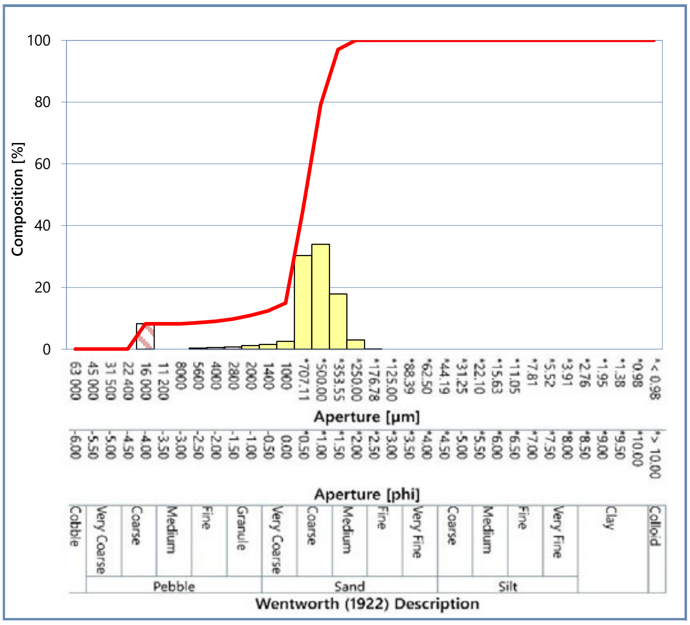
= Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_05_PSDB

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	8.21	8.21
11 200	-3.50	0.00	8.21
8000	-3.00	0.00	8.21
5600	-2.50	0.34	8.56
4000	-2.00	0.50	9.06
2800	-1.50	0.72	9.78
2000	-1.00	1.14	10.92
1400	-0.50	1.49	12.41
1000	0.00	2.48	14.89
*707.11	*0.50	30.27	45.17
*500.00	*1.00	33.95	79.11
*353.55	*1.50	17.90	97.01
*250.00	*2.00	2.98	99.99
*176.78	*2.50	0.01	100.00
*125.00	*3.00	0.00	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	604	Coarse sand
Mode 2 [µm]†	19200	Coarse pebble
Mode 3 [µm]†	-	-
Median [µm]†	673	Coarse sand
Median [phi]†	0.57	
Mean [µm]†‡	671	Coarse sand
Mean [phi]†‡	0.58	
Sorting [µm]‡	2.19	Poorly sorted
Sorting [phi]‡	1.13	
Skewness [µm]‡	0.34	Very coarse skewed
Skewness [phi]‡	-0.34	
Gravel [%]#	10.92	Gravelly sand
Sand [%]#	89.08	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

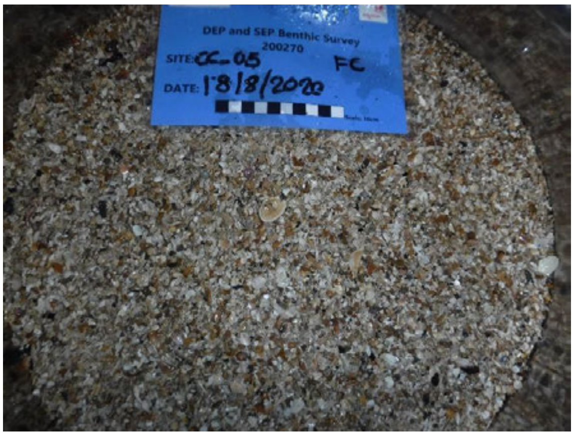
* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

\# = Description based on BGS modified Folk classification (Long, 2006)

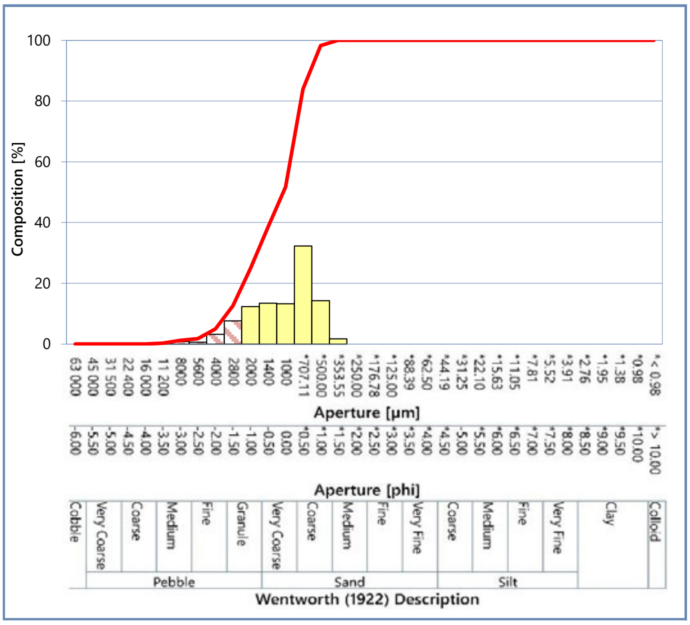
STATION: CC_05_PSDC



FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.34	0.34
8000	-3.00	0.84	1.18
5600	-2.50	0.63	1.81
4000	-2.00	3.17	4.98
2800	-1.50	7.61	12.59
2000	-1.00	12.32	24.92
1400	-0.50	13.49	38.40
1000	0.00	13.28	51.69
*707.11	*0.50	32.27	83.96
*500.00	*1.00	14.32	98.28
*353.55	*1.50	1.72	100.00
*250.00	*2.00	0.00	100.00
*176.78	*2.50	0.00	100.00
*125.00	*3.00	0.00	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm][†]	854	Coarse sand
Mode 2 [µm][†]	-	-
Mode 3 [µm][†]	-	-
Median [µm][†]	1044	Very coarse sand
Median [phi][†]	-0.06	
Mean [µm][†‡]	1234	Very coarse sand
Mean [phi][†‡]	-0.30	
Sorting [µm][‡]	1.87	Moderately sorted
Sorting [phi][‡]	0.90	
Skewness [µm][‡]	0.37	Very coarse skewed
Skewness [phi][‡]	-0.37	
Gravel [%][#]	24.92	Gravelly sand
Sand [%][#]	75.08	
Fines [%][#]	0.00	

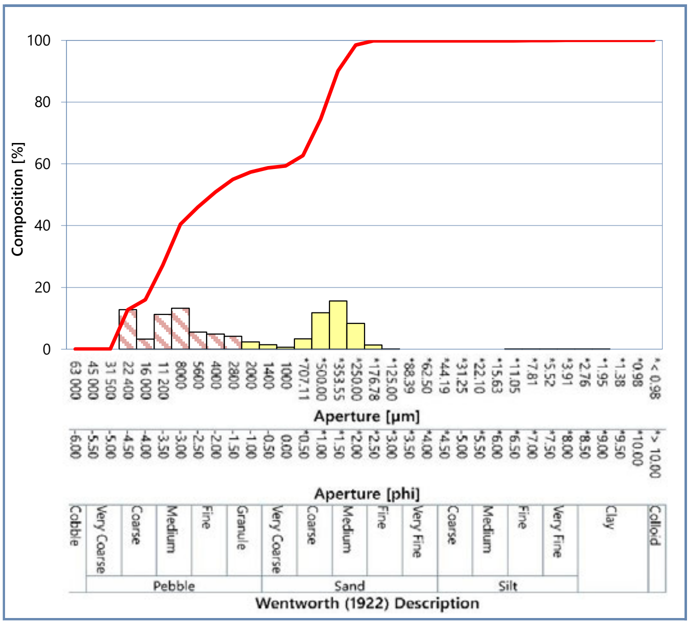
Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_06_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	12.75	12.75
16 000	-4.00	3.22	15.97
11 200	-3.50	11.21	27.17
8000	-3.00	13.25	40.42
5600	-2.50	5.52	45.94
4000	-2.00	4.91	50.85
2800	-1.50	4.11	54.96
2000	-1.00	2.34	57.29
1400	-0.50	1.41	58.70
1000	0.00	0.63	59.34
*707.11	*0.50	3.36	62.70
*500.00	*1.00	11.82	74.53
*353.55	*1.50	15.55	90.08
*250.00	*2.00	8.35	98.43
*176.78	*2.50	1.37	99.80
*125.00	*3.00	0.00	99.80
*88.39	*3.50	0.00	99.80
*62.50	*4.00	0.00	99.80
*44.19	*4.50	0.00	99.80
*31.25	*5.00	0.00	99.80
*22.10	*5.50	0.00	99.80
*15.63	*6.00	0.00	99.80
*11.05	*6.50	0.03	99.84
*7.81	*7.00	0.05	99.88
*5.52	*7.50	0.04	99.93
*3.91	*8.00	0.04	99.96
*2.76	*8.50	0.03	99.99
*1.95	*9.00	0.01	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	9600	Medium pebble
Mode 3 [µm]†	26950	Coarse pebble
Median [µm]†	4239	Fine pebble
Median [phi]†	-2.08	
Mean [µm]†‡	3016	Granule
Mean [phi]†‡	-1.59	
Sorting [µm]‡	5.00	Very poorly sorted
Sorting [phi]‡	2.32	
Skewness [µm]‡	-0.23	Fine skewed
Skewness [phi]‡	0.23	
Gravel [%]#	57.29	Sandy gravel
Sand [%]#	42.51	
Fines [%]#	0.20	

Notes

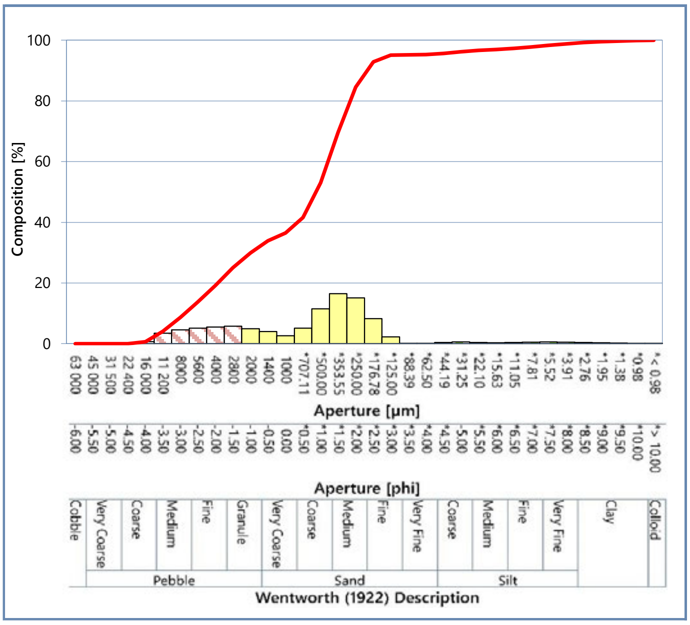
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_07_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
> 63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.66	0.66
11 200	-3.50	3.40	4.07
8000	-3.00	4.56	8.63
5600	-2.50	5.14	13.77
4000	-2.00	5.47	19.24
2800	-1.50	5.77	25.01
2000	-1.00	4.93	29.94
1400	-0.50	3.98	33.92
1000	0.00	2.56	36.48
*707.11	*0.50	5.10	41.57
*500.00	*1.00	11.48	53.05
*353.55	*1.50	16.50	69.55
*250.00	*2.00	15.05	84.60
*176.78	*2.50	8.28	92.88
*125.00	*3.00	2.25	95.14
*88.39	*3.50	0.10	95.23
*62.50	*4.00	0.02	95.25
*44.19	*4.50	0.42	95.67
*31.25	*5.00	0.57	96.24
*22.10	*5.50	0.41	96.66
*15.63	*6.00	0.30	96.96
*11.05	*6.50	0.35	97.31
*7.81	*7.00	0.46	97.77
*5.52	*7.50	0.53	98.30
*3.91	*8.00	0.51	98.82
*2.76	*8.50	0.43	99.24
*1.95	*9.00	0.31	99.56
*1.38	*9.50	0.21	99.77
*0.98	*10.00	0.14	99.91
*< 0.98	*> 10.00	0.09	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	4800	Fine pebble
Mode 3 [µm]†	-	-
Median [µm]†	548	Coarse sand
Median [phi]†	0.87	
Mean [µm]†‡	879	Coarse sand
Mean [phi]†‡	0.19	
Sorting [µm]‡	4.08	Very poorly sorted
Sorting [phi]‡	2.03	
Skewness [µm]‡	0.41	Very coarse skewed
Skewness [phi]‡	-0.41	
Gravel [%]#	29.94	Gravelly sand
Sand [%]#	65.31	
Fines [%]#	4.75	

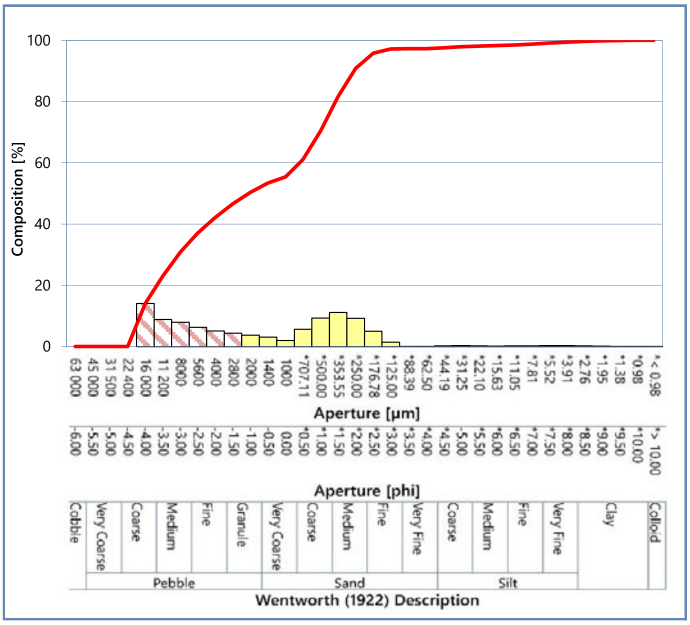
Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_08_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	14.10	14.10
11 200	-3.50	8.89	22.99
8000	-3.00	7.91	30.89
5600	-2.50	6.25	37.14
4000	-2.00	5.11	42.25
2800	-1.50	4.34	46.59
2000	-1.00	3.76	50.35
1400	-0.50	3.06	53.41
1000	0.00	2.02	55.43
*707.11	*0.50	5.66	61.09
*500.00	*1.00	9.35	70.44
*353.55	*1.50	11.14	81.59
*250.00	*2.00	9.23	90.82
*176.78	*2.50	4.98	95.79
*125.00	*3.00	1.41	97.20
*88.39	*3.50	0.05	97.26
*62.50	*4.00	0.01	97.27
*44.19	*4.50	0.27	97.54
*31.25	*5.00	0.33	97.87
*22.10	*5.50	0.23	98.10
*15.63	*6.00	0.17	98.27
*11.05	*6.50	0.21	98.48
*7.81	*7.00	0.28	98.76
*5.52	*7.50	0.32	99.08
*3.91	*8.00	0.30	99.38
*2.76	*8.50	0.24	99.63
*1.95	*9.00	0.17	99.80
*1.38	*9.50	0.12	99.92
*0.98	*10.00	0.08	99.99
*< 0.98	*> 10.00	0.01	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	19200	Coarse pebble
Mode 2 [µm]†	427	Medium sand
Mode 3 [µm]†	-	-
Median [µm]†	2063	Granule
Median [phi]†	-1.04	
Mean [µm]†‡	2146	Granule
Mean [phi]†‡	-1.10	
Sorting [µm]‡	5.28	Very poorly sorted
Sorting [phi]‡	2.40	
Skewness [µm]‡	0.00	Symmetrical
Skewness [phi]‡	0.00	
Gravel [%]#	50.35	Sandy gravel
Sand [%]#	46.92	
Fines [%]#	2.73	

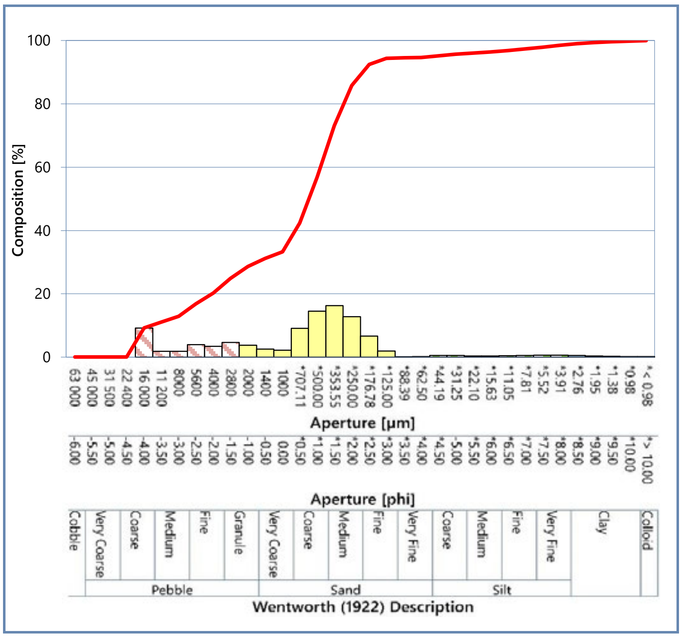
Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_09_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	9.19	9.19
11 200	-3.50	1.85	11.04
8000	-3.00	1.82	12.86
5600	-2.50	3.96	16.81
4000	-2.00	3.40	20.21
2800	-1.50	4.62	24.84
2000	-1.00	3.79	28.62
1400	-0.50	2.53	31.15
1000	0.00	2.14	33.29
*707.11	*0.50	9.05	42.33
*500.00	*1.00	14.51	56.85
*353.55	*1.50	16.27	73.12
*250.00	*2.00	12.74	85.85
*176.78	*2.50	6.65	92.50
*125.00	*3.00	1.92	94.42
*88.39	*3.50	0.12	94.54
*62.50	*4.00	0.13	94.68
*44.19	*4.50	0.48	95.16
*31.25	*5.00	0.51	95.67
*22.10	*5.50	0.38	96.05
*15.63	*6.00	0.34	96.38
*11.05	*6.50	0.42	96.80
*7.81	*7.00	0.53	97.34
*5.52	*7.50	0.59	97.93
*3.91	*8.00	0.58	98.51
*2.76	*8.50	0.49	99.00
*1.95	*9.00	0.38	99.38
*1.38	*9.50	0.27	99.65
*0.98	*10.00	0.19	99.84
*< 0.98	*> 10.00	0.16	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	19200	Coarse pebble
Mode 3 [µm]†	3400	Granule
Median [µm]†	589	Coarse sand
Median [phi]†	0.76	
Mean [µm]‡	977	Coarse sand
Mean [phi]‡	0.03	
Sorting [µm]‡	5.37	Very poorly sorted
Sorting [phi]‡	2.43	
Skewness [µm]‡	0.33	Very coarse skewed
Skewness [phi]‡	-0.33	
Gravel [%]#	28.62	Gravelly sand
Sand [%]#	66.06	
Fines [%]#	5.32	

Notes

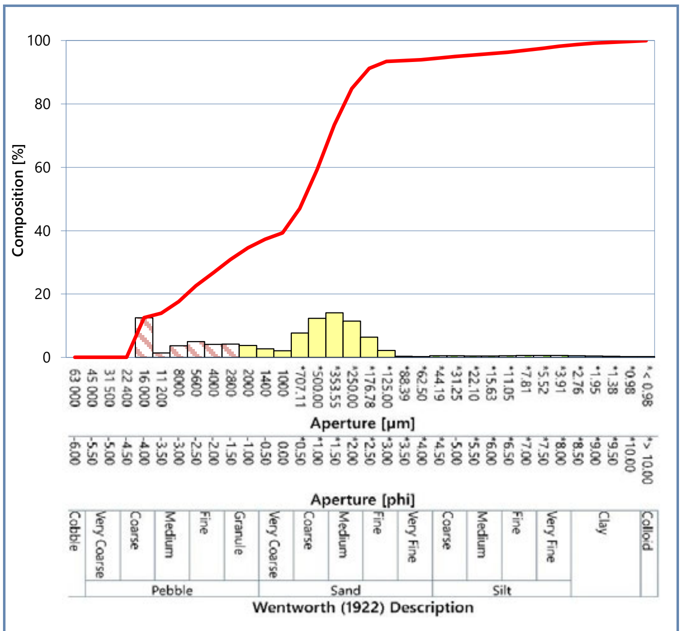
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_09_PSDB

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	12.52	12.52
11 200	-3.50	1.43	13.94
8000	-3.00	3.65	17.59
5600	-2.50	4.97	22.56
4000	-2.00	4.13	26.69
2800	-1.50	4.19	30.88
2000	-1.00	3.72	34.60
1400	-0.50	2.67	37.27
1000	0.00	2.05	39.32
*707.11	*0.50	7.69	47.01
*500.00	*1.00	12.30	59.32
*353.55	*1.50	14.09	73.40
*250.00	*2.00	11.47	84.87
*176.78	*2.50	6.39	91.26
*125.00	*3.00	2.14	93.41
*88.39	*3.50	0.32	93.73
*62.50	*4.00	0.22	93.94
*44.19	*4.50	0.50	94.44
*31.25	*5.00	0.55	94.99
*22.10	*5.50	0.45	95.44
*15.63	*6.00	0.41	95.84
*11.05	*6.50	0.48	96.33
*7.81	*7.00	0.59	96.91
*5.52	*7.50	0.65	97.56
*3.91	*8.00	0.64	98.20
*2.76	*8.50	0.56	98.76
*1.95	*9.00	0.43	99.19
*1.38	*9.50	0.31	99.50
*0.98	*10.00	0.23	99.73
*< 0.98	*> 10.00	0.27	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	19200	Coarse pebble
Mode 3 [µm]†	6800	Fine pebble
Median [µm]†	650	Coarse sand
Median [phi]†	0.62	
Mean [µm]‡	1156	Very coarse sand
Mean [phi]‡	-0.21	
Sorting [µm]‡	6.51	Very poorly sorted
Sorting [phi]‡	2.70	
Skewness [µm]‡	0.27	Coarse skewed
Skewness [phi]‡	-0.27	
Gravel [%]#	34.60	Sandy gravel
Sand [%]#	59.34	
Fines [%]#	6.06	

Notes

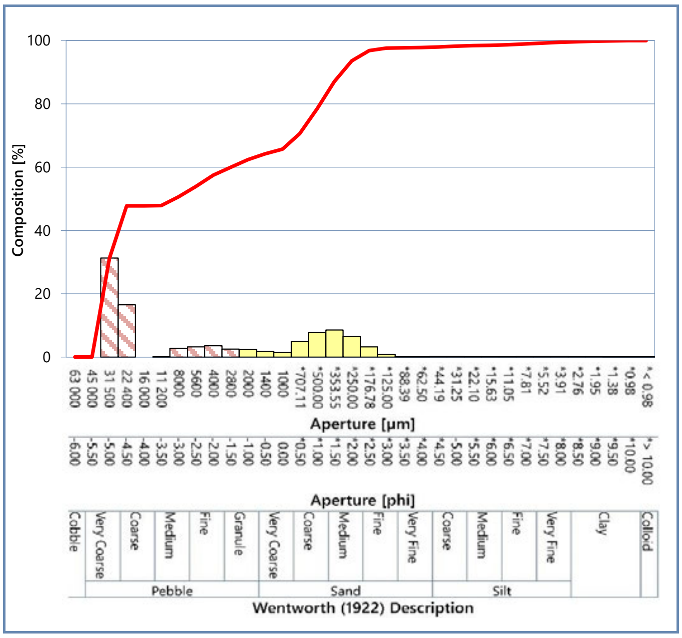
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_09_PSDC

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	31.26	31.26
22 400	-4.50	16.52	47.78
16 000	-4.00	0.00	47.78
11 200	-3.50	0.11	47.89
8000	-3.00	2.75	50.64
5600	-2.50	3.25	53.89
4000	-2.00	3.56	57.46
2800	-1.50	2.51	59.97
2000	-1.00	2.41	62.38
1400	-0.50	1.82	64.20
1000	0.00	1.49	65.69
*707.11	*0.50	4.95	70.64
*500.00	*1.00	7.79	78.43
*353.55	*1.50	8.59	87.02
*250.00	*2.00	6.54	93.56
*176.78	*2.50	3.25	96.81
*125.00	*3.00	0.85	97.66
*88.39	*3.50	0.03	97.69
*62.50	*4.00	0.08	97.76
*44.19	*4.50	0.24	98.00
*31.25	*5.00	0.23	98.24
*22.10	*5.50	0.16	98.39
*15.63	*6.00	0.14	98.53
*11.05	*6.50	0.18	98.71
*7.81	*7.00	0.24	98.95
*5.52	*7.50	0.26	99.21
*3.91	*8.00	0.25	99.46
*2.76	*8.50	0.20	99.66
*1.95	*9.00	0.15	99.81
*1.38	*9.50	0.10	99.91
*0.98	*10.00	0.07	99.98
*< 0.98	*> 10.00	0.02	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	38250	Very coarse pebble
Mode 2 [µm]†	427	Medium sand
Mode 3 [µm]†	-	-
Median [µm]†	8654	Medium pebble
Median [phi]†	-3.11	
Mean [µm]†‡	5060	Fine pebble
Mean [phi]†‡	-2.34	
Sorting [µm]‡	6.94	Very poorly sorted
Sorting [phi]‡	2.79	
Skewness [µm]‡	-0.38	Very fine skewed
Skewness [phi]‡	0.38	
Gravel [%]#	62.38	Sandy gravel
Sand [%]#	35.39	
Fines [%]#	2.24	

Notes

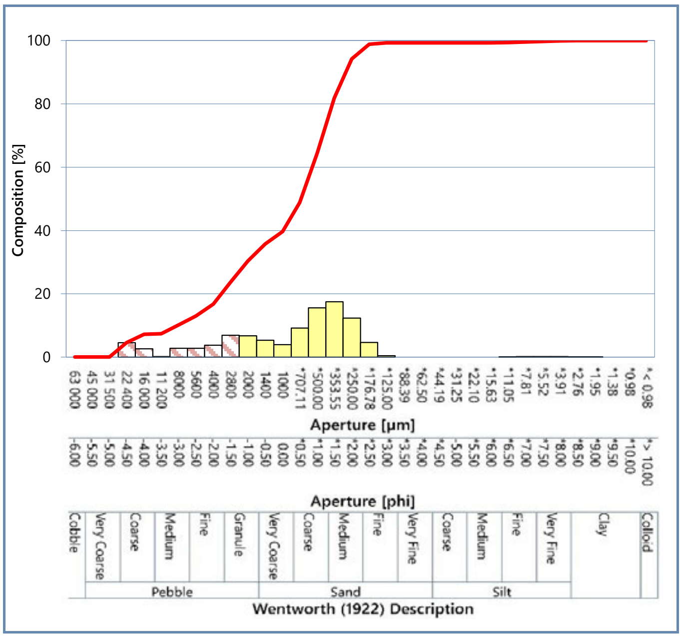
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_10_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	4.55	4.55
16 000	-4.00	2.65	7.20
11 200	-3.50	0.18	7.38
8000	-3.00	2.83	10.21
5600	-2.50	2.76	12.97
4000	-2.00	3.77	16.74
2800	-1.50	6.92	23.66
2000	-1.00	6.72	30.38
1400	-0.50	5.35	35.73
1000	0.00	3.91	39.64
*707.11	*0.50	9.18	48.81
*500.00	*1.00	15.59	64.40
*353.55	*1.50	17.49	81.89
*250.00	*2.00	12.28	94.18
*176.78	*2.50	4.67	98.85
*125.00	*3.00	0.45	99.30
*88.39	*3.50	0.00	99.30
*62.50	*4.00	0.00	99.30
*44.19	*4.50	0.00	99.30
*31.25	*5.00	0.00	99.30
*22.10	*5.50	0.00	99.30
*15.63	*6.00	0.00	99.30
*11.05	*6.50	0.08	99.38
*7.81	*7.00	0.17	99.54
*5.52	*7.50	0.18	99.72
*3.91	*8.00	0.15	99.87
*2.76	*8.50	0.11	99.98
*1.95	*9.00	0.02	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	2400	Granule
Mode 3 [µm]†	26950	Coarse pebble
Median [µm]†	689	Coarse sand
Median [phi]†	0.54	
Mean [µm]†‡	993	Coarse sand
Mean [phi]†‡	0.01	
Sorting [µm]‡	3.74	Poorly sorted
Sorting [phi]‡	1.90	
Skewness [µm]‡	0.48	Very coarse skewed
Skewness [phi]‡	-0.48	
Gravel [%]#	30.38	Sandy gravel
Sand [%]#	68.92	
Fines [%]#	0.70	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

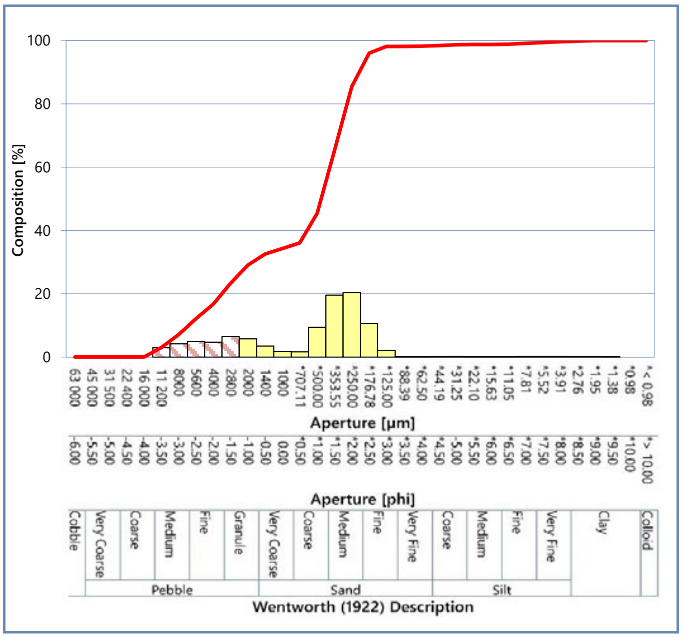
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_11_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	3.00	3.00
8000	-3.00	4.16	7.17
5600	-2.50	4.92	12.08
4000	-2.00	4.69	16.78
2800	-1.50	6.50	23.28
2000	-1.00	5.77	29.05
1400	-0.50	3.53	32.58
1000	0.00	1.76	34.33
*707.11	*0.50	1.70	36.03
*500.00	*1.00	9.42	45.45
*353.55	*1.50	19.62	65.07
*250.00	*2.00	20.37	85.44
*176.78	*2.50	10.58	96.01
*125.00	*3.00	2.11	98.12
*88.39	*3.50	0.07	98.19
*62.50	*4.00	0.05	98.25
*44.19	*4.50	0.21	98.45
*31.25	*5.00	0.23	98.68
*22.10	*5.50	0.11	98.78
*15.63	*6.00	0.00	98.79
*11.05	*6.50	0.09	98.87
*7.81	*7.00	0.23	99.10
*5.52	*7.50	0.28	99.38
*3.91	*8.00	0.25	99.63
*2.76	*8.50	0.19	99.82
*1.95	*9.00	0.13	99.95
*1.38	*9.50	0.05	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	302	Medium sand
Mode 2 [µm]†	3400	Granule
Mode 3 [µm]†	-	-
Median [µm]†	461	Medium sand
Median [phi]†	1.12	
Mean [µm]†‡	794	Coarse sand
Mean [phi]†‡	0.33	
Sorting [µm]‡	3.67	Poorly sorted
Sorting [phi]‡	1.88	
Skewness [µm]‡	0.56	Very coarse skewed
Skewness [phi]‡	-0.56	
Gravel [%]#	29.05	Gravelly sand
Sand [%]#	69.19	
Fines [%]#	1.75	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

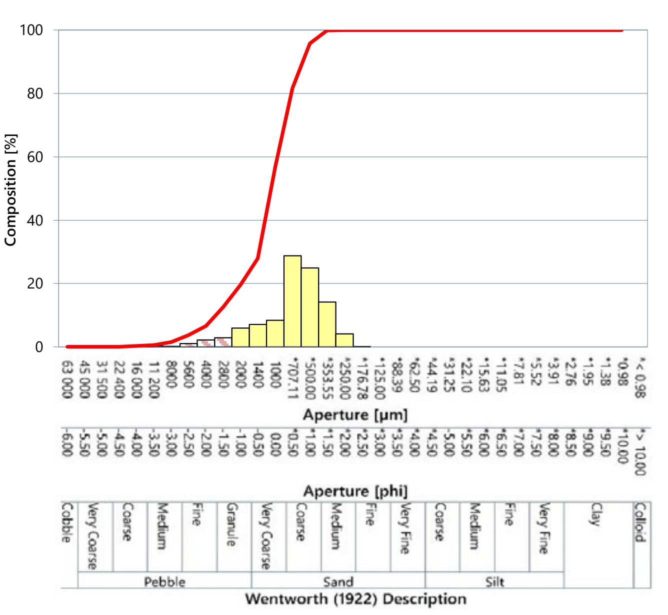
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_12_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.34	0.34
8000	-3.00	0.20	0.54
5600	-2.50	1.03	1.57
4000	-2.00	2.17	3.74
2800	-1.50	2.85	6.58
2000	-1.00	5.96	12.55
1400	-0.50	7.08	19.63
1000	0.00	8.35	27.98
*707.11	*0.50	28.78	56.75
*500.00	*1.00	24.88	81.63
*353.55	*1.50	14.15	95.78
*250.00	*2.00	4.13	99.91
*176.78	*2.50	0.09	100.00
*125.00	*3.00	0.00	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	854	Coarse sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	767	Coarse sand
Median [phi]†	0.38	
Mean [µm]†‡	847	Coarse sand
Mean [phi]†‡	0.24	
Sorting [µm]‡	1.93	Moderately sorted
Sorting [phi]‡	0.95	
Skewness [µm]‡	0.28	Coarse skewed
Skewness [phi]‡	-0.28	
Gravel [%]#	12.55	Gravelly sand
Sand [%]#	87.45	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

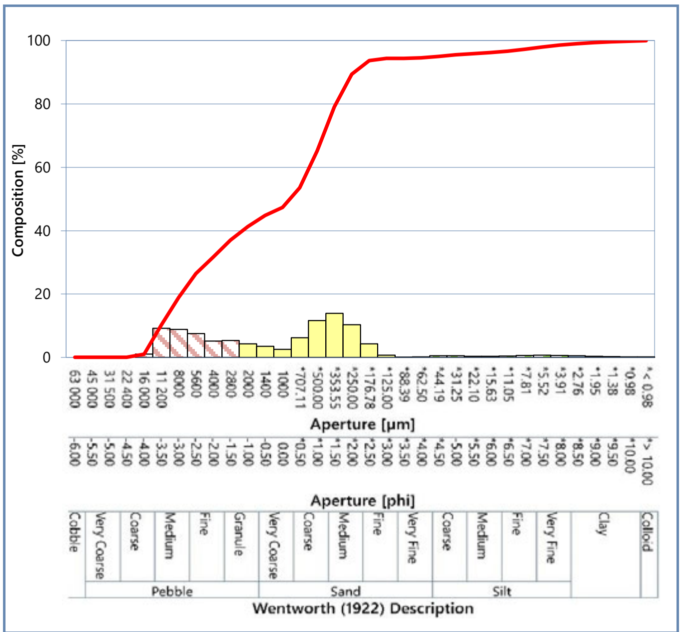
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_13_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	1.01	1.01
11 200	-3.50	9.14	10.15
8000	-3.00	8.80	18.95
5600	-2.50	7.53	26.49
4000	-2.00	5.17	31.65
2800	-1.50	5.37	37.02
2000	-1.00	4.32	41.35
1400	-0.50	3.45	44.80
1000	0.00	2.56	47.36
*707.11	*0.50	6.23	53.59
*500.00	*1.00	11.59	65.18
*353.55	*1.50	13.88	79.06
*250.00	*2.00	10.34	89.40
*176.78	*2.50	4.32	93.72
*125.00	*3.00	0.66	94.38
*88.39	*3.50	0.00	94.38
*62.50	*4.00	0.15	94.53
*44.19	*4.50	0.51	95.04
*31.25	*5.00	0.48	95.52
*22.10	*5.50	0.35	95.87
*15.63	*6.00	0.35	96.22
*11.05	*6.50	0.47	96.69
*7.81	*7.00	0.60	97.30
*5.52	*7.50	0.66	97.95
*3.91	*8.00	0.61	98.56
*2.76	*8.50	0.50	99.06
*1.95	*9.00	0.36	99.41
*1.38	*9.50	0.24	99.65
*0.98	*10.00	0.17	99.82
*< 0.98	*> 10.00	0.18	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	9600	Medium pebble
Mode 3 [µm]†	-	-
Median [µm]†	863	Coarse sand
Median [phi]†	0.21	
Mean [µm]‡	1323	Very coarse sand
Mean [phi]‡	-0.40	
Sorting [µm]‡	5.55	Very poorly sorted
Sorting [phi]‡	2.47	
Skewness [µm]‡	0.17	Coarse skewed
Skewness [phi]‡	-0.17	
Gravel [%]#	41.35	Sandy gravel
Sand [%]#	53.19	
Fines [%]#	5.47	

Notes

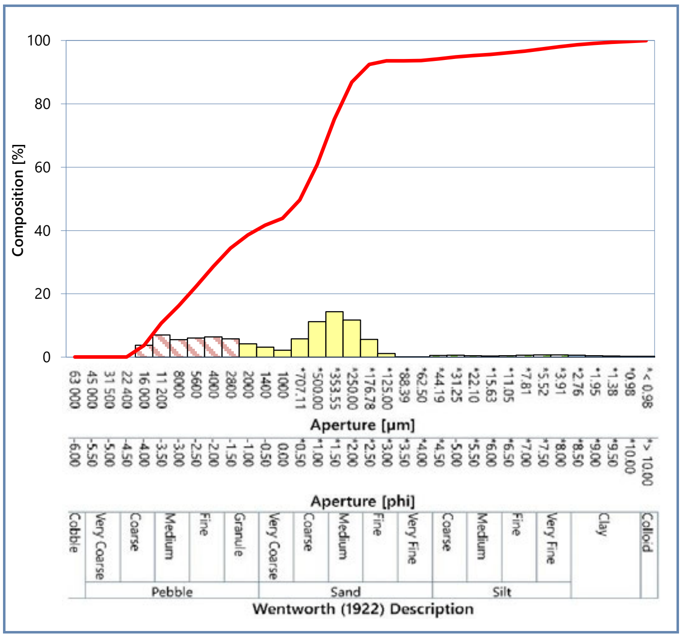
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_14_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	3.76	3.76
11 200	-3.50	6.96	10.71
8000	-3.00	5.49	16.20
5600	-2.50	6.02	22.22
4000	-2.00	6.42	28.63
2800	-1.50	5.77	34.40
2000	-1.00	4.17	38.57
1400	-0.50	3.13	41.70
1000	0.00	2.18	43.87
*707.11	*0.50	5.75	49.63
*500.00	*1.00	11.17	60.80
*353.55	*1.50	14.34	75.14
*250.00	*2.00	11.71	86.84
*176.78	*2.50	5.59	92.43
*125.00	*3.00	1.14	93.57
*88.39	*3.50	0.01	93.58
*62.50	*4.00	0.11	93.69
*44.19	*4.50	0.53	94.22
*31.25	*5.00	0.59	94.81
*22.10	*5.50	0.44	95.26
*15.63	*6.00	0.38	95.64
*11.05	*6.50	0.47	96.10
*7.81	*7.00	0.60	96.70
*5.52	*7.50	0.68	97.38
*3.91	*8.00	0.68	98.06
*2.76	*8.50	0.60	98.66
*1.95	*9.00	0.47	99.13
*1.38	*9.50	0.34	99.47
*0.98	*10.00	0.24	99.71
*< 0.98	*> 10.00	0.29	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	13600	Medium pebble
Mode 3 [µm]†	4800	Fine pebble
Median [µm]†	699	Coarse sand
Median [phi]†	0.52	
Mean [µm]‡	1155	Very coarse sand
Mean [phi]‡	-0.21	
Sorting [µm]‡	6.09	Very poorly sorted
Sorting [phi]‡	2.61	
Skewness [µm]‡	0.21	Coarse skewed
Skewness [phi]‡	-0.21	
Gravel [%]#	38.57	Muddy, sandy gravel
Sand [%]#	55.12	
Fines [%]#	6.31	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

