marinescotland

T: +44 (0)1224 295579
E: ms.marinelicensing@gov.scot

The Scottish Government
Riaghaltas na h-Alba

Marine Licence Application for Dredging and Sea Disposal

Version 1.0

Marine (Scotland) Act 2010

Marine Scotland, 375 Victoria Road, Aberdeen, AB11 9DB
http://www.gov.scot/Topics/marine/Licensing/marine

Acronyms

Please note the following acronyms referred to in this application form:

BPEO	Best Practicable Environmental Option
MHWS	Mean High Water Springs
MMO	Marine Mammal Observer
MPA	Marine Protected Area
MS-LOT	Marine Scotland – Licensing Operations Team
PAM	Passive Acoustic Monitoring
SAC	Special Area of Conservation
SNH	Scottish Natural Heritage
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
WGS84	World Geodetic System 1984

Explanatory Notes

The following numbered paragraphs correspond to the questions on the application form and are intended to assist in completing the form. These explanatory notes are specific to this application and so you are advised to read these in conjunction with the Marine Scotland Guidance for Marine Licence Applicants document.

1. Applicant Details

The person making the application who will be named as the licensee.

2. Dredging Contractor Details

The person whose activities produce the substance(s) or object(s) to be dredged and/or intended for sea disposal (e.g the dredging contractor).

3. Agent Details

Any person acting under contract (or other agreement) on behalf of any party listed as the applicant and having responsibility for the control, management or physical deposit or removal of any substance(s) or object(s).

4. Payment

Indicate payment method. Cheques must be made payable to: The Scottish Government.

Marine licence applications will not be accepted unless accompanied by a cheque for the correct application fee, or if an invoice is requested, until that invoice is settled. Target timelines for determining applications do not begin until the application fee is paid.

5. Application Type

Indicate if the application is for a new dredging site or a site that has previously been dredged. Provide the existing or previous consent/licence number, expiry date and quantity (in wet tonnes) dredged under the consent/licence up to a stated date if applicable.

6. Dredging and Sea Disposal Details

(a) Give a brief description of the dredging and sea disposal operation.

(b) Provide the proposed start date of the project. The start date will not be backdated, since to commence a project for which a licence has not been obtained will constitute an offence, which may result in appropriate legal action. A licence is normally valid for the duration of the project but not exceeding 3 years. If a project will not be completed before a marine licence lapses, it will be necessary for licence holders to re-apply for a further licence to continue any ongoing work at least 14 weeks prior to the expiry date of the licence. **Target duration for determination of a marine licence application is 14 weeks.**

(c) Provide the proposed completion date of the project.

(d) Describe the location of the proposed works. Include a list of the latitude and longitude co-ordinates (WGS84) of the boundary points for each dredge site area. WGS84 is the World Geodetic System 1984 and the reference co-ordinate system used for marine licence applications. Co-ordinates taken from GPS equipment should be set to WGS84. Coordinates taken from recent admiralty charts will be on a WGS84 compatible datum. Ordnance survey maps do not use WGS84.

Example: For positions read from charts the format should be as in the example: 55°55.555'N 002°22.222'W (WGS84). The decimal point specifies that decimals of minutes are used and the datum is stated explicitly. If seconds are used then the format should be as in the example: 55°55'44''N 2°22'11''W (WGS84).

It is important that the correct positions, in the correct format, are included with this application, as any errors will result in the application being refused or delayed.

To supplement your application, please provide a suitably scaled extract of an Ordnance Survey Map (1:2,500 scale but not more than 1:10,000) or Admiralty Chart which must be marked to indicate:

- the full extent of the works in relation to the surrounding area;
- latitude and longitude co-ordinates defining the location of the works;
- the level of MHWS;
- any adjacent SAC, SPA, SSSI, MPA, Ramsar or similar conservation area boundary.

Drawings and plans will be consulted upon. If they are subject to copyright, **it is the responsibility of the applicant to obtain necessary approvals to reproduce the documents and to submit suitably annotated copies with the application.**

(e) Provide details of the proposed disposal site for the dredged substance(s) or object(s) and, if necessary, any alternative disposal site(s) considered. In determining whether to grant a marine licence, MS-LOT will take into account any site nominated by the applicant. However, should this site be unsuitable, the nearest suitable disposal site for the dredged substance(s) or object(s) will be identified. Should you wish to establish a new site, please provide details in a covering letter with your application and MS-LOT will contact you to discuss your proposal before your application is determined. The cost of any site investigations to identify any new disposal site will normally be the responsibility of the applicant.

