



VEMENTRY EIAR

APPENDIX 6 - BASELINE SURVEY REPORT

6.1 Introduction

A baseline benthic survey was undertaken at the proposed Vementry marine farm location to characterise seabed conditions prior to development and to inform subsequent impact assessment and modelling. The survey was designed and implemented in accordance with the latest Scottish Environment Protection Agency (SEPA) guidance on benthic surveys for marine fish farm developments (SEPA, 2022). The baseline survey comprises a combination of seabed visual assessment (Appendix 7) and quantitative grab sampling. Visual survey data were collected in advance of grab sampling and used to map seabed substrate types, identify areas of hard or unsampleable ground, and screen for the presence of Priority Marine Features (PMFs). The findings of the visual survey informed the final design of the grab sampling programme, ensuring that sampling effort was targeted at representative, sampleable substrates while avoiding areas of rock or coarse stony ground where grab sampling is not feasible.

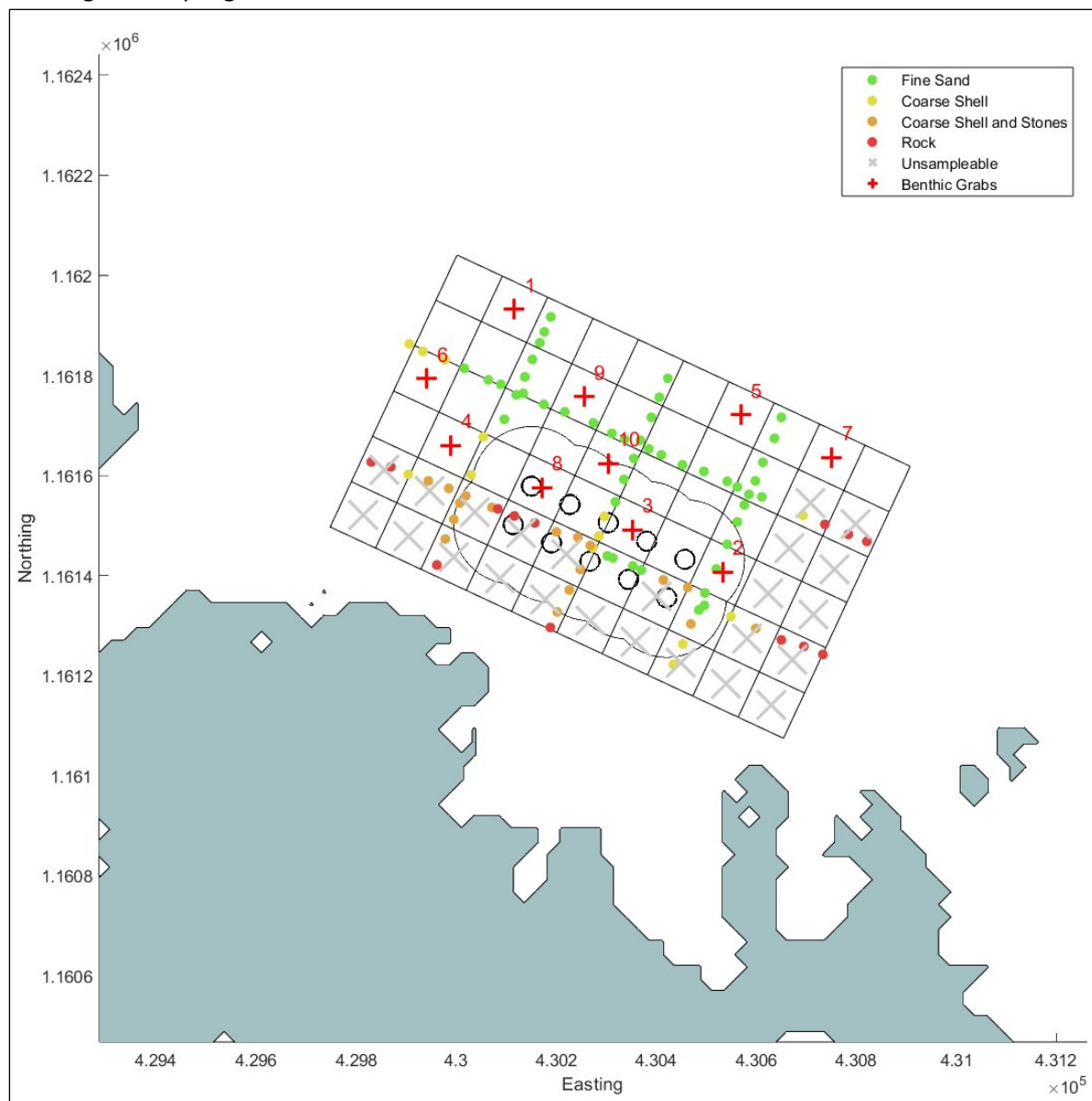


Figure 1. Proposed baseline benthic sampling stations. Locations of proposed pens ('o'), 100m mixing zone, unsamplable locations (grey 'X'), benthic grabs ('+') and visual survey photos ('•') are shown.

The benthic sampling grid covers an area of approximately 600 m (North-South) by 1,000 m (East-West), with a nominal grid spacing of 100 m, and is aligned with the proposed pen group bearing. The layout of the sampling stations, proposed pen locations, 100 m mixing zone, grab sampling stations, visual survey photo locations, and unsampleable areas is shown in Figure 1.