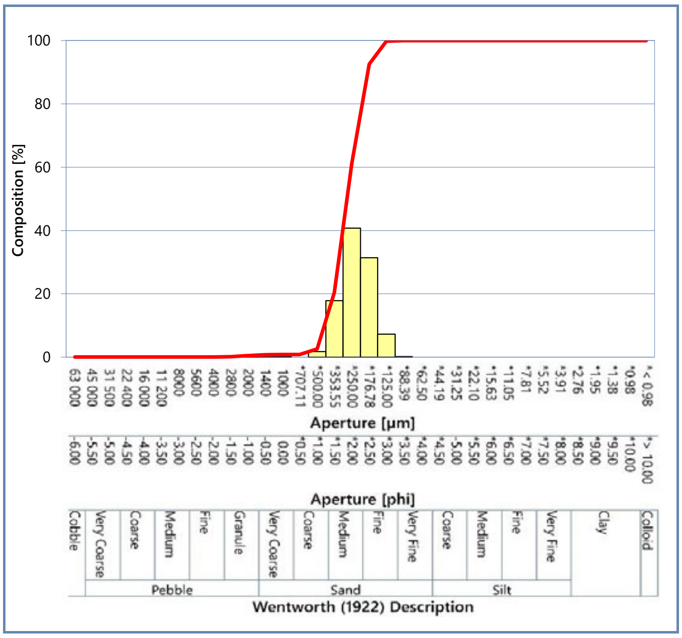
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_15_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.00	0.00
4000	-2.00	0.00	0.00
2800	-1.50	0.13	0.13
2000	-1.00	0.33	0.46
1400	-0.50	0.26	0.71
1000	0.00	0.13	0.85
*707.11	*0.50	0.00	0.85
*500.00	*1.00	1.73	2.58
*353.55	*1.50	17.82	20.39
*250.00	*2.00	40.78	61.18
*176.78	*2.50	31.38	92.56
*125.00	*3.00	7.29	99.85
*88.39	*3.50	0.15	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	302	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	275	Medium sand
Median [phi]†	1.86	
Mean [µm]†‡	274	Medium sand
Mean [phi]†‡	1.87	
Sorting [µm]‡	1.40	Well sorted
Sorting [phi]‡	0.49	
Skewness [µm]‡	-0.01	Symmetrical
Skewness [phi]‡	0.01	
Gravel [%]#	0.46	Sand
Sand [%]#	99.54	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

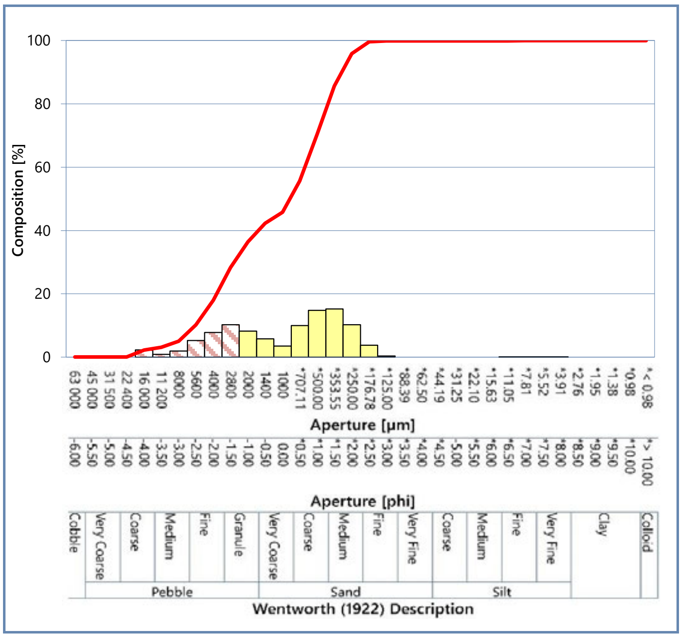
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_16_PSDA

FRACTIONAL DATA

Aperture [μm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	2.24	2.24
11 200	-3.50	0.87	3.11
8000	-3.00	1.91	5.02
5600	-2.50	5.21	10.22
4000	-2.00	7.78	18.00
2800	-1.50	10.25	28.25
2000	-1.00	8.21	36.45
1400	-0.50	5.79	42.24
1000	0.00	3.49	45.74
*707.11	*0.50	9.93	55.67
*500.00	*1.00	14.73	70.40
*353.55	*1.50	15.23	85.63
*250.00	*2.00	10.22	95.85
*176.78	*2.50	3.75	99.60
*125.00	*3.00	0.32	99.92
*88.39	*3.50	0.00	99.92
*62.50	*4.00	0.00	99.92
*44.19	*4.50	0.00	99.92
*31.25	*5.00	0.00	99.92
*22.10	*5.50	0.00	99.92
*15.63	*6.00	0.00	99.92
*11.05	*6.50	0.01	99.92
*7.81	*7.00	0.04	99.96
*5.52	*7.50	0.03	99.99
*3.91	*8.00	0.01	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [μm]†	427	Medium sand
Mode 2 [μm]†	3400	Granule
Mode 3 [μm]†	19200	Coarse pebble
Median [μm]†	862	Coarse sand
Median [phi]†	0.21	
Mean [μm]†‡	1113	Very coarse sand
Mean [phi]†‡	-0.15	
Sorting [μm]‡	3.13	Poorly sorted
Sorting [phi]‡	1.64	
Skewness [μm]‡	0.30	Very coarse skewed
Skewness [phi]‡	-0.30	
Gravel [%]#	36.45	Sandy gravel
Sand [%]#	63.47	
Fines [%]#	0.08	

Notes

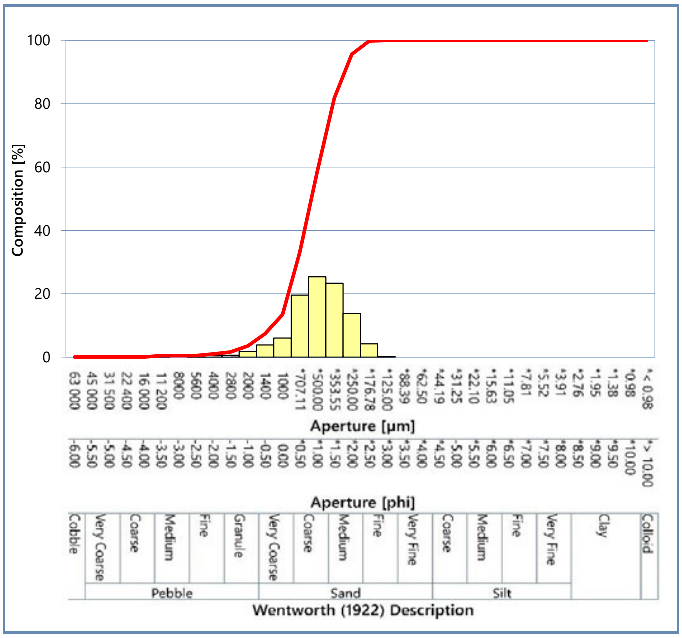
Particle Size Distribution by Dry Sieving (63 000 μm - 1000 μm) and Laser Diffraction* (< 1000 μm - < 0.98 μm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_17_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.44	0.44
8000	-3.00	0.00	0.44
5600	-2.50	0.06	0.50
4000	-2.00	0.54	1.04
2800	-1.50	0.58	1.63
2000	-1.00	1.87	3.50
1400	-0.50	3.87	7.38
1000	0.00	6.07	13.45
*707.11	*0.50	19.60	33.05
*500.00	*1.00	25.37	58.42
*353.55	*1.50	23.36	81.78
*250.00	*2.00	13.84	95.62
*176.78	*2.50	4.22	99.83
*125.00	*3.00	0.17	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	604	Coarse sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	561	Coarse sand
Median [phi]†	0.83	
Mean [µm]‡	564	Coarse sand
Mean [phi]‡	0.83	
Sorting [µm]‡	1.74	Moderately sorted
Sorting [phi]‡	0.80	
Skewness [µm]‡	0.10	Symmetrical
Skewness [phi]‡	-0.10	
Gravel [%]#	3.50	Sand
Sand [%]#	96.50	
Fines [%]#	0.00	

Notes

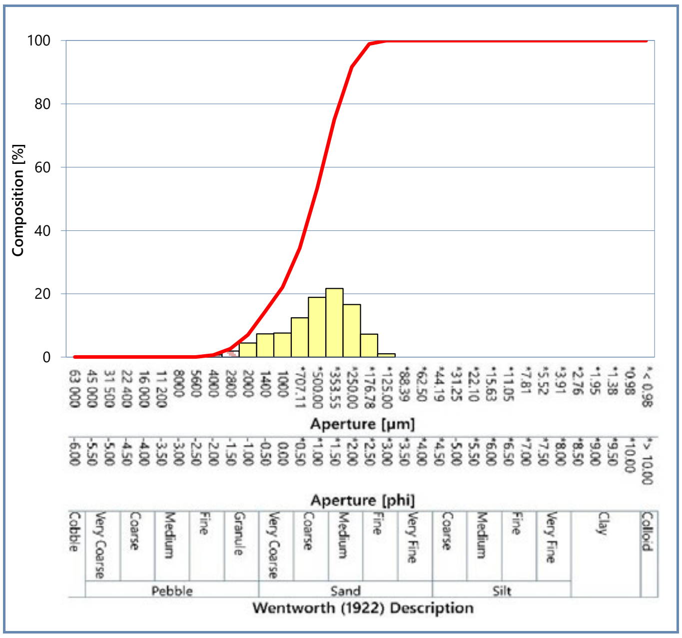
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_18_PSDA

FRACTIONAL DATA

Aperture [μm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.00	0.00
4000	-2.00	0.67	0.67
2800	-1.50	1.96	2.63
2000	-1.00	4.44	7.06
1400	-0.50	7.35	14.42
1000	0.00	7.63	22.05
*707.11	*0.50	12.37	34.42
*500.00	*1.00	18.91	53.33
*353.55	*1.50	21.72	75.04
*250.00	*2.00	16.63	91.68
*176.78	*2.50	7.29	98.97
*125.00	*3.00	1.03	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [μm]†	427	Medium sand
Mode 2 [μm]†	-	-
Mode 3 [μm]†	-	-
Median [μm]†	531	Coarse sand
Median [phi]†	0.91	
Mean [μm]‡	588	Coarse sand
Mean [phi]‡	0.77	
Sorting [μm]‡	2.09	Poorly sorted
Sorting [phi]‡	1.06	
Skewness [μm]‡	0.22	Coarse skewed
Skewness [phi]‡	-0.22	
Gravel [%]#	7.06	Gravelly sand
Sand [%]#	92.94	
Fines [%]#	0.00	

Notes

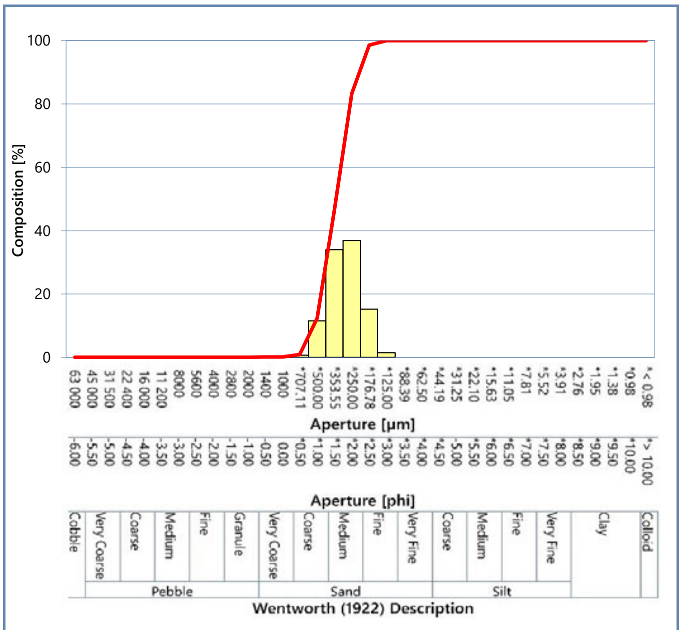
Particle Size Distribution by Dry Sieving (63 000 μm - 1000 μm) and Laser Diffraction* (< 1000 μm - < 0.98 μm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: CC_19_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.00	0.00
4000	-2.00	0.00	0.00
2800	-1.50	0.05	0.05
2000	-1.00	0.00	0.05
1400	-0.50	0.04	0.10
1000	0.00	0.06	0.15
*707.11	*0.50	0.72	0.87
*500.00	*1.00	11.53	12.41
*353.55	*1.50	34.01	46.42
*250.00	*2.00	36.90	83.32
*176.78	*2.50	15.24	98.56
*125.00	*3.00	1.44	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	302	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	342	Medium sand
Median [phi]†	1.55	
Mean [µm]†‡	344	Medium sand
Mean [phi]†‡	1.54	
Sorting [µm]‡	1.41	Moderately well sorted
Sorting [phi]‡	0.50	
Skewness [µm]‡	0.02	Symmetrical
Skewness [phi]‡	-0.02	
Gravel [%]#	0.05	Sand
Sand [%]#	99.95	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

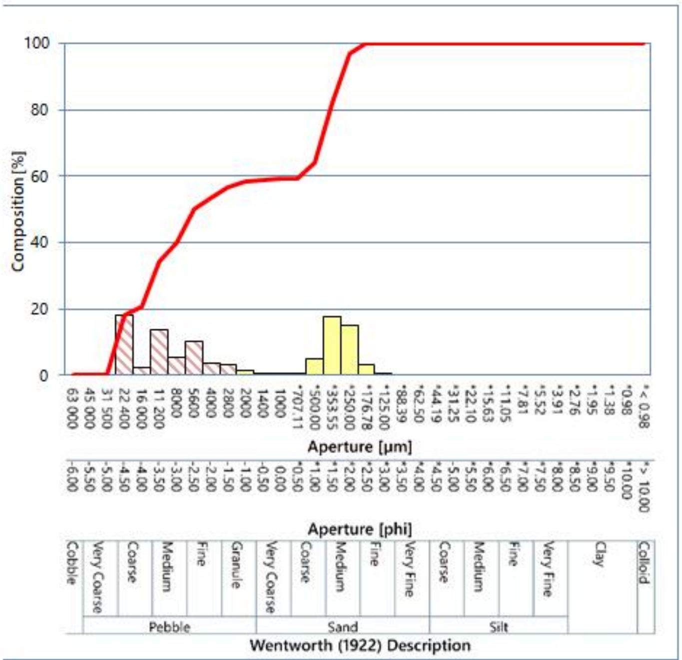
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_03_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	18.04	18.04
16 000	-4.00	2.49	20.53
11 200	-3.50	13.83	34.35
8000	-3.00	5.46	39.82
5600	-2.50	10.02	49.84
4000	-2.00	3.79	53.63
2800	-1.50	3.08	56.71
2000	-1.00	1.58	58.30
1400	-0.50	0.66	58.96
1000	0.00	0.25	59.21
*707.11	*0.50	0.13	59.34
*500.00	*1.00	4.76	64.10
*353.55	*1.50	17.78	81.88
*250.00	*2.00	15.09	96.96
*176.78	*2.50	3.01	99.97
*125.00	*3.00	0.03	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	26950	Coarse pebble
Mode 2 [µm]†	427	Medium sand
Mode 3 [µm]†	13600	Medium pebble
Median [µm]†	5522	Fine pebble
Median [phi]†	-2.47	
Mean [µm]†‡	3511	Granule
Mean [phi]†‡	-1.81	
Sorting [µm]‡	5.87	Very poorly sorted
Sorting [phi]‡	2.55	
Skewness [µm]‡	-0.31	Very fine skewed
Skewness [phi]‡	0.31	
Gravel [%]#	58.30	Sandy gravel
Sand [%]#	41.70	
Fines [%]#	0.00	

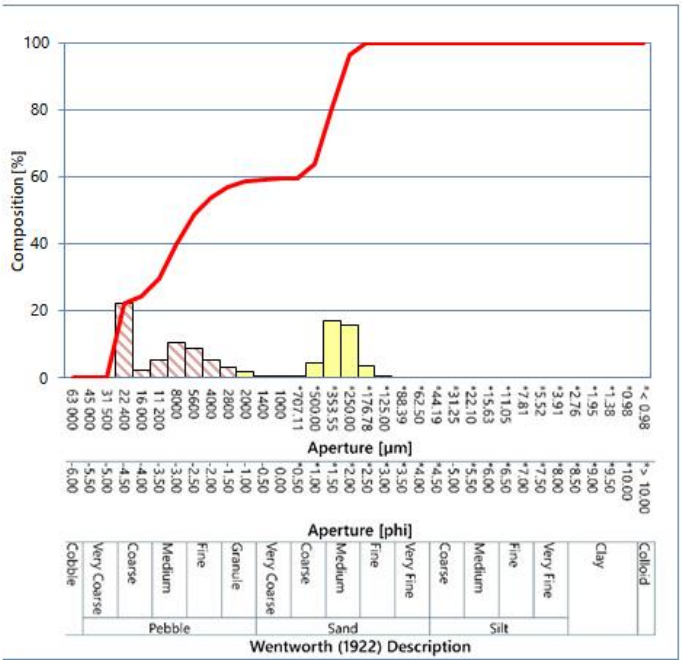
Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_03_PSDB

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	22.16	22.16
16 000	-4.00	2.35	24.51
11 200	-3.50	5.12	29.62
8000	-3.00	10.35	39.97
5600	-2.50	8.80	48.77
4000	-2.00	5.22	53.99
2800	-1.50	2.92	56.91
2000	-1.00	1.66	58.57
1400	-0.50	0.65	59.22
1000	0.00	0.27	59.49
*707.11	*0.50	0.09	59.58
*500.00	*1.00	4.19	63.77
*353.55	*1.50	17.13	80.90
*250.00	*2.00	15.65	96.55
*176.78	*2.50	3.40	99.96
*125.00	*3.00	0.04	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	26950	Coarse pebble
Mode 2 [µm]†	427	Medium sand
Mode 3 [µm]†	9600	Medium pebble
Median [µm]†	5173	Fine pebble
Median [phi]†	-2.37	
Mean [µm]‡	3477	Granule
Mean [phi]‡	-1.80	
Sorting [µm]‡	6.01	Very poorly sorted
Sorting [phi]‡	2.59	
Skewness [µm]‡	-0.27	Fine skewed
Skewness [phi]‡	0.27	
Gravel [%]#	58.57	Sandy gravel
Sand [%]#	41.43	
Fines [%]#	0.00	

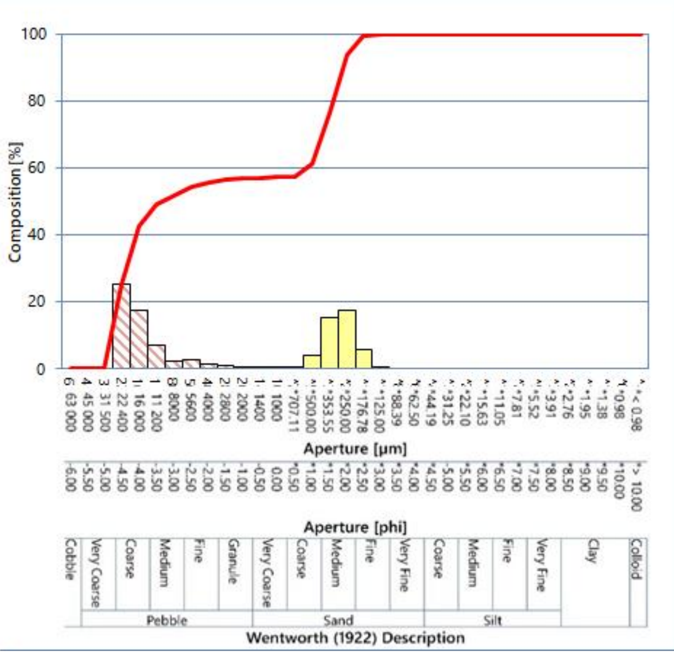
Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_03_PSDC

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	25.16	25.16
16 000	-4.00	17.25	42.41
11 200	-3.50	6.90	49.31
8000	-3.00	2.24	51.55
5600	-2.50	2.85	54.40
4000	-2.00	1.23	55.63
2800	-1.50	0.84	56.47
2000	-1.00	0.46	56.93
1400	-0.50	0.22	57.14
1000	0.00	0.10	57.24
*707.11	*0.50	0.09	57.34
*500.00	*1.00	3.90	61.24
*353.55	*1.50	15.39	76.63
*250.00	*2.00	17.22	93.85
*176.78	*2.50	5.84	99.69
*125.00	*3.00	0.31	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	26950	Coarse pebble
Mode 2 [µm]†	302	Medium sand
Mode 3 [µm]†	-	-
Median [µm]†	10096	Medium pebble
Median [phi]†	-3.34	
Mean [µm]‡	4273	Fine pebble
Mean [phi]‡	-2.10	
Sorting [µm]‡	6.28	Very poorly sorted
Sorting [phi]‡	2.65	
Skewness [µm]‡	-0.57	Very fine skewed
Skewness [phi]‡	0.57	
Gravel [%]#	56.93	Sandy gravel
Sand [%]#	43.07	
Fines [%]#	0.00	

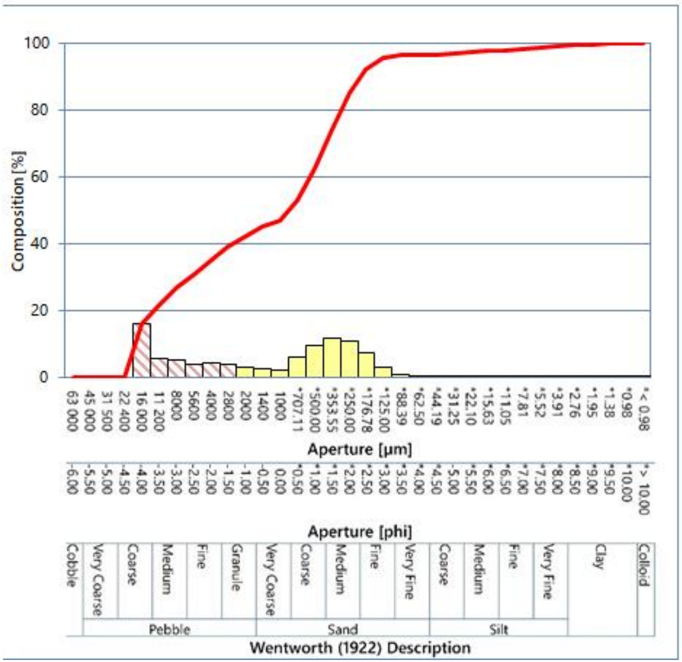
Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_04_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	16.10	16.10
11 200	-3.50	5.53	21.63
8000	-3.00	5.38	27.01
5600	-2.50	3.76	30.77
4000	-2.00	4.43	35.20
2800	-1.50	3.93	39.13
2000	-1.00	3.22	42.35
1400	-0.50	2.69	45.04
1000	0.00	2.04	47.08
*707.11	*0.50	5.97	53.05
*500.00	*1.00	9.51	62.56
*353.55	*1.50	11.68	74.24
*250.00	*2.00	10.79	85.03
*176.78	*2.50	7.24	92.27
*125.00	*3.00	3.26	95.53
*88.39	*3.50	0.81	96.34
*62.50	*4.00	0.11	96.45
*44.19	*4.50	0.24	96.69
*31.25	*5.00	0.36	97.06
*22.10	*5.50	0.32	97.38
*15.63	*6.00	0.26	97.64
*11.05	*6.50	0.28	97.92
*7.81	*7.00	0.35	98.27
*5.52	*7.50	0.40	98.68
*3.91	*8.00	0.40	99.08
*2.76	*8.50	0.34	99.41
*1.95	*9.00	0.25	99.66
*1.38	*9.50	0.17	99.83
*0.98	*10.00	0.12	99.95
*< 0.98	*> 10.00	0.05	100.00
Total		**100.00**	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	19200	Coarse pebble
Mode 2 [µm]†	427	Medium sand
Mode 3 [µm]†	9600	Medium pebble
Median [µm]†	844	Coarse sand
Median [phi]†	0.24	
Mean [µm]‡	1518	Very coarse sand
Mean [phi]‡	-0.60	
Sorting [µm]‡	6.01	Very poorly sorted
Sorting [phi]‡	2.59	
Skewness [µm]‡	0.34	Very coarse skewed
Skewness [phi]‡	-0.34	
Gravel [%]#	42.35	Sandy gravel
Sand [%]#	54.11	
Fines [%]#	3.55	

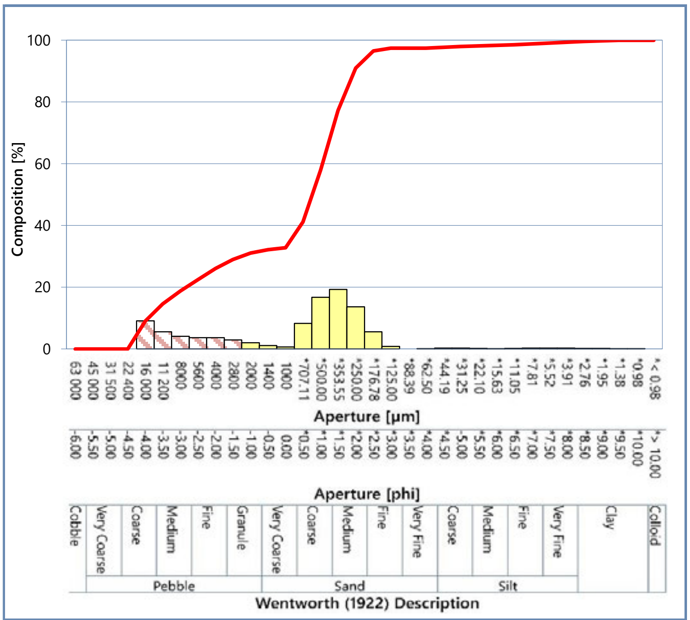
Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_05_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	6.62	6.62
11 200	-3.50	7.73	14.35
8000	-3.00	5.66	20.00
5600	-2.50	5.06	25.06
4000	-2.00	4.82	29.88
2800	-1.50	4.27	34.15
2000	-1.00	3.34	37.50
1400	-0.50	2.70	40.19
1000	0.00	2.36	42.56
*707.11	*0.50	7.29	49.85
*500.00	*1.00	10.45	60.31
*353.55	*1.50	11.68	71.99
*250.00	*2.00	10.52	82.51
*176.78	*2.50	7.53	90.04
*125.00	*3.00	3.93	93.96
*88.39	*3.50	1.26	95.22
*62.50	*4.00	0.20	95.42
*44.19	*4.50	0.19	95.61
*31.25	*5.00	0.38	95.99
*22.10	*5.50	0.42	96.42
*15.63	*6.00	0.39	96.80
*11.05	*6.50	0.40	97.20
*7.81	*7.00	0.48	97.68
*5.52	*7.50	0.54	98.22
*3.91	*8.00	0.53	98.75
*2.76	*8.50	0.44	99.20
*1.95	*9.00	0.32	99.52
*1.38	*9.50	0.22	99.74
*0.98	*10.00	0.15	99.89
*< 0.98	*> 10.00	0.11	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	13600	Medium pebble
Mode 3 [µm]†	4800	Fine pebble
Median [µm]†	704	Coarse sand
Median [phi]†	0.51	
Mean [µm]†‡	1186	Very coarse sand
Mean [phi]†‡	-0.25	
Sorting [µm]‡	5.66	Very poorly sorted
Sorting [phi]‡	2.50	
Skewness [µm]‡	0.32	Very coarse skewed
Skewness [phi]‡	-0.32	
Gravel [%]#	37.50	Sandy gravel
Sand [%]#	57.92	
Fines [%]#	4.58	

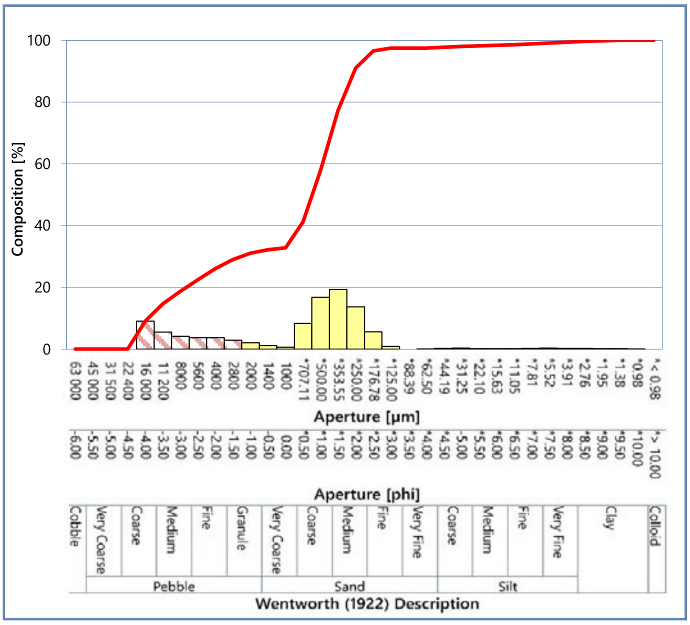
Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_07_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	9.09	9.09
11 200	-3.50	5.54	14.64
8000	-3.00	4.13	18.77
5600	-2.50	3.67	22.44
4000	-2.00	3.67	26.11
2800	-1.50	2.90	29.01
2000	-1.00	2.04	31.05
1400	-0.50	1.13	32.18
1000	0.00	0.66	32.84
*707.11	*0.50	8.34	41.17
*500.00	*1.00	16.79	57.97
*353.55	*1.50	19.34	77.30
*250.00	*2.00	13.68	90.98
*176.78	*2.50	5.60	96.59
*125.00	*3.00	0.84	97.43
*88.39	*3.50	0.00	97.43
*62.50	*4.00	0.01	97.44
*44.19	*4.50	0.28	97.73
*31.25	*5.00	0.30	98.03
*22.10	*5.50	0.17	98.20
*15.63	*6.00	0.13	98.33
*11.05	*6.50	0.20	98.53
*7.81	*7.00	0.28	98.80
*5.52	*7.50	0.31	99.11
*3.91	*8.00	0.29	99.40
*2.76	*8.50	0.24	99.64
*1.95	*9.00	0.19	99.82
*1.38	*9.50	0.14	99.97
*0.98	*10.00	0.03	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	19200	Coarse pebble
Mode 3 [µm]†	4800	Fine pebble
Median [µm]†	589	Coarse sand
Median [phi]†	0.76	
Mean [µm]†‡	1208	Very coarse sand
Mean [phi]†‡	-0.27	
Sorting [µm]‡	4.80	Very poorly sorted
Sorting [phi]‡	2.26	
Skewness [µm]‡	0.56	Very coarse skewed
Skewness [phi]‡	-0.56	
Gravel [%]#	31.05	Sandy gravel
Sand [%]#	66.40	
Fines [%]#	2.56	

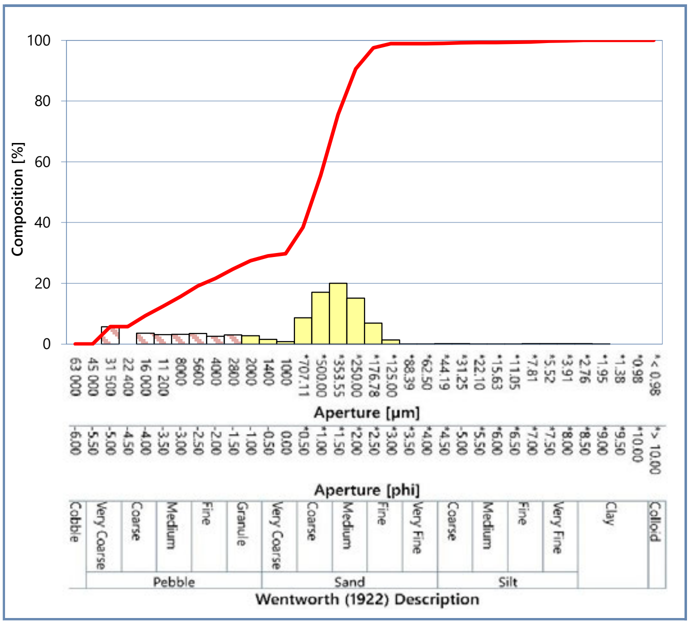
Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_07_PSDB

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	5.73	5.73
22 400	-4.50	0.00	5.73
16 000	-4.00	3.59	9.32
11 200	-3.50	3.08	12.40
8000	-3.00	3.22	15.61
5600	-2.50	3.49	19.10
4000	-2.00	2.54	21.64
2800	-1.50	3.04	24.68
2000	-1.00	2.72	27.40
1400	-0.50	1.58	28.97
1000	0.00	0.81	29.78
*707.11	*0.50	8.66	38.43
*500.00	*1.00	17.03	55.47
*353.55	*1.50	20.03	75.50
*250.00	*2.00	15.07	90.56
*176.78	*2.50	6.94	97.51
*125.00	*3.00	1.38	98.89
*88.39	*3.50	0.00	98.89
*62.50	*4.00	0.01	98.90
*44.19	*4.50	0.13	99.03
*31.25	*5.00	0.15	99.18
*22.10	*5.50	0.06	99.25
*15.63	*6.00	0.00	99.25
*11.05	*6.50	0.08	99.33
*7.81	*7.00	0.17	99.50
*5.52	*7.50	0.19	99.69
*3.91	*8.00	0.17	99.85
*2.76	*8.50	0.13	99.98
*1.95	*9.00	0.02	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	38250	Very coarse pebble
Mode 3 [µm]†	19200	Coarse pebble
Median [µm]†	559	Coarse sand
Median [phi]†	0.84	
Mean [µm]†‡	1077	Very coarse sand
Mean [phi]†‡	-0.11	
Sorting [µm]‡	4.91	Very poorly sorted
Sorting [phi]‡	2.30	
Skewness [µm]‡	0.60	Very coarse skewed
Skewness [phi]‡	-0.60	
Gravel [%]#	27.40	Gravelly sand
Sand [%]#	71.50	
Fines [%]#	1.10	

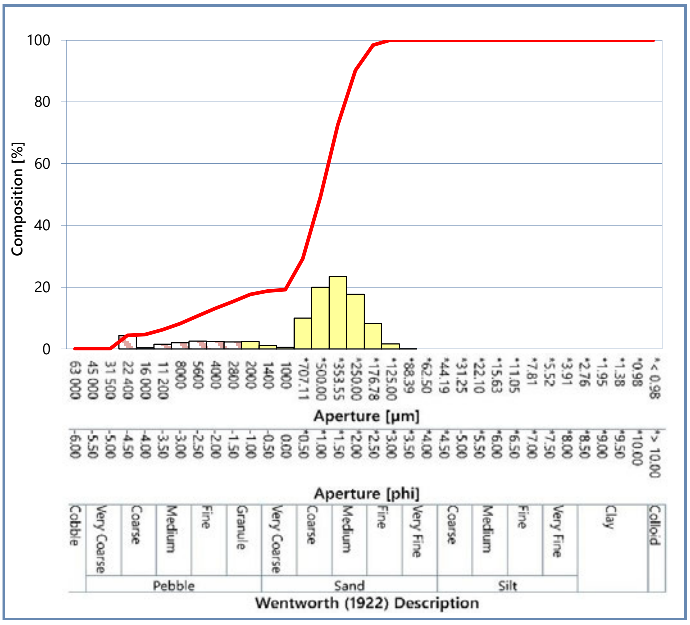
Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_07_PSDC

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	4.35	4.35
16 000	-4.00	0.31	4.66
11 200	-3.50	1.53	6.19
8000	-3.00	2.00	8.19
5600	-2.50	2.48	10.66
4000	-2.00	2.39	13.06
2800	-1.50	2.25	15.31
2000	-1.00	2.31	17.62
1400	-0.50	1.10	18.72
1000	0.00	0.51	19.23
*707.11	*0.50	9.98	29.21
*500.00	*1.00	19.93	49.14
*353.55	*1.50	23.39	72.53
*250.00	*2.00	17.66	90.19
*176.78	*2.50	8.22	98.42
*125.00	*3.00	1.58	99.99
*88.39	*3.50	0.01	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	26950	Coarse pebble
Mode 3 [µm]†	-	-
Median [µm]†	494	Medium sand
Median [phi]†	1.02	
Mean [µm]†‡	707	Coarse sand
Mean [phi]†‡	0.50	
Sorting [µm]‡	3.31	Poorly sorted
Sorting [phi]‡	1.73	
Skewness [µm]‡	0.54	Very coarse skewed
Skewness [phi]‡	-0.54	
Gravel [%]#	17.62	Gravelly sand
Sand [%]#	82.38	
Fines [%]#	0.00	

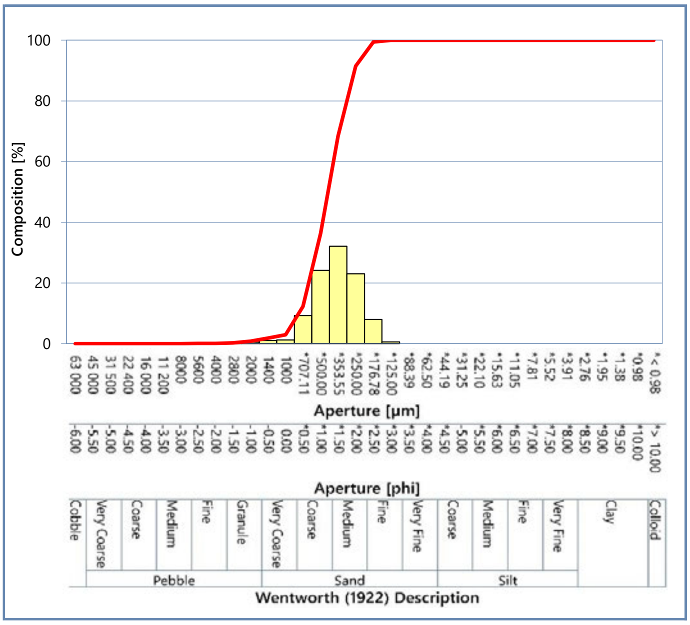
Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_08_PSDA

FRACTIONAL DATA

Aperture [μm]	Aperture [phi]	Fractional [%]	Cumulative [%]
> 63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.07	0.07
4000	-2.00	0.00	0.07
2800	-1.50	0.22	0.29
2000	-1.00	0.50	0.79
1400	-0.50	0.99	1.78
1000	0.00	1.18	2.96
*707.11	*0.50	9.30	12.26
*500.00	*1.00	24.11	36.37
*353.55	*1.50	32.05	68.42
*250.00	*2.00	23.05	91.47
*176.78	*2.50	7.94	99.41
*125.00	*3.00	0.59	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [μm]†	427	Medium sand
Mode 2 [μm]†	-	-
Mode 3 [μm]†	-	-
Median [μm]†	431	Medium sand
Median [phi]†	1.21	
Mean [μm]†‡	432	Medium sand
Mean [phi]†‡	1.21	
Sorting [μm]‡	1.55	Moderately well sorted
Sorting [phi]‡	0.64	
Skewness [μm]‡	0.03	Symmetrical
Skewness [phi]‡	-0.03	
Gravel [%]#	0.79	Sand
Sand [%]#	99.21	
Fines [%]#	0.00	

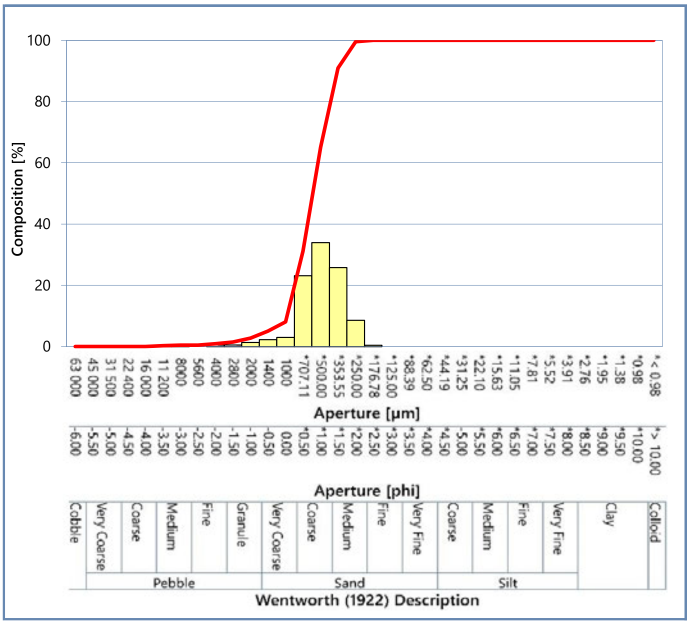
Notes
Particle Size Distribution by Dry Sieving (63 000 μm - 1000 μm) and Laser Diffraction* (< 1000 μm - < 0.98 μm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_09_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.28	0.28
8000	-3.00	0.19	0.47
5600	-2.50	0.00	0.47
4000	-2.00	0.51	0.98
2800	-1.50	0.50	1.48
2000	-1.00	1.31	2.79
1400	-0.50	2.25	5.04
1000	0.00	3.00	8.04
*707.11	*0.50	23.15	31.19
*500.00	*1.00	33.96	65.14
*353.55	*1.50	25.81	90.96
*250.00	*2.00	8.61	99.56
*176.78	*2.50	0.44	100.00
*125.00	*3.00	0.00	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	604	Coarse sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	584	Coarse sand
Median [phi]†	0.78	
Mean [µm]†‡	586	Coarse sand
Mean [phi]†‡	0.77	
Sorting [µm]‡	1.55	Moderately well sorted
Sorting [phi]‡	0.64	
Skewness [µm]‡	0.08	Symmetrical
Skewness [phi]‡	-0.08	
Gravel [%]#	2.79	Sand
Sand [%]#	97.21	
Fines [%]#	0.00	