(f) Indicate if any part of the works (dredging or sea disposal site) are located within the jurisdiction of a statutory harbour authority and provide details of the statutory harbour authority where relevant.

(g) Provide a full method statement. The method statement must include details such as the rate of dredging, timing of the operation and order of the areas to be dredged.

(h) Provide assessment of the potential impacts the works may have, including interference with other uses of the sea. Please include details of areas of concern e.g designated conservation areas, such as a SAC, SPA, SSSI, MPA or Ramsar site and shellfish harvesting areas. Further guidance on designated conservation areas can be obtained from SNH at this website: http://gateway.snh.gov.uk/sitelink/index.jsp and guidance on shellfish harvesting areas can be obtained from http://www.foodstandards.gov.scot/ with regards to the Shellfish Waters Directive (2006/113/EC) which has parameters set to protect the water quality in which edible shellfish are grown.

Applicants should also be aware of the need to pay due regard to coastal and marine archaeological matters and attention is drawn to Historic Scotland's Operational Policy Paper HP6, "Conserving the Underwater Heritage".

Any application for beach replenishment works must be cross checked as to whether the proposed site is a designated bathing water site. If so, all physical works should ideally be done outwith the Bathing Water Season (1st June to 15th September). Further guidance on the Bathing Waters Directive (2006/7/EC) can be obtained from http://apps.sepa.org.uk/bathingwaters/.

Where there are potential impacts from the works, please provide details of proposed mitigation, such as use of MMOs or PAM, in response to potential impacts.

7. Details of Substance(s) or Object(s) to be Dredged

Information is required for each dredge site area listed in section 6 (d). please provide the following information:

Name of Dredge Area: For example Approach Channel or West of South Quay**.**

Type (Maintenance or Capital): Maintenance dredge applies to an area that has been dredged more than once and either annually or on a regular basis and was last dredged with the past 7 years; and a **Capital dredge** applies where an area/depth is being dredged either for the first time, or which has not been dredged within the past 7 years.

For capital dredging operations, a pre-dredge survey and sediment chemical analysis report will be required by MS-LOT prior to the issue of a sea disposal licence. Please contact MS-LOT for details in relation to specific projects. For maintenance dredging operations sites that have not been chemically analysed for more than 3 years, pre-dredge chemical analysis will be required to be undertaken. In addition to those samples analysed by the applicant, sediment sub-sample(s) must be submitted to MS-LOT as check monitoring may be required.

Estimated Specific Gravity: Indicate the specific gravity of the substance(s) or object(s) to be dredged from each dredge area.

Depth: Indicate the maximum depth (in metres) below the current seabed level, to which it is expected dredging is to be carried out, for each dredge area.

Quantity to be Dredged per Year (wet tonnes): Indicate the quantity of substance(s) or object(s) to be dredged (per year) from each dredge area. The quantity must be provided in wet tonnes.

8. Physical Composition

Indicate the approximate proportions as a percentage for each size range against each of the dredge site areas listed in section 6 (d) which are expected to be removed.

9. Details of Substance(s) or Object(s) Quality

Please indicate whether the substance(s) or object(s) from any of the areas to be dredged have been chemically analysed within the past 3 years. If yes, please provide details (locations, dates, results) on a separate sheet. If no, please provide justification. For capital projects, you are required to have representative sediment samples analysed at a laboratory of choice (see MS-LOT Pre-dredge Sampling Guidance document at http://www.gov.scot/Topics/marine/Licensing/marine/Applications/predredge for analytical requirements. This is liable to extend the time required to consider your application **as marine licence applications will not be determined without provision of this chemistry data.**

As part of the application determination process, you are required to carry out an assessment of the chemical and physical characteristics of the substance(s) or object(s) to be deposited at sea and potential effects upon the marine environment. It is your responsibility to show that the substance(s) or object(s) are suitable to be considered for sea disposal. This assessment should form part of your BPEO.