The orientation of the sampling grid is aligned with the pen group bearing. Assessment of the visual photography survey data (Appendix 7) was used to map substrate type, highlight regions of hard substrate and identify priority marine features. The results show a variety of substrates, including fine sand, coarse shell gravel, coarse shell gravel with stones (unsampleable), and rock (unsampleable) (See Appendix table A1). A summary of the findings of the visual survey report are presented in appendix 1. Areas of rocky/stony substrate where grab sampling is not possible are excluded from the baseline survey, as indicated by the grey crosses in Figure 1.

Grab sample locations (table 1) were positioned at the central point of five randomly selected 100mx100m sample grid squares for each substrate type observed in the visual survey. In this case two sampleable seabed substrates are identified - fine sand and coarse shell gravel - meaning 10 grab sampling locations were selected.

Table 1 Baseline grab sample locations.

Station No.	Easting	Northing	Latitude	Longitude	Predicted seabed type
1	430116.2	1161932	60° 20.419	-1° 27.377	<i>Fine sand</i>
2	430533.2	1161407	60° 20.134	-1° 26.929	<i>Fine sand</i>
3	430352	1161491	60° 20.180	-1° 27.126	<i>Coarse shell gravel</i>
4	429989.4	1161660	60° 20.273	-1° 27.518	<i>Coarse shell gravel</i>
5	430569.4	1161721	60° 20.303	-1° 26.887	<i>Fine sand</i>
6	429941.1	1161793	60° 20.345	-1° 27.569	<i>Coarse shell gravel</i>
7	430750.6	1161636	60° 20.257	-1° 26.691	<i>Coarse shell gravel</i>
8	430170.7	1161576	60° 20.226	-1° 27.322	<i>Coarse shell gravel</i>
9	430255.2	1161757	60° 20.324	-1° 27.228	<i>Fine sand</i>
10	430303.6	1161624	60° 20.252	-1° 27.177	<i>Fine sand</i>

6.2 Sampling Information

Benthic grab sampling was undertaken by Cooke Aquaculture Scotland (CAS) using a 0.045 m² Van Veen grab, in accordance with SEPA (2022) guidance for baseline surveys at proposed marine finfish farm sites.

At each sample station, water depth and grab fullness were recorded to confirm sample validity. Upon retrieval, sediment samples were examined in the field and qualitatively assessed for sediment colour, consistency and texture, as well as for the presence of waste feed pellets, faecal material, visible *Beggiatoa* spp., and hydrogen sulphide (H₂S) odour, where present. These observations were recorded to provide contextual information on baseline seabed condition.

The geographic position of each sampling station was recorded using GPS, alongside timestamps for each deployment. Sampling was restricted to areas of soft, sampleable substrate, as identified through the preceding visual survey, with all unsampleable rocky or stony areas excluded from the grab programme.

Samples were collected for the following parameters:

- Benthic infauna (two replicate samples per station);
- Particle Size Analysis (PSA) (one replicate per station); and
- Total Organic Carbon (TOC) (one replicate per station).

All samples were preserved, handled and transported in accordance with standard laboratory protocols prior to analysis.

All benthic infauna samples were analysed by an independent third-party consultancy using standard taxonomic procedures. The resulting faunal dataset was analysed using PRIMER software and the UKTAG Infaunal Quality Index (IQI) Workbook v02, and was additionally assessed for the presence and abundance of enrichment polychaete (EP) taxa.

To avoid over-representation of species, faunal data were quality-checked prior to analysis. Where appropriate, data rows were combined (for example, juvenile and adult forms of the same species) in line with SEPA's Marine Pen Fish Farm (MPFF) reporting template guidance. All such adjustments were applied consistently across the dataset.

The UKTAG IQI Workbook v02 was used to calculate IQI values for each station. To reduce the proportion of taxa categorised as 'non-assigned', ecological group (EG) classifications were applied where available using reference information from UKTAG IQI Workbook v01. All instances where EG classifications were updated or assigned are clearly highlighted within the Metrics worksheet.

Particle Size Analysis results were also entered into the UKTAG IQI Workbook to support interpretation of faunal metrics. Where PSA results fell at or beyond the outer centiles of the Workbook design limits, IQI values have been reported but are noted as requiring cautious interpretation, in line with UKTAG guidance.

Full analytical results are provided below and raw data is provided in the Annex below.

6.3 Results

6.3.1 Sediment Description, Particle Size Analysis (PSA) and Total Organic Carbon (TOC)

Sediment across the Vementry baseline survey area was generally characterised as sandy to coarse shell gravel substrates, with localised areas of unsampleable stony or rocky seabed identified through the accompanying visual survey. Grab samples were successfully collected from ten stations (BL-1 to BL-10) located within areas of soft substrate, as informed by the prior photographic assessment.

Qualitative examination of grab samples described sediments as fine sand or coarse shell gravel, occasionally containing shell fragments and biogenic material typical of exposed coastal seabeds in Shetland waters. No waste feed pellets, visible faecal material, or conspicuous organic enrichment features were observed. No strong hydrogen sulphide odours were recorded at any station, indicating generally oxic sediment conditions across the sampled area.