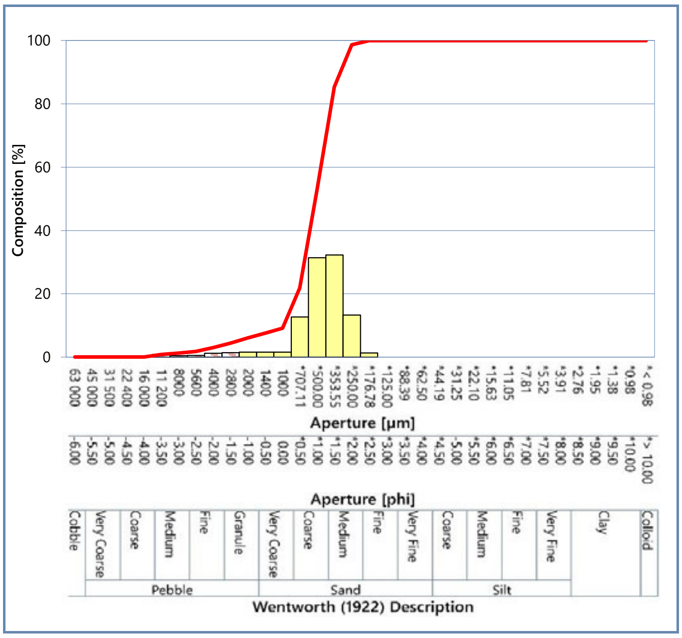
Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_09_PSDB

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.86	0.86
8000	-3.00	0.40	1.26
5600	-2.50	0.54	1.80
4000	-2.00	1.25	3.05
2800	-1.50	1.40	4.45
2000	-1.00	1.59	6.04
1400	-0.50	1.55	7.59
1000	0.00	1.54	9.13
*707.11	*0.50	12.67	21.80
*500.00	*1.00	31.36	53.16
*353.55	*1.50	32.25	85.41
*250.00	*2.00	13.29	98.70
*176.78	*2.50	1.30	100.00
*125.00	*3.00	0.00	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	518	Coarse sand
Median [phi]†	0.95	
Mean [µm]†‡	536	Coarse sand
Mean [phi]†‡	0.90	
Sorting [µm]‡	1.72	Moderately sorted
Sorting [phi]‡	0.78	
Skewness [µm]‡	0.28	Coarse skewed
Skewness [phi]‡	-0.28	
Gravel [%]#	6.04	Gravelly sand
Sand [%]#	93.96	
Fines [%]#	0.00	

Notes

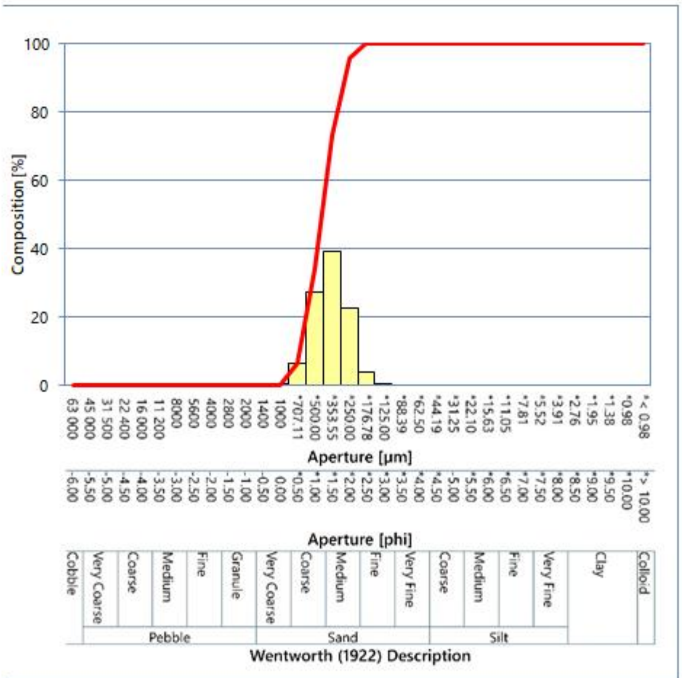
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_09_PSDC

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.00	0.00
4000	-2.00	0.00	0.00
2800	-1.50	0.02	0.02
2000	-1.00	0.02	0.04
1400	-0.50	0.07	0.11
1000	0.00	0.08	0.19
*707.11	*0.50	6.55	6.75
*500.00	*1.00	27.34	34.08
*353.55	*1.50	39.14	73.23
*250.00	*2.00	22.60	95.82
*176.78	*2.50	4.16	99.98
*125.00	*3.00	0.02	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION

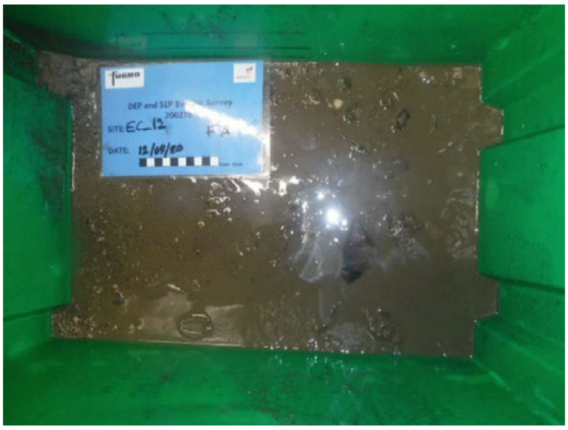


SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	434	Medium sand
Median [phi]†	1.20	
Mean [µm]‡	434	Medium sand
Mean [phi]‡	1.20	
Sorting [µm]‡	1.43	Moderately well sorted
Sorting [phi]‡	0.51	
Skewness [µm]‡	0.02	Symmetrical
Skewness [phi]‡	-0.02	
Gravel [%]#	0.04	Sand
Sand [%]#	99.96	
Fines [%]#	0.00	

Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

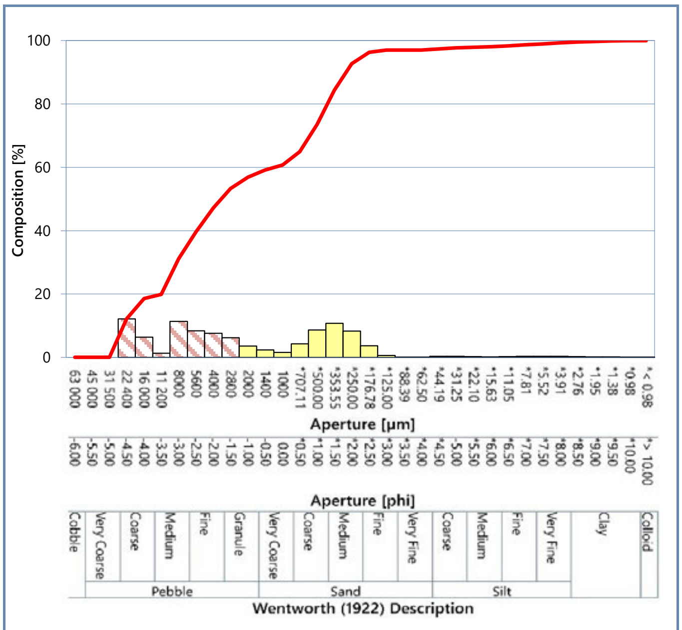
STATION: EC_10_PSDA



FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	12.17	12.17
16 000	-4.00	6.41	18.58
11 200	-3.50	1.28	19.86
8000	-3.00	11.34	31.20
5600	-2.50	8.36	39.56
4000	-2.00	7.57	47.13
2800	-1.50	6.18	53.31
2000	-1.00	3.54	56.85
1400	-0.50	2.33	59.18
1000	0.00	1.53	60.71
*707.11	*0.50	4.25	64.96
*500.00	*1.00	8.64	73.59
*353.55	*1.50	10.79	84.38
*250.00	*2.00	8.31	92.69
*176.78	*2.50	3.66	96.35
*125.00	*3.00	0.64	96.98
*88.39	*3.50	0.00	96.98
*62.50	*4.00	0.06	97.04
*44.19	*4.50	0.31	97.36
*31.25	*5.00	0.32	97.68
*22.10	*5.50	0.22	97.90
*15.63	*6.00	0.19	98.09
*11.05	*6.50	0.24	98.33
*7.81	*7.00	0.30	98.64
*5.52	*7.50	0.33	98.97
*3.91	*8.00	0.32	99.29
*2.76	*8.50	0.26	99.55
*1.95	*9.00	0.19	99.74
*1.38	*9.50	0.13	99.87
*0.98	*10.00	0.08	99.96
*< 0.98	*> 10.00	0.04	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	26950	Coarse pebble
Mode 2 [µm]†	9600	Medium pebble
Mode 3 [µm]†	427	Medium sand
Median [µm]†	3389	Granule
Median [phi]†	-1.76	
Mean [µm]‡	2811	Granule
Mean [phi]‡	-1.49	
Sorting [µm]‡	5.63	Very poorly sorted
Sorting [phi]‡	2.49	
Skewness [µm]‡	-0.15	Fine skewed
Skewness [phi]‡	0.15	
Gravel [%]#	56.85	Sandy gravel
Sand [%]#	40.19	
Fines [%]#	2.96	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

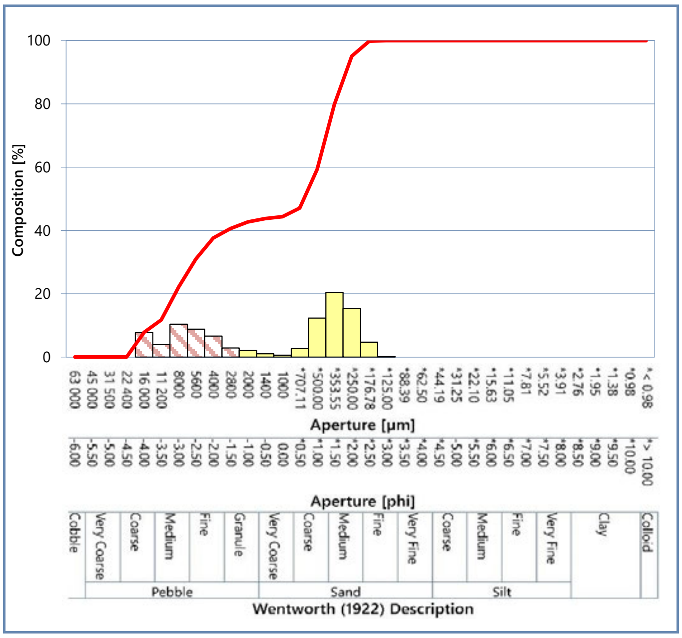
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_11_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	7.82	7.82
11 200	-3.50	3.92	11.74
8000	-3.00	10.42	22.16
5600	-2.50	8.85	31.01
4000	-2.00	6.67	37.68
2800	-1.50	2.90	40.58
2000	-1.00	2.09	42.67
1400	-0.50	1.06	43.73
1000	0.00	0.65	44.38
*707.11	*0.50	2.68	47.05
*500.00	*1.00	12.31	59.37
*353.55	*1.50	20.42	79.78
*250.00	*2.00	15.34	95.12
*176.78	*2.50	4.69	99.81
*125.00	*3.00	0.19	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	9600	Medium pebble
Mode 3 [µm]†	19200	Coarse pebble
Median [µm]†	651	Coarse sand
Median [phi]†	0.62	
Mean [µm]‡	1269	Very coarse sand
Mean [phi]‡	-0.34	
Sorting [µm]‡	4.49	Very poorly sorted
Sorting [phi]‡	2.17	
Skewness [µm]‡	0.57	Very coarse skewed
Skewness [phi]‡	-0.57	
Gravel [%]#	42.67	Sandy gravel
Sand [%]#	57.33	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

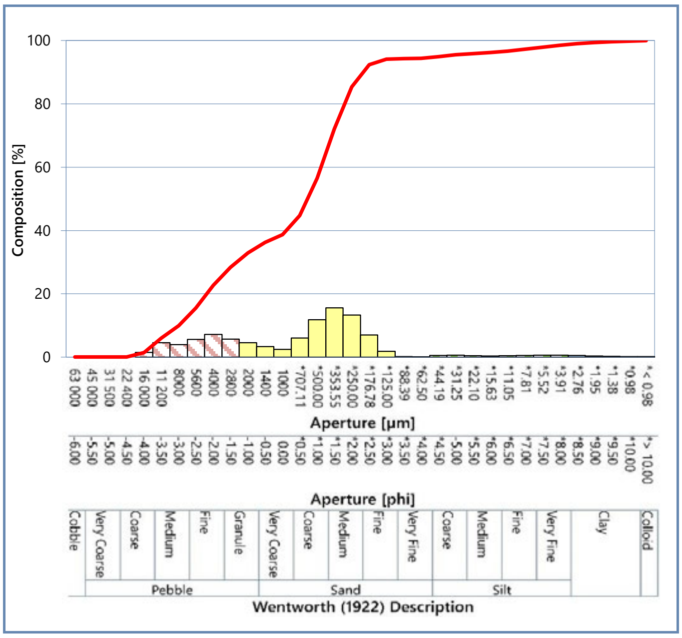
= Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_12_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	1.44	1.44
11 200	-3.50	4.53	5.97
8000	-3.00	3.92	9.89
5600	-2.50	5.60	15.49
4000	-2.00	7.16	22.65
2800	-1.50	5.72	28.37
2000	-1.00	4.58	32.95
1400	-0.50	3.30	36.25
1000	0.00	2.45	38.70
*707.11	*0.50	6.00	44.70
*500.00	*1.00	11.82	56.52
*353.55	*1.50	15.56	72.08
*250.00	*2.00	13.31	85.39
*176.78	*2.50	6.96	92.35
*125.00	*3.00	1.81	94.16
*88.39	*3.50	0.13	94.29
*62.50	*4.00	0.12	94.41
*44.19	*4.50	0.52	94.93
*31.25	*5.00	0.57	95.50
*22.10	*5.50	0.41	95.91
*15.63	*6.00	0.34	96.25
*11.05	*6.50	0.43	96.67
*7.81	*7.00	0.56	97.24
*5.52	*7.50	0.63	97.87
*3.91	*8.00	0.61	98.48
*2.76	*8.50	0.51	98.99
*1.95	*9.00	0.38	99.37
*1.38	*9.50	0.26	99.63
*0.98	*10.00	0.18	99.82
*< 0.98	*> 10.00	0.18	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm][†]	427	Medium sand
Mode 2 [µm][†]	4800	Fine pebble
Mode 3 [µm][†]	13600	Medium pebble
Median [µm][†]	605	Coarse sand
Median [phi][†]	0.72	
Mean [µm][†‡]	950	Coarse sand
Mean [phi][†‡]	0.07	
Sorting [µm][‡]	5.05	Very poorly sorted
Sorting [phi][‡]	2.34	
Skewness [µm][‡]	0.25	Coarse skewed
Skewness [phi][‡]	-0.25	
Gravel [%][#]	32.95	Sandy gravel
Sand [%][#]	61.46	
Fines [%][#]	5.59	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

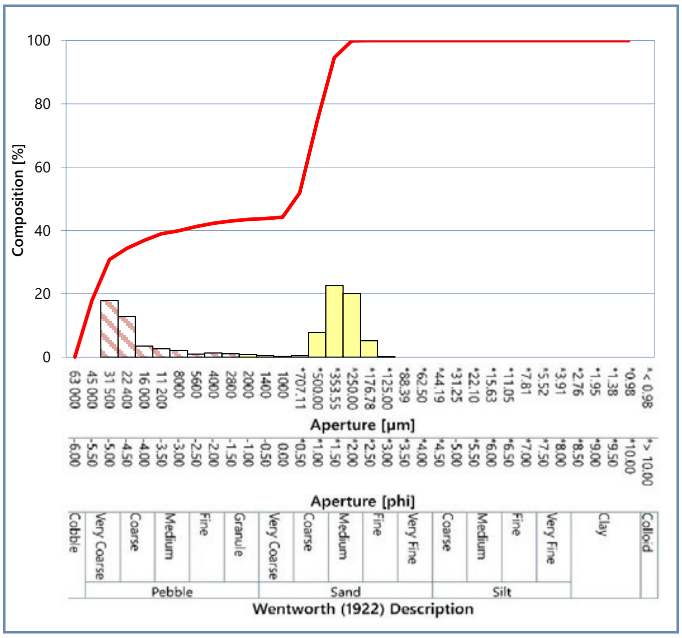
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_14_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	17.95	17.95
22 400	-4.50	12.87	30.82
16 000	-4.00	3.46	34.28
11 200	-3.50	2.59	36.87
8000	-3.00	2.06	38.93
5600	-2.50	0.95	39.88
4000	-2.00	1.30	41.18
2800	-1.50	1.07	42.25
2000	-1.00	0.74	43.00
1400	-0.50	0.47	43.46
1000	0.00	0.30	43.76
*707.11	*0.50	0.41	44.17
*500.00	*1.00	7.74	51.91
*353.55	*1.50	22.66	74.57
*250.00	*2.00	20.12	94.69
*176.78	*2.50	5.18	99.87
*125.00	*3.00	0.13	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	38250	Very coarse pebble
Mode 3 [µm]†	-	-
Median [µm]†	545	Coarse sand
Median [phi]†	0.88	
Mean [µm]†‡	1750	Very coarse sand
Mean [phi]†‡	-0.81	
Sorting [µm]‡	7.01	Very poorly sorted
Sorting [phi]‡	2.81	
Skewness [µm]‡	0.72	Very coarse skewed
Skewness [phi]‡	-0.72	
Gravel [%]#	43.00	Sandy gravel
Sand [%]#	57.00	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

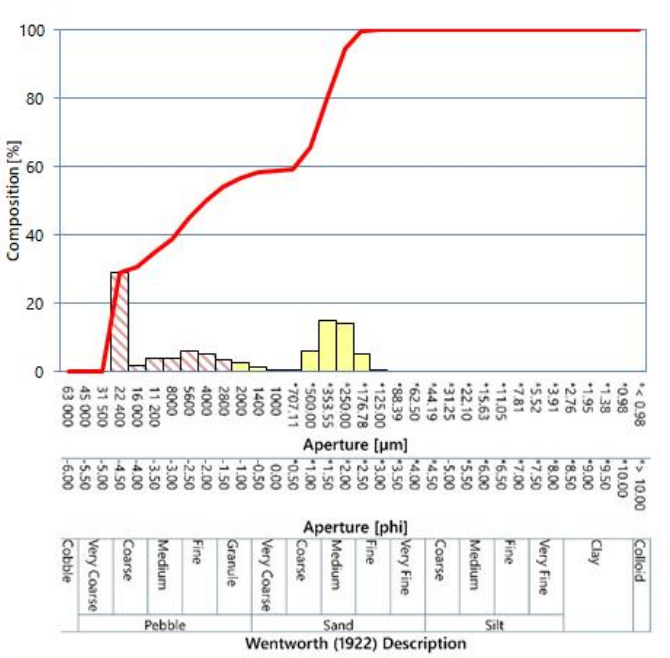
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_14_PSDB

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	29.27	29.27
16 000	-4.00	1.67	30.94
11 200	-3.50	4.07	35.02
8000	-3.00	4.00	39.02
5600	-2.50	6.16	45.18
4000	-2.00	5.36	50.54
2800	-1.50	3.60	54.14
2000	-1.00	2.64	56.78
1400	-0.50	1.49	58.26
1000	0.00	0.63	58.89
*707.11	*0.50	0.56	59.45
*500.00	*1.00	6.02	65.47
*353.55	*1.50	14.88	80.35
*250.00	*2.00	14.19	94.54
*176.78	*2.50	5.11	99.65
*125.00	*3.00	0.35	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	26950	Coarse pebble
Mode 2 [µm]†	427	Medium sand
Mode 3 [µm]†	6800	Fine pebble
Median [µm]†	4139	Fine pebble
Median [phi]†	-2.05	
Mean [µm]‡	3271	Granule
Mean [phi]‡	-1.71	
Sorting [µm]‡	6.21	Very poorly sorted
Sorting [phi]‡	2.64	
Skewness [µm]‡	-0.17	Fine skewed
Skewness [phi]‡	0.17	
Gravel [%]#	56.78	Sandy gravel
Sand [%]#	43.22	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

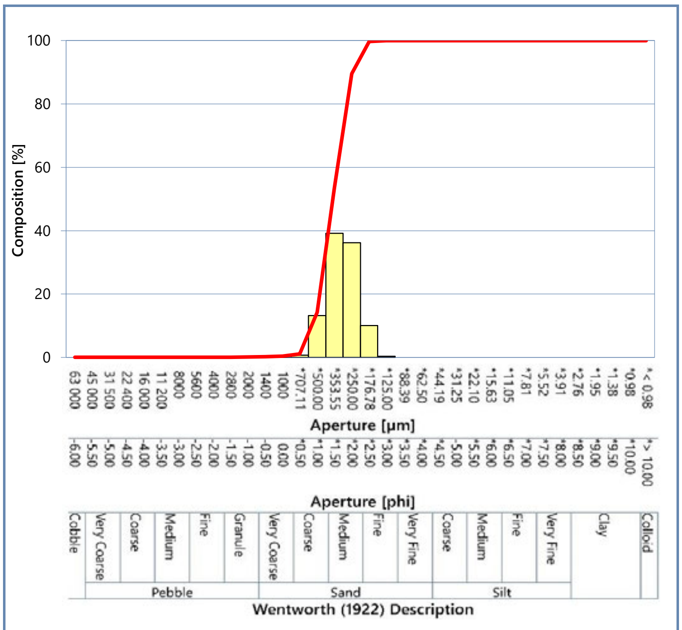
= Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_15_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.00	0.00
4000	-2.00	0.00	0.00
2800	-1.50	0.07	0.07
2000	-1.00	0.03	0.10
1400	-0.50	0.10	0.20
1000	0.00	0.16	0.36
*707.11	*0.50	0.71	1.08
*500.00	*1.00	13.17	14.24
*353.55	*1.50	39.18	53.42
*250.00	*2.00	36.19	89.61
*176.78	*2.50	10.07	99.68
*125.00	*3.00	0.32	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	364	Medium sand
Median [phi]†	1.46	
Mean [µm]‡	362	Medium sand
Mean [phi]‡	1.47	
Sorting [µm]‡	1.39	Well sorted
Sorting [phi]‡	0.47	
Skewness [µm]‡	-0.02	Symmetrical
Skewness [phi]‡	0.02	
Gravel [%]#	0.10	Sand
Sand [%]#	99.90	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

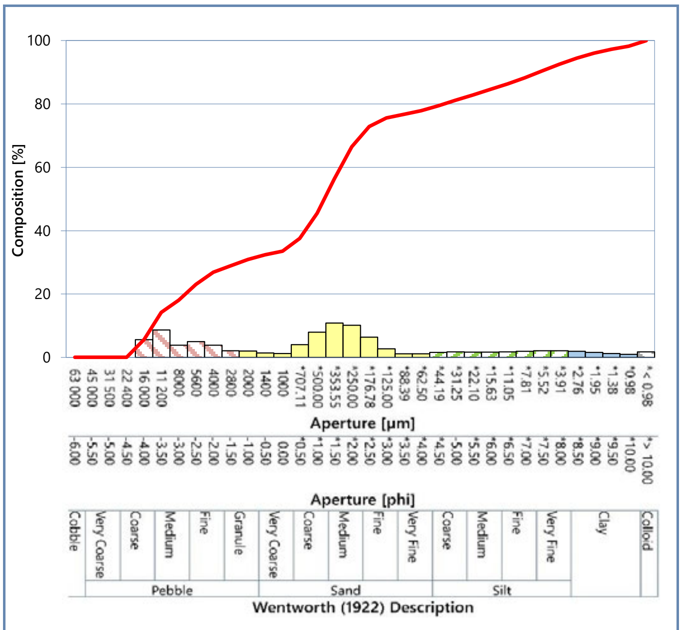
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_16_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	5.61	5.61
11 200	-3.50	8.63	14.24
8000	-3.00	3.81	18.05
5600	-2.50	4.95	23.00
4000	-2.00	3.86	26.86
2800	-1.50	2.08	28.94
2000	-1.00	2.00	30.94
1400	-0.50	1.43	32.36
1000	0.00	1.18	33.55
*707.11	*0.50	4.03	37.57
*500.00	*1.00	7.96	45.54
*353.55	*1.50	10.85	56.39
*250.00	*2.00	10.12	66.50
*176.78	*2.50	6.39	72.89
*125.00	*3.00	2.73	75.62
*88.39	*3.50	1.10	76.73
*62.50	*4.00	1.14	77.87
*44.19	*4.50	1.58	79.45
*31.25	*5.00	1.74	81.19
*22.10	*5.50	1.69	82.88
*15.63	*6.00	1.68	84.56
*11.05	*6.50	1.79	86.35
*7.81	*7.00	1.96	88.31
*5.52	*7.50	2.11	90.41
*3.91	*8.00	2.12	92.53
*2.76	*8.50	1.93	94.46
*1.95	*9.00	1.59	96.05
*1.38	*9.50	1.23	97.28
*0.98	*10.00	0.97	98.26
*< 0.98	*> 10.00	1.74	100.00
Total		**100.00**	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	5	Very fine silt
Mode 3 [µm]†	2400	Granule
Median [µm]†	434	Medium sand
Median [phi]†	1.21	
Mean [µm]†‡	418	Medium sand
Mean [phi]†‡	1.26	
Sorting [µm]‡	18.40	Extremely poorly sorted
Sorting [phi]‡	4.20	
Skewness [µm]‡	-0.10	Symmetrical
Skewness [phi]‡	0.10	
Gravel [%]#	30.94	Muddy, sandy gravel
Sand [%]#	46.93	
Fines [%]#	22.13	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

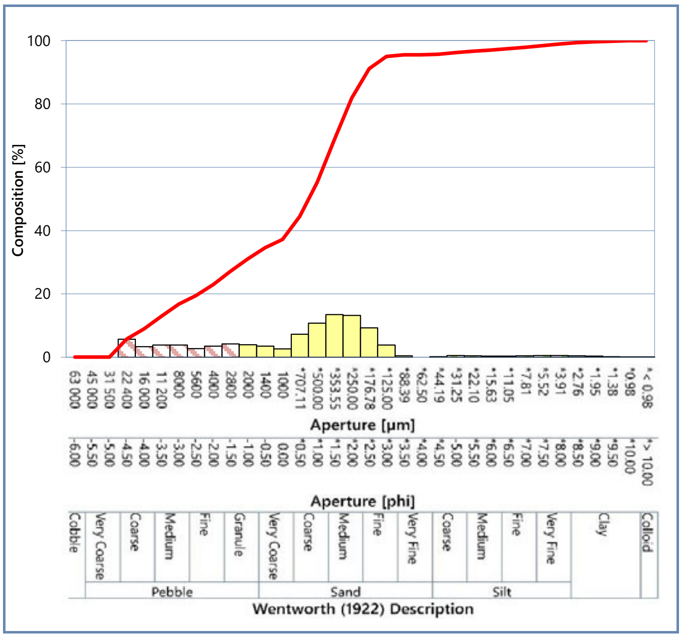
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_17_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	5.69	5.69
16 000	-4.00	3.31	9.00
11 200	-3.50	3.88	12.88
8000	-3.00	3.87	16.75
5600	-2.50	2.68	19.43
4000	-2.00	3.52	22.95
2800	-1.50	4.17	27.12
2000	-1.00	3.92	31.04
1400	-0.50	3.51	34.55
1000	0.00	2.61	37.16
*707.11	*0.50	7.28	44.44
*500.00	*1.00	10.76	55.21
*353.55	*1.50	13.48	68.69
*250.00	*2.00	13.24	81.92
*176.78	*2.50	9.23	91.16
*125.00	*3.00	3.88	95.03
*88.39	*3.50	0.47	95.50
*62.50	*4.00	0.00	95.50
*44.19	*4.50	0.19	95.69
*31.25	*5.00	0.53	96.23
*22.10	*5.50	0.48	96.70
*15.63	*6.00	0.35	97.05
*11.05	*6.50	0.36	97.42
*7.81	*7.00	0.47	97.88
*5.52	*7.50	0.53	98.42
*3.91	*8.00	0.52	98.93
*2.76	*8.50	0.42	99.36
*1.95	*9.00	0.30	99.66
*1.38	*9.50	0.20	99.85
*0.98	*10.00	0.12	99.98
*< 0.98	*> 10.00	0.02	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	26950	Coarse pebble
Mode 3 [µm]†	3400	Granule
Median [µm]†	591	Coarse sand
Median [phi]†	0.76	
Mean [µm]†‡	1053	Very coarse sand
Mean [phi]†‡	-0.07	
Sorting [µm]‡	5.44	Very poorly sorted
Sorting [phi]‡	2.44	
Skewness [µm]‡	0.44	Very coarse skewed
Skewness [phi]‡	-0.44	
Gravel [%]#	31.04	Sandy gravel
Sand [%]#	64.46	
Fines [%]#	4.50	

Notes

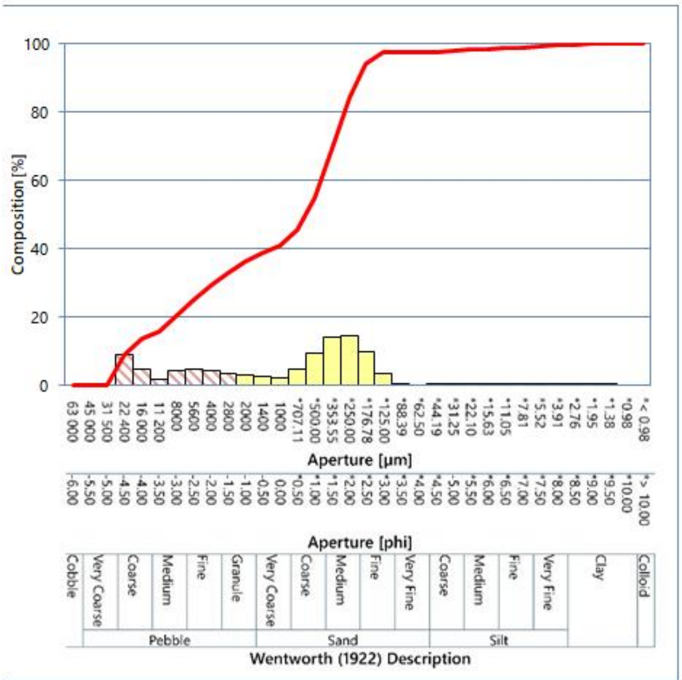
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_18_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	9.07	9.07
16 000	-4.00	4.87	13.95
11 200	-3.50	1.99	15.94
8000	-3.00	4.53	20.46
5600	-2.50	4.71	25.18
4000	-2.00	4.23	29.41
2800	-1.50	3.68	33.09
2000	-1.00	3.20	36.29
1400	-0.50	2.57	38.85
1000	0.00	2.10	40.95
*707.11	*0.50	4.71	45.66
*500.00	*1.00	9.56	55.22
*353.55	*1.50	14.27	69.49
*250.00	*2.00	14.82	84.31
*176.78	*2.50	9.80	94.11
*125.00	*3.00	3.36	97.47
*88.39	*3.50	0.22	97.70
*62.50	*4.00	0.00	97.70
*44.19	*4.50	0.07	97.77
*31.25	*5.00	0.36	98.12
*22.10	*5.50	0.30	98.42
*15.63	*6.00	0.16	98.58
*11.05	*6.50	0.15	98.73
*7.81	*7.00	0.23	98.96
*5.52	*7.50	0.30	99.26
*3.91	*8.00	0.29	99.55
*2.76	*8.50	0.23	99.78
*1.95	*9.00	0.16	99.95
*1.38	*9.50	0.05	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		**100.00**	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	302	Medium sand
Mode 2 [µm]†	26950	Coarse pebble
Mode 3 [µm]†	9600	Medium pebble
Median [µm]†	604	Coarse sand
Median [phi]†	0.73	
Mean [µm]‡	1193	Very coarse sand
Mean [phi]‡	-0.25	
Sorting [µm]‡	5.57	Very poorly sorted
Sorting [phi]‡	2.48	
Skewness [µm]‡	0.51	Very coarse skewed
Skewness [phi]‡	-0.51	
Gravel [%]#	36.29	Sandy gravel
Sand [%]#	61.41	
Fines [%]#	2.30	

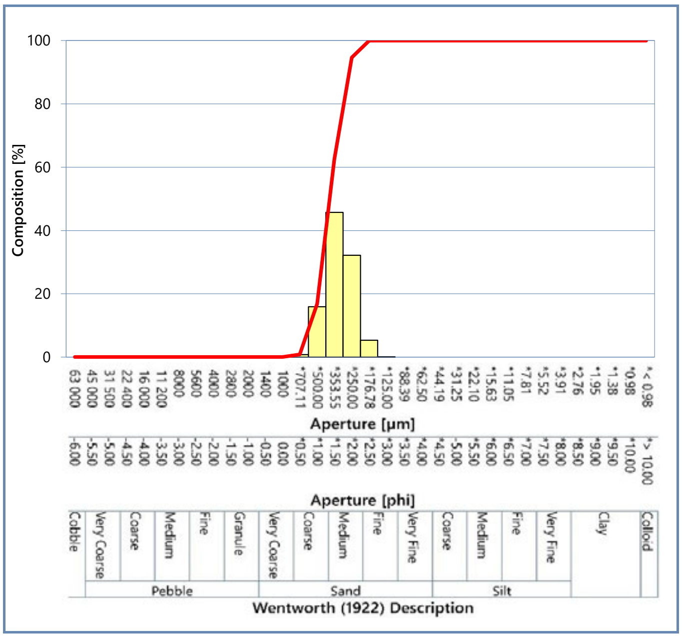
Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_19_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.00	0.00
4000	-2.00	0.00	0.00
2800	-1.50	0.00	0.00
2000	-1.00	0.02	0.02
1400	-0.50	0.01	0.03
1000	0.00	0.02	0.05
*707.11	*0.50	0.82	0.87
*500.00	*1.00	15.92	16.79
*353.55	*1.50	45.71	62.49
*250.00	*2.00	32.16	94.65
*176.78	*2.50	5.32	99.97
*125.00	*3.00	0.03	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	389	Medium sand
Median [phi]†	1.36	
Mean [µm]†‡	381	Medium sand
Mean [phi]†‡	1.39	
Sorting [µm]‡	1.34	Well sorted
Sorting [phi]‡	0.43	
Skewness [µm]‡	-0.03	Symmetrical
Skewness [phi]‡	0.03	
Gravel [%]#	0.02	Sand
Sand [%]#	99.98	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

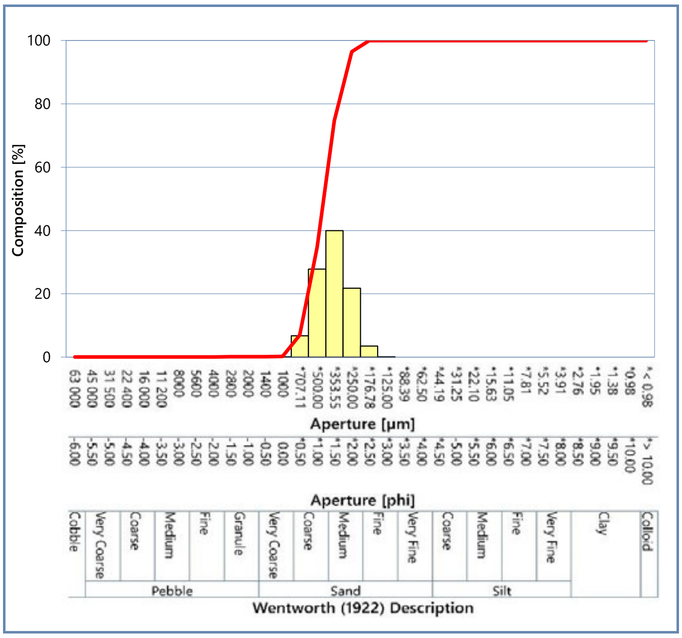
= Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_19_PSDB

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.05	0.05
4000	-2.00	0.00	0.05
2800	-1.50	0.04	0.09
2000	-1.00	0.03	0.12
1400	-0.50	0.03	0.16
1000	0.00	0.07	0.23
*707.11	*0.50	6.73	6.96
*500.00	*1.00	27.83	34.79
*353.55	*1.50	39.95	74.74
*250.00	*2.00	21.78	96.52
*176.78	*2.50	3.47	99.99
*125.00	*3.00	0.01	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	438	Medium sand
Median [phi]†	1.19	
Mean [µm]‡	439	Medium sand
Mean [phi]‡	1.19	
Sorting [µm]‡	1.42	Moderately well sorted
Sorting [phi]‡	0.51	
Skewness [µm]‡	0.02	Symmetrical
Skewness [phi]‡	-0.02	
Gravel [%]#	0.12	Sand
Sand [%]#	99.88	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

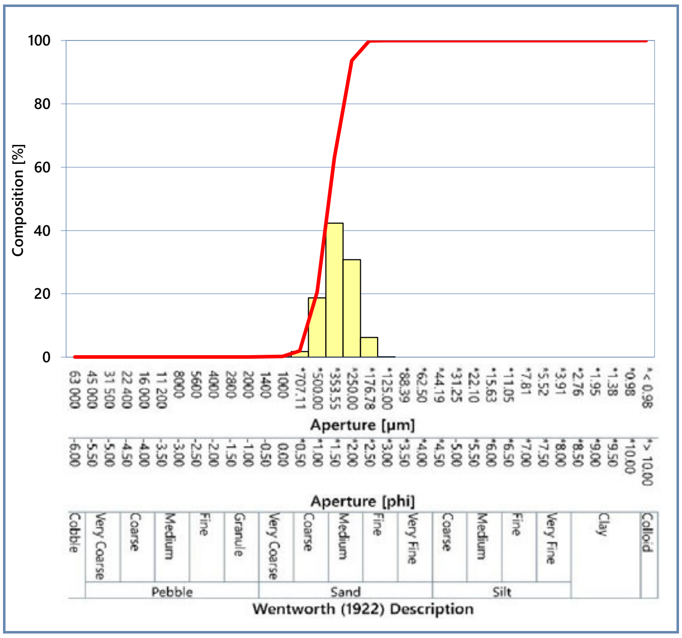
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_19_PSDC

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	0.00	0.00
11 200	-3.50	0.00	0.00
8000	-3.00	0.00	0.00
5600	-2.50	0.00	0.00
4000	-2.00	0.02	0.02
2800	-1.50	0.00	0.02
2000	-1.00	0.02	0.04
1400	-0.50	0.05	0.09
1000	0.00	0.08	0.17
*707.11	*0.50	1.77	1.94
*500.00	*1.00	18.68	20.62
*353.55	*1.50	42.30	62.92
*250.00	*2.00	30.77	93.70
*176.78	*2.50	6.23	99.93
*125.00	*3.00	0.07	100.00
*88.39	*3.50	0.00	100.00
*62.50	*4.00	0.00	100.00
*44.19	*4.50	0.00	100.00
*31.25	*5.00	0.00	100.00
*22.10	*5.50	0.00	100.00
*15.63	*6.00	0.00	100.00
*11.05	*6.50	0.00	100.00
*7.81	*7.00	0.00	100.00
*5.52	*7.50	0.00	100.00
*3.91	*8.00	0.00	100.00
*2.76	*8.50	0.00	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	-	-
Mode 3 [µm]†	-	-
Median [µm]†	393	Medium sand
Median [phi]†	1.35	
Mean [µm]†‡	391	Medium sand
Mean [phi]†‡	1.36	
Sorting [µm]‡	1.39	Well sorted
Sorting [phi]‡	0.47	
Skewness [µm]‡	-0.01	Symmetrical
Skewness [phi]‡	0.01	
Gravel [%]#	0.04	Sand
Sand [%]#	99.96	
Fines [%]#	0.00	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

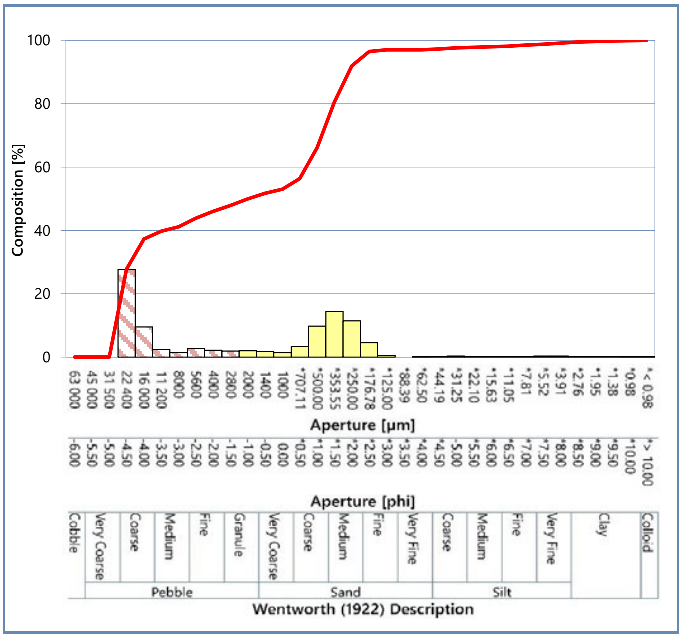
\# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_23_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	27.74	27.74
16 000	-4.00	9.53	37.27
11 200	-3.50	2.48	39.75
8000	-3.00	1.43	41.18
5600	-2.50	2.68	43.86
4000	-2.00	2.16	46.02
2800	-1.50	1.90	47.91
2000	-1.00	2.01	49.93
1400	-0.50	1.75	51.68
1000	0.00	1.37	53.05
*707.11	*0.50	3.31	56.36
*500.00	*1.00	9.76	66.12
*353.55	*1.50	14.40	80.52
*250.00	*2.00	11.41	91.93
*176.78	*2.50	4.53	96.46
*125.00	*3.00	0.55	97.01
*88.39	*3.50	0.00	97.01
*62.50	*4.00	0.01	97.02
*44.19	*4.50	0.28	97.30
*31.25	*5.00	0.32	97.62
*22.10	*5.50	0.19	97.81
*15.63	*6.00	0.14	97.95
*11.05	*6.50	0.21	98.16
*7.81	*7.00	0.30	98.46
*5.52	*7.50	0.34	98.81
*3.91	*8.00	0.33	99.14
*2.76	*8.50	0.29	99.43
*1.95	*9.00	0.22	99.65
*1.38	*9.50	0.16	99.81
*0.98	*10.00	0.12	99.94
*< 0.98	*> 10.00	0.06	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	26950	Coarse pebble
Mode 2 [µm]†	427	Medium sand
Mode 3 [µm]†	-	-
Median [µm]†	1970	Very coarse sand
Median [phi]†	-0.98	
Mean [µm]†‡	2531	Granule
Mean [phi]†‡	-1.34	
Sorting [µm]‡	6.42	Very poorly sorted
Sorting [phi]‡	2.68	
Skewness [µm]‡	0.13	Coarse skewed
Skewness [phi]‡	-0.13	
Gravel [%]#	49.93	Sandy gravel
Sand [%]#	47.09	
Fines [%]#	2.98	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

