



Marine Management Organisation

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Our reference: SAM/2024/00054

By email only

30 July 2024

Dear Mr Ridley,

SAMPLE PLAN ADVICE FOR Mid licence sampling for Marine Licence L/2015/00427 at Tees and Hartlepool, Teesside

Thank you for your request to the Marine Management Organisation (MMO) for a sample plan to inform mid-licence sampling condition compliance, and to support the submission of a future marine licence application. Please see our response below and any attachments, which has been compiled following consultation with our technical advisors at the Centre for Environment, Fisheries and Aquaculture Science (Cefas).

Your feedback

We are committed to providing excellent customer service and continually improving our standards and we would be delighted to know what you thought of the service you have received from us. Please help us by taking a few minutes to complete the following short survey (<https://www.surveymonkey.com/r/MMOMLcustomer>).

If you require any further information, please do not hesitate to contact me using the details provided below.

Yours Sincerely,

Y. Golightly

Yvonne Golightly
Marine Case Officer

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Appendix 1 – MMO Sampling Plan





Marine Management Organisation

1. Description of the project

- 1.1 This advice relates to sampling to support mid-licence condition compliance for the disposal of material from the Tees Estuary and Hartlepool Channel. It is understood that this advice will also be used to support the submission of a marine licence application in 2025 to continue disposal activities.
- 1.2 PD Teesport Limited undertakes maintenance dredging of the Tees Estuary and Hartlepool Channel to maintain navigable depths as part of their statutory harbour authority responsibilities. Under marine licence L/2015/00427, this dredged material is disposed of at Tees Bay A (TY160) offshore disposal site. Marine licence L/2015/00427 is valid until 30th December 2025 and permits the annual disposal of 2,438,420 wet tonnes (1,875,700m³) of material from the Tees and 451,280 wet tonnes (347,400m³) from Hartlepool.

2. Sampling required

- 2.1. In accordance with the recommendations of the OSPAR Guidelines for the Management of Dredged Material, samples should be taken to provide a good representation of the volume of material to be dredged. The distribution and depth of sampling should reflect the size and depth of the area to be dredged, the amount to be dredged and the expected variability in the horizontal and vertical distribution of contaminants. The MMO also uses the OSPAR guidelines to inform our advice on sampling requirements for other activities which are likely to lead to the mobilisation of sediments. Based on the information submitted (as described above), the following sampling and analysis is required.
- 2.2. In consideration of the volume details of the proposed dredge, the MMO advises that **31** samples should be taken from within the footprint of the proposed dredge area. Whilst this could be considered slightly under the guidelines set by OSPAR, which recommends 30 sites for dredges up to 2,000,000 m³ with an additional ten sites per million m³, the MMO is content that these provide adequate spatial coverage across the dredge locations as each Chart Sector contains one or more sampling points, with additional points in non-sectored maintained areas. Further details are provided on the attached sample plan form in Appendix 1.

- 2.3. Samples should be taken at the surface (0 metres depth) in the locations shown on the sample map shown below (Figure 1) and as indicated on the sample plan form attached in Appendix 1.