Particle Size Analysis (PSA) was undertaken on sediment samples collected from ten baseline stations (St-1 to St-10). Results are summarised in Table 3 of the annex.

Across the survey area, sediments are predominantly sand-dominated, with variable contributions of fine material and coarse shell and gravel fractions. The proportion of fine sediment (<0.063 mm) ranges from 0.9% (St-8) to 14.4% (St-9), indicating generally low to moderate fines content consistent with a relatively energetic coastal environment.

The sand fraction (0.063–2 mm) dominates all samples, with medium to fine sand (0.125–0.25 mm and 0.25–0.5 mm) forming the largest proportion at most stations. Stations St-1, St-2, St-5, St-7, St-9 and St-10 are characterised by fine to medium sands, whereas St-3 and St-6 show a greater contribution of coarse sand fractions, reflecting localised variation in seabed energy and sediment supply.

Coarse material (>2 mm), including shell gravel, is most pronounced at St-4, St-6 and St-8, where gravel-sized fractions (2–8 mm and >8 mm) together account for a substantial proportion of the sediment. These stations are classified as very coarse sand under the Folk Triangle classification, consistent with observations from the visual seabed survey identifying areas of coarse shell gravel and stony substrate in parts of the survey area.

Sediments are predominantly poorly to very poorly sorted, indicating mixed grain-size distributions typical of exposed coastal settings subject to variable hydrodynamic conditions. Skewness values range from symmetrical to fine-skewed, suggesting a general bias towards finer fractions within otherwise sandy sediments. Kurtosis values are predominantly leptokurtic to very leptokurtic, indicating peaked grain-size distributions with a dominance of particular size classes.

Based on Folk Triangle classification, sediments are categorised as:

- Fine sand at St-1, St-2, St-7, St-9 and St-10;
- Very fine sand at St-5;
- Medium sand at St-3;
- Coarse sand at St-6; and
- Very coarse sand at St-4 and St-8.

Overall, PSA results confirm a heterogeneous seabed comprising fine sands through to coarse, gravelly sands, consistent with the exposed and dispersive nature of the Vementry marine environment. These sediment characteristics provide suitable baseline conditions for benthic community development and are typical of coastal areas influenced by tidal currents and wave action in Shetland waters.

6.3.2 PRIMER, Infaunal Quality Index (IQI) and Enrichment Polychaetes

A summary of benthic community indices, enrichment polychaete (EP) metrics, ITI scores, and IQI results for each baseline station is provided in Table 2.

Table 2. Summary of EMP indices from benthic results

PARAMETER	BL-1	BL-2	BL-3	BL-4	BL-5	BL-6	BL-7	BL-8	BL-9	BL-10
Number of taxa (S)	59	39	38	41	42	43	45	35	37	45
Abundance (N)	292	189	120	115	175	118	206	71	244	184
Margalef's Richness (d)	10.22	7.25	7.73	8.43	7.94	8.80	8.26	7.98	6.55	8.44
Pielou's Evenness (J)	0.85	0.69	0.76	0.87	0.77	0.85	0.79	0.91	0.78	0.83
S-Wiener Diversity $H' \log 2$	4.97	3.63	4.00	4.67	4.14	4.64	4.35	4.69	4.09	4.55
Number of Enrichment Polychaete Species	0	1	0	0	0	0	0	0	0	0
Abundance of Enrichment Polychaetes (m ²)	0	11	0	0	0	0	0	0	0	0

ITI	63.47	45.10	52.30	49.41	55.05	59.83	62.75	60.70	65.44	62.82
IQI v02 (v01 EG)	0.700	0.621	0.593	0.651	0.651	0.655	0.679	0.658	0.674	0.685

Across the ten baseline stations:

- Species richness (S) ranges from 35 to 59 taxa.
- Abundance (N) ranges from 71 to 292 individuals per station.
- Diversity indices (Margalef's richness, Pielou's evenness, and Shannon–Wiener diversity) indicate generally moderate to high diversity, with well-distributed assemblages across most stations.
- Evenness values are high at most stations (0.69–0.91), indicating balanced communities without strong dominance by single taxa.

Enrichment polychaetes are largely absent across the survey area. A single enrichment polychaete (*Capitella* sp.) was recorded at Station BL-2, with an abundance equivalent to 11 individuals m⁻². No enrichment polychaetes were recorded at any other station, and EP densities remain very low overall, indicating no evidence of organic enrichment.

ITI values range from 45.10 to 65.44. Stations BL-1, BL-7, BL-8, BL-9 and BL-10 exceed the ITI threshold of 60, indicating Normal benthic community condition. Lower ITI values at BL-2, BL-3 and BL-4 reflect natural variability in community composition rather than enrichment-related degradation.

IQI results show that:

- Eight stations achieve Good Ecological Status, with IQI values ranging from 0.651 to 0.700.
- Two stations (BL-2 and BL-3) are classified as Moderate Ecological Status, with IQI values of 0.621 and 0.593 respectively.

Table 3. Summary of biological diversity indices at all survey stations.