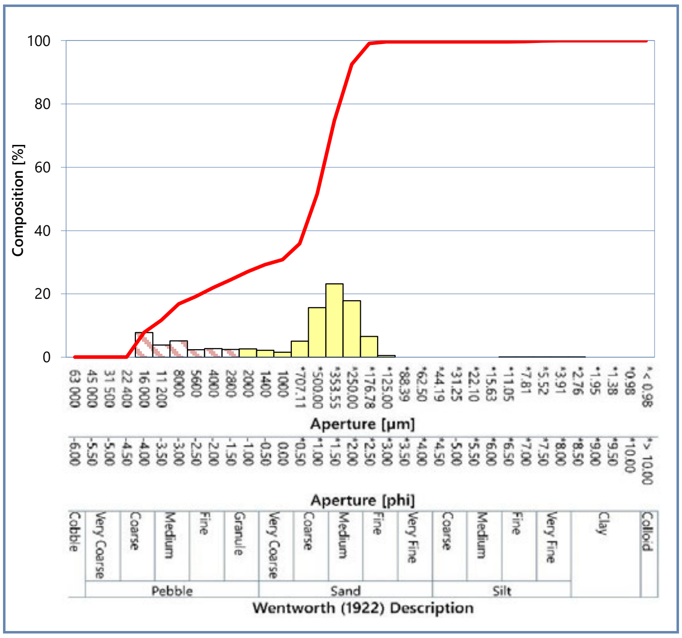
= Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_23_PSDB

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	7.79	7.79
11 200	-3.50	3.85	11.64
8000	-3.00	5.19	16.83
5600	-2.50	2.39	19.22
4000	-2.00	2.75	21.97
2800	-1.50	2.43	24.39
2000	-1.00	2.63	27.03
1400	-0.50	2.19	29.21
1000	0.00	1.59	30.80
*707.11	*0.50	5.07	35.88
*500.00	*1.00	15.66	51.54
*353.55	*1.50	23.15	74.69
*250.00	*2.00	17.87	92.56
*176.78	*2.50	6.51	99.08
*125.00	*3.00	0.52	99.60
*88.39	*3.50	0.00	99.60
*62.50	*4.00	0.00	99.60
*44.19	*4.50	0.00	99.60
*31.25	*5.00	0.00	99.60
*22.10	*5.50	0.00	99.60
*15.63	*6.00	0.00	99.60
*11.05	*6.50	0.04	99.64
*7.81	*7.00	0.11	99.75
*5.52	*7.50	0.12	99.87
*3.91	*8.00	0.09	99.96
*2.76	*8.50	0.04	100.00
*1.95	*9.00	0.00	100.00
*1.38	*9.50	0.00	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	19200	Coarse pebble
Mode 3 [µm]†	9600	Medium pebble
Median [µm]†	517	Coarse sand
Median [phi]†	0.95	
Mean [µm]†‡	1088	Very coarse sand
Mean [phi]†‡	-0.12	
Sorting [µm]‡	4.51	Very poorly sorted
Sorting [phi]‡	2.17	
Skewness [µm]‡	0.64	Very coarse skewed
Skewness [phi]‡	-0.64	
Gravel [%]#	27.03	Gravelly sand
Sand [%]#	72.57	
Fines [%]#	0.40	

Notes

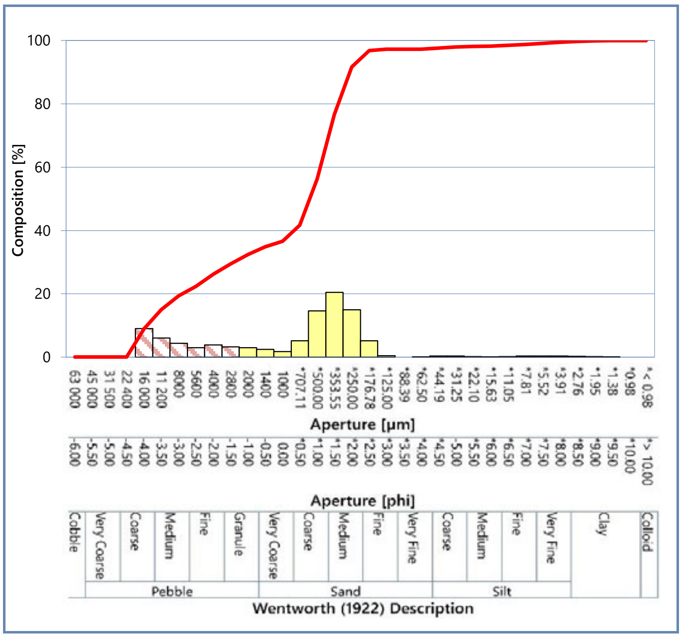
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_23_PSDC

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.00	0.00
16 000	-4.00	9.00	9.00
11 200	-3.50	6.01	15.01
8000	-3.00	4.35	19.36
5600	-2.50	2.98	22.34
4000	-2.00	3.81	26.14
2800	-1.50	3.24	29.39
2000	-1.00	3.01	32.39
1400	-0.50	2.41	34.81
1000	0.00	1.74	36.55
*707.11	*0.50	5.14	41.69
*500.00	*1.00	14.57	56.26
*353.55	*1.50	20.42	76.68
*250.00	*2.00	14.98	91.65
*176.78	*2.50	5.17	96.83
*125.00	*3.00	0.42	97.24
*88.39	*3.50	0.00	97.24
*62.50	*4.00	0.02	97.26
*44.19	*4.50	0.36	97.62
*31.25	*5.00	0.36	97.99
*22.10	*5.50	0.17	98.15
*15.63	*6.00	0.11	98.27
*11.05	*6.50	0.21	98.47
*7.81	*7.00	0.32	98.79
*5.52	*7.50	0.36	99.15
*3.91	*8.00	0.32	99.47
*2.76	*8.50	0.25	99.73
*1.95	*9.00	0.18	99.90
*1.38	*9.50	0.10	100.00
*0.98	*10.00	0.00	100.00
*< 0.98	*> 10.00	0.00	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	19200	Coarse pebble
Mode 3 [µm]†	4800	Fine pebble
Median [µm]†	580	Coarse sand
Median [phi]†	0.79	
Mean [µm]†‡	1216	Very coarse sand
Mean [phi]†‡	-0.28	
Sorting [µm]‡	4.83	Very poorly sorted
Sorting [phi]‡	2.27	
Skewness [µm]‡	0.58	Very coarse skewed
Skewness [phi]‡	-0.58	
Gravel [%]#	32.39	Sandy gravel
Sand [%]#	64.86	
Fines [%]#	2.74	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

\# = Description based on BGS modified Folk classification (Long, 2006)

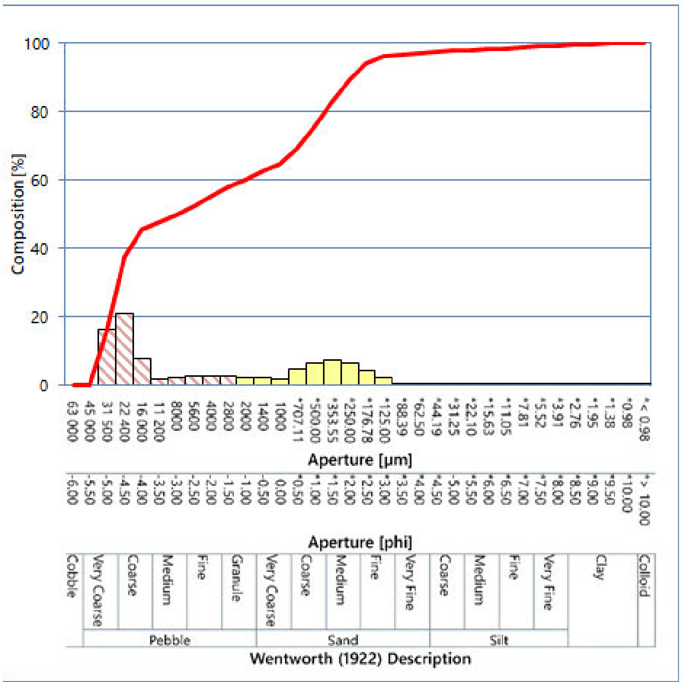
STATION: EC_24_PSDA

No photo available

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	16.51	16.51
22 400	-4.50	21.17	37.68
16 000	-4.00	7.94	45.62
11 200	-3.50	1.99	47.62
8000	-3.00	2.15	49.77
5600	-2.50	2.91	52.67
4000	-2.00	2.58	55.25
2800	-1.50	2.61	57.86
2000	-1.00	2.47	60.33
1400	-0.50	2.43	62.76
1000	0.00	2.05	64.80
*707.11	*0.50	4.66	69.46
*500.00	*1.00	6.40	75.86
*353.55	*1.50	7.20	83.06
*250.00	*2.00	6.48	89.54
*176.78	*2.50	4.46	94.01
*125.00	*3.00	2.19	96.20
*88.39	*3.50	0.71	96.90
*62.50	*4.00	0.24	97.14
*44.19	*4.50	0.28	97.43
*31.25	*5.00	0.36	97.78
*22.10	*5.50	0.32	98.10
*15.63	*6.00	0.26	98.37
*11.05	*6.50	0.25	98.62
*7.81	*7.00	0.27	98.88
*5.52	*7.50	0.28	99.16
*3.91	*8.00	0.26	99.42
*2.76	*8.50	0.22	99.64
*1.95	*9.00	0.16	99.80
*1.38	*9.50	0.11	99.91
*0.98	*10.00	0.07	99.98
*< 0.98	*> 10.00	0.02	100.00
Total		**100.00**	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	26950	Coarse pebble
Mode 2 [µm]†	427	Medium sand
Mode 3 [µm]†	-	-
Median [µm]†	7777	Fine pebble
Median [phi]†	-2.96	
Mean [µm]‡	4367	Fine pebble
Mean [phi]‡	-2.13	
Sorting [µm]‡	7.28	Very poorly sorted
Sorting [phi]‡	2.86	
Skewness [µm]‡	-0.40	Very fine skewed
Skewness [phi]‡	0.40	
Gravel [%]#	60.33	Sandy gravel
Sand [%]#	36.81	
Fines [%]#	2.86	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

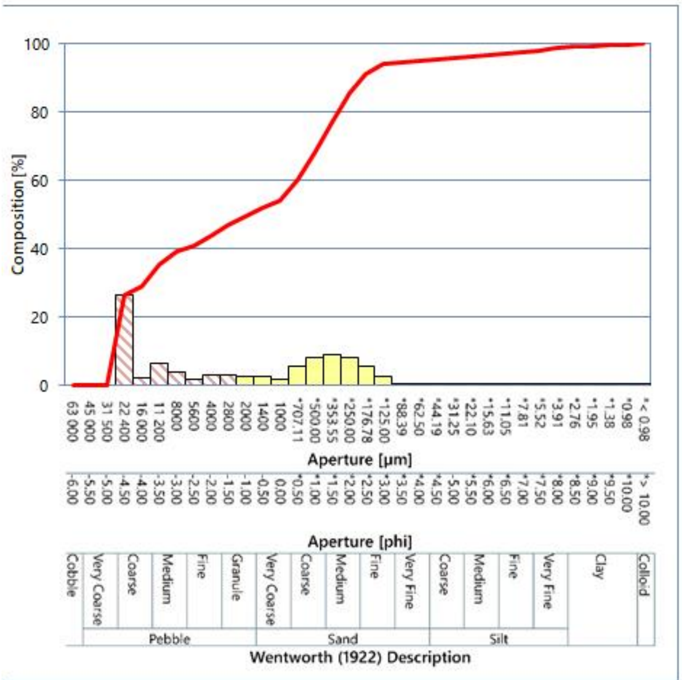
= Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_24_PSDB

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	26.72	26.72
16 000	-4.00	2.24	28.96
11 200	-3.50	6.36	35.32
8000	-3.00	3.88	39.20
5600	-2.50	1.73	40.93
4000	-2.00	3.04	43.97
2800	-1.50	2.95	46.92
2000	-1.00	2.70	49.62
1400	-0.50	2.52	52.15
1000	0.00	2.05	54.20
*707.11	*0.50	5.80	60.00
*500.00	*1.00	8.08	68.08
*353.55	*1.50	9.19	77.27
*250.00	*2.00	8.31	85.57
*176.78	*2.50	5.68	91.25
*125.00	*3.00	2.70	93.95
*88.39	*3.50	0.79	94.74
*62.50	*4.00	0.23	94.97
*44.19	*4.50	0.34	95.31
*31.25	*5.00	0.47	95.78
*22.10	*5.50	0.47	96.25
*15.63	*6.00	0.43	96.68
*11.05	*6.50	0.45	97.13
*7.81	*7.00	0.49	97.62
*5.52	*7.50	0.52	98.14
*3.91	*8.00	0.50	98.64
*2.76	*8.50	0.42	99.06
*1.95	*9.00	0.32	99.38
*1.38	*9.50	0.23	99.61
*0.98	*10.00	0.17	99.79
*< 0.98	*> 10.00	0.21	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	26950	Coarse pebble
Mode 2 [µm]†	427	Medium sand
Mode 3 [µm]†	13600	Medium pebble
Median [µm]†	1897	Very coarse sand
Median [phi]†	-0.92	
Mean [µm]‡	2352	Granule
Mean [phi]‡	-1.23	
Sorting [µm]‡	8.00	Very poorly sorted
Sorting [phi]‡	3.00	
Skewness [µm]‡	0.01	Symmetrical
Skewness [phi]‡	-0.01	
Gravel [%]#	49.62	Sandy gravel
Sand [%]#	45.34	
Fines [%]#	5.03	

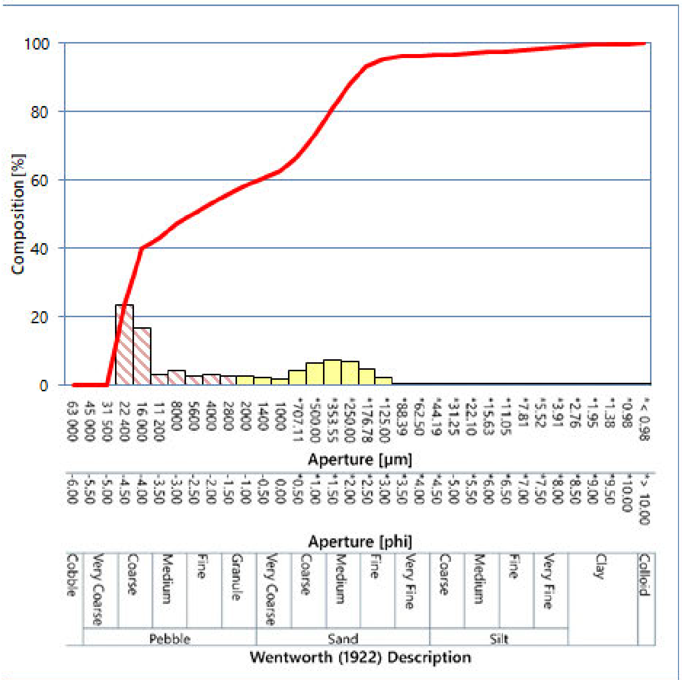
Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_24_PSDC

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	23.38	23.38
16 000	-4.00	16.87	40.25
11 200	-3.50	3.04	43.29
8000	-3.00	4.30	47.58
5600	-2.50	2.71	50.30
4000	-2.00	3.11	53.41
2800	-1.50	2.52	55.93
2000	-1.00	2.56	58.49
1400	-0.50	2.19	60.68
1000	0.00	1.91	62.59
*707.11	*0.50	4.46	67.05
*500.00	*1.00	6.41	73.46
*353.55	*1.50	7.56	81.01
*250.00	*2.00	7.08	88.10
*176.78	*2.50	5.00	93.10
*125.00	*3.00	2.42	95.51
*88.39	*3.50	0.68	96.19
*62.50	*4.00	0.12	96.31
*44.19	*4.50	0.20	96.51
*31.25	*5.00	0.32	96.83
*22.10	*5.50	0.32	97.16
*15.63	*6.00	0.28	97.44
*11.05	*6.50	0.30	97.74
*7.81	*7.00	0.36	98.10
*5.52	*7.50	0.40	98.50
*3.91	*8.00	0.40	98.90
*2.76	*8.50	0.35	99.25
*1.95	*9.00	0.27	99.52
*1.38	*9.50	0.19	99.71
*0.98	*10.00	0.14	99.85
*< 0.98	*> 10.00	0.15	100.00
Total		**100.00**	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

Mode 1 [µm]†	26950	Coarse pebble
Mode 2 [µm]†	427	Medium sand
Mode 3 [µm]†	9600	Medium pebble
Median [µm]†	5823	Fine pebble
Median [phi]†	-2.54	
Mean [µm]‡	3540	Granule
Mean [phi]‡	-1.82	
Sorting [µm]‡	6.80	Very poorly sorted
Sorting [phi]‡	2.76	
Skewness [µm]‡	-0.37	Very fine skewed
Skewness [phi]‡	0.37	
Gravel [%]#	58.49	Sandy gravel
Sand [%]#	37.82	
Fines [%]#	3.69	

Notes

Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals

* = Determinand not included in UKAS Accreditation

† = Particle size expressed in accordance with Wentworth (1922) scale

‡ = Statistics calculated using Folk and Ward (1957) method

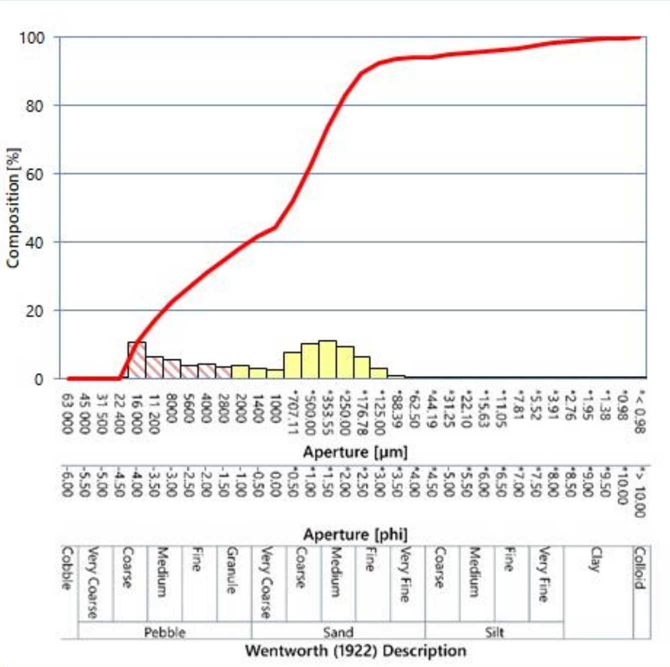
= Description based on BGS modified Folk classification (Long, 2006)

STATION: EC_25_PSDA

FRACTIONAL DATA

Aperture [µm]	Aperture [phi]	Fractional [%]	Cumulative [%]
63 000	-6.00	0.00	0.00
45 000	-5.50	0.00	0.00
31 500	-5.00	0.00	0.00
22 400	-4.50	0.15	0.15
16 000	-4.00	10.71	10.86
11 200	-3.50	6.44	17.30
8000	-3.00	5.60	22.90
5600	-2.50	4.04	26.94
4000	-2.00	4.33	31.27
2800	-1.50	3.38	34.65
2000	-1.00	3.83	38.48
1400	-0.50	3.17	41.65
1000	0.00	2.81	44.45
*707.11	*0.50	7.67	52.12
*500.00	*1.00	10.35	62.47
*353.55	*1.50	11.14	73.61
*250.00	*2.00	9.53	83.14
*176.78	*2.50	6.34	89.48
*125.00	*3.00	3.10	92.58
*88.39	*3.50	1.04	93.62
*62.50	*4.00	0.36	93.98
*44.19	*4.50	0.39	94.36
*31.25	*5.00	0.49	94.85
*22.10	*5.50	0.49	95.34
*15.63	*6.00	0.47	95.81
*11.05	*6.50	0.51	96.32
*7.81	*7.00	0.60	96.92
*5.52	*7.50	0.66	97.58
*3.91	*8.00	0.65	98.23
*2.76	*8.50	0.57	98.80
*1.95	*9.00	0.44	99.23
*1.38	*9.50	0.31	99.54
*0.98	*10.00	0.22	99.76
*< 0.98	*> 10.00	0.24	100.00
Total		100.00	-

PARTICLE SIZE DISTRIBUTION



SUMMARY STATISTICS

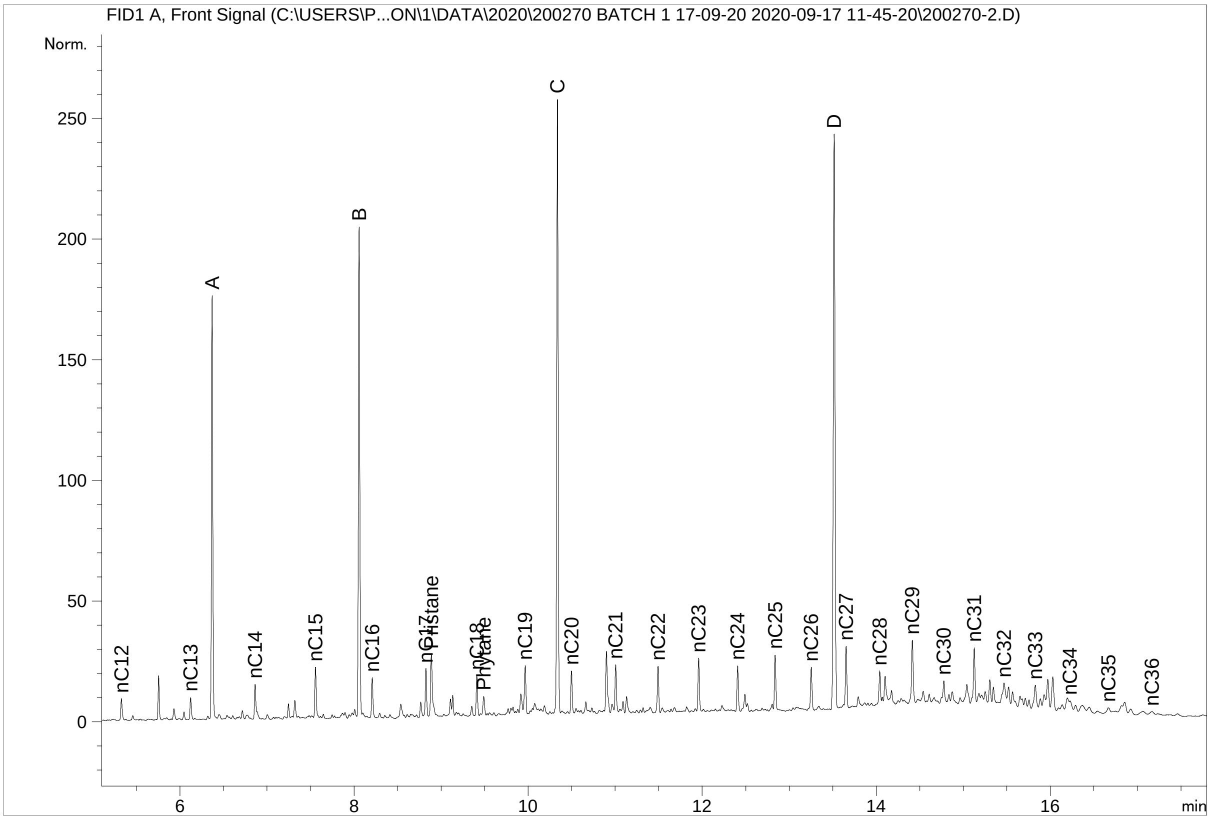
Mode 1 [µm]†	427	Medium sand
Mode 2 [µm]†	19200	Coarse pebble
Mode 3 [µm]†	4800	Fine pebble
Median [µm]†	778	Coarse sand
Median [phi]†	0.36	
Mean [µm]‡	1307	Very coarse sand
Mean [phi]‡	-0.39	
Sorting [µm]‡	7.17	Very poorly sorted
Sorting [phi]‡	2.84	
Skewness [µm]‡	0.19	Coarse skewed
Skewness [phi]‡	-0.19	
Gravel [%]#	38.48	Sandy gravel
Sand [%]#	55.50	
Fines [%]#	6.02	

Notes
Particle Size Distribution by Dry Sieving (63 000 µm - 1000 µm) and Laser Diffraction* (< 1000 µm - < 0.98 µm) at 0.5 phi Intervals
* = Determinand not included in UKAS Accreditation
† = Particle size expressed in accordance with Wentworth (1922) scale
‡ = Statistics calculated using Folk and Ward (1957) method
# = Description based on BGS modified Folk classification (Long, 2006)

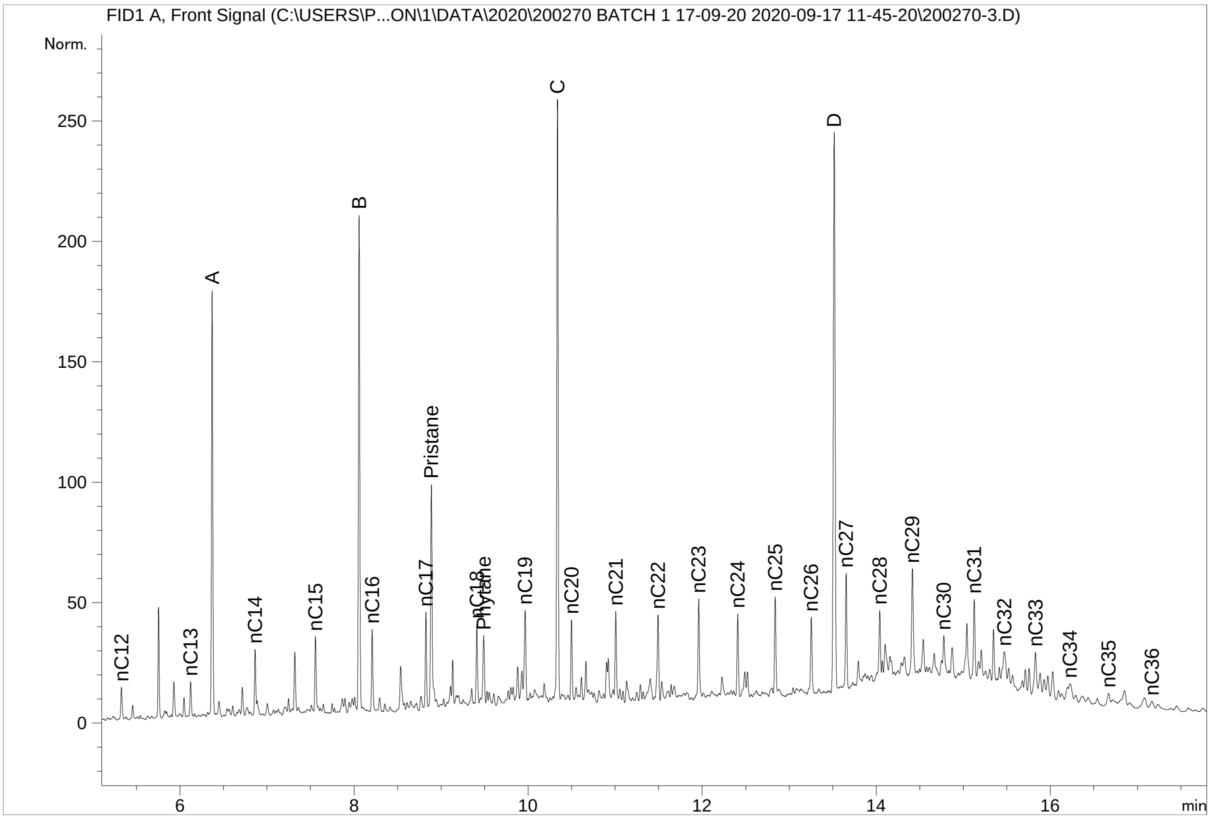
Appendix E

Chemistry Information

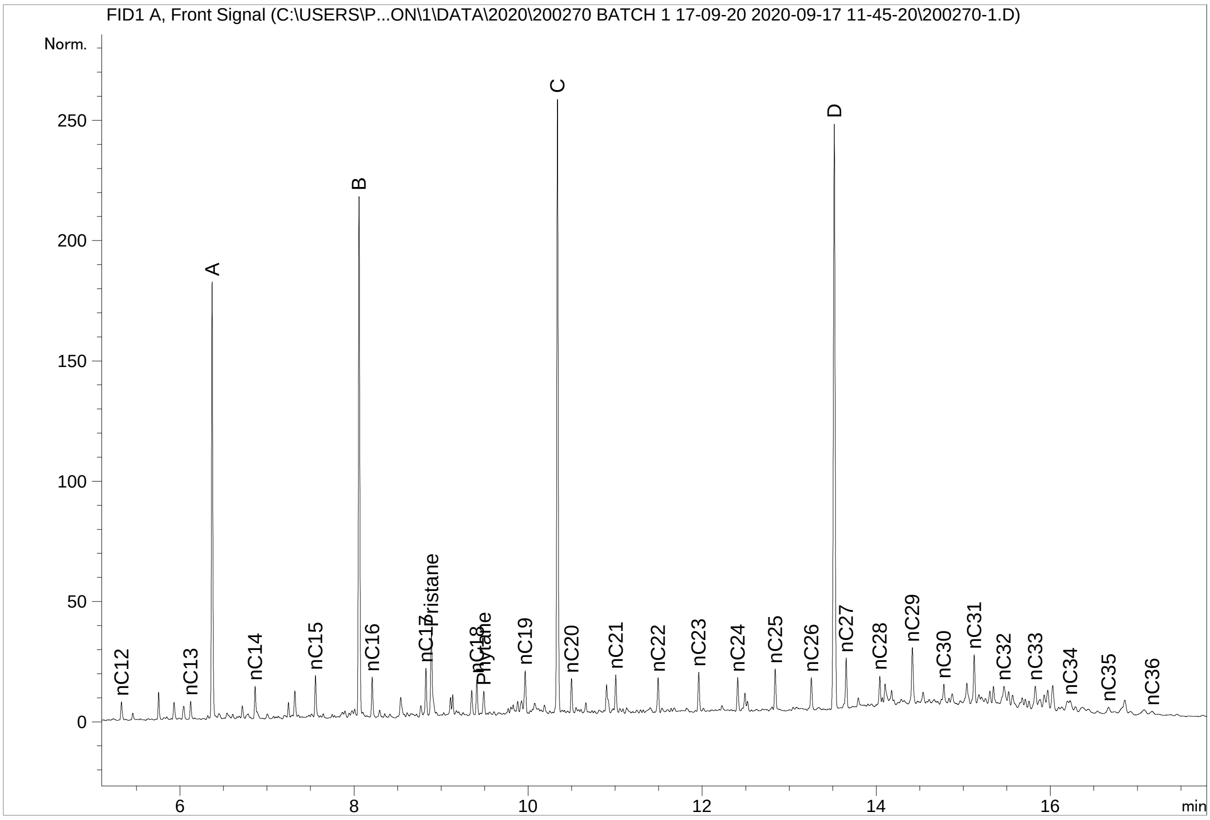
E.1 Gas Chromatography Traces



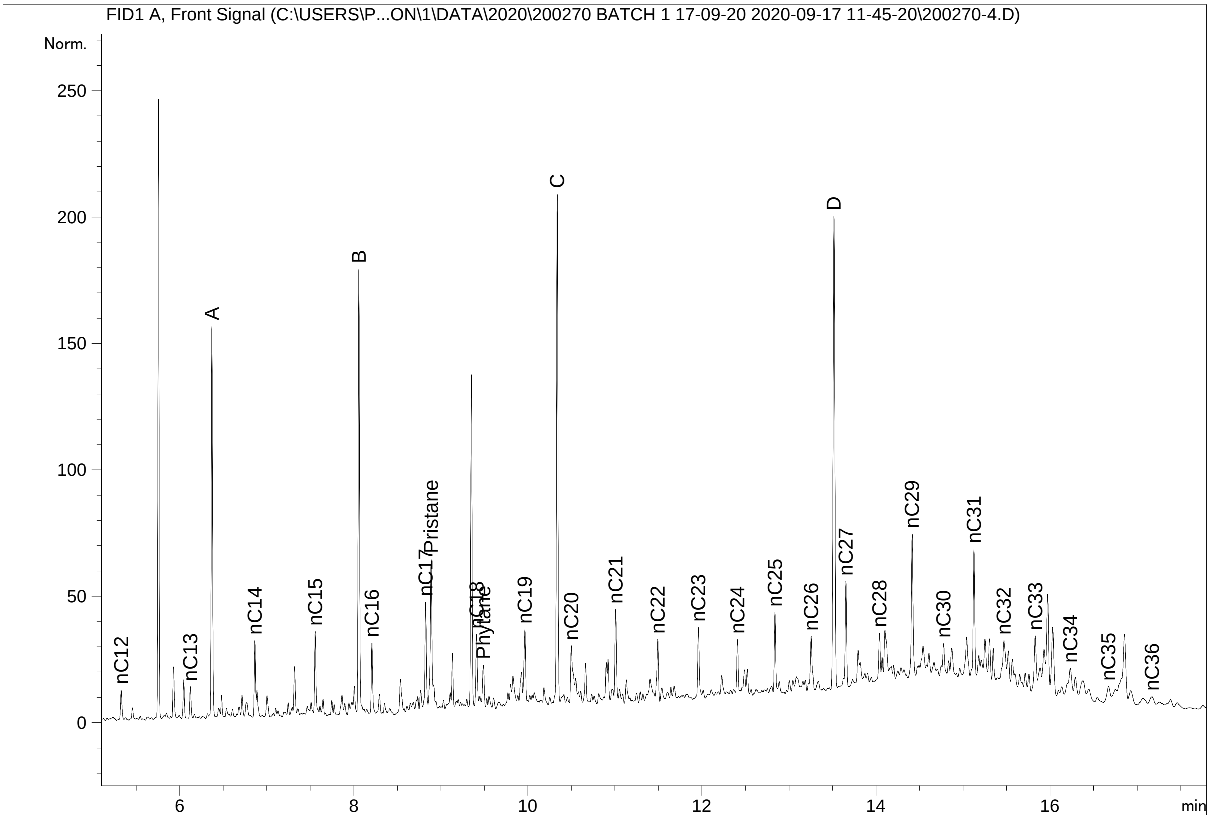
Station D_17



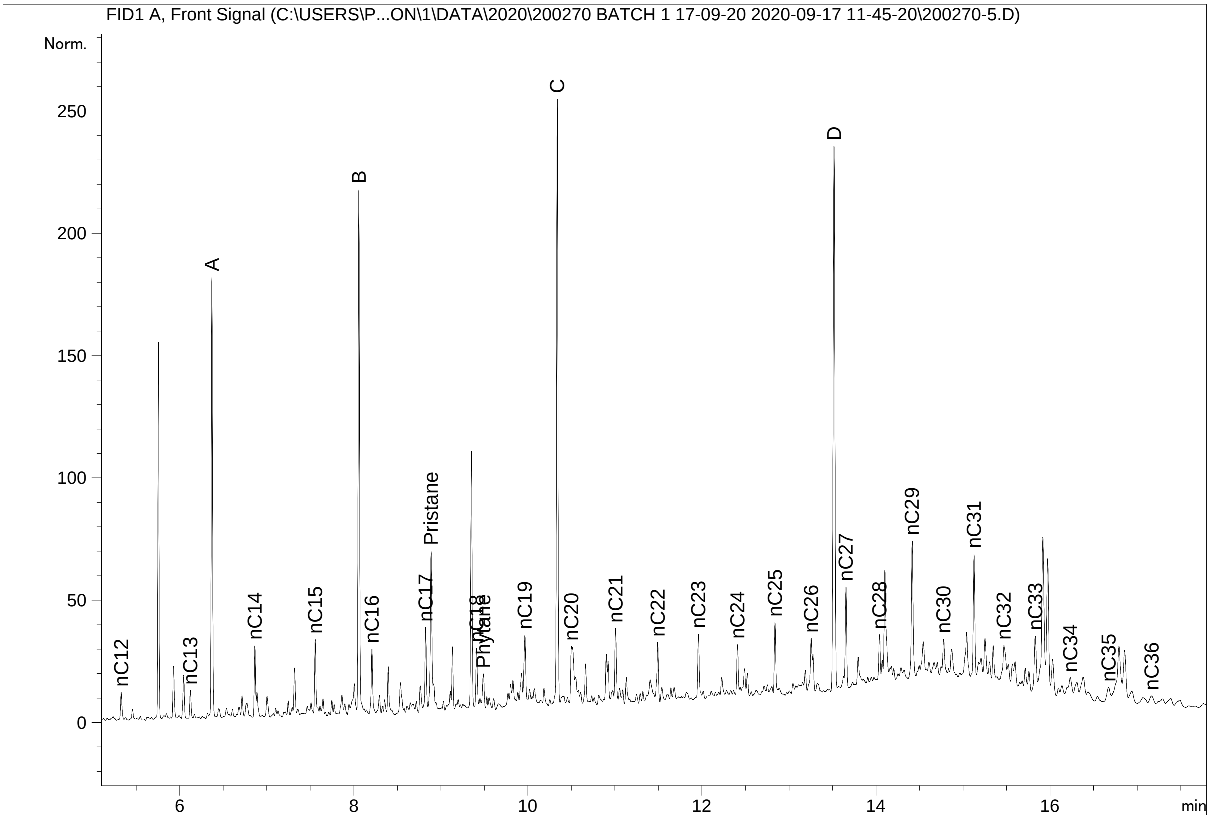
Station D_26



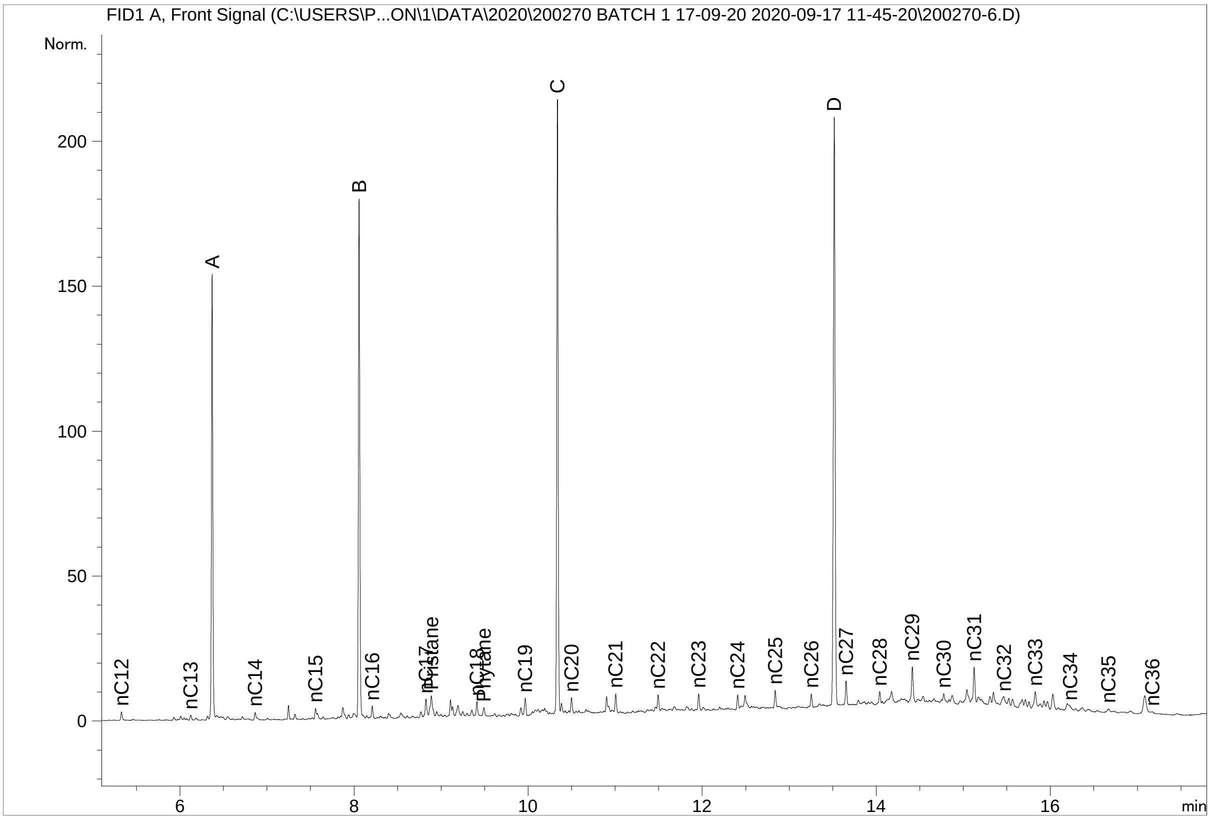
Station CC_06



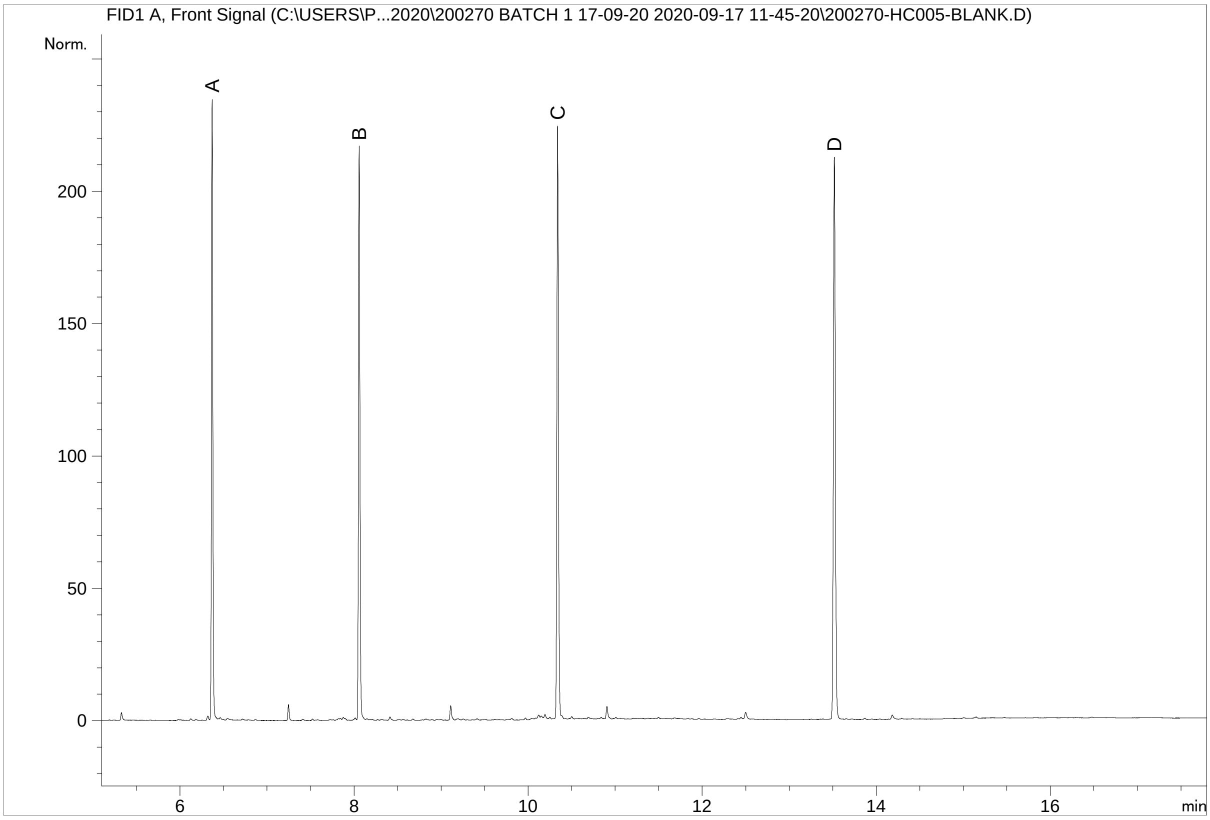
Station EC_04



Station EC_05



Station EC_15


FID1 A, Front Signal (C:\USERS\P...2020\200270 BATCH 1 17-09-20 2020-09-17 11-45-20\200270-HC005-BLANK.D)
Norm.
A
B
C
D
200
150
100
50
0
6
8
10
12
14
16
min