Under section 27(2) of the Marine (Scotland) Act 2010, the licensing authority has an obligation to consider the availability of practical alternatives when considering applications involving disposal of substance(s) or object(s) at sea. All applications for sea disposal must be supported by a detailed assessment of the alternative options - BPEO assessment. This must include a statement setting out the reasons why deposit of the substance(s) or object(s) at sea is the preferred option and applications will not be considered unless they are accompanied by such an assessment. All options in the BPEO must be explored fully (as per the guidance documents) otherwise your form and BPEO are liable to be returned to you, thereby delaying processing of the application.

As part of the licence conditions, you are likely to be required to take representative samples of the dredged substance(s) or object(s) during the dredging/sea disposal operations for analysis by MS-LOT. In such cases, samples must be taken at specified locations and depths and placed in containers which will be provided. The

samples must then be returned to MS-LOT at the Marine Laboratory Aberdeen. This process enables MS-LOT to fulfil its obligations under international conventions.

10. Details of Vessel(s) Undertaking Dredging and Sea Disposal

Provide the vessel name, vessel type (e.g cutter-suction) and name and address of all vessel operators to be used for dredging and sea disposal operations. If vessel details are not available at the time of application, please indicate this on the form as these details will be required prior to licence issue.

11. Noise Monitoring

Under the Marine Strategy Regulations (2010), there is now a requirement to monitor loud, low to mid frequency (10Hz to 10kHz) impulsive noise. Activities where this type of noise is produced include seismic airguns, other geophysical surveys (<10kHz), pile driving, explosives and certain acoustic deterrent devices. Where noisy activity is being undertaken, you must complete an initial registration form for the noise registry which allows you to provide details on the proposed work. Completion of a 'close-out' form, which allows licensees to provide details of the actual dates and locations where the activities occurred, is also required within 12 weeks of the completion of the 'noisy' activity or, in the case of prolonged activities such as piling for harbour construction or wind farms, at quarterly intervals or after each phase of foundation installation.

These forms can be downloaded from:
http://www.scotland.gov.uk/Topics/marine/science/MSInteractive/Themes/noise-reduction

Marine licence applications will not be accepted until this form has been completed and submitted.

12. Statutory Consenting Powers

Please describe in the answer to this question what (if any) statutory responsibilities you (or your client) have to consent any aspect of the project.

13. Scotland's National Marine Plan

Scotland's National Marine Plan has been prepared in accordance with the EU Directive 2014/89/EU, which came into force in July 2014. The Directive introduces a framework for maritime spatial planning and aims to promote the sustainable development of marine areas and the sustainable use of marine resources. It also sets out a number of minimum requirements all of which have been addressed in this plan. In doing so, and in accordance with article 5(3) of the Directive, Marine Scotland have considered a wide range of sectoral uses and activities and have determined how these different objectives are reflected and weighted in the marine plan. Land-sea interactions have also been taken into account as part of the marine planning process. Any applicant for a marine licence should consider their proposals with reference to Scotland's National Marine Plan. A copy of Scotland's National Marine Plan can be found at: http://www.gov.scot/Publications/2015/03/6517/0

Indicate whether you have considered the project with reference to Scotland's National Marine Plan and provide details of considerations made including reference to the policies that have been considered. If you have not considered the project with reference to Scotland's National Marine Plan please provide an explanation.

14. Consultation

Provide details of all bodies consulted and give details of any consents issued including date of issue.

15. Associated Works

Indicate whether the application is associated with any other marine projects (e.g. land reclamation, or marine/harbour construction works etc). If this is the case, provide reference/licence number for the related marine projects.

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It is the responsibility of the applicant to obtain any other consents or authorisations that may be required.

Under Section 54 of the Marine (Scotland) Act 2010, all information contained within and provided in support of this application will be placed on a Public Register. There are no national security grounds for application information not going on the Register under the 2010 Act.

Public Register

Do you consider that any of the information contained within or provided in support of this application should not be disclosed:

(a) for reasons of national security; YES ☐ NO ■

(b) for reasons of confidentiality of commercial or industrial information where such confidentiality is provided by law to protect a legitimate commercial interest? YES ☐ NO ■

If **YES**, to either (a) or (b), please provide full justification as to why all or part of the information you have provided should be withheld.

WARNING

It is an offence under the Act under which this application is made to fail to disclose information or to provide false or misleading information.