Grab Location	Number of taxa (S)	Abundance (N)	Margalef's Richness (d)	Pielou's Evenness (J)	S- Wiener Diversity ($H'(\log 2)$)	Number of Enrichment Polychaete (EP) Species	EP Density (/m ²)	ITI	IQI WB v02 with WBv01 EG (where available) for 'non assigned' entries	Ecological Status	Easting	Northing
BL-1	59	292	10.22	0.85	4.97	0	0	63.47	0.700	GOOD	430135	1161951
BL-2	39	189	7.25	0.69	3.63	1	11	45.10	0.621	MODERATE	430563	1161416
BL-3	38	120	7.73	0.76	4.00	0	0	52.30	0.593	MODERATE	430367	1161509
BL-4	41	115	8.43	0.87	4.67	0	0	49.41	0.651	GOOD	430000	1161661
BL-5	42	175	7.94	0.77	4.14	0	0	55.05	0.651	GOOD	430582	1161728
BL-6	43	118	8.80	0.85	4.64	0	0	59.83	0.655	GOOD	429944	1161793
BL-7	45	206	8.26	0.79	4.35	0	0	62.75	0.679	GOOD	430871	1161660
BL-8	35	71	7.98	0.91	4.69	0	0	60.70	0.658	GOOD	430153	1161603
BL-9	37	244	6.55	0.78	4.09	0	0	65.44	0.674	GOOD	430265	1161774
BL-10	45	184	8.44	0.83	4.55	0	0	62.82	0.685	GOOD	430304	1161623

The Moderate classifications are driven by localised differences in species composition and abundance rather than elevated enrichment indicators and occur within the range expected for heterogeneous sandy and shelly sediments in exposed coastal settings.

No Priority Marine Feature (PMF) species or habitats were identified in any grab samples.

6.3.3 Species Composition and Community Structure

The benthic communities recorded across the survey area are dominated by polychaete worms, with contributions from bivalves, echinoderms, and amphipod crustaceans, consistent with sandy and coarse shell gravel habitats.

Common and frequently abundant taxa across the dataset include *Lumbrineris cingulata*, *Spiophanes kroyeri*, *Thyasira flexuosa*, *Amphiura filiformis*, *Polycirrus* spp., and *Chaetozone zetlandica*. Species dominance varies between stations, reflecting localised changes in sediment type and hydrodynamic exposure.

Station BL-1 records the highest species richness (59 taxa) and highest diversity ($H' = 4.97$), with no single species strongly dominating the assemblage. Stations BL-2 and BL-3, which are classified as Moderate Ecological Status, show greater dominance by individual taxa (e.g. *Thyasira flexuosa* at BL-2 and *Lumbrineris cingulata* at BL-3), contributing to lower diversity and IQI scores.

Multivariate analysis using PRIMER (Bray–Curtis similarity and ordination plots; Figure X) indicates:

- Broad similarity in community composition across the majority of stations.
- Some separation of stations associated with differences in sediment type and dominant taxa.
- No clustering indicative of organic enrichment or disturbance-related gradients.

Overall similarity across the dataset is typical for naturally variable benthic communities in mixed sandy and shelly substrates.

Table 4. Most abundant species per station.

Grab Locations	Most abundant taxa (% of sample)	2nd Most abundant taxa (% of sample)	3rd Most abundant taxa (% of sample)	4th Most abundant taxa (% of sample)	5th Most abundant taxa (% of sample)
BL-1	<i>Spiophanes kroyeri</i> (10.3%)	<i>Lumbrineris cingulata</i> (9.9%)	<i>Amphiura filiformis</i> (8.9%)	<i>Thyasira flexuosa</i> (7.5%)	<i>Prionospio fallax</i> (7.5%)
BL-2	<i>Thyasira flexuosa</i> (38.3%)	<i>Lumbrineris cingulata</i> (13.8%)	<i>Notomastus</i> (8%)	<i>Spiophanes bombyx</i> (4.3%)	<i>Prionospio fallax</i> (4.3%)
BL-3	<i>Lumbrineris cingulata</i> (28%)	<i>Chaetozone zetlandica</i> (19.5%)	<i>Polycirrus</i> (8.5%)	<i>Spiophanes kroyeri</i> (3.4%)	<i>Glycera lapidum</i> (3.4%)
BL-4	<i>Lumbrineris cingulata</i> (17.5%)	<i>Aonides paucibranchiata</i> (7%)	<i>Notomastus</i> (7%)	<i>Scalibregma stenoceram</i> (6.1%)	<i>Polycirrus</i> (6.1%)
BL-5	<i>Thyasira flexuosa</i> (33.1%)	<i>Spiophanes kroyeri</i> (6.3%)	<i>Spiochaetopterus</i> (5.7%)	<i>Myrtea spinifera</i> (5.1%)	<i>Lumbrineris cingulata</i> (4.6%)
BL-6	<i>Lumbrineris cingulata</i> (15.5%)	<i>Chaetozone zetlandica</i> (14.7%)	<i>Polycirrus</i> (7.8%)	<i>Hydroides norvegica</i> (6%)	<i>Glycera lapidum</i> (5.2%)
BL-7	<i>Lumbrineris cingulata</i> (16%)	<i>Spiophanes kroyeri</i> (13.1%)	<i>Amphiura filiformis</i> (11.7%)	<i>Spiochaetopterus</i> (10.7%)	<i>Notomastus</i> (8.3%)

BL-8	Aricidea (Acmira) cerrutii (14.5%)	Aonides paucibranchiata (10.1%)	Chaetozone zetlandica (5.8%)	Lumbrineris cingulata (5.8%)	Glycera lapidum (5.8%)
BL-9	Thyasira flexuosa (21.3%)	Spiophanes kroyeri (17.2%)	Owenia (10.2%)	Phoronis (6.1%)	Lumbrineris cingulata (4.5%)
BL-10	Lumbrineris cingulata (15.8%)	Amphiura filiformis (13.1%)	Spiophanes kroyeri (8.7%)	Spiochaetopterus (7.1%)	Prionospio fallax (6%)

6.3.4 References

Cooke Scotland (2025). Appendix7. Vementry Benthic Visual Survey Report.