Blank

E.2 Individual n-Alkanes

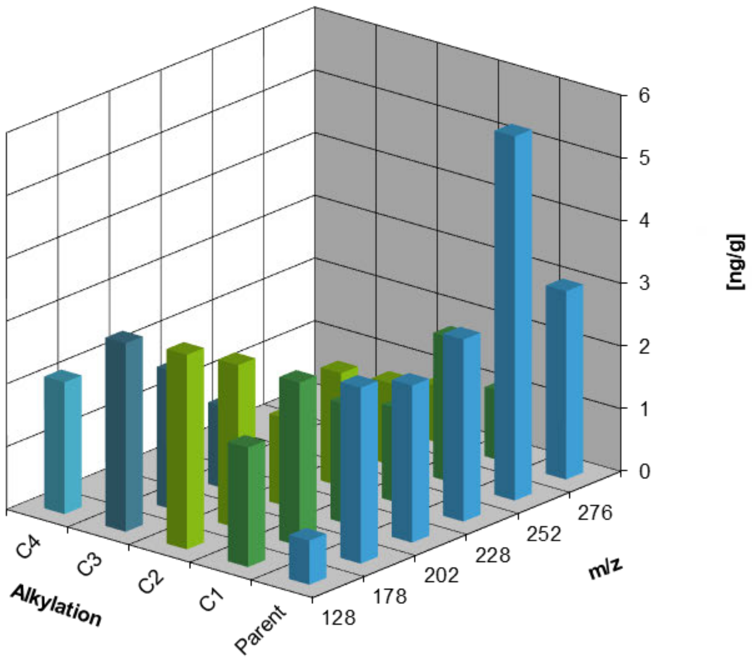
n-Alkane [ng/g]	Station					
	D_17	D_26	CC_06	EC_04	EC_05	EC_15
nC_{12}	4.7	7.0	3.8	7.1	5.8	1.9
nC_{13}	4.8	7.1	3.8	7.4	5.6	1.1
nC_{14}	7.5	13.5	7.0	16.6	13.8	1.6
nC_{15}	11.0	16.0	8.8	19.0	14.9	2.4
nC_{16}	8.9	17.1	8.6	16.7	13.9	2.3
nC_{17}	9.7	18.4	9.8	24.1	16.1	3.7
nC_{18}	7.9	14.9	7.0	16.8	11.4	2.8
nC_{19}	10.3	20.8	9.1	18.6	15.1	3.7
nC_{20}	8.2	15.0	6.7	20.3	9.5	3.0
nC_{21}	8.2	14.3	6.5	18.3	13.8	3.1
nC_{22}	8.6	17.1	6.6	14.2	12.2	2.8
nC_{23}	9.3	17.4	7.1	14.3	11.7	3.0
nC_{24}	7.9	14.0	5.9	9.9	8.9	2.5
nC_{25}	9.6	17.0	7.2	15.3	13.7	3.0
nC_{26}	7.8	14.3	6.2	11.8	9.3	2.3
nC_{27}	11.1	19.8	9.1	21.6	19.1	4.3
nC_{28}	6.0	11.9	4.9	9.6	8.0	2.1
nC_{29}	13.6	23.0	12.7	35.9	32.5	7.5
nC_{30}	4.2	7.6	3.9	7.4	6.7	1.6
nC_{31}	10.4	14.2	9.6	27.0	24.2	6.8
nC_{32}	5.3	6.0	4.9	12.5	6.3	2.1
nC_{33}	5.6	9.6	5.8	14.4	13.5	3.3
nC_{34}	2.4	4.8	2.6	8.5	4.1	1.4
nC_{35}	1.6	3.4	1.9	6.9	4.0	1.1
nC_{36}	1.2	2.4	1.1	4.1	3.4	0.4
Total n-alkane [µg/g]	**0.186**	**0.326**	**0.160**	**0.378**	**0.297**	**0.070**
Pristane [ng/g]	**16.2**	**51.6**	**19.2**	**41.0**	**37.3**	**5.3**
Phytane [ng/g]	**4.2**	**15.7**	**5.2**	**11.0**	**7.5**	**1.8**

Notes
Individual n-alkane, pristane and phytane concentrations expressed as ng/g of dry sediment
Total n-alkane concentrations expressed as µg/g of dry sediment

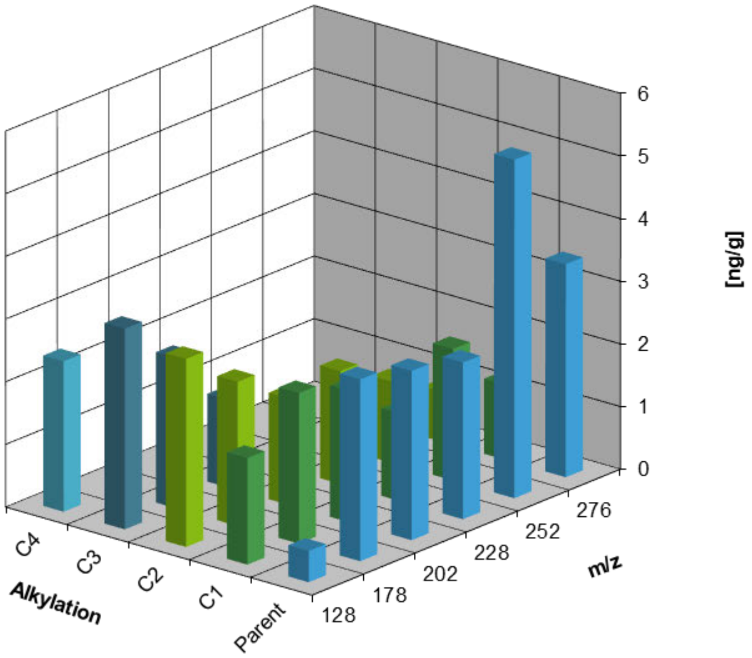
E.3 Distribution of Aromatic Hydrocarbons

The layout of the three-dimensional plots are as follows:

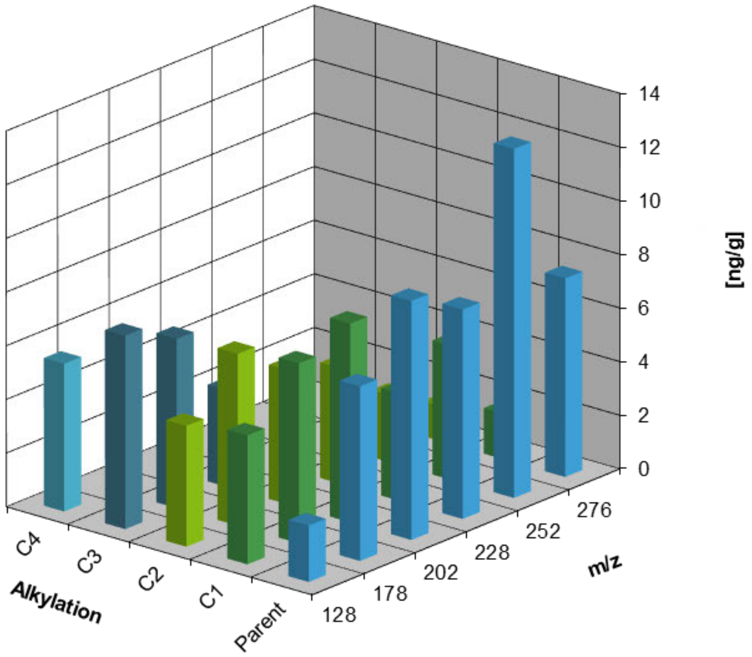
- Naphthalenes (molecular mass 128, 142, 156, 170, 184);
- Phenanthrenes/anthracenes (molecular mass 178, 192, 206, 220);
- Fluoranthenes/pyrenes (molecular mass 202, 216, 230, 244);
- Chrysene/benzanthracenes (molecular mass 228, 242, 256);
- Benzfluoranthenes/benzpyrenes/perylenes (molecular mass 252, 266, 280);
- Anthanthrenes/indenopyrenes/benzoperylenes (molecular mass 276, 290, 304).



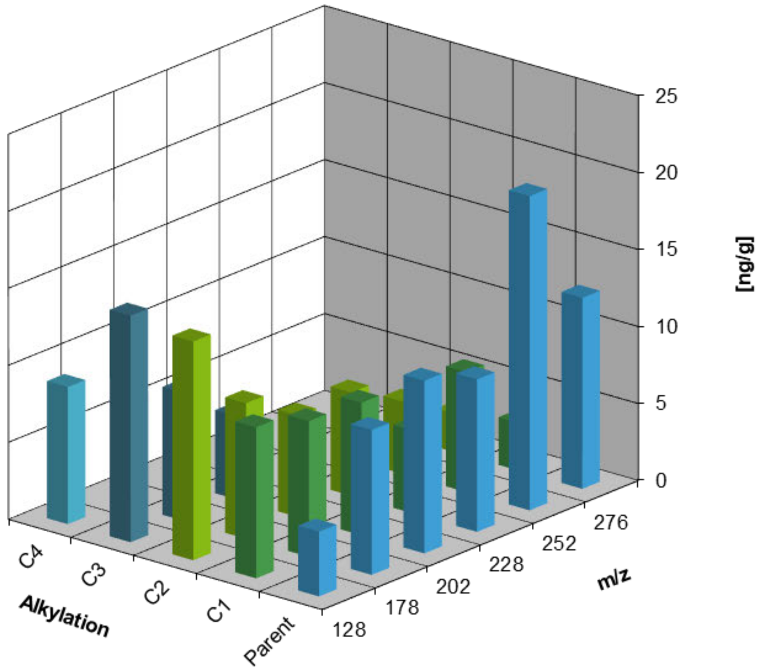
Station CC_06



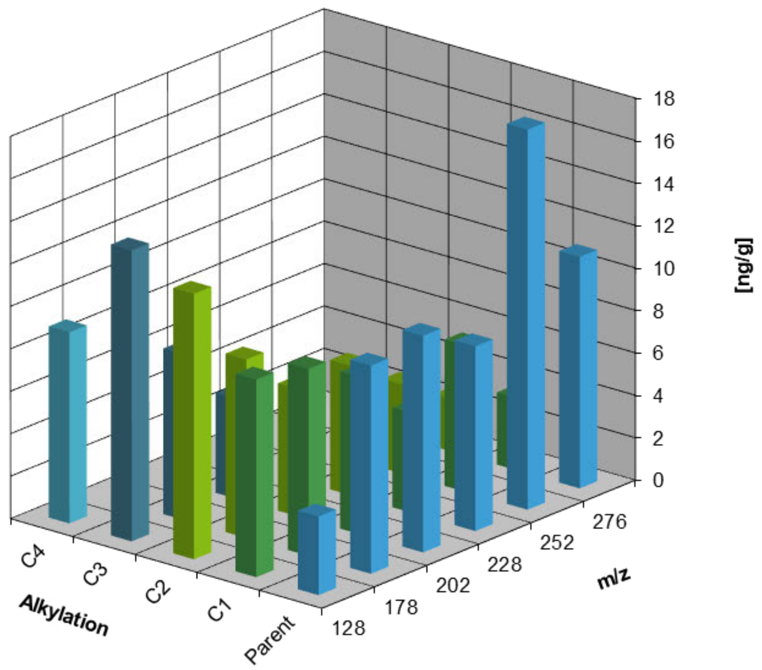
Station D_17



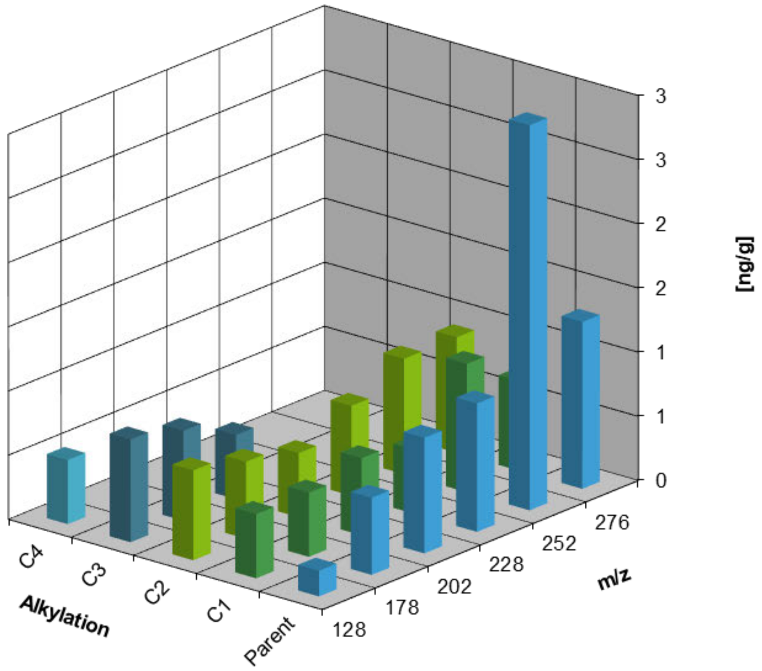
Station D_26



Station EC_04



Station EC_05



Station EC_15

Appendix F

Macrofaunal Analysis

F.1 Macrofaunal Abundance

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
CNIDARIA																					
ATHENARIA	Carlgren, 1899	1																			
Edwardsiidae	Andres, 1881	3								2											
PLATYHELMINTHES	Minot, 1876												1	3							
NEMERTEA	-	1	5		3	2		2		2	2	15	2	4	7	1	1	2	1	2	
SIPUNCULA																					
Golfingia elongata	(Keferstein, 1862)																				
Golfingia vulgaris	(de Blainville, 1827)																				
Nephasoma minutum	(Keferstein, 1862)		3		1				8	10	4	8	4	4		28		15	3		
Thysanocardia procera	(Möbius, 1875)																				
ANNELIDA																					
Pisione remota	(Southern, 1914)							1													
Gattyana cirrhosa	(Pallas, 1766)									1				1	1			4			
Harmothoe	**Kinberg, 1856**	1	3		1		1						1	1				2	1		
Malmgrenia arenicolae	(Saint-Joseph, 1888)																				
Malmgrenia darbouxi	(Pettibone, 1993)																				
Lepidonotus squamatus	(Linnaeus, 1758)																		1		
Pholoe baltica	Örsted, 1843											2		2				1			
Pholoe inornata	Johnston, 1839									1		3									
Sthenelais boa	(Johnston, 1833)																				
Eteone longa	(Fabricius, 1780)	1	1							2	1	3		1		1		6	1		
Hesionura elongata	(Southern, 1914)																				
Hypereteone foliosa	(Quatrefages, 1865)																				
Phyllodoce groenlandica	Örsted, 1842																				

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Phyllodoce maculata	(Linnaeus, 1767)	1	1									1							1		
Phyllodoce rosea	(McIntosh, 1877)																				
Eulalia aurea	Gravier, 1896																				
Eulalia bilineata	(Johnston, 1840)													1							
Eulalia expusilla	Pleijel, 1987																				
Eulalia mustela	Pleijel, 1987					1					1										1
Eulalia viridis	(Linnaeus, 1767)													1							
Eumida	Malmgren, 1865																				
Eumida bahusiensis	Bergstrom, 1914									1		1			1	1					
Eumida sanguinea	(Örsted, 1843)		5		4	2							1	2				5			
Glycera lapidum	Quatrefages, 1866	1			1	2		3			2						2	2	2	3	
Glycera oxycephala	Ehlers, 1887				2				1					2						1	
Glycinde nordmanni	(Malmgren, 1866)											1	1								
Sphaerodorum gracilis	(Rathke, 1843)												1								
Psamathe fusca	Johnston, 1836																				
Nereimyra punctata	(Müller, 1788)																				
Syllis armillaris	(O.F. Müller, 1776)	1	4																1		
Syllis garciai	(Campoy, 1982)					1															
Syllis licheri	Ravara, San Martín & Moreira, 2004							1													
Syllis parapari	San Martín & López, 2000																				
Syllis variegata	Grube, 1860	2	7												1			1			
Amblyosyllis spectabilis	(Johnston in Baird, 1861)																				
Eusyllis blomstrandi	Malmgren, 1867		1		1							2							2		
Odontosyllis fulgurans	(Audouin & Milne Edwards, 1833)		1															1			
Streptodonta pterochaeta	(Southern, 1914)														1						
Synmerosyllis lamelligera	(Saint-Joseph, 1887)																				
Streptosyllis campoyi	Brito, Núñez & San Martín, 2000																				

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Syllides japonicus	Imajima, 1966																				
Parexogone hebes	(Webster & Benedict, 1884)	1																1			
Exogone naidina	Örsted, 1845																				
Exogone verugera	(Claparède, 1868)	2							1	1		1			3		1	1			
Sphaerosyllis bulbosa	Southern, 1914					10	2	1													
Sphaerosyllis cf. *taylori*	Perkins, 1981																				
Proceraea scapularis	(Claparède, 1864)																				
Myrianida	Milne Edwards, 1845		3										1	1					1		
Procerastea halleziana	Malaquin, 1893																		1		
Rullierinereis ancornunezi	Núñez & Brito, 2006																1				
Eunereis longissima	(Johnston, 1840)											4		2							
Nephtys caeca	(Fabricius, 1780)						1			1			1								
Nephtys cirrosa	Ehlers, 1868																				1
Nephtys hombergii	Savigny in Lamarck, 1818																				
Nephtys longosetosa	Örsted, 1842																				
Paucibranchia totospinata	(Lu & Fauchald, 1998)																				
Lumbrineris nr. *cingulata*	Blainville, 1828	1	5									2	3					3	1	1	
Lumbrineris futilis	Kinberg, 1865					2		1													
Protodorvillea kefersteini	(McIntosh, 1869)																				
Schistomeringos neglecta	(Fauvel, 1923)							15							1					6	
Orbinia armandi	(McIntosh, 1910)																				
Scoloplos armiger	(Müller, 1776)											1									
Aricidea minuta	Southward, 1956																				
Poecilochaetus serpens	Allen, 1904	3	7							8	5	20	8	13	2	2		5		1	
Aonides paucibranchiata	Southern, 1914			1	3						3	4	5	3	1		1	1	1	2	
Laonice bahusiensis	Söderström, 1920		1											1							
Dipolydora sp. A	Verrill, 1881	1	2									1		4		1		1			

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Dipolydora caulleryi	(Mesnil, 1897)				1							1	3	1				1			
Polydora ciliata	(Johnston, 1838)				2																
Dipolydora flava	(Claparède, 1870)	1	2						1	1		1	3	2							
Dipolydora saintjosephi	(Eliason, 1920)										1		1						1		
Pseudopolydora pulchra	(Carazzi, 1893)	1	1													1					
Pygospio elegans	Claparède, 1863		1						1			1									
Scolelepis bonnieri	(Mesnil, 1896)																				
Scolelepis foliosa	(Audouin & Milne Edwards, 1833)																				
Scolelepis tridentata	(Southern, 1914)															1					
Spio symphyta	Meißner, Bick & Bastrop, 2011																1			2	
Spio goniocephala	Thulin, 1957						1		2	8					2						3
Spio armata	(Thulin, 1957)		1									2	1	1	3			7			1
Spio decorata	Bobretzky, 1870														1						
Spiophanes bombyx	(Claparède, 1870)													1	6	1					
Spiophanes kroyeri	Grube, 1860																	1			
Magelona mirabilis	(Johnston, 1865)																				
Aphelochaeta sp. A	Blake, 1991		1															1			
Aphelochaeta	Blake, 1991								1			1									
Aphelochaeta marioni	(Saint-Joseph, 1894)	1											1	1				1			
Caulleriella alata	(Southern, 1914)												1								
Chaetozone zetlandica	McIntosh, 1911	1	1		2					3				1		1					
Chaetozone christiei	Chambers, 2000																				
Cirratulus incertus	McIntosh, 1916																				
Cirriformia tentaculata	(Montagu, 1808)												1								
Dodecaceria	Örsted, 1843		1									2									
Capitella	Blainville, 1828																				
Heteromastus filiformis	(Claparède, 1864)								1												

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Mediomastus fragilis	Rasmussen, 1973	2			1		1		1	2			1	2					2		
Notomastus	M. Sars, 1851	3	14		8						1	14	10	9			1	5		2	
Peresiella clymenoides	Harmelin, 1968																				
Leiochone	Grube, 1868	14	4		3				6	5	11	18	21	11	4	10		12	27		1
Euclymene oerstedii	(Claparède, 1863)																				
Praxillella affinis	(M. Sars in G.O. Sars, 1872)											1	1	1		4		2			
Praxillella gracilis	(M. Sars, 1861)																				
Micromaldane ornithochaeta	Mesnil, 1897		1									4	3	1							
Thoracophelia flabellifera	Ziegelmeier, 1955																				
Ophelia borealis	Quatrefages, 1866					3	3	11			3			4	1		1				73
Travisia forbesii	Johnston, 1840						2														5
Scalibregma celticum	Mackie, 1991	1	1							1		2						3			
Scalibregma inflatum	Rathke, 1843	1										1	1								
Polygordius	Schneider, 1868							1													
Galathowenia oculata	(Zachs, 1923)		1			2				2			1			1					
Owenia borealis	Koh, Bhaud & Jirkov, 2003											2		1							
Lagis koreni	Malmgren, 1866													1							
Sabellaria spinulosa	(Leuckart, 1849)	4	15		1		1		5	3	1	18	26	29	4	3		3	3		
Ampharete baltica	Eliason, 1955																				
Ampharete lindstroemi	Malmgren, 1867 sensu Hessle, 1917																				
Pista maculata	(Dalyell, 1853)		3									2									
Lanice conchilega	(Pallas, 1766)	4	5		4					1		4	3	1	3	7		9	5		
Nicolea venustula	(Montagu, 1819)		1																		
Lysilla nivea	Langerhans, 1884	2	1		2	1			1	1	2	1		2	1	2	2				1
Polycirrus	Grube, 1850	10	19		4	3	1		1	5		3	2	2	7	3	1	7	2		1
Thelepus cincinnatus	(Fabricius, 1780)											1		1							
Parasabella cambrensis	(Knight-Jones & Walker, 1985)																				

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Pseudopotamilla cf. *reniformis*	(Bruguière, 1789)		2																1		
Sabella discifera	Grube, 1874		2																2		
Sabella pavonina	Savigny, 1822	1												1							
Hydroides norvegica	Gunnerus, 1768									1		4	3	3	1				2		
Spirobranchus lamarcki	(Quatrefages, 1866)	2	4							3	1	8	6	5				8	3		
Spirobranchus triqueter	(Linnaeus, 1758)												5	5					2		
Tubificoides	Lastočkin, 1937																				
Grania	Southern, 1913																				
ARTHROPODA																					
Nymphon brevirostre	Hodge, 1863		18							1		2	3	1					3		
Achelia echinata	Hodge, 1864		18							6	3	7	6	6				1	1		
Callipallene brevirostris	(Johnston, 1837)									1		1	1	2					1		
Anoplodactylus petiolatus	(Krøyer, 1844)									2	1	3		4		4					
Pycnogonum litorale	(Strøm, 1762)																				
Nebalia kocatasi	Moreira, Kocak & Katagan, 2007																				
Nebalia reboredae	Moreira & Urgorri, 2009																				
Nebalia troncosoi	Moreira, Cacabelos & Dominguez, 2003																				
Gastrosaccus spinifer	(Goës, 1864)			1	1						1										2
Apherusa bispinosa	(Spence Bate, 1857)																				
Perioculodes longimanus	(Spence Bate & Westwood, 1868)																				
Pontocrates	Boeck, 1871																				
Pontocrates arenarius	(Spence Bate, 1858)																				
Synchelidium maculatum	Stebbing, 1906															1					
Parapleustes bicuspis	(Krøyer, 1838)		4										2						1		
Leucothoe incisa	Robertson, 1892				1					2	1	1		2	3	2		8			
Leucothoe procera	Spence Bate, 1857									2											
Stenothoe marina	(Spence Bate, 1857)																				

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Urothoe brevicornis	Spence Bate, 1862																				
Urothoe elegans	Spence Bate, 1857	1			1					10		2	3	3	1	10					
Urothoe marina	(Spence Bate, 1857)	1	1			1	1	3			2	4	3	4	4	1	2	4	1		
Phoxocephalus holbolli	(Krøyer, 1842)																				
Acidostoma neglectum	Dahl, 1964																				
Hippomedon denticulatus	(Spence Bate, 1857)																		1		
Orchomene humilis	(Costa, 1853)																				
Tryphosa nana	(Krøyer, 1846)																				
Tmetonyx similis	(G.O. Sars, 1891)					1												1	3		
Tryphosella sarsi	Bonnier, 1893																		1		
Iphimedia minuta	G.O. Sars, 1883																		3		
Iphimedia nexa	Myers & McGrath, in Myers, McGrath & Costello, 1987	1											1						1		
Iphimedia obesa	Rathke, 1843								1				2								
Nototropis guttatus	Costa, 1853																				
Nototropis swammerdamei	(H. Milne Edwards, 1830)								1												
Nototropis vedlomensis	(Spence Bate & Westwood, 1862)				1					1	1		1	1		1			3	2	1
Ampelisca brevicornis	(Costa, 1853)																				
Ampelisca diadema	(Costa, 1853)		3									3	1	3				1		1	
Ampelisca spinipes	Boeck, 1861	16	3		2					2	1			2	4	30		3	16		
Ampelisca typica	(Spence Bate, 1856)										1					1					
Bathyporeia elegans	Watkin, 1938											1									
Bathyporeia guilliamsoniana	(Spence Bate, 1857)																				
Abludomelita obtusata	(Montagu, 1813)								1			1									
Cheirocratus	Norman, 1867	8	1		1					4		2	1	1	9	1	1	7	3		
Othomaera othonis	(H. Milne Edwards, 1830)	1																			
Maerella tenuimana	(Spence Bate, 1862)																				
Megamphopus cornutus	Norman, 1869	1																			

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Gammaropsis maculata	(Johnston, 1828)		3																2		
Ericthonius	**H. Milne Edwards, 1830**		2				1			1			2								
Aoridae (excl. *Leptocheirus*)	**Stebbing, 1899**																				
Leptocheirus hirsutimanus	(Spence Bate, 1862)	15	5		2					8	3	5	2	6	13	2		28	5		
Leptocheirus pectinatus	(Norman, 1869)		1		1													1			
Monocorophium acherusicum	(Costa, 1853)		3									3	1	1				1	1		
Centraloecetes kroyeranus	(Spence Bate, 1857)																				
Unciola crenatipalma	(Spence Bate, 1862)		5		2				2			4		2				3			
Phtisica marina	Slabber, 1769		2		3							2	1	3					1		
Pseudoprotella phasma	(Montagu, 1804)		2								1	4	1	3					4		
Gnathia	**Leach, 1814**		1											12				2			
Eurydice spinigera	Hansen, 1890						3								2						1
Prodajus ostendensis	Gilson, 1909																				
Bopyridae	Rafinesque, 1815																	1			
Pseudoparatanais batei	(Sars, 1882)											2									
Tanaopsis graciloides	(Lilljeborg, 1864)																				
Bodotria scorpioides	(Montagu, 1804)																				
Diastylis	Say, 1818																				
Hippolyte varians	Leach, 1814 [in Leach, 1813-1815]		1									3	2								
Eualus cranchii	(Leach, 1817 [in Leach, 1815-1875])																		1		
Processa edulis crassipes	Nouvel & Holthuis, 1957																				
Pandalina brevirostris	(Rathke, 1843)										1	1	1	1							
Crangon crangon	(Linnaeus, 1758)																				
Philocheras fasciatus	(Risso, 1816)											1									
Philocheras trispinosus	(Hailstone in Hailstone & Westwood, 1835)																				
Axius stirhynchus	Leach, 1816																	1			
Callianassa subterranea	(Montagu, 1808)																				

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Upogebia deltaura	(Leach, 1816)																	1			
Anapagurus hyndmanni	(Bell, 1845)	1																			
Pagurus bernhardus	(Linnaeus, 1758)				1																
Pagurus cuanensis	Bell, 1845									1		1	2	3				2			
Galathea intermedia	Lilljeborg, 1851	8	9		6					1		33	12	17				21	10		
Pisidia longicornis	(Linnaeus, 1767)	6	15		1						1	24	14	7					50		1
Ebalia tumefacta	(Montagu, 1808)																				
Hyas araneus	(Linnaeus, 1758)		1																		
Inachus leptochirus	Leach, 1817 [in Leach, 1815-1875]											1									
Macropodia rostrata	(Linnaeus, 1761)		1																		
Pirimela denticulata	(Montagu, 1808)																				
Cancer pagurus	Linnaeus, 1758																	1			
Liocarcinus depurator	(Linnaeus, 1758)																				
Liocarcinus holsatus	(Fabricius, 1798)																				
Liocarcinus pusillus	(Leach, 1816)																				
Pinnotheres pisum	(Linnaeus, 1767)																				
COLLEMBOLA	-																				
MOLLUSCA																					
Leptochiton asellus	(Gmelin, 1791)									1	1	3	1					2	1		
Gibbula tumida	(Montagu, 1803)	1			3			1		1	3							2	1		
Steromphala cineraria	(Linnaeus, 1758)												4	4							
Calliostoma zizyphinum	(Linnaeus, 1758)											1									
Lacuna crassior	(Montagu, 1803)																				
Rissoa parva	(da Costa, 1778)		95							1	3	1	18	1					4		1
Onoba semicostata	(Montagu, 1803)		5															4			
Hyala vitrea	(Montagu, 1803)																				
Crepidula fornicata	(Linnaeus, 1758)	8	23		73	2				75	45	109	154	206	4	5		81	10		

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Trivia monacha	(da Costa, 1778)		1																		
Euspira nitida	(Donovan, 1803)																				
Aclis minor	(T. Brown, 1827)																				
Ocenebra erinaceus	(Linnaeus, 1758)																		1		
Buccinum undatum	Linnaeus, 1758																				
Tritia incrassata	(Strøm, 1768)											1	1					1			
Propebela rufa	(Montagu, 1803)																				
Cyrillia linearis	(Montagu, 1803)																				
Odostomia acuta	Jeffreys, 1848																				
Retusa obtusa	(Montagu, 1803)																				
Dendronotus	Alder & Hancock, 1845		4											2							
Doto	Oken, 1815		6										2								
Goniodoris nodosa	(Montagu, 1808)		2							1											
Onchidoris bilamellata	(Linnaeus, 1767)	6										7	5	6				1	1		
Facelina	Alder & Hancock, 1855																				
Nucula nucleus	(Linnaeus, 1758)														1						
Mytilus edulis	Linnaeus, 1758																				
Modiolus modiolus	(Linnaeus, 1758)																				
Modiolula phaseolina	(Philippi, 1844)									1	1	1		3					1		
Musculus subpictus	(Cantraine, 1835)											1									
Heteranomia squamula	(Linnaeus, 1758)																	1			
Lucinoma borealis	(Linnaeus, 1767)																				
Tellimya ferruginosa	(Montagu, 1808)																				
Kurtiella bidentata	(Montagu, 1803)											1									
Goodallia triangularis	(Montagu, 1803)			8		79	52	93	2								3				
Spisula elliptica	(T. Brown, 1827)				3								1	1	1	2		1	3		
Spisula solida	(Linnaeus, 1758)																				

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Spisula subtruncata	(da Costa, 1778)																	1			
Ensis magnus	Schumacher, 1817																				
Phaxas pellucidus	(Pennant, 1777)																				
Macomangulus tenuis	(da Costa, 1778)																				
Fabulina fabula	(Gmelin, 1791)																				
Abra alba	(W. Wood, 1802)									7	1	3	6	3				3			
Abra prismatica	(Montagu, 1808)																	1			
Timoclea ovata	(Pennant, 1777)										1	1						2			
Polititapes rhomboides	(Pennant, 1777)											1	1	1							
Venerupis corrugata	(Gmelin, 1791)											1									
Mya truncata	Linnaeus, 1758																				
Hiatella arctica	(Linnaeus, 1767)		3			1						3	6	2				1	1		
PHORONIDA																					
Phoronis	Wright, 1856	16	1							1	3	3	7	2					1		
ECHINODERMATA																					
Crossaster papposus	(Linnaeus, 1767)																				
Amphipholis squamata	(Delle Chiaje, 1828)	3	15					1		5	2	15	20	5				6	1		
Ophiura albida	Forbes, 1839																				
Ophiura ophiura	(Linnaeus, 1758)																				
Echinocyamus pusillus	(O.F. Müller, 1776)																				
Echinocardium cordatum	(Pennant, 1777)																				
Neopentadactyla mixta	(Östergren, 1898)																				
ENTEROPNEUSTA	Gegenbaur, 1870																				
Number of taxa		45	67	3	34	16	13	13	18	46	35	77	66	73	30	29	13	61	56	11	14
Abundance		161	384	10	146	113	70	134	37	200	115	423	411	452	93	128	18	305	204	23	93
The following taxa (highlighted in bold) were merged for statistical analysis																					
Harmothoe	Kinberg, 1856	1			1		1														

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Harmothoe clavigera	(M. Sars, 1863)													1							
Harmothoe extenuata	(Grube, 1840)																				
Harmothoe fraserthomsoni	McIntosh, 1897																				
Harmothoe glabra	(Malmgren, 1865)																	1			
Harmothoe impar	(Johnston, 1839)		3										1					1	1		
Harmothoe	**Kinberg, 1856**	**1**	**3**		**1**		**1**						**1**	**1**				**2**	**1**		
Leiochone	Grube, 1868	6	2						4	2	4	11	14	6	4	6		4	19		1
Leiochone tricirrata	Bellan & Reys, 1967	8			3								1			4			1		
Leiochone johnstoni	McIntosh, 1915		2						2	3	7	7	6	5				8	7		
Leiochone leiopygos	(Grube, 1860)																				
Leiochone	**Grube, 1868**	**14**	**4**		**3**				**6**	**5**	**11**	**18**	**21**	**11**	**4**	**10**		**12**	**27**		**1**
Polycirrus	Grube, 1850	4	5				1		1	3		1		1	2		1	2	1		1
Polycirrus denticulatus	Saint-Joseph, 1894	3	14		1					2		2	2	1	5			2	1		
Polycirrus medusa	Grube, 1850	3			3	3										3		3			
Polycirrus	**Grube, 1850**	**10**	**19**		**4**	**3**	**1**		**1**	**5**		**3**	**2**	**2**	**7**	**3**	**1**	**7**	**2**		**1**
Cheirocratus	Norman, 1867																	1			
Cheirocratus	Norman, 1867	4			1					1		2		1	6	1	1	6	2		
Cheirocratus robustus	G.O. Sars, 1894									1									1		
Cheirocratus assimilis	(Lilljeborg, 1852)	2	1							2					3						
Cheirocratus intermedius	G.O. Sars, 1894																				
Cheirocratus sundevallii	(Rathke, 1843)	2											1								
Cheirocratus	**Norman, 1867**	**8**	**1**		**1**					**4**		**2**	**1**	**1**	**9**	**1**	**1**	**7**	**3**		
Ericthonius	H. Milne Edwards, 1830		2																		

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Ericthonius	H. Milne Edwards, 1830									1			1								
Ericthonius punctatus	(Spence Bate, 1857)						1						1								
Ericthonius	**H. Milne Edwards, 1830**		2				1			1			2								
Aoridae	Stebbing, 1899																				
Aoridae	Stebbing, 1899																				
Aora gracilis	(Spence Bate, 1857)																				
Aoridae (excl. *Leptocheirus*)	**Stebbing, 1899**																				
Gnathia	Leach, 1814																				
Gnathia dentata	(G. O. Sars, 1872)																				
Gnathia oxyuraea	(Lilljeborg, 1855)		1											12				2			
Gnathia	**Leach, 1814**		1											12				2			
Taxa below have been removed from main data matrix to facilitate analysis																					
JUVENILES																					
SIPUNCULA	Stephen, 1964		2						2		3		2			3		3	1		
Golfingiidae	Stephen & Edmonds, 1972	2								1				2							
Glycera	Lamarck, 1818											1									
Nereididae	Blainville, 1818											1									
Nephtyidae	Grube, 1850																				
Orbinia	Quatrefages, 1866																				1
Cirratulidae	Ryckholt, 1851																				
Cirriformia	Hartman, 1936																				
Opheliidae	Malmgren, 1867																				
Streblosoma	M. Sars in G.O. Sars, 1872												1								
Thelepus	Leuckart, 1849																				
Sabellidae	Latreille, 1825																				
CRUSTACEA	Brünnich, 1772									1						1	1				
Gnathia	Leach, 1814											1	1	5				2	1		

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
DECAPODA	Latreille, 1802				2																
CARIDEA	Dana, 1852																				
Hippolytidae	Spence Bate, 1888																				
Eualus	Thallwitz, 1891																		1		
Processa	Leach, 1815 [in Leach, 1815-1875]												1								
Philocheras	Stebbing, 1900																				
AXIIDEA	de Saint Laurent, 1979																				
Upogebia	Leach, 1814 [in Leach, 1813-1815]	1	1							1	1	4	1					1	1		
Paguridae	Latreille, 1802												1								
Galathea	Fabricius, 1793																				
BRACHYURA	Latreille, 1802											1									
BRACHYURA	Latreille, 1802																				
Inachus	Weber, 1795		1																		
Macropodia	Leach, 1814 [in Leach, 1813-1815]		1							1											
Liocarcinus	Stimpson, 1871	1								1	1	2	1					1	1		
Leptochiton	Gray, 1847	2	1																		
GASTROPODA	Cuvier, 1795																				
Cantharidinae	Gray, 1857	2	1							3	5	1	3	2				7	4		
Calliostoma	Swainson, 1840												1								
Trivia	Gray, 1837		1																		
Buccinidae	Rafinesque, 1815																				
NUDIBRANCHIA	Cuvier, 1817																				
CLADOBRANCHIA	-		4										2						2		
Goniodorididae	H. Adams & A. Adams, 1854																				
Onchidorididae	Gray, 1827									2		4	5	1							
Mytilidae	Rafinesque, 1815																				
Mytilus	Linnaeus, 1758																				