Target duration for determination is 14 weeks. Please note that missing or erroneous information in your application and complications resulting from consultation may result in the application being refused or delayed.

Marine licence applications will not be accepted unless accompanied by a cheque for the correct application fee, or if an invoice is requested, until that invoice is settled. Target timelines for determining applications do not begin until the application fee is paid.

Declaration

I declare to the best of my knowledge and belief that the information given in this form and related papers is true.

Signature Ian Kerr Digitally signed by Ian Kerr Date: 2023.12.15 16:38:31 Z

Date 15/12/2023

Name in BLOCK LETTERS IAN KERR

Application Check List

Please check that you provide all relevant information in support of your application, including but not limited to the following:

- Completed and signed application form ☑
- Maps/Charts ☑
- Co-ordinates of the boundary points of the area of harbour jurisdiction (if you are a statutory harbour authority) ☑
- Method Statement ☑
- BPEO Assessment ☑
- Analytical chemistry data (for capital projects) ☑
- Transportation plan (dredger route to and from disposal site – if required) ☐
- Additional information e.g. photographs, consultation correspondence ☑
- Noise Registry – Initial Registration Form (if applicable) ☐
- Payment (if paying by cheque) ☐

1. Applicant Details

Title: Mr Initials: IK Surname: Kerr

Trading Title (if appropriate): Forth Ports Limited

Address: Forth Ports Limited, Carron House, Central Dock Road, Grangemouth, FK3 8TY

Name of contact (if different):

Telephone No. (inc. dialing code): 01324 668400

Email: Ian.Kerr@forthports.co.uk

Statutory Harbour Authority? YES ■ NO ☐

If **YES**, please provide a list of the latitude and longitude co-ordinates (WGS84) of the boundary points of the area of harbour jurisdiction using Appendix 01 Additional Co-ordinates form if necessary.

2. Dredging Contractor Details (if any)

Title: Initials: Surname:

If the Dredging Contractor is the Applicant shown in section 1 please tick the box ☐

Trading Title (if appropriate): To be Confirmed

Address:

Name of contact (if different):

Telephone No. (inc. dialing code):

Email:

3. Agent Details (if any)

Title: Mr Initials: JG Surname: Gardiner

Trading Title (if appropriate):

Address: Royal HaskoningDHV, Edmund Street, Liverpool, L3 9NG, UK

Name of contact (if different):

Telephone No. (inc. dialing code): +44 (0) 151 243 9287

Email: jamie.gardiner@rhdhv.com

4. Payment

Enclosed Cheque ☐ Invoice ☒

Contact and address to send invoice to:

Applicant ☒ Agent ☐ Other ☐

If **OTHER**, please provide contact details:

Title: Initials: Surname:

Address:

Email:

5. Application Type

Is this application for a new dredging site or a site that has previously been dredged:

New Site ☐ Previously Dredged Site ☒

If an **PREVIOUSLY DREDGED SITE**, please provide the following:

Consent/Licence Number	Expiry Date	Quantity (wet tonnes) dredged under consent/licence as at (date)
Licence Number: MS-00009819	31st December, 2025	

6. Dredging and Sea Disposal Details

(a) Brief description of the dredging and sea disposal operation:

The proposed deepening would deepen the Leith approach channel to -9.0m CD and extend the offshore extent, from the current maintenance dredge limit, to the -9.0m CD contour within the Firth of Forth (Area A). The Outer Berth berth pocket, most of which will have been deepened to -9.0m CD as part of the consented Outer Berth development, would be repositioned northwards, increased in size, and deepened to -13.0m CD (Area B).

Disposal of dredged materials at the Narrow Deep B Spoil Ground.

Both the dredging and disposal locations are within the harbour jurisdiction.

(b) Proposed start date **(Target duration for determination of a marine licence application is 14 weeks):**

May 2024

(c) Proposed completion date:

December 2026

(d) Location of Dredging:

Leith approach channel and berth pocket, Port of Leith, Leith, Scotland

Please see Best Environmental Practicable Option report for details defining the extent of the dredge area.