Scottish Environmental Protection Agency (2022), Baseline survey design.

Data Sheet

Table 1 - Stations

	St-1	St-2	St-3	St-4	St-5	St-6	St-7	St-8	St-9	St-10
Easting	430135	430563	430367	430000	430582	429944	430871	430153	430265	430304
Northing	1161951	1161416	1161509	1161661	1161728	1161793	1161660	1161603	1161774	1161623
Depth	105	81	72	63	106	66	85	69	103	100
Date sampled	07/08/2025	07/08/2025	07/08/2025	07/08/2025	07/08/2025	07/08/2025	07/08/2025	07/08/2025	07/08/2025	08/08/2025

Table 2 - Sediment

Description	St-1	St-2	St-3	St-4	St-5	St-6	St-7	St-8	St-9	St-10
% Grab filled	80	100	70	75	90	65	80	80	90	90
Grab size	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.045
Colour	Dark grey-brown	Dark grey-brown	Medium orange-brown	Medium orange-brown	Dark grey-brown	Medium orange-brown	Dark grey-brown	Medium orange-brown	Dark grey-brown	Medium orange-brown
Consistency/Texture	Sandy mud. Firm	Sandy mud. Firm	Muddy sandy shell gravel. Firm	Muddy sandy shell gravel. Firm	Sandy mud. Firm	Muddy sandy shell gravel. Firm	Sandy mud. Firm	Muddy sandy shell gravel. Firm	Sandy mud. Firm	Muddy sandy shell gravel. Firm
Surface smell (Yes/No)										
Fungus (Yes/No)										

Table 3 - Particle

Size Analysis	St-1	St-2	St-3	St-4	St-5	St-6	St-7	St-8	St-9	St-10
% < 0.063mm	7.492138271	12.11430548	5.93161475	4.084275398	7.939824853	3.766855534	7.12206913	0.905013347	14.44542406	9.455128371
% 0.125-0.063mm	29.60264243	33.33035179	15.8232964	7.588274518	46.36788641	6.952469653	35.84140812	3.173724443	33.00697662	32.75743009
% 0.25-0.125mm	36.9103275	40.96500629	22.0511201	12.27774551	39.92623141	12.88293873	43.52800071	5.159217794	38.66710471	40.3745057
% 0.5 - 0.25mm	14.75137762	10.3325542	16.55227134	7.211735106	4.593559703	20.09488003	8.058166029	5.798157792	12.59632382	14.55289395
% 1 - 0.5mm	6.74396868	1.24954644	7.589020149	3.239682545	0.451012863	10.93230687	2.521483024	9.473667071	0.576379537	1.36241132
% 2 - 1mm	3.28857383	0.962137258	20.53167144	14.66621869	0.322373789	16.27343577	1.556457397	34.60744603	0.58457075	1.08185719
% 4 - 2mm	0.792335648	0.411621254	9.663532532	35.60213653	0.118161684	27.61091401	1.200588126	31.07445552	0.123220503	0.415773377
% 8 - 4mm	0.385083513	0.430016792	1.090969214	11.96608224	0.155026577	0.987347253	0.17182746	3.733263862	0	0
% > 8mm	0.033552509	0.204460496	0.76650407	3.363849467	0.125922714	0.498852157	0	6.075054139	0	0
Degree of sorting	Poorly Sorted	Poorly Sorted	Poorly Sorted	Very Poorly Sorted	Moderately Sorted	Poorly Sorted	Poorly Sorted	Poorly Sorted	Poorly Sorted	Poorly Sorted
Degree of skewness	Symmetrical	Fine Skewed	Coarse Skewed	Very Fine Skewed	Fine Skewed	Fine Skewed	Symmetrical	Fine Skewed	Fine Skewed	Fine Skewed
Degree of kurtosis	Very Leptokurtic	Very Leptokurtic	Platykurtic	Platykurtic	Very Leptokurtic	Platykurtic	Very Leptokurtic	Very Leptokurtic	Very Leptokurtic	Leptokurtic
Folk Triangle	Fine Sand	Fine Sand	Medium Sand	Very Coarse Sand	Very Fine Sand	Coarse Sand	Fine Sand	Very Coarse Sand	Fine Sand	Fine Sand