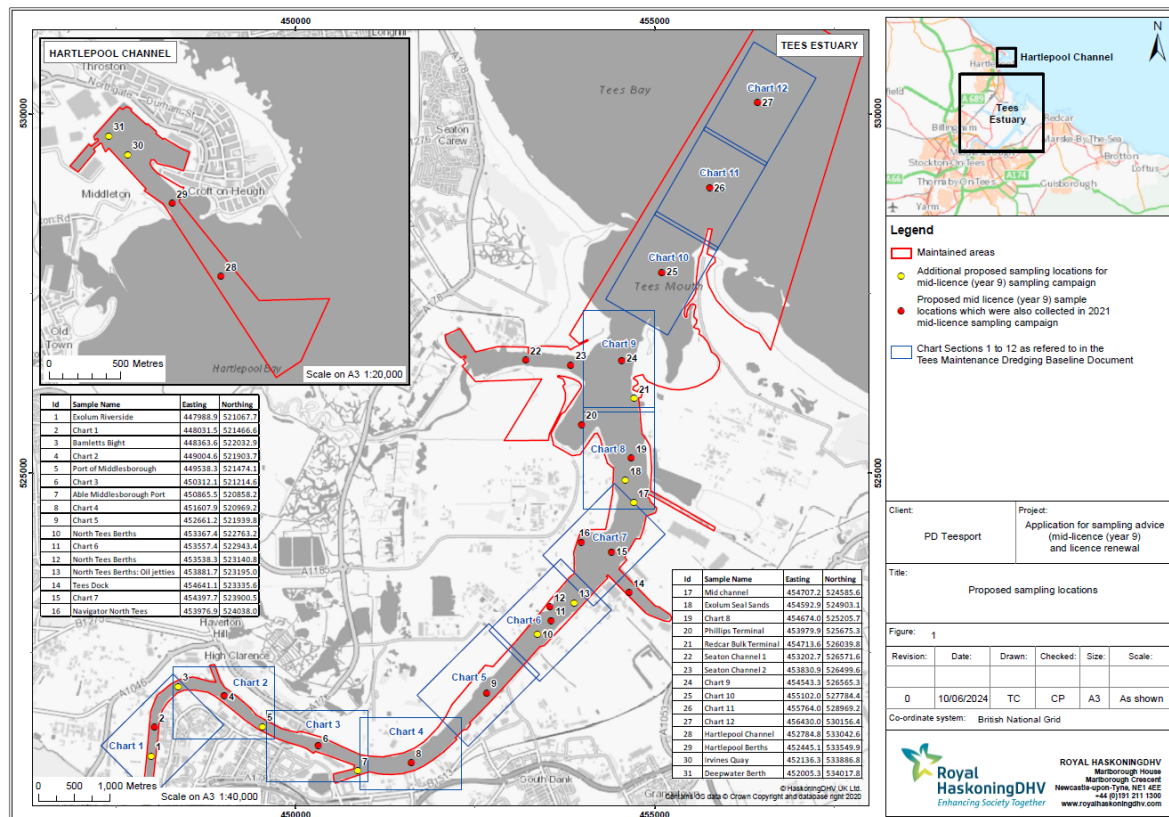


Figure 1: Proposed sampling locations for mid-licence (year 9) sampling campaign

- 2.4. The following information must be included with any samples (irrespective of the laboratory to be used for analysis):
- Clearly labelled samples;
 - Completed sample position sheet, including the latitude and longitude (decimal degrees and the projection i.e., WGS84) of each location
 - Details of the method of sampling;
 - A map/chart detailing the sample locations.
- 2.5. Surface samples should be taken from the upper layer of in-situ sediment using a non-metallic / stainless steel scoop. To maintain the integrity of the samples please ensure that they are **frozen** and remain in the freezer until they can be dispatched. Please ensure the samples are dispatched in a cool box - the cool box should not be placed in any other packaging.

3. Analysis Required

- 3.1. In light of the information provided and knowledge of previous sampling, analysis is, on this occasion, required for:

All 31 sites:

- Particle Size Analysis (PSA)
- Trace metals (including arsenic)
- Organotins (tributyltin and dibutyltin)
- Polycyclic Aromatic Hydrocarbons (PAHs)
- Polybrominated diphenyl ethers (PBDEs)
- Total Organic Carbon (TOC)¹

10 sites only:

- Polychlorinated Biphenyls (PCBs) – must include a sample collected from Chart sectors 1 & 2 (Figure 1) Trace metals (including arsenic)
- Organochlorine pesticides (OCs) – must include a sample collected from Chart sector 1 & 8, Navigator North Tees and Hartlepool Berths (Figure 1).

3.2. Further details can be found on the attached sample plan form in Appendix 1.

3.3. To ensure consistency between laboratories it is expected that all analysis required will be undertaken from the same sample container.

4. Laboratories

4.1. You have now obtained an approved sample plan from the MMO. Should you now require sample analysis for chemical, physical and biological determinands in support of a regulatory approval such as a marine licence, you have a choice between using a provider of your choice listed at the link below:

<https://www.gov.uk/guidance/marine-licensing-sediment-analysis-and-sample-plans>

This list indicates the laboratories which have been validated to undertake sediment analysis, as well as the specific determinands which they are validated to analyse. The MMO will not accept results from laboratories which have not been validated.

4.2. Irrespective of which validated laboratory is used to undertake sediment analysis, results accompanying a marine licence application must be submitted to the MMO on the correct results template (approved templates are available via the link in 4.1 above).

4.3. If the analysis is to be undertaken by a laboratory other than those validated by the MMO, that laboratory must meet the qualifying criteria as set out in the MMO guidance and become a validated laboratory (<https://www.gov.uk/guidance/marine-licensing-sediment-analysis-and-sample-plans>).