Latitude and Longitude co-ordinates (WGS84) defining the extent of all dredge areas (continue on Appendix 01 Additional Co-ordinates form if necessary):

Dredge Area A

Latitude											Longitude										
5	6	°	0	0	.	3	1	8	’ N		0	0	3	°	1	2	.	4	1	9	’ W
5	6	°	0	0	.	3	5	4	’ N		0	0	3	°	1	2	.	0	1	0	’ W
5	5	°	5	9	.	5	5	7	’ N		0	0	3	°	1	1	.	0	5	6	’ W
5	5	°	5	9	.	5	1	6	’ N		0	0	3	°	1	1	.	1	6	8	’ W
5	5	°	5	9	.	3	6	0	’ N		0	0	3	°	1	0	.	9	7	4	’ W
5	5	°	5	9	.	3	9	3	’ N		0	0	3	°	1	0	.	8	9	1	’ W

Dredge Area B

Latitude										Longitude									
5	5	°	5	9	.	5	1	6	' N	0	0	3	°	1	1	.	1	6	8	' W
5	5	°	5	9	.	5	5	7	' N	0	0	3	°	1	1	.	0	5	6	' W
5	5	°	5	9	.	4	8	9	' N	0	0	3	°	1	0	.	9	7	6	' W
5	5	°	5	9	.	3	9	3	' N	0	0	3	°	1	0	.	8	9	1	' W
5	5	°	5	9	.	3	6	0	' N	0	0	3	°	1	0	.	9	7	4	' W
		°			.				' N				°			.				' W

Dredge Area C

Latitude										Longitude									
		°			.				' N				°			.				' W
		°			.				' N				°			.				' W
		°			.				' N				°			.				' W
		°			.				' N				°			.				' W
		°			.				' N				°			.				' W
		°			.				' N				°			.				' W

Dredge Area D

Latitude										Longitude									
		°			.				' N				°			.				' W
		°			.				' N				°			.				' W
		°			.				' N				°			.				' W
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		°			.				' N				°			.				' W
		°			.				' N				°			.				' W

Dredge Area E

Latitude										Longitude									
		°			.				' N				°			.				' W
		°			.				' N				°			.				' W
		°			.				' N				°			.				' W
		°			.				' N				°			.				' W
		°			.				' N				°			.				' W
		°			.				' N				°			.				' W

(e) Name of Disposal Site and Oslo Code:

Narrow Deep B - FO 038

Latitude and Longitude co-ordinates (WGS84) defining the extent of disposal site (continue on Appendix 01 Additional Co-ordinates form if necessary):

Latitude										Longitude									
5	6	°	0	0	.	5	6	6	' N	0	0	3	°	0	7	.	4	8	4	' W
5	6	°	0	1	.	2	9	8	' N	0	0	3	°	0	6	.	0	3	8	' W
5	6	°	0	1	.	1	0	6	' N	0	0	3	°	0	5	.	7	3	9	' W
5	6	°	0	0	.	3	7	4	' N	0	0	3	°	0	7	.	1	8	4	' W

(f) Is any part of the works (dredging or sea disposal site) located within the jurisdiction of a statutory harbour authority? YES ■ NO ☐

If **YES**, please specify statutory harbour authority:

Forth Ports Limited

(g) Method statement including rate of dredging, timing of the operation and order of the areas to be dredged (continue on separate sheet if necessary):

Refer to Section 3.1.1 of the sEIA Report

(h) Potential impacts the works may have (including details of areas of concern e.g designated conservation and shellfish harvesting areas) and proposed mitigation in response to potential impacts (continue on separate sheet if necessary):

Refer to Chapters 7 to 13 of the sEIA report. Summary of potential and mitigation, if required, is presented in Chapter 14 of the sEIA report.

7. Details of Substance(s) or Object(s) to be Dredged (Please provide details for each of the Dredge Areas listed in Section 5 (d) above. Continue on a separate sheet if necessary):

Dredge Area	**Name of Dredge Area**	**Type** (Maintenance or Capital)	**Harbour bed, Seabed or Estuary bed?**	**Estimated Specific Gravity**	**Depth** (metres)	**Quantity to be Dredged <u>per Year</u>** (wet tonnes)
A	Approach Channel	Capital	Estuary bed	2.7	-9m CD	3,307,500*
B	Berth Pocket	Capital	Estuary bed	2.7	-13m CD	499,500*
C						*overall quantity not an annual quantity
D						
E						

8. Physical Composition of Substance(s) or Object(s) to be Dredged (Please provide the approximate proportions as a percentage for each size range against each of the dredge site areas listed in Section 6 (d) above. Continue on a separate sheet if necessary):