Table 4 - Faunal

Summary	St-1	St-2	St-3	St-4	St-5	St-6	St-7	St-8	St-9	St-10
Number of taxa (S)	59	39	38	41	42	43	45	35	37	45
Abundance (N)	292	189	120	115	175	118	206	71	244	184
Magalef's Richness (d)	10.21710682	7.249491418	7.72847286	8.43004682	7.938373479	8.803767867	8.258450198	7.976202995	6.548826327	8.437304321
Pielou's Evenness (J)	0.845224699	0.686047084	0.761556004	0.871401334	0.767696907	0.854579681	0.792165109	0.914402825	0.784362058	0.828484373
S-Wiener Diversity H' log 2	4.972155198	3.62603478	3.996590705	4.668577966	4.139665406	4.637175602	4.350454407	4.690230881	4.086097561	4.549914467
Enrichment Polychaete Species	0	1	0	0	0	0	0	0	0	0
if Enrichment Polychaetes (m2)	0	11	0	0	0	0	0	0	0	0
ITI	63.4739726	45.10352941	52.30362069	49.40982143	55.05211429	59.82544643	62.74882353	60.70044776	65.43555556	62.82423077
IQI	0.70	0.62	0.59	0.65	0.65	0.65	0.68	0.65780313	0.673580245	0.684983782

Table 5 - Residues

Data (ng/kg)	St-1	St-2	St-3	St-4	St-5	St-6	St-7	St-8	St-9	St-10
Replicate 1 (see note 1 below)										
Replicate 2 (see note 1 below)										
Replicate 3 (see note 1 below)										
Mean (see note 1 below)										
LOD										

Notes:

- 1 Values below the limit of detection should be recorded with the limit of detection concentration value preceded by a less than symbol e.g. <0.08
- 2 Where replicates contain values below the limit of detection they should be treated as half the limit of detection in the calculation of the mean e.g. <0.08 should be treated as 0.04

Table 6 - Total Organic Carbon Tr. (%)

	St-1	St-2	St-3	St-4	St-5	St-6	St-7	St-8	St-9	St-10
Replicate 1 (see note 1 below)	1.49	1.41	1.19	1.03	1.55	0.97	1.24	0.9	1.69	1.56
Replicate 2 (see note 1 below)										
Replicate 3 (see note 1 below)										

Notes:

- 1 Please ensure replicate numbers correspond to each grab ie Replicate 1 for residues, TOC and PSA are taken from the same grab

Species Abundance Matrix

Station			St-1	St-2	St-3	St-4	St-5	St-6	St-7	St-8	St-9	St-10
Number of replicates			2	2	2	2	2	2	2	2	2	2
MCS Code (optional)	Name (WoRMS com)	Comments (e.g. sp, agg, juv)	Abundance (enter P/A as ">0")	Abundance (enter P/A as ">0")	Abundance (enter P/A as ">0")	Abundance (enter P/A as ">0")	Abundance (enter P/A as ">0")	Abundance (enter P/A as ">0")	Abundance (enter P/A as ">0")	Abundance (enter P/A as ">0")	Abundance (enter P/A as ">0")	Abundance (enter P/A as ">0")
	Foraminifera		0	0	>0	>0	0	>0	0	>0	0	0
	Astrorhiza	encrusting	0	>0	>0		0	>0	0	>0	0	>0
	Porifera		0	0	0	0	0	>0	0	0	0	0
	Virgularia mirabilis		0	0	0	0	0	0	1	0	0	0
	Synarachnactis lloydii		0	0	0	0	0	2	0	0	0	0
	Edwardsiidae		1	0	0	0	1	0	1	0	0	1
	Nemertea		5	0	2	1	1	5	3	1	1	1
	Tubulanus polymorphus		0	0	0	0	1	1	0	0	0	2
	Cerebratulus		2	1	1	0	1	0	3	1	2	1
	Nematoda	>1cm	5	0	0	0	0	0	5	0	4	3
	Nematoda	<1cm	>0	>0	>0		0	>0	0	0	>0	0
	Nephasoma (Nephasoma) minutum		0	0	0	1	0	0	0	0	0	0
	Thysanocardia procera		0	0	0	1	0	0	0	0	0	0
	Phascolion (Phascolion) strombus strombus		0	0	0	1	0	1	0	0	0	0
	Aphrodita aculeata		0	0	0	1	0	0	0	0	0	0
	Harmothoe impar	aggregate	1	0	0	0	0	0	0	0	0	0
	Malmgrenia andreapolis		0	0	0	0	0	0	0	0	0	1
	Pholoe baltica	(sensu Petersen)	7	0	0	2	0	1	0	0	3	1
	Pholoe inornata	(sensu Petersen)	0	0	0	0	0	1	0	0	0	0
	Sthenelais limicola		0	1	0	0	0	0	0	0	0	0
	Phyllodoce rosea		3	0	0	0	2	0	0	0	0	0
	Eteone longa	aggregate	0	0	0	0	0	0	0	1	0	0
	Pseudomystides limbata		0	0	0	2	0	0	0	0	0	0
	Eumida	juvenile	0	0	1	0	0	1	0	1	0	0
	Eumida bahusiensis		0	1	1	0	0	1	0	0	0	0
	Eumida sanguinea		0	0	2	0	0	0	0	0	0	0
	Glycera alba		2	0	3	0	1	0	4	0	0	4
	Glycera lapidum	aggregate	0	0	4	5	0	6	0	4	0	4
	Glycinde nordmanni		0	1	0	1	0	0	1	0	1	0
	Goniada maculata		3	0	1	0	0	1	2	0	0	2
	Goniadella gracilis	Non-native	0	0	0	5	1	0	0	0	0	0
	Psamathe fusca		0	0	0	0	0	1	0	0	0	0
	Nereimyra punctata		0	0	1	0	0	0	0	0	0	0
	Podarkeopsis		1	0	0	0	0	0	0	0	0	0
	Syllis mercedesae		1	0	1	0	0	0	0	0	0	0
	Syllis parapari		0	0	0	1	0	1	0	0	0	0
	Eusyllis		0	0	1	0	0	0	0	1	0	0
	Syllides		0	0	0	2	0	1	0	0	0	0
	Parexogone hebes		0	0	0	0	0	0	0	0	1	0
	Sphaerosyllis pirifera		0	0	0	1	0	0	0	0	0	0
	Eunereis longissima		0	0	0	0	1	0	0	1	2	0
	Nephtys	juvenile	1	0	0	0	0	0	0	0	0	2
	Nephtys hombergii		1	0	0	0	0	0	1	0	0	0
	Paramphinome jeffreysii		2	0	0	0	2	0	2	0	0	0
	Lumbrineris cingulata	aggregate	29	26	33	20	8	18	33	4	11	29
	Notocirrus scoticus		0	0	0	0	0	0	1	0	0	0
	Protodorvillea kefersteini		0	0	0	6	0	0	0	0	0	0
	Scoloplos armiger		1	0	0	0	0	0	0	0	0	