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Modiolus	Lamarck, 1799																				
Anomiidae	Rafinesque, 1815	3	4								2	10	13	11				4	4		
Spisula	Gray, 1837	4	2		12	4			3	6	8	3	5	7	4	2	5	4	8	8	
Ensis	Schumacher, 1817				3					1	2					1		6	1		
Abra	Lamarck, 1818		1							2	3	4	10	1	1	1			1		
Tapetinae	Gray, 1851	1											1	3				1			
Myidae	Lamarck, 1809	17	22		6					4		8	2	15				11	14		
Thracia	Blainville, 1824																1				
ASTEROIDEA	de Blainville, 1830																				
Solasteridae	Viguier, 1878												1					1			
OPHIUROIDEA	Gray, 1840									1		12	2	12	1			2			
Ophiuridae	Müller & Troschel, 1840												1	2					1		
PELAGIC FAUNA																					
CHAETOGNATHA	-																				
FISH																					
PISCES	-							8													
Ammodytes	Linnaeus, 1758																				2
DAMAGED FAUNA																					
Polynoinae	Kinberg, 1856		4									5	4	3				1	2		
Nereididae	Blainville, 1818																				
Lumbrineris	Blainville, 1828											1									
Spionidae	Grube, 1850		1																		
Laonice	Malmgren, 1867																	1			
Scolelepis	Blainville, 1828														1						
Spio	Fabricius, 1785																				1
Maldanidae	Malmgren, 1867																				
Euclymeninae	Arwidsson, 1906								2	5	3										

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Opheliidae	Malmgren, 1867																				
Ampharetidae	Malmgren, 1866																				
Terebellidae	Johnston, 1846																				
Polycirrini	Malmgren, 1866																				
Sabellinae	Chamberlin, 1919	1																			
Sabella	Linnaeus, 1767												1								
Serpulidae	Rafinesque, 1815																				
Spirobranchus	Blainville, 1818		2									1	1	2		1		1	1		
Callipallene	Flynn, 1929									1									1		
Mysidae	Haworth, 1825																				
AMPHIPODA	Latreille, 1816																				
Urothoe	Dana, 1852														1						
Ampeliscidae	Krøyer, 1842																				
Ampelisca	Krøyer, 1842		1							1											
Corophiini	Leach, 1814																				
Eurydice	Leach, 1815												1								
Bodotria	Goodsir, 1843											1									
CARIDEA	Dana, 1852		1									1	1		1						
Hippolytidae	Spence Bate, 1888											1									
Eualus	Thallwitz, 1891																				
Crangonidae	Haworth, 1825								1					1							
Galathea	Fabricius, 1793																				
GASTROPODA	Cuvier, 1795											1						1			
Tritia	Risso, 1826		1																		
BIVALVIA	Linnaeus, 1758													1							
Pharidae	H. Adams & A. Adams, 1856		1																		
Ensis	Schumacher, 1817																	1			

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA
Abra	Lamarck, 1818											1									
ASTEROIDEA	de Blainville, 1830													2							

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
CNIDARIA																					
ATHENARIA	Carlgren, 1899																				
Edwardsiidae	Andres, 1881																1				
PLATYHELMINTHES	**Minot, 1876**				1									3							
NEMERTEA	-		3		7	3	2	3		8		5		10	1		2	2	1		
SIPUNCULA																					
Golfingia elongata	(Keferstein, 1862)				13		1			5											
Golfingia vulgaris	(de Blainville, 1827)						1					1									
Nephasoma minutum	(Keferstein, 1862)				15					1		9					1				
Thysanocardia procera	(Möbius, 1875)																				
ANNELIDA																					
Pisione remota	(Southern, 1914)																				
Gattyana cirrhosa	(Pallas, 1766)				3									5							
Harmothoe	**Kinberg, 1856**				5					1		3		5							
Malmgrenia arenicolae	(Saint-Joseph, 1888)											1									
Malmgrenia darbouxi	(Pettibone, 1993)																2				
Lepidonotus squamatus	(Linnaeus, 1758)													2							
Pholoe baltica	Örsted, 1843				2									1							
Pholoe inornata	Johnston, 1839				3					1	1	1		1							
Sthenelais boa	(Johnston, 1833)													3							
Eteone longa	(Fabricius, 1780)				1					1									1		
Hesionura elongata	(Southern, 1914)														1				1		
Hypereteone foliosa	(Quatrefages, 1865)													1							
Phyllodoce groenlandica	Örsted, 1842																				
Phyllodoce maculata	(Linnaeus, 1767)									7		1		1							
Phyllodoce rosea	(McIntosh, 1877)																	1			
Eulalia aurea	Gravier, 1896													1							

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
Eulalia bilineata	(Johnston, 1840)																				
Eulalia expusilla	Pleijel, 1987																				
Eulalia mustela	Pleijel, 1987									2	1										
Eulalia viridis	(Linnaeus, 1767)																				
Eumida	Malmgren, 1865																				
Eumida bahusiensis	Bergstrom, 1914							1										1			
Eumida sanguinea	(Örsted, 1843)				5					6		1		6				1			
Glycera lapidum	Quatrefages, 1866										1										
Glycera oxycephala	Ehlers, 1887	2	1						1						1	1			1	1	
Glycinde nordmanni	(Malmgren, 1866)																1				
Sphaerodorum gracilis	(Rathke, 1843)																				
Psamathe fusca	Johnston, 1836											1									
Nereimyra punctata	(Müller, 1788)				1																
Syllis armillaris	(O.F. Müller, 1776)				1																
Syllis garciai	(Campoy, 1982)																				
Syllis licheri	Ravara, San Martín & Moreira, 2004																				
Syllis parapari	San Martín & López, 2000																				
Syllis variegata	Grube, 1860																				
Amblyosyllis spectabilis	(Johnston in Baird, 1861)																				
Eusyllis blomstrandi	Malmgren, 1867				2													2			
Odontosyllis fulgurans	(Audouin & Milne Edwards, 1833)																				
Streptodonta pterochaeta	(Southern, 1914)																				
Synmerosyllis lamelligera	(Saint-Joseph, 1887)																				

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
Streptosyllis campoyi	Brito, Núñez & San Martín, 2000																		2		
Syllides japonicus	Imajima, 1966																				
Parexogone hebes	(Webster & Benedict, 1884)		1				1			1											
Exogone naidina	Örsted, 1845				1																
Exogone verugera	(Claparède, 1868)					1		3	1	3	1	2						1			
Sphaerosyllis bulbosa	Southern, 1914																				
Sphaerosyllis cf. *taylori*	Perkins, 1981													1							
Proceraea scapularis	(Claparède, 1864)																				
Myrianida	Milne Edwards, 1845									1		3									
Procerastea halleziana	Malaquin, 1893					1															
Rullierinereis ancornunezi	Núñez & Brito, 2006						1														
Eunereis longissima	(Johnston, 1840)																1				
Nephtys caeca	(Fabricius, 1780)				1			2		1				2		2	2	2			
Nephtys cirrosa	Ehlers, 1868		1	2		1	1				2		1			1		1		1	3
Nephtys hombergii	Savigny in Lamarck, 1818																				
Nephtys longosetosa	Örsted, 1842												1							1	
Paucibranchia totospinata	(Lu & Fauchald, 1998)					1															
Lumbrineris nr. *cingulata*	Blainville, 1828				4	3		5		1		2		3			2				
Lumbrineris futilis	Kinberg, 1865																				
Protodorvillea kefersteini	(McIntosh, 1869)																				
Schistomeringos neglecta	(Fauvel, 1923)																				
Orbinia armandi	(McIntosh, 1910)		1				1														
Scoloplos armiger	(Müller, 1776)		1			2	3				1		3	4			4	2	1	3	

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
Aricidea minuta	Southward, 1956							1													
Poecilochaetus serpens	Allen, 1904		1		8	2		2	1	1		6					6	2			
Aonides paucibranchiata	Southern, 1914		1		3				1	1		1									
Laonice bahusiensis	Söderström, 1920																				
Dipolydora sp. A	Verrill, 1881				4		3		1	1				2							
Dipolydora caulleryi	(Mesnil, 1897)				1									1			1				
Polydora ciliata	(Johnston, 1838)																				
Dipolydora flava	(Claparède, 1870)				1									8							
Dipolydora saintjosephi	(Eliason, 1920)				1																
Pseudopolydora pulchra	(Carazzi, 1893)				1																
Pygospio elegans	Claparède, 1863										1										
Scolelepis bonnieri	(Mesnil, 1896)																				
Scolelepis foliosa	(Audouin & Milne Edwards, 1833)																				
Scolelepis tridentata	(Southern, 1914)																				
Spio symphyta	Meißner, Bick & Bastrop, 2011								1										4		
Spio goniocephala	Thulin, 1957		11		1	2	1	5	4	2	1		1		1					1	
Spio armata	(Thulin, 1957)									1		3									
Spio decorata	Bobretzky, 1870																1				
Spiophanes bombyx	(Claparède, 1870)					2	1	2									1	1			
Spiophanes kroyeri	Grube, 1860				1																
Magelona mirabilis	(Johnston, 1865)																				
Aphelochaeta sp. A	Blake, 1991				2					1											
Aphelochaeta	Blake, 1991																				
Aphelochaeta marioni	(Saint-Joseph, 1894)													1				2			
Caulleriella alata	(Southern, 1914)				1									1							

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
Chaetozone zetlandica	McIntosh, 1911				2		1			2		1		1				1			
Chaetozone christiei	Chambers, 2000		1	1		2		1	1				1				1				
Cirratulus incertus	McIntosh, 1916																				
Cirriformia tentaculata	(Montagu, 1808)					1	4	1	1	4							1				
Dodecaceria	Örsted, 1843				1									2							
Capitella	Blainville, 1828																				
Heteromastus filiformis	(Claparède, 1864)																				
Mediomastus fragilis	Rasmussen, 1973				2			1		1		2		2			1	1			
Notomastus	M. Sars, 1851				6		2					2		1					4		
Peresiella clymenoides	Harmelin, 1968																	1			
Leiochone	Grube, 1868				18	3	3	6	1	7	2	18	1								
Euclymene oerstedii	(Claparède, 1863)													5							
Praxillella affinis	(M. Sars in G.O. Sars, 1872)								1	5				1			3				
Praxillella gracilis	(M. Sars, 1861)						1														
Micromaldane ornithochaeta	Mesnil, 1897				3									2							
Thoracophelia flabellifera	Ziegelmeier, 1955	2																			
Ophelia borealis	Quatrefages, 1866	7	15	1		6	8	17	10	13	26	1	3		8	9			30	21	10
Travisia forbesii	Johnston, 1840		1								1		1						1	1	
Scalibregma celticum	Mackie, 1991																				
Scalibregma inflatum	Rathke, 1843				1							2									
Polygordius	Schneider, 1868																				
Galathowenia oculata	(Zachs, 1923)						1										2				
Owenia borealis	Koh, Bhaud & Jirkov, 2003								1			1		1							
Lagis koreni	Malmgren, 1866																1				
Sabellaria spinulosa	(Leuckart, 1849)				62	37	13	28	15	129	6	51		12			4	4			

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
Ampharete baltica	Eliason, 1955																				
Ampharete lindstroemi	Malmgren, 1867 sensu Hessle, 1917																				
Pista maculata	(Dalyell, 1853)				1							1									
Lanice conchilega	(Pallas, 1766)				3				1	2		2		2			2	1			
Nicolea venustula	(Montagu, 1819)																				
Lysilla nivea	Langerhans, 1884				2																
Polycirrus	Grube, 1850	1	2		19	6	9	7	10	23	1	6		17			3	5	3	1	
Thelepus cincinnatus	(Fabricius, 1780)				6				1			3						1			
Parasabella cambrensis	(Knight-Jones & Walker, 1985)																				
Pseudopotamilla cf. *reniformis*	(Bruguière, 1789)				1																
Sabella discifera	Grube, 1874											1									
Sabella pavonina	Savigny, 1822																				
Hydroides norvegica	Gunnerus, 1768						1	1	1	2		1		17			1				
Spirobranchus lamarcki	(Quatrefages, 1866)				2		1			6		4		44			2	1			
Spirobranchus triqueter	(Linnaeus, 1758)				2	1			1	4		1		13							
Tubificoides	Lastočkin, 1937						1														
Grania	Southern, 1913																		1		
ARTHROPODA																					
Nymphon brevirostre	Hodge, 1863				2							2		2				1			
Achelia echinata	Hodge, 1864				10						1	2		7				1			
Callipallene brevirostris	(Johnston, 1837)													2							
Anoplodactylus petiolatus	(Krøyer, 1844)				1	1	2					2						1			
Pycnogonum litorale	(Strøm, 1762)																				

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Nebalia kocatasi	Moreira, Kocak & Katagan, 2007																				
Nebalia reboredae	Moreira & Urgorri, 2009																	1			
Nebalia troncosoi	Moreira, Cacabelos & Dominguez, 2003																				
Gastrosaccus spinifer	(Goës, 1864)	6			1	4		1	2		11				5	4					3
Apherusa bispinosa	(Spence Bate, 1857)													1							
Perioculodes longimanus	(Spence Bate & Westwood, 1868)	1					1				1		1				2			1	3
Pontocrates	Boeck, 1871												1								
Pontocrates arenarius	(Spence Bate, 1858)																				
Synchelidium maculatum	Stebbing, 1906				1																
Parapleustes bicuspis	(Krøyer, 1838)				2							1									
Leucothoe incisa	Robertson, 1892									1											
Leucothoe procera	Spence Bate, 1857																				
Stenothoe marina	(Spence Bate, 1857)														1						
Urothoe brevicornis	Spence Bate, 1862			3	3															1	1
Urothoe elegans	Spence Bate, 1857													22			11	11			
Urothoe marina	(Spence Bate, 1857)				10							5									
Phoxocephalus holbolli	(Krøyer, 1842)																				
Acidostoma neglectum	Dahl, 1964													1							
Hippomedon denticulatus	(Spence Bate, 1857)										1										
Orchomene humilis	(Costa, 1853)																				
Tryphosa nana	(Krøyer, 1846)																				
Tmetonyx similis	(G.O. Sars, 1891)						1			1											
Tryphosella sarsi	Bonnier, 1893																				

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
Iphimedia minuta	G.O. Sars, 1883																				
Iphimedia nexa	Myers & McGrath, in Myers, McGrath & Costello, 1987																				
Iphimedia obesa	Rathke, 1843							1													
Nototropis guttatus	Costa, 1853																				
Nototropis swammerdamei	(H. Milne Edwards, 1830)		3												1						
Nototropis vedlomensis	(Spence Bate & Westwood, 1862)		1																		
Ampelisca brevicornis	(Costa, 1853)																3				
Ampelisca diadema	(Costa, 1853)													1							
Ampelisca spinipes	Boeck, 1861				1					2											
Ampelisca typica	(Spence Bate, 1856)				2							2									
Bathyporeia elegans	Watkin, 1938			2				2	1				2		1	2				2	2
Bathyporeia guilliamsoniana	(Spence Bate, 1857)					2	6	2	2	2	1					1					
Abludomelita obtusata	(Montagu, 1813)		3							1											
Cheirocratus	Norman, 1867				1									1					1		
Othomaera othonis	(H. Milne Edwards, 1830)																				
Maerella tenuimana	(Spence Bate, 1862)				1									1							
Megamphopus cornutus	Norman, 1869																				
Gammaropsis maculata	(Johnston, 1828)											1		1							
Ericthonius	H. Milne Edwards, 1830																				
Aoridae (excl. *Leptocheirus*)	Stebbing, 1899													1							
Leptocheirus hirsutimanus	(Spence Bate, 1862)				1					3		5									
Leptocheirus pectinatus	(Norman, 1869)																				

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
Monocorophium acherusicum	(Costa, 1853)				4					1				10							
Centraloecetes kroyeranus	(Spence Bate, 1857)																				
Unciola crenatipalma	(Spence Bate, 1862)				1			2	1	19											
Phtisica marina	Slabber, 1769				1							1									
Pseudoprotella phasma	(Montagu, 1804)													2							
Gnathia	Leach, 1814				3					6				5							
Eurydice spinigera	Hansen, 1890	1			1		1		2		5		1	1	4		2		1		
Prodajus ostendensis	Gilson, 1909										3				1						
Bopyridae	Rafinesque, 1815																				
Pseudoparatanais batei	(Sars, 1882)																				
Tanaopsis graciloides	(Lilljeborg, 1864)																3				
Bodotria scorpioides	(Montagu, 1804)		3		1																
Diastylis	Say, 1818					1															
Hippolyte varians	Leach, 1814 [in Leach, 1813-1815]											1		1							
Eualus cranchii	(Leach, 1817 [in Leach, 1815-1875])													2							
Processa edulis crassipes	Nouvel & Holthuis, 1957					1															
Pandalina brevirostris	(Rathke, 1843)																				
Crangon crangon	(Linnaeus, 1758)																				
Philocheras fasciatus	(Risso, 1816)																				
Philocheras trispinosus	(Hailstone in Hailstone & Westwood, 1835)																1				1
Axius stirhynchus	Leach, 1816																				
Callianassa subterranea	(Montagu, 1808)						1							1			1				
Upogebia deltaura	(Leach, 1816)																				

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Anapagurus hyndmanni	(Bell, 1845)																				
Pagurus bernhardus	(Linnaeus, 1758)																				
Pagurus cuanensis	Bell, 1845																				
Galathea intermedia	Lilljeborg, 1851		1							2		1		40	1		1				
Pisidia longicornis	(Linnaeus, 1767)				9					4		2		146					1		
Ebalia tumefacta	(Montagu, 1808)																				
Hyas araneus	(Linnaeus, 1758)																				
Inachus leptochirus	Leach, 1817 [in Leach, 1815-1875]																				
Macropodia rostrata	(Linnaeus, 1761)											1									
Pirimela denticulata	(Montagu, 1808)																				
Cancer pagurus	Linnaeus, 1758																				
Liocarcinus depurator	(Linnaeus, 1758)											1									
Liocarcinus holsatus	(Fabricius, 1798)											1		1							
Liocarcinus pusillus	(Leach, 1816)													1							
Pinnotheres pisum	(Linnaeus, 1767)	1			2																
COLLEMBOLA	-																				
MOLLUSCA																					
Leptochiton asellus	(Gmelin, 1791)				1							4									
Gibbula tumida	(Montagu, 1803)													2							
Steromphala cineraria	(Linnaeus, 1758)													2							
Calliostoma zizyphinum	(Linnaeus, 1758)				1																
Lacuna crassior	(Montagu, 1803)																	1			
Rissoa parva	(da Costa, 1778)		1		5					1				2							
Onoba semicostata	(Montagu, 1803)													1							
Hyala vitrea	(Montagu, 1803)																				
Crepidula fornicata	(Linnaeus, 1758)				94		4	8	15	67	8	107	1	1411	6		4	26	1		

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
Trivia monacha	(da Costa, 1778)																				
Euspira nitida	(Donovan, 1803)				1	2		2													
Aclis minor	(T. Brown, 1827)												1								
Ocenebra erinaceus	(Linnaeus, 1758)																				
Buccinum undatum	Linnaeus, 1758				1																
Tritia incrassata	(Strøm, 1768)				2					1											
Propebela rufa	(Montagu, 1803)																				
Cyrillia linearis	(Montagu, 1803)											1									
Odostomia acuta	Jeffreys, 1848													1							
Retusa obtusa	(Montagu, 1803)										1										
Dendronotus	Alder & Hancock, 1845																				
Doto	Oken, 1815				1							6		1							
Goniodoris nodosa	(Montagu, 1808)																				
Onchidoris bilamellata	(Linnaeus, 1767)											1									
Facelina	Alder & Hancock, 1855											1									
Nucula nucleus	(Linnaeus, 1758)																				
Mytilus edulis	Linnaeus, 1758																				
Modiolus modiolus	(Linnaeus, 1758)				2					1											
Modiolula phaseolina	(Philippi, 1844)								1		1										
Musculus subpictus	(Cantraine, 1835)											1									
Heteranomia squamula	(Linnaeus, 1758)																				
Lucinoma borealis	(Linnaeus, 1767)					2	2	2						5							
Tellimya ferruginosa	(Montagu, 1808)					1															
Kurtiella bidentata	(Montagu, 1803)																3				
Goodallia triangularis	(Montagu, 1803)	2	3		2																
Spisula elliptica	(T. Brown, 1827)		1		1			1				1						1			
Spisula solida	(Linnaeus, 1758)	1																			

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Spisula subtruncata	(da Costa, 1778)																				
Ensis magnus	Schumacher, 1817																1				
Phaxas pellucidus	(Pennant, 1777)				1																
Macomangulus tenuis	(da Costa, 1778)																				
Fabulina fabula	(Gmelin, 1791)																				
Abra alba	(W. Wood, 1802)											2		19			3	2			
Abra prismatica	(Montagu, 1808)					1							1								
Timoclea ovata	(Pennant, 1777)										1			1							
Polititapes rhomboides	(Pennant, 1777)									4		1						1			
Venerupis corrugata	(Gmelin, 1791)																				
Mya truncata	Linnaeus, 1758																2				
Hiatella arctica	(Linnaeus, 1767)				6			1	1	15		4		4			2				
PHORONIDA																					
Phoronis	Wright, 1856				2							1									
ECHINODERMATA																					
Crossaster papposus	(Linnaeus, 1767)																				
Amphipholis squamata	(Delle Chiaje, 1828)				18					1		4		21							
Ophiura albida	Forbes, 1839																				
Ophiura ophiura	(Linnaeus, 1758)																				1
Echinocyamus pusillus	(O.F. Müller, 1776)										1										
Echinocardium cordatum	(Pennant, 1777)					1															
Neopentadactyla mixta	(Östergren, 1898)																	1			
ENTEROPNEUSTA	**Gegenbaur, 1870**																				
Number of taxa		10	21	5	79	27	31	27	27	50	25	59	15	69	13	7	38	31	16	11	8
Abundance		24	56	9	416	90	79	108	79	376	80	299	20	1902	32	20	85	80	54	34	24
The following taxa (highlighted in bold) were merged for statistical analysis																					

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
Harmothoe	Kinberg, 1856				5					1		1		3							
Harmothoe clavigera	(M. Sars, 1863)																				
Harmothoe extenuata	(Grube, 1840)													1							
Harmothoe fraserthomsoni	McIntosh, 1897											1									
Harmothoe glabra	(Malmgren, 1865)																				
Harmothoe impar	(Johnston, 1839)											1		1							
Harmothoe	**Kinberg, 1856**				**5**					**1**		**3**		**5**							
Leiochone	Grube, 1868				17	3	1	4		5	2	15									
Leiochone tricirrata	Bellan & Reys, 1967																				
Leiochone johnstoni	McIntosh, 1915				1		2	2	1	2		3									
Leiochone leiopygos	(Grube, 1860)												1								
Leiochone	**Grube, 1868**				**18**	**3**	**3**	**6**	**1**	**7**	**2**	**18**	**1**								
Polycirrus	Grube, 1850		1		3	5	1	2		4	1	1		2							
Polycirrus denticulatus	Saint-Joseph, 1894				15	1	8	5	8	18		5		15			3				
Polycirrus medusa	Grube, 1850	1	1		1				2	1								5	3	1	
Polycirrus	**Grube, 1850**	**1**	**2**		**19**	**6**	**9**	**7**	**10**	**23**	**1**	**6**		**17**			**3**	**5**	**3**	**1**	
Cheirocratus	Norman, 1867																				
Cheirocratus	Norman, 1867				1																
Cheirocratus robustus	G.O. Sars, 1894																				
Cheirocratus assimilis	(Lilljeborg, 1852)																		1		
Cheirocratus intermedius	G.O. Sars, 1894																				
Cheirocratus sundevallii	(Rathke, 1843)													1							
Cheirocratus	**Norman, 1867**				**1**									**1**					**1**		
Ericthonius	H. Milne Edwards, 1830																				
Ericthonius	H. Milne Edwards, 1830																				

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
Ericthonius punctatus	(Spence Bate, 1857)																				
Ericthonius	**H. Milne Edwards, 1830**																				
Aoridae	Stebbing, 1899																				
Aoridae	Stebbing, 1899																				
Aora gracilis	(Spence Bate, 1857)													1							
Aoridae (excl. *Leptocheirus*)	**Stebbing, 1899**													**1**							
Gnathia	Leach, 1814				2					3											
Gnathia dentata	(G. O. Sars, 1872)																				
Gnathia oxyuraea	(Lilljeborg, 1855)				1					3				5							
Gnathia	**Leach, 1814**				**3**					**6**				**5**							
Taxa below have been removed from main data matrix to facilitate analysis																					
JUVENILES																					
SIPUNCULA	Stephen, 1964								1			4		1				1			
Golfingiidae	Stephen & Edmonds, 1972										4			8							
Glycera	Lamarck, 1818																				
Nereididae	Blainville, 1818																				
Nephtyidae	Grube, 1850						2							1							
Orbinia	Quatrefages, 1866																				
Cirratulidae	Ryckholt, 1851																	1			
Cirriformia	Hartman, 1936					1															
Opheliidae	Malmgren, 1867																		1		
Streblosoma	M. Sars in G.O. Sars, 1872																				
Thelepus	Leuckart, 1849											2									
Sabellidae	Latreille, 1825									1											
CRUSTACEA	Brünnich, 1772														1						
Gnathia	Leach, 1814									1				3							

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
DECAPODA	Latreille, 1802																				
CARIDEA	Dana, 1852				1																
Hippolytidae	Spence Bate, 1888																				
Eualus	Thallwitz, 1891																				
Processa	Leach, 1815 [in Leach, 1815-1875]																				
Philocheras	Stebbing, 1900																				
AXIIDEA	de Saint Laurent, 1979																				
Upogebia	Leach, 1814 [in Leach, 1813-1815]				1			1		2		2		1							
Paguridae	Latreille, 1802													5							
Galathea	Fabricius, 1793				1																
BRACHYURA	Latreille, 1802																				
BRACHYURA	Latreille, 1802				1																
Inachus	Weber, 1795																				
Macropodia	Leach, 1814 [in Leach, 1813-1815]																				
Liocarcinus	Stimpson, 1871									1								2	1		
Leptochiton	Gray, 1847													1				1			
GASTROPODA	Cuvier, 1795																				
Cantharidinae	Gray, 1857											2		9							
Calliostoma	Swainson, 1840																				
Trivia	Gray, 1837																				
Buccinidae	Rafinesque, 1815				2					1											
NUDIBRANCHIA	Cuvier, 1817				2																
CLADOBRANCHIA	-																				
Goniodorididae	H. Adams & A. Adams, 1854																				

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
Onchidorididae	Gray, 1827											1		4							
Mytilidae	Rafinesque, 1815										1										
Mytilus	Linnaeus, 1758										1										
Modiolus	Lamarck, 1799				3					4											
Anomiidae	Rafinesque, 1815				5				1	7		13		17							
Spisula	Gray, 1837		6		11	2		1	2	3		14				1			6	1	
Ensis	Schumacher, 1817		1									2					1	1			
Abra	Lamarck, 1818		1		4							1		11			6	5		2	1
Tapetinae	Gray, 1851											2									
Myidae	Lamarck, 1809				9	1			1	20		2		14							
Thracia	Blainville, 1824																				
ASTEROIDEA	de Blainville, 1830																				
Solasteridae	Viguier, 1878																				
OPHIUROIDEA	Gray, 1840				1	1						1		30			1				
Ophiuridae	Müller & Troschel, 1840				1							1									1
PELAGIC FAUNA																					
CHAETOGNATHA	-																				
FISH																					
PISCES	-																				
Ammodytes	Linnaeus, 1758			1									1								1
DAMAGED FAUNA																					
Polynoinae	Kinberg, 1856		1									1		19							
Nereididae	Blainville, 1818																				
Lumbrineris	Blainville, 1828																				
Spionidae	Grube, 1850																				
Laonice	Malmgren, 1867																				
Scolelepis	Blainville, 1828																				

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
Spio	Fabricius, 1785																				
Maldanidae	Malmgren, 1867							1		1											
Euclymeninae	Arwidsson, 1906																				
Opheliidae	Malmgren, 1867																		1		
Ampharetidae	Malmgren, 1866																				
Terebellidae	Johnston, 1846									2											
Polycirrini	Malmgren, 1866																				
Sabellinae	Chamberlin, 1919																				
Sabella	Linnaeus, 1767																				
Serpulidae	Rafinesque, 1815									4											
Spirobranchus	Blainville, 1818				2							1		14				1			
Callipallene	Flynn, 1929																				
Mysidae	Haworth, 1825																				
AMPHIPODA	Latreille, 1816													2							
Urothoe	Dana, 1852																				
Ampeliscidae	Krøyer, 1842																				
Ampelisca	Krøyer, 1842																				
Corophiini	Leach, 1814														1						
Eurydice	Leach, 1815																				
Bodotria	Goodsir, 1843																		2		
CARIDEA	Dana, 1852		1																		
Hippolytidae	Spence Bate, 1888													7							
Eualus	Thallwitz, 1891																				
Crangonidae	Haworth, 1825																				
Galathea	Fabricius, 1793													1							
GASTROPODA	Cuvier, 1795									1											
Tritia	Risso, 1826																				

Taxon	Authority	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA
BIVALVIA	Linnaeus, 1758													1							
Pharidae	H. Adams & A. Adams, 1856																		1		
Ensis	Schumacher, 1817																				
Abra	Lamarck, 1818																	2			
ASTEROIDEA	de Blainville, 1830																				

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
CNIDARIA																		
ATHENARIA	Carlgren, 1899																	
Edwardsiidae	Andres, 1881																	
PLATYHELMINTHES	**Minot, 1876**																	
NEMERTEA	-				3	2					2	4	1	2				
SIPUNCULA																		
Golfingia elongata	(Keferstein, 1862)																	
Golfingia vulgaris	(de Blainville, 1827)																	
Nephasoma minutum	(Keferstein, 1862)																	
Thysanocardia procera	(Möbius, 1875)																	
ANNELIDA																		
Pisione remota	(Southern, 1914)																	
Gattyana cirrhosa	(Pallas, 1766)	5			1													
Harmothoe	**Kinberg, 1856**	8			3						2	9						
Malmgrenia arenicolae	(Saint-Joseph, 1888)																	
Malmgrenia darbouxi	(Pettibone, 1993)																	
Lepidonotus squamatus	(Linnaeus, 1758)	1			2													
Pholoe baltica	Örsted, 1843	1			1				1				1	1				
Pholoe inornata	Johnston, 1839	4			7							5		1				
Sthenelais boa	(Johnston, 1833)	1																
Eteone longa	(Fabricius, 1780)			1		3												
Hesionura elongata	(Southern, 1914)					2											1	
Hypereteone foliosa	(Quatrefages, 1865)	1		1	1													
Phyllodoce groenlandica	Örsted, 1842				1													
Phyllodoce maculata	(Linnaeus, 1767)	1			3									2				
Phyllodoce rosea	(McIntosh, 1877)																	
Eulalia aurea	Gravier, 1896																	

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
Eulalia bilineata	(Johnston, 1840)																	
Eulalia expusilla	Pleijel, 1987																	
Eulalia mustela	Pleijel, 1987																	
Eulalia viridis	(Linnaeus, 1767)	3			1													
Eumida	Malmgren, 1865											1						
Eumida bahusiensis	Bergstrom, 1914				2				1									
Eumida sanguinea	(Örsted, 1843)	2										6		1				
Glycera lapidum	Quatrefages, 1866																	
Glycera oxycephala	Ehlers, 1887						1	1	1							1	1	
Glycinde nordmanni	(Malmgren, 1866)																	
Sphaerodorum gracilis	(Rathke, 1843)																	
Psamathe fusca	Johnston, 1836																	
Nereimyra punctata	(Müller, 1788)																	
Syllis armillaris	(O.F. Müller, 1776)	1										3						
Syllis garciai	(Campoy, 1982)																	
Syllis licheri	Ravara, San Martín & Moreira, 2004																	
Syllis parapari	San Martín & López, 2000			1														
Syllis variegata	Grube, 1860											3	1	3				
Amblyosyllis spectabilis	(Johnston in Baird, 1861)																	
Eusyllis blomstrandi	Malmgren, 1867	1			1						2	1	1					
Odontosyllis fulgurans	(Audouin & Milne Edwards, 1833)																	
Streptodonta pterochaeta	(Southern, 1914)					1												
Synmerosyllis lamelligera	(Saint-Joseph, 1887)																	
Streptosyllis campoyi	Brito, Núñez & San Martín, 2000																	
Syllides japonicus	Imajima, 1966			1														
Parexogone hebes	(Webster & Benedict, 1884)											1						
Exogone naidina	Örsted, 1845													1				

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
Exogone verugera	(Claparède, 1868)								1	1			1		2			
Sphaerosyllis bulbosa	Southern, 1914																	
Sphaerosyllis cf. *taylori*	Perkins, 1981																	
Proceraea scapularis	(Claparède, 1864)																	
Myrianida	Milne Edwards, 1845	2			1									1				
Procerastea halleziana	Malaquin, 1893																	
Rullierinereis ancornunezi	Núñez & Brito, 2006											1		1				
Eunereis longissima	(Johnston, 1840)																	
Nephtys caeca	(Fabricius, 1780)	4		1	1				1									
Nephtys cirrosa	Ehlers, 1868		1	1				1								1		2
Nephtys hombergii	Savigny in Lamarck, 1818																	
Nephtys longosetosa	Örsted, 1842		1				1										2	
Paucibranchia totospinata	(Lu & Fauchald, 1998)																	
Lumbrineris nr. *cingulata*	Blainville, 1828											1	2	4				
Lumbrineris futilis	Kinberg, 1865			1														
Protodorvillea kefersteini	(McIntosh, 1869)			1		1						2						
Schistomeringos neglecta	(Fauvel, 1923)					1												
Orbinia armandi	(McIntosh, 1910)									1								
Scoloplos armiger	(Müller, 1776)	5	5		4		5					3						
Aricidea minuta	Southward, 1956																	
Poecilochaetus serpens	Allen, 1904			2	4	5			4		8		1	1				
Aonides paucibranchiata	Southern, 1914			6		9			2	1	3							
Laonice bahusiensis	Söderström, 1920																	
Dipolydora sp. A	Verrill, 1881	1										3	1	2				
Dipolydora caulleryi	(Mesnil, 1897)											2						
Polydora ciliata	(Johnston, 1838)																	
Dipolydora flava	(Claparède, 1870)	7			2							4						

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
Dipolydora saintjosephi	(Eliason, 1920)	1																
Pseudopolydora pulchra	(Carazzi, 1893)				1													
Pygospio elegans	Claparède, 1863																	
Scolelepis bonnieri	(Mesnil, 1896)							1										
Scolelepis foliosa	(Audouin & Milne Edwards, 1833)																	
Scolelepis tridentata	(Southern, 1914)																	
Spio symphyta	Meißner, Bick & Bastrop, 2011					3									1		1	1
Spio goniocephala	Thulin, 1957		1	1		2	3		4	1	3		1			1	5	2
Spio armata	(Thulin, 1957)	1										4						
Spio decorata	Bobretzky, 1870																	
Spiophanes bombyx	(Claparède, 1870)				2			1	1		1		4					
Spiophanes kroyeri	Grube, 1860																	
Magelona mirabilis	(Johnston, 1865)																	
Aphelochaeta sp. A	Blake, 1991													2				
Aphelochaeta	Blake, 1991																	
Aphelochaeta marioni	(Saint-Joseph, 1894)																	
Caulleriella alata	(Southern, 1914)												1					
Chaetozone zetlandica	McIntosh, 1911	1							3	1				1				
Chaetozone christiei	Chambers, 2000				3				1	1	2							
Cirratulus incertus	McIntosh, 1916	1												1				
Cirriformia tentaculata	(Montagu, 1808)																	
Dodecaceria	Örsted, 1843	3																
Capitella	Blainville, 1828				1													
Heteromastus filiformis	(Claparède, 1864)																	
Mediomastus fragilis	Rasmussen, 1973	4		1	7				1		4	2		1	1			
Notomastus	M. Sars, 1851	2		2		2			12	1	2		1					
Peresiella clymenoides	Harmelin, 1968																	

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
Leiochone	Grube, 1868					1			7	3	10	1	2	2	3			
Euclymene oerstedii	(Claparède, 1863)	3			9							1						
Praxillella affinis	(M. Sars in G.O. Sars, 1872)																	
Praxillella gracilis	(M. Sars, 1861)																	
Micromaldane ornithochaeta	Mesnil, 1897			1														
Thoracophelia flabellifera	Ziegelmeier, 1955																1	3
Ophelia borealis	Quatrefages, 1866		62	2		33	36	8	4	6				1		1	3	1
Travisia forbesii	Johnston, 1840					1	3									1		1
Scalibregma celticum	Mackie, 1991											4						
Scalibregma inflatum	Rathke, 1843											3						
Polygordius	Schneider, 1868																	
Galathowenia oculata	(Zachs, 1923)																	
Owenia borealis	Koh, Bhaud & Jirkov, 2003																	
Lagis koreni	Malmgren, 1866																	
Sabellaria spinulosa	(Leuckart, 1849)	1							2			24	1	7				
Ampharete baltica	Eliason, 1955																	
Ampharete lindstroemi	Malmgren, 1867 sensu Hessle, 1917	2																
Pista maculata	(Dalyell, 1853)																	
Lanice conchilega	(Pallas, 1766)	10			3				1		2	2	7	3				
Nicolea venustula	(Montagu, 1819)											2						
Lysilla nivea	Langerhans, 1884										4		2	2				
Polycirrus	Grube, 1850	4				2	2		4	3	2	47	3	5	4			
Thelepus cincinnatus	(Fabricius, 1780)	13			5						5	2						
Parasabella cambrensis	(Knight-Jones & Walker, 1985)										1							
Pseudopotamilla cf. *reniformis*	(Bruguière, 1789)											1						
Sabella discifera	Grube, 1874				1					1								

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
Sabella pavonina	Savigny, 1822	2									1							
Hydroides norvegica	Gunnerus, 1768	1			1													
Spirobranchus lamarcki	(Quatrefages, 1866)	11										15						
Spirobranchus triqueter	(Linnaeus, 1758)																	
Tubificoides	Lastočkin, 1937				3													
Grania	Southern, 1913								1									
ARTHROPODA																		
Nymphon brevirostre	Hodge, 1863									1	2	3						
Achelia echinata	Hodge, 1864	23			2						2	2	2	1				
Callipallene brevirostris	(Johnston, 1837)	3			1						1							
Anoplodactylus petiolatus	(Krøyer, 1844)	5			1				1	1			3	1				
Pycnogonum litorale	(Strøm, 1762)	2																
Nebalia kocatasi	Moreira, Kocak & Katagan, 2007	1																
Nebalia reboredae	Moreira & Urgorri, 2009																	
Nebalia troncosoi	Moreira, Cacabelos & Dominguez, 2003								1									
Gastrosaccus spinifer	(Goës, 1864)			15	2	1	3	6					1	1	5	11	5	
Apherusa bispinosa	(Spence Bate, 1857)										1							
Perioculodes longimanus	(Spence Bate & Westwood, 1868)		1	1				1										
Pontocrates	Boeck, 1871																	
Pontocrates arenarius	(Spence Bate, 1858)			1													1	
Synchelidium maculatum	Stebbing, 1906	1		1														
Parapleustes bicuspis	(Krøyer, 1838)																	
Leucothoe incisa	Robertson, 1892								1		1			1				
Leucothoe procera	Spence Bate, 1857											1						
Stenothoe marina	(Spence Bate, 1857)										1	1						
Urothoe brevicornis	Spence Bate, 1862							1								1		
Urothoe elegans	Spence Bate, 1857	6	5		19				7		5	3						

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
Urothoe marina	(Spence Bate, 1857)								3	4	6		1	5	2			
Phoxocephalus holbolli	(Krøyer, 1842)													1				
Acidostoma neglectum	Dahl, 1964																	
Hippomedon denticulatus	(Spence Bate, 1857)			1														
Orchomene humilis	(Costa, 1853)																	
Tryphosa nana	(Krøyer, 1846)																	
Tmetonyx similis	(G.O. Sars, 1891)								2									
Tryphosella sarsi	Bonnier, 1893																	
Iphimedia minuta	G.O. Sars, 1883																	
Iphimedia nexa	Myers & McGrath, in Myers, McGrath & Costello, 1987	3									1							
Iphimedia obesa	Rathke, 1843										1							
Nototropis guttatus	Costa, 1853											1						
Nototropis swammerdamei	(H. Milne Edwards, 1830)					1					1							
Nototropis vedlomensis	(Spence Bate & Westwood, 1862)								1									
Ampelisca brevicornis	(Costa, 1853)	1			5													
Ampelisca diadema	(Costa, 1853)	1										6	1	1				
Ampelisca spinipes	Boeck, 1861								7				1					
Ampelisca typica	(Spence Bate, 1856)																	
Bathyporeia elegans	Watkin, 1938		8					4								1		
Bathyporeia guilliamsoniana	(Spence Bate, 1857)				1	1							2					
Abludomelita obtusata	(Montagu, 1813)										2		2					
Cheirocratus	Norman, 1867	1										4						
Othomaera othonis	(H. Milne Edwards, 1830)																	
Maerella tenuimana	(Spence Bate, 1862)								1									
Megamphopus cornutus	Norman, 1869											1						
Gammaropsis maculata	(Johnston, 1828)																	
Ericthonius	H. Milne Edwards, 1830										4	3						