Dredge Area	Clay and Silt (< 0.063 mm)	Sand (0.063 ≤ Sand < 2.0 mm)	Pebbles, Cobbles & Boulders (≤ 2.0 mm)
A	8.0	27.4	64.5
B	10.2	31.5	59.6
C			
D			
E			

9. Details of Substance(s) or Object(s) Quality

Have the dredged substance(s) or object(s) been chemically analysed in the last 3 years? YES ■ NO □

10. Details of Vessel(s) Undertaking Dredging and Sea Disposal (please note that a marine licence cannot be issued until the vessel details have been confirmed. Continue on a separate sheet if necessary):

Vessel Name	Type of Vessel	Name and Address of Operator
To be confirmed		

11. Noise Monitoring

Will loud, low to mid frequency (10Hz to 10kHz) impulsive noise be produced by the project? YES ☐ NO ■

If **YES**, which please indicate the noise generating activities and sound frequencies:

Noise Generating Activity	Sound Frequency (Hertz)
Use of Explosives	
Other (please describe below):	

If you have ticked **YES**, please complete the Noise Registry – Initial Registration form located at: http://www.scotland.gov.uk/Topics/marine/science/MSInteractive/Themes/noise-reduction

A marine licence application will not be accepted until this form has been completed and submitted.

12. Statutory Consenting Powers

Do you, or (if appropriate) your client, have statutory powers to consent any aspect of this project?

s defied in Section 5 (1) (a) General Duties and Powers (provide, maintain, operate and improve) and Section 55 Power to Dredge in the Forth Ports Authority Order Confirmation Act 1969, Forth Ports Limited as a Competent Harbour Authority is empowered to undertake any dredging necessary to maintain safe navigation, therefore this application is made to obtain permissions for for disposal of dredge material.

13. Scotland's National Marine Plan

Have you considered the application with reference to Scotland's National Marine Plan? YES ■ NO ☐

If **YES**, provide details of considerations made including reference to the policies that have been considered:

Refer to Table 4-1 of the sEIA report.

If **NO**, please provide an explanation of why you haven't considered the National Marine Plan?

14. Consultation

List all bodies you have consulted and provide copies of correspondence:

Marine Directorate - Licensing Operations Team (MD-LOT)
RSPB
NatureScot

Refer to Chapter 6 of the EIA report for details of all the consultation undertaken for the Proposed Scheme

15. Associated Works

Provide details of other related marine projects, including reference/licence numbers (if applicable):

This project is related to the Outer Berth development (Marine Licence Numbers: MS-00009818 and MS-00009819.

Appendix 01 - Marine Licence Application Additional Co-ordinates

Please use this appendix to provide any additional latitude and longitude co-ordinates (WGS84) for your marine licence application. Please identify the location details and provide exact latitude and longitude co-ordinates (WGS84).

Location (e.g Quay 1 Dredge Area, Example Harbour)	**Latitude**											**Longitude**										
Dredge Area A Continued	5	5	°	5	9	.	3	4	7	’N		0	0	3	°	1	0	.	8	0	6	’W
	5	5	°	5	9	.	2	7	4	’N		0	0	3	°	1	0	.	9	7	3	’W
			°			.				’N					°			.				’W
			°			.				’N					°			.				’W
			°			.				’N					°			.				’W
			°			.				’N					°			.				’W
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			°			.				’N				°			.				’W

Declaration

I declare to the best of my knowledge and belief that the information given in this form and related papers is true.

WARNING

It is an offence under the Act under which this application is made to fail to disclose information or to provide false or misleading information.