	Aricidea (Acmira) cerrutii		0	0	0	3	1	0	0	10	0	1
	Cirrophorus branchiatus		0	0	0	0	0	0	0	1	0	0
	Levinsenia gracilis		2	0	0	0	0	0	0	0	0	0
	Paradoneis lyra		3	0	0	0	2	0	0	0	2	0
	Poecilochaetus serpens		0	1	0	0	0	1	2	0	0	0
	Aonides paucibranchiata		0	0	0	8	0	3	0	7	0	0
	Dipolydora caulleryi		0	1	0	0	0	1	0	2	0	0
	Dipolydora quadrilobata		0	1	0	0	0	0	0	0	0	0
	Microspio atlantica		5	1	0	0	0	1	0	0	0	0
	Aurospio banyulensis		0	0	1	0	0	0	0	0	0	0
	Prionospio cirrifera		3	2	2	2	0	4	1	0	0	7
	Prionospio fallax		22	8	1	0	2	2	4	0	3	11
	Prionospio multibranchiata		0	0	0	0	3	0	1	1	0	0
	Pseudopolydora nordica		1	0	0	0	1	0	0	0	4	0
	Scolecopsis korsuni		3	0	0	0	0	0	0	0	0	0
	Spio symphyta		2	0	0	0	0	0	0	0	0	0
	Spiophanes bombyx	aggregate	10	8	0	0	1	0	0	0	0	1
	Spiophanes kroyeri		30	6	4	1	11	5	27	2	42	16
	Magelona alleni		0	0	1	0	0	0	2	0	0	0
	Spiochaetopterus		2	1	0	0	10	0	22	0	1	13
	Aphelochaeta	species A	1	0	0	0	0	0	0	0	0	0
	Chaetozone	species D	0	0	1	0	0	0	0	1	0	0
	Chaetozone gibber		0	0	1	1	0	0	1	1	0	0
	Chaetozone setosa	aggregate	4	6	0	0	6	0	5	0	7	4
	Chaetozone zetlandica		13	0	23	3	1	17	0	4	4	3
	Cirriformia tentaculata		0	0	1	0	0	0	0	0	0	0
	Kirkegaardia		0	0	1	0	0	0	0	0	0	0
	Tharyx killariensis		2	0	0	0	0	0	0	0	0	0
	Diplocirrus glaucus		1	0	0	0	0	0	0	0	1	0
	Macrochaeta		0	0	0	0	0	1	0	0	0	0
	Capitella		0	1	0	0	0	0	0	0	0	0
	Mediomastus fragilis		2	2	1	3	1	2	0	3	0	1
	Notomastus		6	15	4	8	3	2	17	2	8	9
	Peresiella clymenoides		0	0	0	0	0	0	1	0	0	1
	Maldanidae	juvenile	0	0	0	0	0	0	0	0	1	0
	Clymenella cincta		0	0	0	0	1	0	0	0	1	0
	Euclymene lombricoides		1	0	0	0	0	0	0	0	0	0
	Euclymene oerstedii	aggregate	1	0	0	0	2	0	5	0	0	0
	Praxillella affinis		8	2	0	0	2	0	4	0	9	5
	Rhodine loveni		1	0	0	0	0	0	0	0	0	0
	Ophelina acuminata		0	1	0	0	0	0	0	0	0	0
	Scalibregma celticum		0	0	0	0	0	1	0	1	0	0
	Scalibregma inflatum		0	0	0	1	0	0	0	0	0	0
	Scalibregma stenocerum		0	0	0	7	0	0	0	0	0	0
	Galathowenia oculata		4	0	0	0	6	0	1	0	2	1
	Owenia		9	4	1	0	6	0	1	0	25	5
	Lagis koreni		0	0	0	0	2	0	2	0	1	0
	Cistenides hyperborea		0	0	0	0	1	0	0	0	0	0
	Ampharetidae	juvenile	6	0	0	0	0	0	0	0	0	0
	Ampharete lindstroemi	aggregate	1	0	0	0	0	0	2	0	0	2
	Amphicteis gunneri		0	0	0	0	0	0	1	0	0	0
	Sosane sulcata		0	0	0	2	0	2	0	4	0	0
	Terebellides		1	1	0	0	1	0	0	2	3	1
	Trichobranchus roseus		1	0	0	0	1	0	0	0	0	1
	Terebellidae	juvenile	0	0	1	0	0	0	0	0	0	0