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
Aoridae (excl. *Leptocheirus*)	**Stebbing, 1899**				1						1							
Leptocheirus hirsutimanus	(Spence Bate, 1862)								1	1	1		1					
Leptocheirus pectinatus	(Norman, 1869)											1						
Monocorophium acherusicum	(Costa, 1853)	31			4							3						
Centraloecetes kroyeranus	(Spence Bate, 1857)																	
Unciola crenatipalma	(Spence Bate, 1862)											9						
Phtisica marina	Slabber, 1769	5			2								1					
Pseudoprotella phasma	(Montagu, 1804)	6									1							
Gnathia	**Leach, 1814**	1										2	1	1				
Eurydice spinigera	Hansen, 1890		2	3						1								2
Prodajus ostendensis	Gilson, 1909																2	
Bopyridae	Rafinesque, 1815																	
Pseudoparatanais batei	(Sars, 1882)																	
Tanaopsis graciloides	(Lilljeborg, 1864)																	
Bodotria scorpioides	(Montagu, 1804)	1			1													
Diastylis	Say, 1818																	
Hippolyte varians	Leach, 1814 [in Leach, 1813-1815]										3							
Eualus cranchii	(Leach, 1817 [in Leach, 1815-1875])	7			1							2						
Processa edulis crassipes	Nouvel & Holthuis, 1957																	
Pandalina brevirostris	(Rathke, 1843)																	
Crangon crangon	(Linnaeus, 1758)																	
Philocheras fasciatus	(Risso, 1816)																	
Philocheras trispinosus	(Hailstone in Hailstone & Westwood, 1835)			1														
Axius stirhynchus	Leach, 1816																	
Callianassa subterranea	(Montagu, 1808)																	
Upogebia deltaura	(Leach, 1816)																	
Anapagurus hyndmanni	(Bell, 1845)											1						

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
Pagurus bernhardus	(Linnaeus, 1758)								1									
Pagurus cuanensis	Bell, 1845																	
Galathea intermedia	Lilljeborg, 1851			1	9							17						
Pisidia longicornis	(Linnaeus, 1767)	59			2			2			1	26						
Ebalia tumefacta	(Montagu, 1808)	1										1						
Hyas araneus	(Linnaeus, 1758)																	
Inachus leptochirus	Leach, 1817 [in Leach, 1815-1875]																	
Macropodia rostrata	(Linnaeus, 1761)																	
Pirimela denticulata	(Montagu, 1808)																	
Cancer pagurus	Linnaeus, 1758	1																
Liocarcinus depurator	(Linnaeus, 1758)				2													1
Liocarcinus holsatus	(Fabricius, 1798)																	
Liocarcinus pusillus	(Leach, 1816)																	
Pinnotheres pisum	(Linnaeus, 1767)																	
COLLEMBOLA	-																	
MOLLUSCA																		
Leptochiton asellus	(Gmelin, 1791)													1				
Gibbula tumida	(Montagu, 1803)											1						
Steromphala cineraria	(Linnaeus, 1758)											4						
Calliostoma zizyphinum	(Linnaeus, 1758)																	
Lacuna crassior	(Montagu, 1803)				1													
Rissoa parva	(da Costa, 1778)	5	1		3							8	5	1				
Onoba semicostata	(Montagu, 1803)											11						
Hyala vitrea	(Montagu, 1803)				4													
Crepidula fornicata	(Linnaeus, 1758)	517	2		292				1		1	43						
Trivia monacha	(da Costa, 1778)																	
Euspira nitida	(Donovan, 1803)																	

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
Aclis minor	(T. Brown, 1827)																	
Ocenebra erinaceus	(Linnaeus, 1758)																	
Buccinum undatum	Linnaeus, 1758																	
Tritia incrassata	(Strøm, 1768)																	
Propebela rufa	(Montagu, 1803)													1				
Cyrillia linearis	(Montagu, 1803)																	
Odostomia acuta	Jeffreys, 1848																	
Retusa obtusa	(Montagu, 1803)													1				
Dendronotus	Alder & Hancock, 1845											1						
Doto	Oken, 1815												1					
Goniodoris nodosa	(Montagu, 1808)											2	1					
Onchidoris bilamellata	(Linnaeus, 1767)	4				1												
Facelina	Alder & Hancock, 1855																	
Nucula nucleus	(Linnaeus, 1758)											10			1			
Mytilus edulis	Linnaeus, 1758																	
Modiolus modiolus	(Linnaeus, 1758)										1							
Modiolula phaseolina	(Philippi, 1844)	5																
Musculus subpictus	(Cantraine, 1835)				1													
Heteranomia squamula	(Linnaeus, 1758)				1													
Lucinoma borealis	(Linnaeus, 1767)																	
Tellimya ferruginosa	(Montagu, 1808)																	
Kurtiella bidentata	(Montagu, 1803)																	
Goodallia triangularis	(Montagu, 1803)			5		1				1			3	5	15			1
Spisula elliptica	(T. Brown, 1827)						1				1				2			
Spisula solida	(Linnaeus, 1758)																	
Spisula subtruncata	(da Costa, 1778)																	
Ensis magnus	Schumacher, 1817				1						1							

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
Phaxas pellucidus	(Pennant, 1777)																	
Macomangulus tenuis	(da Costa, 1778)																	
Fabulina fabula	(Gmelin, 1791)																	
Abra alba	(W. Wood, 1802)	28			11						1	20		1				
Abra prismatica	(Montagu, 1808)							1			1			1				
Timoclea ovata	(Pennant, 1777)																	
Polititapes rhomboides	(Pennant, 1777)																	
Venerupis corrugata	(Gmelin, 1791)																	
Mya truncata	Linnaeus, 1758																	
Hiatella arctica	(Linnaeus, 1767)	13			2									1				
PHORONIDA																		
Phoronis	Wright, 1856											6						
ECHINODERMATA																		
Crossaster papposus	(Linnaeus, 1767)											1						
Amphipholis squamata	(Delle Chiaje, 1828)	20			7						1	11						
Ophiura albida	Forbes, 1839										1	1						
Ophiura ophiura	(Linnaeus, 1758)																	
Echinocyamus pusillus	(O.F. Müller, 1776)				1													
Echinocardium cordatum	(Pennant, 1777)																	
Neopentadactyla mixta	(Östergren, 1898)																	
ENTEROPNEUSTA	Gegenbaur, 1870														1			
Number of taxa		60	11	24	54	20	9	11	31	17	43	61	32	38	11	8	10	9
Abundance		859	89	52	451	73	55	27	79	29	97	363	57	69	37	18	22	14
The following taxa (highlighted in bold) were merged for statistical analysis																		
Harmothoe	Kinberg, 1856	7			2						2	9						
Harmothoe clavigera	(M. Sars, 1863)																	
Harmothoe extenuata	(Grube, 1840)																	

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
Harmothoe fraserthomsoni	McIntosh, 1897																	
Harmothoe glabra	(Malmgren, 1865)																	
Harmothoe impar	(Johnston, 1839)	1			1													
Harmothoe	**Kinberg, 1856**	**8**			**3**						**2**	**9**						
Leiochone	Grube, 1868					1			5	1	2	1		1				
Leiochone tricirrata	Bellan & Reys, 1967																	
Leiochone johnstoni	McIntosh, 1915								2	2	8		2	1	3			
Leiochone leiopygos	(Grube, 1860)																	
Leiochone	**Grube, 1868**					**1**			**7**	**3**	**10**	**1**	**2**	**2**	**3**			
Polycirrus	Grube, 1850					1			3		2	4		2				
Polycirrus denticulatus	Saint-Joseph, 1894											34	3	2	3			
Polycirrus medusa	Grube, 1850	4				1	2		1	3		9		1	1			
Polycirrus	**Grube, 1850**	**4**				**2**	**2**		**4**	**3**	**2**	**47**	**3**	**5**	**4**			
Cheirocratus	Norman, 1867																	
Cheirocratus	Norman, 1867											1						
Cheirocratus robustus	G.O. Sars, 1894																	
Cheirocratus assimilis	(Lilljeborg, 1852)																	
Cheirocratus intermedius	G.O. Sars, 1894																	
Cheirocratus sundevallii	(Rathke, 1843)	1										3						
Cheirocratus	**Norman, 1867**	**1**										**4**						
Ericthonius	H. Milne Edwards, 1830																	
Ericthonius	H. Milne Edwards, 1830										2	2						
Ericthonius punctatus	(Spence Bate, 1857)										2	1						
Ericthonius	**H. Milne Edwards, 1830**										**4**	**3**						
Aoridae	Stebbing, 1899										1							
Aoridae	Stebbing, 1899				1													
Aora gracilis	(Spence Bate, 1857)																	

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
Aoridae (excl. *Leptocheirus*)	Stebbing, 1899				1						1							
Gnathia	Leach, 1814																	
Gnathia dentata	(G. O. Sars, 1872)											1						
Gnathia oxyuraea	(Lilljeborg, 1855)	1										1	1	1				
Gnathia	**Leach, 1814**	**1**										**2**	**1**	**1**				
Taxa below have been removed from main data matrix to facilitate analysis																		
JUVENILES																		
SIPUNCULA	Stephen, 1964				1							4						
Golfingiidae	Stephen & Edmonds, 1972	1																
Glycera	Lamarck, 1818																	
Nereididae	Blainville, 1818	1																
Nephtyidae	Grube, 1850						1											
Orbinia	Quatrefages, 1866																	
Cirratulidae	Ryckholt, 1851																	
Cirriformia	Hartman, 1936																	
Opheliidae	Malmgren, 1867																	
Streblosoma	M. Sars in G.O. Sars, 1872																	
Thelepus	Leuckart, 1849																	
Sabellidae	Latreille, 1825	1											1					
CRUSTACEA	Brünnich, 1772																	
Gnathia	Leach, 1814											1						1
DECAPODA	Latreille, 1802																	
CARIDEA	Dana, 1852																	
Hippolytidae	Spence Bate, 1888	1																
Eualus	Thallwitz, 1891																	
Processa	Leach, 1815 [in Leach, 1815-1875]																	
Philocheras	Stebbing, 1900											1						

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
AXIIDEA	de Saint Laurent, 1979	1																
Upogebia	Leach, 1814 [in Leach, 1813-1815]	1										1						
Paguridae	Latreille, 1802	1										1						
Galathea	Fabricius, 1793																	
BRACHYURA	Latreille, 1802																	
BRACHYURA	Latreille, 1802																	
Inachus	Weber, 1795				1													
Macropodia	Leach, 1814 [in Leach, 1813-1815]										1							
Liocarcinus	Stimpson, 1871	2			3						1			1				
Leptochiton	Gray, 1847																	
GASTROPODA	Cuvier, 1795										1							
Cantharidinae	Gray, 1857	1										2						
Calliostoma	Swainson, 1840																	
Trivia	Gray, 1837																	
Buccinidae	Rafinesque, 1815																	
NUDIBRANCHIA	Cuvier, 1817																	
CLADOBRANCHIA	-	1																
Goniodorididae	H. Adams & A. Adams, 1854																	
Onchidorididae	Gray, 1827																	
Mytilidae	Rafinesque, 1815									1			9	8				
Mytilus	Linnaeus, 1758													1				
Modiolus	Lamarck, 1799												2					
Anomiidae	Rafinesque, 1815	23			6						1							
Spisula	Gray, 1837				1	3		1	6	3	2			2				
Ensis	Schumacher, 1817			1					1				1					
Abra	Lamarck, 1818	14	2	1	20													
Tapetinae	Gray, 1851				1													

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
Myidae	Lamarck, 1809	60			72							6	1					
Thracia	Blainville, 1824																	
ASTEROIDEA	de Blainville, 1830																	
Solasteridae	Viguier, 1878																	
OPHIUROIDEA	Gray, 1840	6			1													
Ophiuridae	Müller & Troschel, 1840		1	1	1									1				
PELAGIC FAUNA																		
CHAETOGNATHA	-																	
FISH																		
PISCES	-													1				
Ammodytes	Linnaeus, 1758		3					1										
DAMAGED FAUNA																		
Polynoinae	Kinberg, 1856																	
Nereididae	Blainville, 1818												1					
Lumbrineris	Blainville, 1828																	
Spionidae	Grube, 1850																	
Laonice	Malmgren, 1867																	
Scolelepis	Blainville, 1828																	
Spio	Fabricius, 1785																	
Maldanidae	Malmgren, 1867											2						
Euclymeninae	Arwidsson, 1906	1									7				1			
Opheliidae	Malmgren, 1867																	
Ampharetidae	Malmgren, 1866								1									
Terebellidae	Johnston, 1846																	
Polycirrini	Malmgren, 1866								1									
Sabellinae	Chamberlin, 1919																	
Sabella	Linnaeus, 1767																	

Taxon	Authority	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB
Serpulidae	Rafinesque, 1815																	
Spirobranchus	Blainville, 1818	2										2						
Callipallene	Flynn, 1929				1													
Mysidae	Haworth, 1825															1		
AMPHIPODA	Latreille, 1816											1	1					
Urothoe	Dana, 1852																	
Ampeliscidae	Krøyer, 1842																	
Ampelisca	Krøyer, 1842								1			1						
Corophiini	Leach, 1814																	
Eurydice	Leach, 1815																	
Bodotria	Goodsir, 1843																	
CARIDEA	Dana, 1852																	
Hippolytidae	Spence Bate, 1888																	
Eualus	Thallwitz, 1891								1			7						
Crangonidae	Haworth, 1825																	
Galathea	Fabricius, 1793																	
GASTROPODA	Cuvier, 1795				2													
Tritia	Risso, 1826																	
BIVALVIA	Linnaeus, 1758																	
Pharidae	H. Adams & A. Adams, 1856								1									
Ensis	Schumacher, 1817																	
Abra	Lamarck, 1818								1									
ASTEROIDEA	de Blainville, 1830																	

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
CNIDARIA															
ATHENARIA	Carlgren, 1899														
Edwardsiidae	Andres, 1881				1										
PLATYHELMINTHES	Minot, 1876														
NEMERTEA	-		12		4		1	3	7				9	5	
SIPUNCULA															
Golfingia elongata	(Keferstein, 1862)		6		6			2	2				17	3	
Golfingia vulgaris	(de Blainville, 1827)													1	
Nephasoma minutum	(Keferstein, 1862)		5		27			5	1				6	6	2
Thysanocardia procera	(Möbius, 1875)		1												
ANNELIDA															
Pisione remota	(Southern, 1914)														
Gattyana cirrhosa	(Pallas, 1766)		3					1	2						1
Harmothoe	Kinberg, 1856		2		6			4	3				1		
Malmgrenia arenicolae	(Saint-Joseph, 1888)														
Malmgrenia darbouxi	(Pettibone, 1993)														
Lepidonotus squamatus	(Linnaeus, 1758)				2				1				1		
Pholoe baltica	Örsted, 1843		1						2						1
Pholoe inornata	Johnston, 1839		5		4				5				3	3	
Sthenelais boa	(Johnston, 1833)														
Eteone longa	(Fabricius, 1780)		1		1	1			2				1		1
Hesionura elongata	(Southern, 1914)														
Hypereteone foliosa	(Quatrefages, 1865)														
Phyllodoce groenlandica	Örsted, 1842														
Phyllodoce maculata	(Linnaeus, 1767)		5											3	
Phyllodoce rosea	(McIntosh, 1877)														
Eulalia aurea	Gravier, 1896														

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Eulalia bilineata	(Johnston, 1840)		1											1	
Eulalia expusilla	Pleijel, 1987				1								1		
Eulalia mustela	Pleijel, 1987														
Eulalia viridis	(Linnaeus, 1767)														
Eumida	Malmgren, 1865														
Eumida bahusiensis	Bergstrom, 1914		2										3		
Eumida sanguinea	(Örsted, 1843)		5		4			2	11				3	3	1
Glycera lapidum	Quatrefages, 1866								2				2	1	1
Glycera oxycephala	Ehlers, 1887														
Glycinde nordmanni	(Malmgren, 1866)														
Sphaerodorum gracilis	(Rathke, 1843)														
Psamathe fusca	Johnston, 1836								1						
Nereimyra punctata	(Müller, 1788)														
Syllis armillaris	(O.F. Müller, 1776)		2		5								3	6	1
Syllis garciai	(Campoy, 1982)														
Syllis licheri	Ravara, San Martín & Moreira, 2004														
Syllis parapari	San Martín & López, 2000														
Syllis variegata	Grube, 1860		6		5			1	6				3	6	
Amblyosyllis spectabilis	(Johnston in Baird, 1861)								1						
Eusyllis blomstrandi	Malmgren, 1867		1						4						1
Odontosyllis fulgurans	(Audouin & Milne Edwards, 1833)								2						
Streptodonta pterochaeta	(Southern, 1914)														
Synmerosyllis lamelligera	(Saint-Joseph, 1887)		1						1						
Streptosyllis campoyi	Brito, Núñez & San Martín, 2000														
Syllides japonicus	Imajima, 1966														
Parexogone hebes	(Webster & Benedict, 1884)								1						
Exogone naidina	Örsted, 1845												1		

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Exogone verugera	(Claparède, 1868)		1		1				2				8	5	2
Sphaerosyllis bulbosa	Southern, 1914														
Sphaerosyllis cf. *taylori*	Perkins, 1981														
Proceraea scapularis	(Claparède, 1864)								8						
Myrianida	Milne Edwards, 1845		2		1			3							
Procerastea halleziana	Malaquin, 1893														
Rullierinereis ancornunezi	Núñez & Brito, 2006														1
Eunereis longissima	(Johnston, 1840)		1					1							
Nephtys caeca	(Fabricius, 1780)		3		1			3							
Nephtys cirrosa	Ehlers, 1868					2	1			1					
Nephtys hombergii	Savigny in Lamarck, 1818						1								
Nephtys longosetosa	Örsted, 1842												1		1
Paucibranchia totospinata	(Lu & Fauchald, 1998)														
Lumbrineris nr. *cingulata*	Blainville, 1828		9		7			6	11				1	3	1
Lumbrineris futilis	Kinberg, 1865														
Protodorvillea kefersteini	(McIntosh, 1869)		1						2						
Schistomeringos neglecta	(Fauvel, 1923)								1						
Orbinia armandi	(McIntosh, 1910)														
Scoloplos armiger	(Müller, 1776)							1	2	1					
Aricidea minuta	Southward, 1956														
Poecilochaetus serpens	Allen, 1904		2		2				3				1		1
Aonides paucibranchiata	Southern, 1914								5				1	2	
Laonice bahusiensis	Söderström, 1920								1						
Dipolydora sp. A	Verrill, 1881												3		
Dipolydora caulleryi	(Mesnil, 1897)		6		3			2	1					1	
Polydora ciliata	(Johnston, 1838)														
Dipolydora flava	(Claparède, 1870)		1		1								2		

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Dipolydora saintjosephi	(Eliason, 1920)							1							
Pseudopolydora pulchra	(Carazzi, 1893)		1												
Pygospio elegans	Claparède, 1863		5										5		
Scolelepis bonnieri	(Mesnil, 1896)									1					
Scolelepis foliosa	(Audouin & Milne Edwards, 1833)					1			1						
Scolelepis tridentata	(Southern, 1914)														
Spio symphyta	Meißner, Bick & Bastrop, 2011														
Spio goniocephala	Thulin, 1957	1		1									1	1	
Spio armata	(Thulin, 1957)		9		5			3	2						
Spio decorata	Bobretzky, 1870														
Spiophanes bombyx	(Claparède, 1870)					2	4			1		1	1	1	1
Spiophanes kroyeri	Grube, 1860														
Magelona mirabilis	(Johnston, 1865)									3		1			
Aphelochaeta sp. A	Blake, 1991													1	
Aphelochaeta	Blake, 1991														
Aphelochaeta marioni	(Saint-Joseph, 1894)				1								7		
Caulleriella alata	(Southern, 1914)				2				1						
Chaetozone zetlandica	McIntosh, 1911		2		1										1
Chaetozone christiei	Chambers, 2000					1	1								
Cirratulus incertus	McIntosh, 1916														
Cirriformia tentaculata	(Montagu, 1808)													1	
Dodecaceria	Örsted, 1843				3										
Capitella	Blainville, 1828														
Heteromastus filiformis	(Claparède, 1864)														
Mediomastus fragilis	Rasmussen, 1973		5		4			2	5				1	6	2
Notomastus	M. Sars, 1851	1	1		2								3	9	3
Peresiella clymenoides	Harmelin, 1968														

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Leiochone	Grube, 1868		5		4				4				8	4	10
Euclymene oerstedii	(Claparède, 1863)														
Praxillella affinis	(M. Sars in G.O. Sars, 1872)		2		2			1					1	1	
Praxillella gracilis	(M. Sars, 1861)														
Micromaldane ornithochaeta	Mesnil, 1897														
Thoracophelia flabellifera	Ziegelmeier, 1955										1				
Ophelia borealis	Quatrefages, 1866	2		2			1			3	2	4	3		
Travisia forbesii	Johnston, 1840						1			4		3			
Scalibregma celticum	Mackie, 1991								1						
Scalibregma inflatum	Rathke, 1843				1				2						
Polygordius	Schneider, 1868														
Galathowenia oculata	(Zachs, 1923)		2					1	1						
Owenia borealis	Koh, Bhaud & Jirkov, 2003														
Lagis koreni	Malmgren, 1866														
Sabellaria spinulosa	(Leuckart, 1849)		42	1	64	9		5	87				39	83	21
Ampharete baltica	Eliason, 1955								1						
Ampharete lindstroemi	Malmgren, 1867 sensu Hessle, 1917														
Pista maculata	(Dalyell, 1853)														
Lanice conchilega	(Pallas, 1766)		19	3	3	13	1	2	12				7	12	4
Nicolea venustula	(Montagu, 1819)								3						
Lysilla nivea	Langerhans, 1884			1	2								1	2	3
Polycirrus	Grube, 1850		12		9			3	20				10	9	9
Thelepus cincinnatus	(Fabricius, 1780)								1						
Parasabella cambrensis	(Knight-Jones & Walker, 1985)														
Pseudopotamilla cf. *reniformis*	(Bruguière, 1789)				1			1							
Sabella discifera	Grube, 1874														
Sabella pavonina	Savigny, 1822					1			2						

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Hydroides norvegica	Gunnerus, 1768														
Spirobranchus lamarcki	(Quatrefages, 1866)				7	1		7	2				1	3	
Spirobranchus triqueter	(Linnaeus, 1758)														
Tubificoides	Lastočkin, 1937														
Grania	Southern, 1913														
ARTHROPODA															
Nymphon brevirostre	Hodge, 1863		4						5						
Achelia echinata	Hodge, 1864		2		1	2			11						
Callipallene brevirostris	(Johnston, 1837)							1					1		
Anoplodactylus petiolatus	(Krøyer, 1844)				2	2			2						
Pycnogonum litorale	(Strøm, 1762)								1						
Nebalia kocatasi	Moreira, Kocak & Katagan, 2007														
Nebalia reboredae	Moreira & Urgorri, 2009														
Nebalia troncosoi	Moreira, Cacabelos & Dominguez, 2003			1											
Gastrosaccus spinifer	(Goës, 1864)				1	3								1	
Apherusa bispinosa	(Spence Bate, 1857)														
Perioculodes longimanus	(Spence Bate & Westwood, 1868)														
Pontocrates	Boeck, 1871					1									
Pontocrates arenarius	(Spence Bate, 1858)														
Synchelidium maculatum	Stebbing, 1906														
Parapleustes bicuspis	(Krøyer, 1838)								1				1		
Leucothoe incisa	Robertson, 1892														
Leucothoe procera	Spence Bate, 1857														
Stenothoe marina	(Spence Bate, 1857)														
Urothoe brevicornis	Spence Bate, 1862									1					
Urothoe elegans	Spence Bate, 1857		1					12	2						
Urothoe marina	(Spence Bate, 1857)												3	3	8

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Phoxocephalus holbolli	(Krøyer, 1842)														
Acidostoma neglectum	Dahl, 1964														
Hippomedon denticulatus	(Spence Bate, 1857)														
Orchomene humilis	(Costa, 1853)		4		1			2							
Tryphosa nana	(Krøyer, 1846)	8											1		
Tmetonyx similis	(G.O. Sars, 1891)		1		1										
Tryphosella sarsi	Bonnier, 1893														
Iphimedia minuta	G.O. Sars, 1883														
Iphimedia nexa	Myers & McGrath, in Myers, McGrath & Costello, 1987														
Iphimedia obesa	Rathke, 1843				1										
Nototropis guttatus	Costa, 1853														
Nototropis swammerdamei	(H. Milne Edwards, 1830)														
Nototropis vedlomensis	(Spence Bate & Westwood, 1862)														
Ampelisca brevicornis	(Costa, 1853)														
Ampelisca diadema	(Costa, 1853)		11		35			4	42			1			
Ampelisca spinipes	Boeck, 1861		10		21			3	24				2		1
Ampelisca typica	(Spence Bate, 1856)														
Bathyporeia elegans	Watkin, 1938						13			4		2			
Bathyporeia guilliamsoniana	(Spence Bate, 1857)					1								1	
Abludomelita obtusata	(Montagu, 1813)			1		1			2				2		2
Cheirocratus	**Norman, 1867**		1		1			7							
Othomaera othonis	(H. Milne Edwards, 1830)		3					7							
Maerella tenuimana	(Spence Bate, 1862)				1			1							
Megamphopus cornutus	Norman, 1869														
Gammaropsis maculata	(Johnston, 1828)				1										
Ericthonius	**H. Milne Edwards, 1830**														
Aoridae (excl. *Leptocheirus*)	**Stebbing, 1899**														

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Leptocheirus hirsutimanus	(Spence Bate, 1862)		1						2						
Leptocheirus pectinatus	(Norman, 1869)							1							
Monocorophium acherusicum	(Costa, 1853)														
Centraloecetes kroyeranus	(Spence Bate, 1857)									1					
Unciola crenatipalma	(Spence Bate, 1862)		5		4			3	2				2	2	1
Phtisica marina	Slabber, 1769		1												
Pseudoprotella phasma	(Montagu, 1804)		3		1				1					1	
Gnathia	**Leach, 1814**		2		3										
Eurydice spinigera	Hansen, 1890			2							1				
Prodajus ostendensis	Gilson, 1909														
Bopyridae	Rafinesque, 1815														
Pseudoparatanais batei	(Sars, 1882)		1												
Tanaopsis graciloides	(Lilljeborg, 1864)														
Bodotria scorpioides	(Montagu, 1804)								1				1		
Diastylis	Say, 1818														
Hippolyte varians	Leach, 1814 [in Leach, 1813-1815]		1		1				1						
Eualus cranchii	(Leach, 1817 [in Leach, 1815-1875])		1					2							
Processa edulis crassipes	Nouvel & Holthuis, 1957														
Pandalina brevirostris	(Rathke, 1843)							2							
Crangon crangon	(Linnaeus, 1758)										1				
Philocheras fasciatus	(Risso, 1816)														
Philocheras trispinosus	(Hailstone in Hailstone & Westwood, 1835)														
Axius stirhynchus	Leach, 1816								1						
Callianassa subterranea	(Montagu, 1808)														
Upogebia deltaura	(Leach, 1816)														
Anapagurus hyndmanni	(Bell, 1845)				2				4						
Pagurus bernhardus	(Linnaeus, 1758)								1						

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Pagurus cuanensis	Bell, 1845				1										
Galathea intermedia	Lilljeborg, 1851		9		4			24							
Pisidia longicornis	(Linnaeus, 1767)		5					7	3					1	1
Ebalia tumefacta	(Montagu, 1808)		1												
Hyas araneus	(Linnaeus, 1758)														
Inachus leptochirus	Leach, 1817 [in Leach, 1815-1875]		1		1										
Macropodia rostrata	(Linnaeus, 1761)				1										
Pirimela denticulata	(Montagu, 1808)		1						3						
Cancer pagurus	Linnaeus, 1758														
Liocarcinus depurator	(Linnaeus, 1758)														
Liocarcinus holsatus	(Fabricius, 1798)													1	
Liocarcinus pusillus	(Leach, 1816)														
Pinnotheres pisum	(Linnaeus, 1767)														
COLLEMBOLA	-												1		
MOLLUSCA															
Leptochiton asellus	(Gmelin, 1791)		3		1			1							
Gibbula tumida	(Montagu, 1803)		2		4			2	1						
Steromphala cineraria	(Linnaeus, 1758)		5					4	2						
Calliostoma zizyphinum	(Linnaeus, 1758)														
Lacuna crassior	(Montagu, 1803)					4			2						
Rissoa parva	(da Costa, 1778)		1		3	7		1	31						
Onoba semicostata	(Montagu, 1803)														
Hyala vitrea	(Montagu, 1803)														
Crepidula fornicata	(Linnaeus, 1758)		15		21			125	16				22	18	24
Trivia monacha	(da Costa, 1778)														
Euspira nitida	(Donovan, 1803)														
Aclis minor	(T. Brown, 1827)														

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Ocenebra erinaceus	(Linnaeus, 1758)													1	
Buccinum undatum	Linnaeus, 1758														
Tritia incrassata	(Strøm, 1768)				1									1	
Propebela rufa	(Montagu, 1803)														
Cyrillia linearis	(Montagu, 1803)														
Odostomia acuta	Jeffreys, 1848														
Retusa obtusa	(Montagu, 1803)			1											
Dendronotus	Alder & Hancock, 1845								1						
Doto	Oken, 1815		1		2			1	3						
Goniodoris nodosa	(Montagu, 1808)														
Onchidoris bilamellata	(Linnaeus, 1767)		1		1			3						1	1
Facelina	Alder & Hancock, 1855														
Nucula nucleus	(Linnaeus, 1758)		1					1					1		
Mytilus edulis	Linnaeus, 1758								1						
Modiolus modiolus	(Linnaeus, 1758)		1											1	
Modiolula phaseolina	(Philippi, 1844)														
Musculus subpictus	(Cantraine, 1835)														
Heteranomia squamula	(Linnaeus, 1758)														
Lucinoma borealis	(Linnaeus, 1767)							1							
Tellimya ferruginosa	(Montagu, 1808)														
Kurtiella bidentata	(Montagu, 1803)							1							
Goodallia triangularis	(Montagu, 1803)			1			1						1	1	1
Spisula elliptica	(T. Brown, 1827)		1						2						2
Spisula solida	(Linnaeus, 1758)														
Spisula subtruncata	(da Costa, 1778)														
Ensis magnus	Schumacher, 1817														
Phaxas pellucidus	(Pennant, 1777)														

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Macomangulus tenuis	(da Costa, 1778)						1								
Fabulina fabula	(Gmelin, 1791)					1									
Abra alba	(W. Wood, 1802)		2		1			4	1						
Abra prismatica	(Montagu, 1808)												1		
Timoclea ovata	(Pennant, 1777)														
Polititapes rhomboides	(Pennant, 1777)														
Venerupis corrugata	(Gmelin, 1791)								1						
Mya truncata	Linnaeus, 1758														
Hiatella arctica	(Linnaeus, 1767)		3		3			1	1						
PHORONIDA															
Phoronis	Wright, 1856		57		27	1									
ECHINODERMATA															
Crossaster papposus	(Linnaeus, 1767)														
Amphipholis squamata	(Delle Chiaje, 1828)		12		11			10	7				4	1	
Ophiura albida	Forbes, 1839														
Ophiura ophiura	(Linnaeus, 1758)														
Echinocyamus pusillus	(O.F. Müller, 1776)														
Echinocardium cordatum	(Pennant, 1777)														
Neopentadactyla mixta	(Östergren, 1898)														
ENTEROPNEUSTA	Gegenbaur, 1870														
Number of taxa		4	74	10	66	19	11	50	76	10	4	6	49	42	31
Abundance		12	364	14	352	54	26	291	413	20	5	12	202	216	110
The following taxa (highlighted in bold) were merged for statistical analysis															
Harmothoe	Kinberg, 1856		2		3				3				1		
Harmothoe clavigera	(M. Sars, 1863)							4							
Harmothoe extenuata	(Grube, 1840)				1										
Harmothoe fraserthomsoni	McIntosh, 1897														

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Harmothoe glabra	(Malmgren, 1865)														
Harmothoe impar	(Johnston, 1839)				2										
Harmothoe	**Kinberg, 1856**		2		6			4	3				1		
Leiochone	Grube, 1868		2						4				8	3	8
Leiochone tricirrata	Bellan & Reys, 1967		3		4									1	
Leiochone johnstoni	McIntosh, 1915														2
Leiochone leiopygos	(Grube, 1860)														
Leiochone	**Grube, 1868**		5		4				4				8	4	10
Polycirrus	Grube, 1850		2		4			1	3				2		3
Polycirrus denticulatus	Saint-Joseph, 1894		10		5			2	17				8	9	5
Polycirrus medusa	Grube, 1850														1
Polycirrus	**Grube, 1850**		12		9			3	20				10	9	9
Cheirocratus	Norman, 1867														
Cheirocratus	Norman, 1867		1		1			5							
Cheirocratus robustus	G.O. Sars, 1894														
Cheirocratus assimilis	(Lilljeborg, 1852)														
Cheirocratus intermedius	G.O. Sars, 1894							2							
Cheirocratus sundevallii	(Rathke, 1843)														
Cheirocratus	**Norman, 1867**		1		1			7							
Ericthonius	H. Milne Edwards, 1830														
Ericthonius	H. Milne Edwards, 1830														
Ericthonius punctatus	(Spence Bate, 1857)														
Ericthonius	**H. Milne Edwards, 1830**														
Aoridae	Stebbing, 1899														
Aoridae	Stebbing, 1899														
Aora gracilis	(Spence Bate, 1857)														
Aoridae (excl. *Leptocheirus*)	**Stebbing, 1899**														

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Gnathia	Leach, 1814														
Gnathia dentata	(G. O. Sars, 1872)				1										
Gnathia oxyuraea	(Lilljeborg, 1855)		2		2										
Gnathia	Leach, 1814		2		3										
Taxa below have been removed from main data matrix to facilitate analysis															
JUVENILES															
SIPUNCULA	Stephen, 1964								2						3
Golfingiidae	Stephen & Edmonds, 1972														
Glycera	Lamarck, 1818														
Nereididae	Blainville, 1818														
Nephtyidae	Grube, 1850	1			1										
Orbinia	Quatrefages, 1866														
Cirratulidae	Ryckholt, 1851														
Cirriformia	Hartman, 1936														
Opheliidae	Malmgren, 1867														
Streblosoma	M. Sars in G.O. Sars, 1872														
Thelepus	Leuckart, 1849														
Sabellidae	Latreille, 1825														
CRUSTACEA	Brünnich, 1772														
Gnathia	Leach, 1814							1							
DECAPODA	Latreille, 1802				1									1	
CARIDEA	Dana, 1852														
Hippolytidae	Spence Bate, 1888														
Eualus	Thallwitz, 1891														
Processa	Leach, 1815 [in Leach, 1815-1875]														
Philocheras	Stebbing, 1900														
AXIIDEA	de Saint Laurent, 1979														

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Upogebia	Leach, 1814 [in Leach, 1813-1815]							1							
Paguridae	Latreille, 1802														
Galathea	Fabricius, 1793														
BRACHYURA	Latreille, 1802														
BRACHYURA	Latreille, 1802														
Inachus	Weber, 1795														
Macropodia	Leach, 1814 [in Leach, 1813-1815]														
Liocarcinus	Stimpson, 1871														
Leptochiton	Gray, 1847														
GASTROPODA	Cuvier, 1795														
Cantharidinae	Gray, 1857														
Calliostoma	Swainson, 1840														
Trivia	Gray, 1837														
Buccinidae	Rafinesque, 1815														
NUDIBRANCHIA	Cuvier, 1817														
CLADOBRANCHIA	-														
Goniodorididae	H. Adams & A. Adams, 1854								2						
Onchidorididae	Gray, 1827														
Mytilidae	Rafinesque, 1815					4	1							1	
Mytilus	Linnaeus, 1758														
Modiolus	Lamarck, 1799														
Anomiidae	Rafinesque, 1815								1						
Spisula	Gray, 1837		2	2	1				3		1				1
Ensis	Schumacher, 1817														
Abra	Lamarck, 1818								2						
Tapetinae	Gray, 1851														
Myidae	Lamarck, 1809		5		12			4	8				6	3	4

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Thracia	Blainville, 1824														
ASTEROIDEA	de Blainville, 1830								1						
Solasteridae	Viguier, 1878														
OPHIUROIDEA	Gray, 1840									1			1		
Ophiuridae	Müller & Troschel, 1840		1		1			3					1		
PELAGIC FAUNA															
CHAETOGNATHA	-								1						
FISH															
PISCES	-														
Ammodytes	Linnaeus, 1758														
DAMAGED FAUNA															
Polynoinae	Kinberg, 1856														
Nereididae	Blainville, 1818														
Lumbrineris	Blainville, 1828														
Spionidae	Grube, 1850												1		
Laonice	Malmgren, 1867														
Scolelepis	Blainville, 1828														
Spio	Fabricius, 1785														
Maldanidae	Malmgren, 1867												3		
Euclymeninae	Arwidsson, 1906														
Opheliidae	Malmgren, 1867														
Ampharetidae	Malmgren, 1866														
Terebellidae	Johnston, 1846														
Polycirrini	Malmgren, 1866														
Sabellinae	Chamberlin, 1919														
Sabella	Linnaeus, 1767														
Serpulidae	Rafinesque, 1815														

Taxon	Authority	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Spirobranchus	Blainville, 1818		1												
Callipallene	Flynn, 1929														
Mysidae	Haworth, 1825														
AMPHIPODA	Latreille, 1816														
Urothoe	Dana, 1852														
Ampeliscidae	Krøyer, 1842			1											
Ampelisca	Krøyer, 1842														
Corophiini	Leach, 1814														
Eurydice	Leach, 1815														
Bodotria	Goodsir, 1843														
CARIDEA	Dana, 1852														
Hippolytidae	Spence Bate, 1888														
Eualus	Thallwitz, 1891														
Crangonidae	Haworth, 1825														
Galathea	Fabricius, 1793														
GASTROPODA	Cuvier, 1795														
Tritia	Risso, 1826														
BIVALVIA	Linnaeus, 1758														
Pharidae	H. Adams & A. Adams, 1856														
Ensis	Schumacher, 1817														
Abra	Lamarck, 1818														
ASTEROIDEA	de Blainville, 1830														

F.2 Macrofaunal Biomass (Blotted Wet Weight)

Taxon	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FC	CC_11_FA
CNIDARIA	0.0165								0.019						
POLYCHAETA	0.4125	0.6959	0.0006	0.3289	0.2193	1.3884	1.0495	0.1336	0.5023	0.1643	1.299	0.6914	0.9283	0.2548	0.2323
OLIGOCHAETA															
CRUSTACEA	0.3982	0.5747	0.0121	0.1993	0.01	0.0196	0.0149	0.0087	0.0848	0.0627	0.4599	0.2079	0.5116	0.0976	0.1354
MOLLUSCA	0.3404	0.7817		0.9162	1.0013	0.0956	0.1628	0.0168	0.3443	0.7028	16.2758	14.7106	3.3963	0.372	0.6806
ECHINODERMATA	0.0038	0.0172					0.0008		0.0084	0.0067	0.0287	0.0302	0.1137	0.0008	
OTHER	0.0933	0.0563	0.0136	0.0447	0.0003		0.0034	0.0072	0.0221	0.0188	0.0478	0.0258	1.0688	0.0043	0.0185

Notes
Blotted wet weight (g)

Taxon	CC_12_FA	CC_13_FA	CC_14_FA	CC_15_FA	CC_16_FA	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC
CNIDARIA															
POLYCHAETA	0.0809	0.8782	0.2647	0.2482	0.4197	0.2572	0.4185	0.1412	0.9939	0.2576	0.4845	0.5434	0.3264	1.2267	0.2716
OLIGOCHAETA											0.0002				
CRUSTACEA	0.0108	0.2962	0.4527	0.0051	0.0098	0.0483	0.0204	0.0323	0.1822	0.0282	0.052	0.0103	0.0136	0.1414	0.1508
MOLLUSCA	0.0297	13.3719	10.5502	0.0552	0.001	1.5563	0.0742		24.2599	0.4501	0.1337	0.6525	0.3166	1.0515	0.0079
ECHINODERMATA		0.0084	0.0074						0.0673	23.7848				0.0016	0.0152
OTHER	0.0007	0.011	0.0549	0.0024			0.0054		0.0265	0.0264	0.0035	0.0057	0.0007	0.047	0.0035

Notes
Blotted wet weight (g)