4.4. It is your responsibility to ensure that appropriate analysis is commissioned and supplied in support of a regulatory approval. However, if you have any queries about the process or would like clarity on this, please do not hesitate to contact the MMO by emailing: marineconsents@marinemanagement.org.uk

¹ Where PBDE analysis is required, you may also want to analyse for Total Organic Carbon (TOC) within the sample(s). The TOC proportion of a sample can be used to normalise PBDE results for the sediment within the sample, using the following normalisation factor (NF): 2.5/TOC%. As such, TOC levels greater than 2.5% of the sample will result in normalised PBDE levels being lower than their non-normalised levels, and vice versa. Where no TOC data are available to characterise a sediment sample, Cefas will assume a TOC concentration of 2.5%, thus resulting in an assumed normalisation factor of 1 (i.e., no change to the observed PBDE levels).

5. Conclusion

- 5.1. This advice is based solely on the information provided in the sample plan request, and the sampling and analysis described will be adequate to comply with relevant marine licence conditions, providing that no further issues come to light and a return is submitted in a suitable time frame. The MMO will take a pragmatic approach to the requirement of repeat samples in relation to projects where works have not commenced. Samples taken at depth will remain a valid consideration for decision-making from the time they are taken. However, due to the dynamic nature of the marine environment and the potential for changes in the quantity and quality of sediments, there may be a need for surface sediments to be re-sampled and analysed if the project has not commenced within two years of the time of sampling.
- 5.2. Where long term licences for maintenance dredging will be applied for, additional sampling and analysis will need to be undertaken throughout the duration of the proposed longer licence term in order to comply with the OSPAR guidelines.
- 5.3. The MMO reserves the right to request further sampling/analysis should any submitted Marine Licence application differ from that information submitted in this pre-application request. Any future application or return must clearly state this pre-application reference number.

APPENDIX 1

Sample	Station	PSA	Metals	Organotins	PAHs	PBDEs	TOC*	PCBs×	OCs×
1	Exolum Riverside – 0 m	☒	☒	☒	☒	☒	☒	☒	☒
2	Chart 1 – 0 m	☒	☒	☒	☒	☒	☒	☒	☒
3	Bamletts Bight – 0 m	☒	☒	☒	☒	☒	☒	☒	☐
4	Chart 2 – 0 m	☒	☒	☒	☒	☒	☒	☒	☐
5	Port of Middlesborough – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
6	Chart 3 – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
7	Able Middlesborough Port – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
8	Chart 4 – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
9	Chart 5 – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
10	North Tees Berths – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
11	Chart 6 – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
12	North Tees Berths – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
13	North Tees Berths: Oil Jetties – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
14	Tees Dock – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
15	Chart 7 – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
16	Navigator North Tees – 0 m	☒	☒	☒	☒	☒	☒	☐	☒
17	Mid Channel – 0 m	☒	☒	☒	☒	☒	☒	☐	☒
18	Exolum Seal Sands – 0 m	☒	☒	☒	☒	☒	☒	☐	☒
19	Chart 8 – 0 m	☒	☒	☒	☒	☒	☒	☐	☒
20	Phillips Terminal – 0 m	☒	☒	☒	☒	☒	☒	☐	☒
21	Redcar Bulk Terminal – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
22	Seaton Channel 1 – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
23	Seaton Channel 2 – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
24	Chart 9 – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
25	Chart 10 – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
26	Chart 11 – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
27	Chart 12 – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
28	Hartlepool Channel – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
29	Hartlepool Berths – 0 m	☒	☒	☒	☒	☒	☒	☐	☒
30	Irvines Quay – 0 m	☒	☒	☒	☒	☒	☒	☐	☐
31	Deepwater Berth – 0 m	☒	☒	☒	☒	☒	☒	☐	☐

Comments:

Stations should be representative of the area(s) to be dredged.

*Optional for normalisation of PBDEs

× As stated in paragraph 3.1 above, only 10 sample sites are needed for PCBs and OCs however out of these 10 samples one sample must be collected from each of the following locations:

- Polychlorinated Biphenyls (PCBs) – must include a sample collected from Chart sectors 1 & 2 (Figure 1).
- Organochlorine pesticides (OCs) – must include a sample collected from Chart sector 1 & 8, Navigator North Tees and Hartlepool Berths (Figure 1).

The locations have been grouped in the sample plan using the following colour coding:

Chart Sector 1	Chart Sector 2	Chart sector 8	Navigator North Tees	Hartlepool Berths
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