	Amphitrite cirrata		0	0	0	0	0	0	1	0	0	1
	Lanice conchilega		0	0	0	0	0	1	0	0	0	0
	Amaeana trilobata		2	0	0	0	0	0	0	0	2	1
	Polycirrus		3	3	10	7	0	9	4	1	7	2
	Streblosoma intestinale		2	0	0	0	3	0	2	0	4	3
	Hydroides norvegica		0	0	1	5	0	7	0	2	0	0
	Sabellidae juvenile		0	0	0	0	0	0	0	0	1	0
	Jasmineira		1	1	0	0	0	1	0	2	1	0
	Dialychone		1	0	0	1	0	0	0	1	0	0
	Euchone pararosea		0	0	0	1	0	0	0	0	0	0
	Tubificoides pseudogaster	aggregate	0	0	0	1	0	0	0	2	0	0
	Verruca stroemia		0	0	0	>0	0	>0	0	>0	0	0
	Myodocopida		2	0	0	0	0	0	0	0	0	0
	Leucothoe lilljeborgi		0	0	0	0	2	0	1	0	0	0
	Metaphoxus fultoni		0	0	0	0	0	1	0	0	0	0
	Dexamine spinosa		0	0	0	0	0	0	0	1	0	0
	Nototropis vedlomensis		0	0	0	0	0	0	0	0	0	1
	Pariambus typicus		0	0	0	0	0	0	1	0	0	0
	Gnathiidae female		0	0	0	0	0	0	0	0	0	1
	Gnathia oxyuraea		0	0	0	0	0	0	0	0	0	1
	Iphinoe serrata		1	0	0	0	0	0	1	0	0	0
	Galathea intermedia		0	0	1	0	0	0	0	0	0	0
	Macropodia juvenile		0	0	1	0	0	0	0	0	0	0
	Leptochiton asellus		0	0	0	0	0	2	0	0	0	0
	Patella pellucida		0	1	0	0	0	0	0	0	0	0
	Aporrhais pespelecani		0	0	0	1	0	0	0	0	0	0
	Cylindna cylindracea		1	1	0	0	0	0	0	0	1	0
	Nucula nitidosa		0	1	0	0	0	0	0	0	0	0
	Ennucula tenuis		1	0	0	0	0	0	0	0	0	0
	Mytilidae juvenile		0	1	0	1	0	0	1	0	0	0
	Myrtea spinifera		6	3	2	0	9	0	3	0	7	7
	Lucinoma borealis		4	1	0	0	2	0	0	0	1	0
	Lucinoma borealis juvenile		0	2	0	0	0	0	0	0	1	0
	Thyasira flexuosa		22	72	0	1	58	1	0	0	52	4
	Tellimya ferruginosa		0	5	0	1	1	0	0	0	0	0
	Kurtiella bidentata		2	0	3	0	0	1	1	0	0	0
	Phaxas pellucidus		1	1	0	0	0	0	0	0	0	0
	Abra nitida		0	1	0	0	2	0	0	0	0	0
	Arctica islandica	PMF*1 Arctica islandica	0	0	0	0	0	0	0	0	2	1
	Chamelea striatula		0	1	0	0	0	0	0	0	1	0
	Clausinella fasciata		0	0	0	0	0	1	0	0	0	0
	Timoclea ovata		0	0	1	0	0	0	0	1	0	0
	Dosinia juvenile		0	0	0	0	0	0	0	0	1	0
	Dosinia exoleta		0	0	0	0	0	0	0	0	1	0
	Varicorbula gibba		0	1	0	0	0	0	0	0	0	0
	Thracia juvenile		0	0	0	0	0	0	0	0	0	1
	Phoronis		6	0	0	0	6	0	7	0	15	3
	Bryozoa		0	>0	>0		>0	>0	>0		0	0
	Anseropoda placenta		0	0	0	0	0	0	1	0	0	0
	Amphiura filiformis		26	1	0	0	7	0	24	0	8	24
	Ophiuridae juvenile		0	0	0	0	0	0	0	0	0	1
	Echinocyamus pusillus		0	0	1	1	0	2	0	1	0	0
	Echinocardium flavescens	juvenile	0	0	0	0	1	0	1	0	0	0
	Synaptidae juvenile		0	0	0	1	0	0	0	0	0	0
	Labidoplax buskii		0	0	0	0	0	0	0	0	0	1
	Paraleptopentacta elongata		0	0	0	0	1	0	1	0	0	0
	Hemichordata		1	0	2	2	0	3	0	1	0	1
	Corallinaceae		0	0	0	>0	0	0	0	0	0	0