Taxon	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA	D_11_FA	D_15_FA	D_16_FA	D_17_FA	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA
CNIDARIA						0.1316									
POLYCHAETA	2.6157	0.3004	0.8542	0 2526	0.1055	0.619	0.7527	1.089	0.3983	0.1673	1.4352	0.5777	0.6531	0.9095	0.3215
OLIGOCHAETA								0.0003						0.0005	
CRUSTACEA	0.7069	0.0178	2.0302	0 2431	0.0117	0.1304	0.0182	0.0054	0.0035	0.0352	0.7045	0.0275	0.2115	16.839	0.0164
MOLLUSCA	1.4661	0.0078	41.3504	0.0047	0.0039	29.1211	14.9543	0.0309	0.0078	0.0012	6.3919	0.0072	0.0251	21.6446	0.0142
ECHINODERMATA	0.0043		0.0492			0.0006	0.9654			0.2272	0.0486	0.0015	0.0049	0.0179	
OTHER	0.025		0.0373	0.0801		0.0083	0.0051	0.0065			0.091			0.0112	0.0352

Notes
Blotted Wet Weight (g)

Taxon	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC	EC_08_FA	EC_09_FA	EC_09_FB	EC_09_FC	EC_10_FA	EC_11_FA
CNIDARIA															
POLYCHAETA	1.5303	0.1754	1.3475	0.1638	1.2443	0.8922	0.2788	1.1774	0.0885	0.1676	2.9311	0.0855	0.1477	7.4013	0.149
OLIGOCHAETA			0.0001												
CRUSTACEA	0.0321	0.0569	0.0616	0.026	0.0574	0 9368	0.0564	0.0368	0.042	0.084	0.0412	21.8071	0.0115	0.6817	0.0077
MOLLUSCA	0.0227	0.0257	0.1805	0.0066	8.8075	28.5814	0.0259	0.082	0.608			0.0015		1.2746	0.0082
ECHINODERMATA					0.2003	0.0921		0.0148						0.037	
OTHER			0.0007	0.0039	0.0336	0.0181	0.0013	0.0031	0.0022					0.1385	

Notes
Blotted Wet Weight (g)

Taxon	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
CNIDARIA											
POLYCHAETA	1.507	0.6111	0.813	0.3958	2.5047	0.3202	0.2596	0.1106	1.3577	1.9653	0.9538
OLIGOCHAETA											
CRUSTACEA	1.3784	0.0173	0.0152	0.6113	0.7477	0.0077	0.0291	0.0042	0.0239	6.08	0.0816
MOLLUSCA	4.3227	0.0452	0.0067	60.6536	1.9158		0.0013		23.7218	33.9833	21.1107
ECHINODERMATA	0.0167			0.0246	0.0127	0.0009			0.0067	0.0006	
OTHER	0.0775	0.0013	0.0257	0.0074	0.061				0.0118	0.0205	0.0025

Notes
Blotted Wet Weight (g)

F.3 Epifauna

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA
CILIOPHORA																			
Folliculinidae	Dons, 1914			P		P	P	P		P				P	P	P	P		P
PORIFERA	Grant, 1836	P	P		P				P	P			P					P	P
Leucosolenida	Hartman, 1958	P	P		P	P		P	P			P	P			P		P	P
Polymastiidae (=*Polymastia penicillus*)	Gray, 1867	P																	
Suberitidae	Schmidt, 1870									P									
Timea	Gray, 1867															P			
Cliona	Grant, 1826	P	P		P		P		P	P	P	P	P			P		P	P
CNIDARIA																			
Corynidae	Johnston, 1836								P	P									
Eudendrium	Ehrenberg, 1834		P																P
Bougainvilliidae	Lütken, 1850	P																	P
Leptothecata (Campanulinida)	Cornelius, 1992																		
Leptothecata (Campanulinidae)	Cornelius, 1992	P																	
Calycella syringa*	**Linnaeus, 1767**		**P**									**P**	**P**						**P**
Haleciidae*	**Hincks, 1868**										**P**								**P**
Sertulariidae*	**Lamouroux, 1812**	**P**			**P**	**P**				**P**	**P**	**P**	**P**	**P**					**P**
Abietinaria abietina	Linnaeus, 1758		P										P	P					
Diphasia	Agassiz, 1862		P																P
Hydrallmania falcata	Linnaeus, 1758	P	P		P	P			P	P	P	P	P	P				P	P
Sertularella	Gray, 1848		P									P							
Sertularella rugosa	Linnaeus, 1758											P	P						
Amphisbetia distans	Lamouroux, 1816		P																
Kirchenpaueria pinnata	Linnaeus, 1758																		P
Nemertesia	Lamouroux, 1812										P								

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA
Campanulariidae*	**Johnston, 1836**				**P**						**P**		**P**					**P**	**P**
Alcyonium digitatum	Linnaeus, 1758		P										P	P					
ACTINIARIA	–		2										1						
ENTOPROCTA																			
Pedicellina	Sars, 1835	P	P							P	P							P	P
Barentsia	Hincks, 1880	P	P																P
ANNELIDA																			
Spirorbinae	Chamberlin, 1919		P			P	P	P		P			P						
ARTHROPODA																			
Verruca stroemia	O.F. Müller, 1776	326	36					1	1	4	2	128	107	257					1
Balanus crenatus	Bruguière, 1789	152	93		4	24			1	72	26	32	22	1		40		120	311
BRYOZOA																			
Crisiidae*	**Johnston, 1838**	**P**	**P**					**P**			**P**	**P**	**P**						
Crisia aculeata	Hassall, 1841		P									P	P	P		P		P	P
Stomatoporina incurvata	Hincks, 1860							P											
Tubuliporidae	Johnston, 1837		P		P		P	P		P	P			P				P	P
Plagioecia patina	Lamarck, 1816		P							P	P			P				P	
Alcyonidiidae	Johnston, 1837				P	P	P			P	P	P		P		P			P
Alcyonidium diaphanum	Hudson, 1778					P				P	P	P	P	P					
Alcyonidium parasiticum	Fleming, 1828													P					
Penetrantiidae (scars)	Silén, 1946	P	P		P	P	P	P		P	P	P		P	P	P	P	P	P
Vesicularia spinosa	Linnaeus, 1758		P						P		P				P	P	P		
Amathia lendigera	Linnaeus, 1758		P													P		P	P
Amathia*	**Lamouroux, 1812**																		
Amathia gracilis	Leidy, 1855																		
Amathia pustulosa	Ellis & Solander, 1786																		

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA
Aetea anguina	Linnaeus, 1758																		
Scruparia ambigua	d'Orbigny, 1841																		
Eucratea loricata	Linnaeus, 1758																		
Conopeum reticulum	Linnaeus, 1767	P	P		P		P			P	P	P	P	P	P			P	P
Electra	Lamouroux, 1816				P														
Electra pilosa	Linnaeus, 1767		P		P	P	P			P	P	P	P	P		P		P	P
Flustra foliacea	Linnaeus, 1758	P	P			P			P	P		P	P	P	P	P		P	P
Calloporidae	Norman, 1903	P			P					P	P	P	P	P		P		P	
Callopora dumerilii	Audouin, 1826													P					P
Cauloramphus spiniferum	Johnston, 1832		P		P				P	P	P							P	P
Amphiblestrum auritum	Hincks, 1877		P			P			P	P	P					P		P	P
Bugulina flabellata	Thompson in Gray, 1848										P								P
Bugulina fulva	Ryland, 1960																		
Crisularia plumosa	Pallas, 1766	P																	
Bicellariella ciliata	Linnaeus, 1758	P	P		P	P				P	P		P	P				P	P
Candidae (*Cradoscrupocellaria/ Scrupocellaria*)	Vieira, Spencer Jones & Winston, 2013	P	P							P									P
Cradoscrupocellaria (=reptans/ellisi)	Vieira, Spencer Jones & Winston, 2013											P	P						P
Scrupocellaria scruposa	Linnaeus, 1758		P							P	P	P	P	P					P
Cribrilina punctata/Collarina balzaci	Hassall, 1841/Audouin, 1826									P	P	P		P					
Cribrilinidae	Hincks, 1879																		
Puellina	Jullien, 1886							P					P				P		
Celleporella hyalina	Linnaeus, 1767												P						
Chorizopora brongniartii	Audouin, 1826	P	P		P	P	P	P		P	P	P	P	P		P		P	P

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA
Escharella immersa	Fleming, 1828	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Neolagenipora collaris	Norman, 1867									P						P		P	P
Escharina johnstoni	Quelch, 1884					P	P	P											
Schizomavella	Canu & Bassler, 1917	P	P		P		P		P	P	P	P	P	P		P		P	P
Microporella ciliata	Pallas, 1766					P	P	P			P	P	P	P				P	P
Fenestrulina	Jullien, 1888					P	P							P					P
Fenestrulina delicia	Winston, Hayward & Craig, 2000	P					P		P	P		P				P		P	P
Turbicellepora avicularis	Hincks, 1860		P			P													
TUNICATA																			
ASCIDIACEA (colonial)	Blainville, 1824		P		P														P
ASCIDIACEA (=*Perophora listeri*)	Blainville, 1824		P																
Polyclinidae*	**Milne Edwards, 1841**	P	P															P	P
Polyclinum aurantium	Milne Edwards, 1841		P																
Didemnidae	Giard, 1872		P		P	P				P	P					P			P
Ascidiella scabra	Müller, 1776	5																	
Styelidae	Sluiter, 1895																		4
Styelidae (*Botryllus/Botrylloides*)	Sluiter, 1895									P									
Polycarpa fibrosa	Stimpson, 1852		10																3
Polycarpa pomaria	Savigny, 1816																		
Dendrodoa grossularia	Van Beneden, 1846		18		16				9	372	26	156	74	58	3	35	1	435	50
Botryllus schlosseri	Pallas, 1766																		
Botrylloides leachii	Savigny, 1816										P	P							P
Microcosmus claudicans	Savigny, 1816																		
Molgula complanata	Alder & Hancock, 1870	1	5			2						4	1						
Molgula manhattensis	De Kay, 1843																		

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA
Number of taxa		27	44	2	22	21	15	13	15	34	32	29	32	28	7	21	6	27	47
Taxa below have been removed from main data matrix to facilitate analysis																			
JUVENILES																			
ACTINIARIA (polyps)	–																		
ACTINIARIA (juv.)	–															3			
ASCIDIACEA (juv.)	Blainville, 1824	20	132			1			4	2	4	4	3	3	3	3		13	15
Ascidiidae (juv.)	Herdman, 1882									1									1
Ascidiella (juv.)	Roule, 1884																		
SESSILIA (juv.)	Lamarck, 1818																	1	
DAMAGED FAUNA																			
SESSILIA	Lamarck, 1818																		
Crisiidae	Johnston, 1838	P	P					P			P	P	P						
CTENOSTOMATIDA	Busk, 1852																	P	
Membraniporoidea	Busk, 1854																		
ASCIDIACEA	Blainville, 1824																		
Polycarpa	Heller, 1877																		
Molgula	Forbes, 1848		2																
The following taxa were merged for statistical analysis																			
Amathia	Lamouroux, 1812																		
Amathia (=*citrina*)	Lamouroux, 1812																		
Amathia	**Lamouroux, 1812**																		
Calycella	Allman, 1864		P																
Calycella syringa	Linnaeus, 1767											P	P						P
Calycella syringa	**Linnaeus, 1767**		**P**									**P**	**P**						**P**
Campanulariidae	Johnston, 1836				P						P								P

Taxon	Authority	CC_01_FA	CC_02_FA	CC_03_FA	CC_04_FA	CC_05_FA	CC_05_FB	CC_05_FC	CC_06_FA	CC_07_FA	CC_08_FA	CC_09_FA	CC_09_FB	CC_09_FC	CC_10_FA	CC_11_FA	CC_12_FA	CC_13_FA	CC_14_FA
Campanulariidae (Obeliinae)	Johnston, 1836																		P
Clytia	Lamouroux, 1812												P					P	
Campanulariidae	**Johnston, 1836**				**P**						**P**		**P**					**P**	**P**
Crisia	Lamouroux, 1812		P					P			P	P	P						
Crisiidae	Johnston, 1838	P	P																
Crisiidae	**Johnston, 1838**	**P**	**P**					**P**			**P**	**P**	**P**						
Haleciidae	Hincks, 1868																		P
Halecium	Oken, 1815										P								
Haleciidae	**Hincks, 1868**										**P**								**P**
Polyclinidae	Milne Edwards, 1841	P	P															P	
Polyclinidae (=*Aplidium*)	Milne Edwards, 1841																		P
Polyclinidae (=*Polyclinum aurantium*)	Milne Edwards, 1841																		
Polyclinidae	**Milne Edwards, 1841**	**P**	**P**															**P**	**P**
Sertularia	Linnaeus, 1758	P			P					P	P	P	P						P
Sertulariidae	Lamouroux, 1812					P								P					
Sertulariidae	**Lamouroux, 1812**	**P**			**P**	**P**				**P**	**P**	**P**	**P**	**P**					**P**

Notes
* = Indicates the taxon which are a result of merged taxa

Taxon	Authority	CC_15_FA	CC_16_FA	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA
CILIOPHORA																			
Folliculinidae	Dons, 1914		P	P	P	P	P			P		P	P	P	P		P	P	
PORIFERA	Grant, 1836													P		P			
Leucosolenida	Hartman, 1958						P							P		P			
Polymastiidae (=*Polymastia penicillus*)	Gray, 1867																		
Suberitidae	Schmidt, 1870																		
Timea	Gray, 1867																		
Cliona	Grant, 1826		P					P	P	P	P	P	P	P		P			
CNIDARIA																			
Corynidae	Johnston, 1836																		
Eudendrium	Ehrenberg, 1834							P											
Bougainvilliidae	Lütken, 1850																		
Leptothecata (Campanulinida)	Cornelius, 1992														P				
Leptothecata (Campanulinidae)	Cornelius, 1992																		
Calycella syringa *****	**Linnaeus, 1767**						P					P							
Haleciidae*	**Hincks, 1868**																		
Sertulariidae*	**Lamouroux, 1812**						P	P				P	P	P	P	P		P	
Abietinaria abietina	Linnaeus, 1758						P				P			P					
Diphasia	Agassiz, 1862																		
Hydrallmania falcata	Linnaeus, 1758						P			P				P		P	P		
Sertularella	Gray, 1848													P					
Sertularella rugosa	Linnaeus, 1758																		
Amphisbetia distans	Lamouroux, 1816																		
Kirchenpaueria pinnata	Linnaeus, 1758																		
Nemertesia	Lamouroux, 1812																		
Campanulariidae*	**Johnston, 1836**											P			P				

Taxon	Authority	CC_15_FA	CC_16_FA	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA
lcyonium digitatum	Linnaeus, 1758											P				P			
ACTINIARIA	–						1					3				4		2	
ENTOPROCTA																			
Pedicellina	Sars, 1835						P							P					
Barentsia	Hincks, 1880																		
ANNELIDA																			
Spirorbinae	Chamberlin, 1919						P				P		P	P		P			
ARTHROPODA																			
Verruca stroemia	O.F. Müller, 1776						1				3	8	12	3		17			
Balanus crenatus	Bruguière, 1789						213	8		3	52	226	59	29		9			76
BRYOZOA																			
Crisiidae*	**Johnston, 1838**						P				P	P							
Crisia aculeata	Hassall, 1841						P					P	P	P		P			
Stomatoporina incurvata	Hincks, 1860																		
Tubuliporidae	Johnston, 1837						P							P					
Plagioecia patina	Lamarck, 1816															P			
Alcyonidiidae	Johnston, 1837						P	P	P	P				P		P			
Alcyonidium diaphanum	Hudson, 1778						P							P		P		P	
Alcyonidium parasiticum	Fleming, 1828								P										
Penetrantiidae (scars)	Silén, 1946		P		P			P	P	P	P	P			P	P	P	P	P
Vesicularia spinosa	Linnaeus, 1758						P		P			P							
Amathia lendigera	Linnaeus, 1758						P									P			
Amathia*	**Lamouroux, 1812**														P				
Amathia gracilis	Leidy, 1855																		
Amathia pustulosa	Ellis & Solander, 1786																		
Aetea anguina	Linnaeus, 1758															P			

Taxon	Authority	CC_15_FA	CC_16_FA	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA
Scruparia ambigua	d'Orbigny, 1841																		
Eucratea loricata	Linnaeus, 1758													P		P			
Conopeum reticulum	Linnaeus, 1767	P			P			P	P	P	P	P	P	P		P			P
Electra	Lamouroux, 1816																		
Electra pilosa	Linnaeus, 1767						P		P		P	P	P	P		P			
Flustra foliacea	Linnaeus, 1758						P	P	P		P	P	P	P	P	P			
Calloporidae	Norman, 1903	P								P				P					
Callopora dumerilii	Audouin, 1826						P	P		P		P		P		P			
Cauloramphus spiniferum	Johnston, 1832													P					
Amphiblestrum auritum	Hincks, 1877						P			P		P		P		P			
Bugulina flabellata	Thompson in Gray, 1848																		
Bugulina fulva	Ryland, 1960																		
Crisularia plumosa	Pallas, 1766						P							P					
Bicellariella ciliata	Linnaeus, 1758						P			P		P		P		P			
Candidae (*Cradoscrupocellaria/ Scrupocellaria*)	Vieira, Spencer Jones & Winston, 2013			P				P	P	P		P			P	P			
Cradoscrupocellaria (=reptans/ellisi)	Vieira, Spencer Jones & Winston, 2013						P				P	P							
Scrupocellaria scruposa	Linnaeus, 1758						P				P	P	P	P		P			
Cribrilina punctata/Collarina balzaci	Hassall, 1841/Audouin, 1826	P						P	P	P	P					P			
Cribrilinidae	Hincks, 1879																		
Puellina	Jullien, 1886																		
Celleporella hyalina	Linnaeus, 1767						P	P		P			P	P					
Chorizopora brongniartii	Audouin, 1826	P					P	P	P	P	P	P	P	P		P			
Escharella immersa	Fleming, 1828	P	P				P	P	P	P	P	P	P	P		P			
Neolagenipora collaris	Norman, 1867																		

Taxon	Authority	CC_15_FA	CC_16_FA	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA
Escharina johnstoni	Quelch, 1884																		
Schizomavella	Canu & Bassler, 1917	P					P				P	P	P	P		P			
Microporella ciliata	Pallas, 1766										P	P		P					
Fenestrulina	Jullien, 1888						P	P			P								
Fenestrulina delicia	Winston, Hayward & Craig, 2000	P					P		P	P	P	P	P	P		P			
Turbicellepora avicularis	Hincks, 1860									P		P		P					
TUNICATA																			
ASCIDIACEA (colonial)	Blainville, 1824																		
ASCIDIACEA (=*Perophora listeri*)	Blainville, 1824																		
Polyclinidae*	**Milne Edwards, 1841**											P							
Polyclinum aurantium	Milne Edwards, 1841																		
Didemnidae	Giard, 1872																		
Ascidiella scabra	Müller, 1776											1							
Styelidae	Sluiter, 1895																		
Styelidae (*Botryllus/Botrylloides*)	Sluiter, 1895																		
Polycarpa fibrosa	Stimpson, 1852						2					13							
Polycarpa pomaria	Savigny, 1816																		
Dendrodoa grossularia	Van Beneden, 1846						28					2		56		141			4
Botryllus schlosseri	Pallas, 1766													P					
Botrylloides leachii	Savigny, 1816													P					
Microcosmus claudicans	Savigny, 1816																		
Molgula complanata	Alder & Hancock, 1870																		
Molgula manhattensis	De Kay, 1843																		
Number of taxa		7	4	2	3	1	34	15	13	18	19	32	16	37	8	32	3	5	4
Taxa below have been removed from main data matrix to facilitate analysis																			

Taxon	Authority	CC_15_FA	CC_16_FA	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA
JUVENILES																			
ACTINIARIA (polyps)	–																		
ACTINIARIA (juv.)	–											8							
ASCIDIACEA (juv.)	Blainville, 1824						37	7	3		3	24	8	5		1			
Ascidiidae (juv.)	Herdman, 1882						1												
Ascidiella (juv.)	Roule, 1884																		
SESSILIA (juv.)	Lamarck, 1818						8	1					1	3					
DAMAGED FAUNA																			
SESSILIA	Lamarck, 1818																		
Crisiidae	Johnston, 1838						P				P	P							
CTENOSTOMATIDA	Busk, 1852																		
Membraniporoidea	Busk, 1854																		
ASCIDIACEA	Blainville, 1824																		
Polycarpa	Heller, 1877								1		1								
Molgula	Forbes, 1848																		
The following taxa were merged for statistical analysis																			
Amathia	Lamouroux, 1812														P				
Amathia (=*citrina*)	Lamouroux, 1812																		
Amathia	**Lamouroux, 1812**														P				
Calycella	Allman, 1864																		
Calycella syringa	Linnaeus, 1767						P					P							
Calycella syringa	Linnaeus, 1767						P					P							
Campanulariidae	Johnston, 1836											P			P				
Campanulariidae (Obeliinae)	Johnston, 1836																		
Clytia	Lamouroux, 1812																		
Campanulariidae	Johnston, 1836											P			P				
Crisia	Lamouroux, 1812																		

Taxon	Authority	CC_15_FA	CC_16_FA	CC_17_FA	CC_18_FA	CC_19_FA	D_01_FA	D_03_FA	D_03_FB	D_03_FC	D_04_FA	D_04_FB	D_04_FC	D_05_FA	D_06_FA	D_07_FA	D_08_FA	D_09_FA	D_10_FA
Crisiidae	Johnston, 1838						P				P	P							
Crisiidae	Johnston, 1838						P				P	P							
Haleciidae	Hincks, 1868																		
Halecium	Oken, 1815																		
Haleciidae	Hincks, 1868																		
Polyclinidae	Milne Edwards, 1841																		
Polyclinidae (=*Aplidium*)	Milne Edwards, 1841																		
Polyclinidae (=*Polyclinum aurantium*)	Milne Edwards, 1841											P							
Polyclinidae	Milne Edwards, 1841											P							
Sertularia	Linnaeus, 1758						P	P				P	P		P	P		P	
Sertulariidae	Lamouroux, 1812						P							P					
Sertulariidae	Lamouroux, 1812						P	P				P	P	P	P	P		P	

Notes
* = Indicates the taxon which are a result of merged taxa

Taxon	Authority	D_11_FA	D_15_FA	D_16_FA	D_17_FA	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC
CILIOPHORA																			
Folliculinidae	Dons, 1914		P			P		P		P	P	P	P	P	P	P	P	P	P
PORIFERA	Grant, 1836																		
Leucosolenida	Hartman, 1958					P									P		P	P	
Polymastiidae (=*Polymastia penicillus*)	Gray, 1867																		
Suberitidae	Schmidt, 1870																		
Timea	Gray, 1867																		
Cliona	Grant, 1826	P				P			P							P	P		P
CNIDARIA																			
Corynidae	Johnston, 1836					P													
Eudendrium	Ehrenberg, 1834					P									P				
Bougainvilliidae	Lütken, 1850								P										
Leptothecata (Campanulinida)	Cornelius, 1992																		
Leptothecata (Campanulinidae)	Cornelius, 1992														P				
Calycella syringa *	**Linnaeus, 1767**														P	P	P	P	
Haleciidae*	**Hincks, 1868**															P			
Sertulariidae*	**Lamouroux, 1812**	P			P	P			P	P			P		P	P	P	P	P
Abietinaria abietina	Linnaeus, 1758																		
Diphasia	Agassiz, 1862																		
Hydrallmania falcata	Linnaeus, 1758	P				P			P				P	P	P	P	P	P	
Sertularella	Gray, 1848					P									P				
Sertularella rugosa	Linnaeus, 1758																		
Amphisbetia distans	Lamouroux, 1816															P	P	P	
Kirchenpaueria pinnata	Linnaeus, 1758																		
Nemertesia	Lamouroux, 1812																		
Campanulariidae*	**Johnston, 1836**					P			P							P			P

Taxon	Authority	D_11_FA	D_15_FA	D_16_FA	D_17_FA	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC
Alcyonium digitatum	Linnaeus, 1758					P			P										
ACTINIARIA	–					2			3							4			
ENTOPROCTA																			
Pedicellina	Sars, 1835					P			P				P		P	P	P	P	
Barentsia	Hincks, 1880																P	P	
ANNELIDA																			
Spirorbinae	Chamberlin, 1919																		
ARTHROPODA																			
Verruca stroemia	O.F. Müller, 1776					3			1							1			
Balanus crenatus	Bruguière, 1789	6				967			808					3	59	13		117	
BRYOZOA																			
Crisiidae*	**Johnston, 1838**															P			
Crisia aculeata	Hassall, 1841					P										P	P	P	P
Stomatoporina incurvata	Hincks, 1860																		
Tubuliporidae	Johnston, 1837																		
Plagioecia patina	Lamarck, 1816																		
Alcyonidiidae	Johnston, 1837					P			P							P			P
Alcyonidium diaphanum	Hudson, 1778	P				P			P				P	P	P			P	
Alcyonidium parasiticum	Fleming, 1828	P				P			P								P	P	
Penetrantiidae (scars)	Silén, 1946	P	P			P		P		P	P		P	P	P	P	P		
Vesicularia spinosa	Linnaeus, 1758	P			P	P			P			P	P	P	P		P	P	
Amathia lendigera	Linnaeus, 1758															P	P	P	P
Amathia*	**Lamouroux, 1812**																		
Amathia gracilis	Leidy, 1855																P		
Amathia pustulosa	Ellis & Solander, 1786					P										P			
Aetea anguina	Linnaeus, 1758																		

Taxon	Authority	D_11_FA	D_15_FA	D_16_FA	D_17_FA	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC
Scruparia ambigua	d'Orbigny, 1841																		
Eucratea loricata	Linnaeus, 1758	P			P	P			P								P	P	
Conopeum reticulum	Linnaeus, 1767	P	P			P		P	P				P	P	P	P	P		P
Electra	Lamouroux, 1816																		
Electra pilosa	Linnaeus, 1767	P				P			P					P	P	P	P	P	
Flustra foliacea	Linnaeus, 1758	P				P			P						P	P	P	P	
Calloporidae	Norman, 1903					P			P	P			P	P	P				
Callopora dumerilii	Audouin, 1826															P			
Cauloramphus spiniferum	Johnston, 1832																		
Amphiblestrum auritum	Hincks, 1877															P			
Bugulina flabellata	Thompson in Gray, 1848																		
Bugulina fulva	Ryland, 1960															P			
Crisularia plumosa	Pallas, 1766															P		P	
Bicellariella ciliata	Linnaeus, 1758	P				P							P	P		P	P		P
Candidae (*Cradoscrupocellaria/ Scrupocellaria*)	Vieira, Spencer Jones & Winston, 2013								P	P									P
Cradoscrupocellaria (=reptans/ellisi)	Vieira, Spencer Jones & Winston, 2013					P										P	P		
Scrupocellaria scruposa	Linnaeus, 1758					P			P										
Cribrilina punctata/ Collarina balzaci	Hassall, 1841/Audouin, 1826	P				P				P			P	P	P				
Cribrilinidae	Hincks, 1879																		
Puellina	Jullien, 1886																		
Celleporella hyalina	Linnaeus, 1767								P				P				P		
Chorizopora brongniartii	Audouin, 1826	P				P			P				P	P		P			
Escharella immersa	Fleming, 1828	P							P				P	P	P	P	P	P	P
Neolagenipora collaris	Norman, 1867													P					

Taxon	Authority	D_11_FA	D_15_FA	D_16_FA	D_17_FA	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC
Escharina johnstoni	Quelch, 1884																		
Schizomavella	Canu & Bassler, 1917	P											P	P		P			
Microporella ciliata	Pallas, 1766																		
Fenestrulina	Jullien, 1888					P													
Fenestrulina delicia	Winston, Hayward & Craig, 2000	P							P				P		P	P			
Turbicellepora avicularis	Hincks, 1860					P			P						P				
TUNICATA																			
ASCIDIACEA (colonial)	Blainville, 1824					P										P			
ASCIDIACEA (=*Perophora listeri*)	Blainville, 1824															P			
Polyclinidae*	**Milne Edwards, 1841**																		
Polyclinum aurantium	Milne Edwards, 1841																		
Didemnidae	Giard, 1872																	P	
Ascidiella scabra	Müller, 1776																		
Styelidae	Sluiter, 1895																		
Styelidae (*Botryllus/Botrylloides*)	Sluiter, 1895																		
Polycarpa fibrosa	Stimpson, 1852					2										1			
Polycarpa pomaria	Savigny, 1816																		
Dendrodoa grossularia	Van Beneden, 1846	53												4		250	1		
Botryllus schlosseri	Pallas, 1766																		
Botrylloides leachii	Savigny, 1816																		
Microcosmus claudicans	Savigny, 1816																		
Molgula complanata	Alder & Hancock, 1870					27			6						1	3			
Molgula manhattensis	De Kay, 1843															6			
Number of taxa		19	3	0	3	36	0	3	27	6	2	2	16	16	22	37	24	20	11
Taxa below have been removed from main data matrix to facilitate analysis																			

Taxon	Authority	D_11_FA	D_15_FA	D_16_FA	D_17_FA	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC
JUVENILES																			
ACTINIARIA (polyps)	–					10													
ACTINIARIA (juv.)	–	1				1			3										
ASCIDIACEA (juv.)	Blainville, 1824	4				48			8					2	7	81	21	7	
Ascidiidae (juv.)	Herdman, 1882															15			
Ascidiella (juv.)	Roule, 1884					1													
SESSILIA (juv.)	Lamarck, 1818															1			
DAMAGED FAUNA																			
SESSILIA	Lamarck, 1818					82													
Crisiidae	Johnston, 1838															P			
CTENOSTOMATIDA	Busk, 1852														P				
Membraniporoidea	Busk, 1854																P		
ASCIDIACEA	Blainville, 1824															18			
Polycarpa	Heller, 1877															2			
Molgula	Forbes, 1848														1	9			
The following taxa were merged for statistical analysis																			
Amathia	Lamouroux, 1812																		
Amathia (=*citrina*)	Lamouroux, 1812																		
Amathia	**Lamouroux, 1812**																		
Calycella	Allman, 1864																		
Calycella syringa	Linnaeus, 1767														P	P	P	P	
Calycella syringa	**Linnaeus, 1767**														**P**	**P**	**P**	**P**	
Campanulariidae	Johnston, 1836					P			P										
Campanulariidae (Obeliinae)	Johnston, 1836																		P
Clytia	Lamouroux, 1812								P							P			
Campanulariidae	**Johnston, 1836**					**P**			**P**							**P**			**P**
Crisia	Lamouroux, 1812																		

Taxon	Authority	D_11_FA	D_15_FA	D_16_FA	D_17_FA	D_18_FA	D_19_FA	D_20_FA	D_21_FA	D_22_FA	D_23_FA	D_25_FA	D_26_FA	D_26_FB	D_26_FC	EC_05_FA	EC_07_FA	EC_07_FB	EC_07_FC
Crisiidae	Johnston, 1838															P			
Crisiidae	**Johnston, 1838**															**P**			
Haleciidae	Hincks, 1868															P			
Halecium	Oken, 1815																		
merged as:																			
Haleciidae	**Hincks, 1868**															**P**			
Polyclinidae	Milne Edwards, 1841																		
Polyclinidae (=*Aplidium*)	Milne Edwards, 1841																		
Polyclinidae (=*Polyclinum aurantium*)	Milne Edwards, 1841																		
Polyclinidae	**Milne Edwards, 1841**																		
Sertularia	Linnaeus, 1758	P				P			P	P			P		P			P	P
Sertulariidae	Lamouroux, 1812				P											P	P	P	
Sertulariidae	**Lamouroux, 1812**	**P**			**P**	**P**			**P**	**P**			**P**		**P**	**P**	**P**	**P**	**P**

Notes
* = Indicates the taxon which are a result of merged taxa

Taxon	Authority	EC_08_FA	EC_09_FA	EC_09_FB	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
CILIOPHORA																		
Folliculinidae	Dons, 1914	P	P	P	P	P		P	P			P	P	P	P		P	
PORIFERA	Grant, 1836							P			P	P						
Leucosolenida	Hartman, 1958					P		P			P	P				P	P	P
Polymastiidae (=*Polymastia penicillus*)	Gray, 1867																	
Suberitidae	Schmidt, 1870					P												
Timea	Gray, 1867																	
Cliona	Grant, 1826				P	P		P	P		P	P				P	P	P
CNIDARIA																		
Corynidae	Johnston, 1836																	P
Eudendrium	Ehrenberg, 1834																	
Bougainvilliidae	Lütken, 1850	P																
Leptothecata (Campanulinida)	Cornelius, 1992																	
Leptothecata (Campanulinidae)	Cornelius, 1992																	P
Calycella syringa*	**Linnaeus, 1767**					P		P			P	P				P		P
Haleciidae*	**Hincks, 1868**										P	P						
Sertulariidae*	**Lamouroux, 1812**					P		P	P		P	P						P
Abietinaria abietina	Linnaeus, 1758																	
Diphasia	Agassiz, 1862											P						P
Hydrallmania falcata	Linnaeus, 1758					P		P			P	P						P
Sertularella	Gray, 1848					P		P			P	P						
Sertularella rugosa	Linnaeus, 1758																	
Amphisbetia distans	Lamouroux, 1816								P									
Kirchenpaueria pinnata	Linnaeus, 1758																	
Nemertesia	Lamouroux, 1812																	
Campanulariidae*	**Johnston, 1836**			P		P		P			P							
Alcyonium digitatum	Linnaeus, 1758																	

Taxon	Authority	EC_08_FA	EC_09_FA	EC_09_FB	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
ACTINIARIA	–					1		3	1		1	10						
ENTOPROCTA																		
Pedicellina	Sars, 1835					P		P	P		P	P						
Barentsia	Hincks, 1880										P							
ANNELIDA																		
Spirorbinae	Chamberlin, 1919																	
ARTHROPODA																		
Verruca stroemia	O.F. Müller, 1776					1		5			5						2	
Balanus crenatus	Bruguière, 1789			20		290		293				152				100	134	196
BRYOZOA																		
Crisiidae*	**Johnston, 1838**			P				P				P					P	
Crisia aculeata	Hassall, 1841							P		P	P	P						P
Stomatoporina incurvata	Hincks, 1860																	
Tubuliporidae	Johnston, 1837																	
Plagioecia patina	Lamarck, 1816					P					P							P
Alcyonidiidae	Johnston, 1837			P				P	P		P	P				P		P
Alcyonidium diaphanum	Hudson, 1778							P	P			P						P
Alcyonidium parasiticum	Fleming, 1828																	P
Penetrantiidae (scars)	Silén, 1946	P		P	P	P		P			P	P						P
Vesicularia spinosa	Linnaeus, 1758						P		P			P						P
Amathia lendigera	Linnaeus, 1758										P	P				P		
Amathia*	**Lamouroux, 1812**											P						
Amathia gracilis	Leidy, 1855																	
Amathia pustulosa	Ellis & Solander, 1786					P												
Aetea anguina	Linnaeus, 1758																	
Scruparia ambigua	d'Orbigny, 1841							P										

Taxon	Authority	EC_08_FA	EC_09_FA	EC_09_FB	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Eucratea loricata	Linnaeus, 1758						P					P				P		P
Conopeum reticulum	Linnaeus, 1767					P	P	P	P	P	P	P				P	P	P
Electra	Lamouroux, 1816																	
Electra pilosa	Linnaeus, 1767			P	P	P	P	P	P	P	P	P				P	P	P
Flustra foliacea	Linnaeus, 1758					P	P	P			P	P				P	P	P
Calloporidae	Norman, 1903							P			P	P						P
Callopora dumerilii	Audouin, 1826					P		P										
Cauloramphus spiniferum	Johnston, 1832																	
Amphiblestrum auritum	Hincks, 1877					P		P			P	P				P	P	
Bugulina flabellata	Thompson in Gray, 1848																	
Bugulina fulva	Ryland, 1960																	
Crisularia plumosa	Pallas, 1766											P						
Bicellariella ciliata	Linnaeus, 1758					P	P	P	P		P	P					P	P
Candidae (*Cradoscrupocellaria/ Scrupocellaria*)	Vieira, Spencer Jones & Winston, 2013				P	P					P	P						P
Cradoscrupocellaria (=reptans/ellisi)	Vieira, Spencer Jones & Winston, 2013																	P
Scrupocellaria scruposa	Linnaeus, 1758					P		P	P		P							
Cribrilina punctata/Collarina balzaci	Hassall, 1841/Audouin, 1826																	
Cribrilinidae	Hincks, 1879																	
Puellina	Jullien, 1886			P														
Celleporella hyalina	Linnaeus, 1767								P					P				
Chorizopora brongniartii	Audouin, 1826					P					P	P				P	P	
Escharella immersa	Fleming, 1828			P	P	P	P	P	P		P	P				P	P	P
Neolagenipora collaris	Norman, 1867																	
Escharina johnstoni	Quelch, 1884																	

Taxon	Authority	EC_08_FA	EC_09_FA	EC_09_FB	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Schizomavella	Canu & Bassler, 1917					P	P	P			P	P					P	P
Microporella ciliata	Pallas, 1766										P						P	
Fenestrulina	Jullien, 1888																	
Fenestrulina delicia	Winston, Hayward & Craig, 2000					P		P			P	P					P	P
Turbicellepora avicularis	Hincks, 1860																	
TUNICATA																		
ASCIDIACEA (colonial)	Blainville, 1824											P						
ASCIDIACEA (=*Perophora listeri*)	Blainville, 1824											P						P
Polyclinidae*	**Milne Edwards, 1841**																	
Polyclinum aurantium	Milne Edwards, 1841																	
Didemnidae	Giard, 1872							P				P						
Ascidiella scabra	Müller, 1776					2		6			3	20						
Styelidae	Sluiter, 1895																	
Styelidae (*Botryllus/Botrylloides*)	Sluiter, 1895																	
Polycarpa fibrosa	Stimpson, 1852					60		7			5	23				7	2	1
Polycarpa pomaria	Savigny, 1816					52		23				1						
Dendrodoa grossularia	Van Beneden, 1846					256		531				530					4	2
Botryllus schlosseri	Pallas, 1766																	
Botrylloides leachii	Savigny, 1816																	
Microcosmus claudicans	Savigny, 1816					2					3							
Molgula complanata	Alder & Hancock, 1870							26			14							1
Molgula manhattensis	De Kay, 1843					1			25			28						
Number of taxa		**3**	**1**	**9**	**6**	**34**	**8**	**36**	**16**	**3**	**35**	**42**	**1**	**2**	**1**	**14**	**18**	**31**
Taxa below have been removed from main data matrix to facilitate analysis																		
JUVENILES																		

Taxon	Authority	EC_08_FA	EC_09_FA	EC_09_FB	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
ACTINIARIA (polyps)	–																	
ACTINIARIA (juv.)	–																	
ASCIDIACEA (juv.)	Blainville, 1824				2	74		54	37			96				16	23	30
Ascidiidae (juv.)	Herdman, 1882											9						
Ascidiella (juv.)	Roule, 1884																	
SESSILIA (juv.)	Lamarck, 1818								1								4	
DAMAGED FAUNA																		
SESSILIA	Lamarck, 1818																	
Crisiidae	Johnston, 1838			P				P				P					P	
CTENOSTOMATIDA	Busk, 1852																	
Membraniporoidea	Busk, 1854								P									
ASCIDIACEA	Blainville, 1824							46										
Polycarpa	Heller, 1877					1					1							
Molgula	Forbes, 1848							5	5		1	3						
The following taxa were merged for statistical analysis																		
Amathia	Lamouroux, 1812																	
Amathia (=*citrina*)	Lamouroux, 1812											P						
Amathia	**Lamouroux, 1812**											**P**						
Calycella	Allman, 1864																	
Calycella syringa	Linnaeus, 1767					P		P			P	P				P		P
Calycella syringa	**Linnaeus, 1767**					**P**		**P**			**P**	**P**				**P**		**P**
Campanulariidae	Johnston, 1836																	
Campanulariidae (Obeliinae)	Johnston, 1836					P		P										
Clytia	Lamouroux, 1812			P							P							
Campanulariidae	**Johnston, 1836**			**P**		**P**		**P**			**P**							
Crisia	Lamouroux, 1812			P								P						
Crisiidae	Johnston, 1838							P									P	

Taxon	Authority	EC_08_FA	EC_09_FA	EC_09_FB	EC_09_FC	EC_10_FA	EC_11_FA	EC_12_FA	EC_14_FA	EC_15_FA	EC_16_FA	EC_17_FA	EC_19_FA	EC_19_FB	EC_19_FC	EC_23_FA	EC_23_FB	EC_23_FC
Crisiidae	**Johnston, 1838**			**P**				**P**				**P**					**P**	
Haleciidae	Hincks, 1868										P	P						
Halecium	Oken, 1815											P						
Haleciidae	**Hincks, 1868**										**P**	**P**						
Polyclinidae	Milne Edwards, 1841																	
Polyclinidae (=*Aplidium*)	Milne Edwards, 1841																	
Polyclinidae (=*Polyclinum aurantium*)	Milne Edwards, 1841																	
Polyclinidae	**Milne Edwards, 1841**																	
Sertularia	Linnaeus, 1758					P		P	P		P	P						P
Sertulariidae	Lamouroux, 1812							P										
Sertulariidae	**Lamouroux, 1812**					**P**		**P**	**P**		**P**	**P**						**P**

Notes
* = Indicates the taxon which are a result of merged taxa