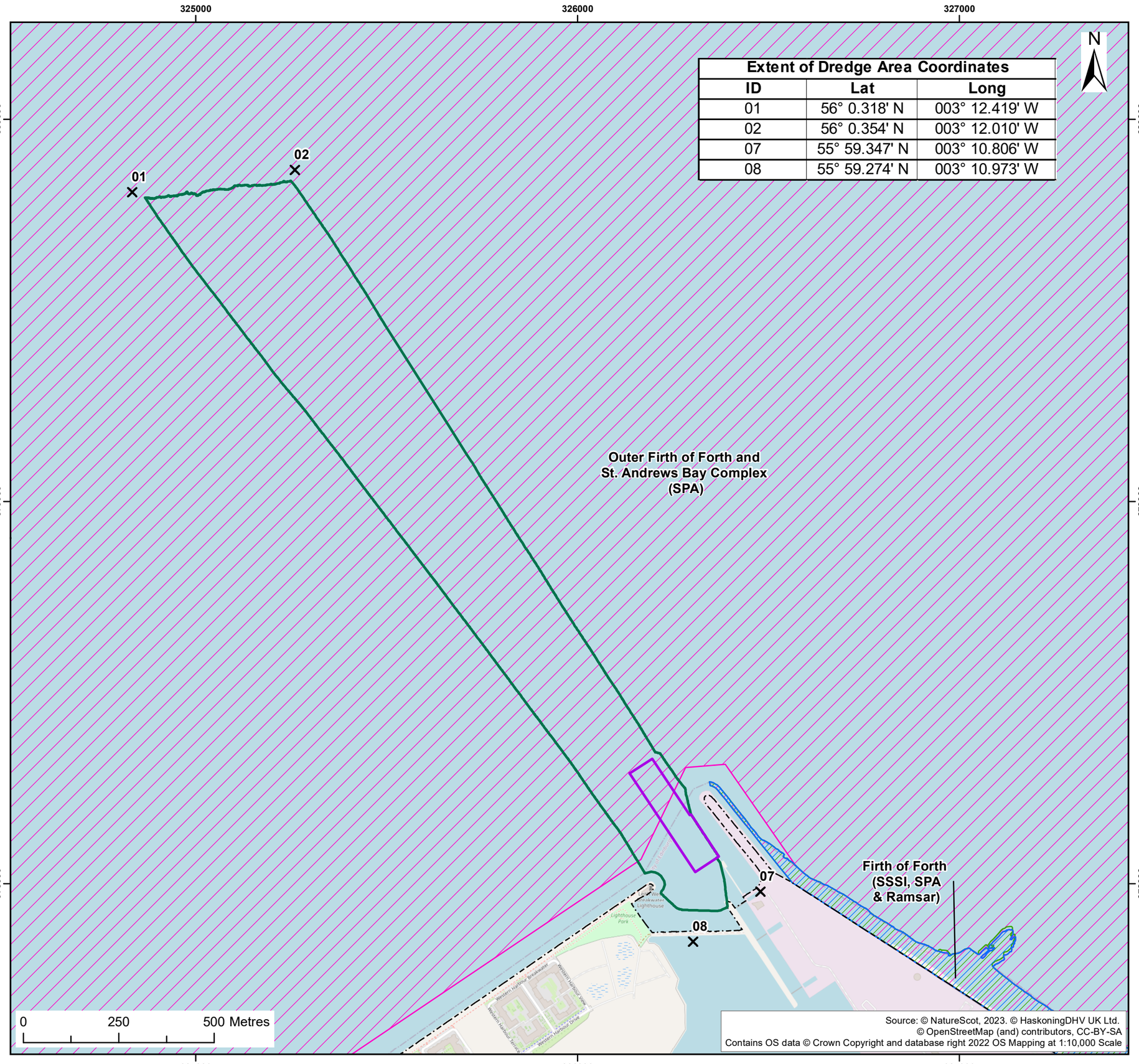
Signature

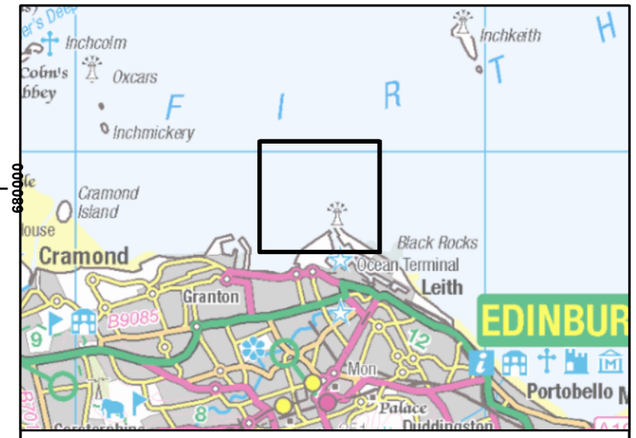
Date 15/12/2023

Name in BLOCK LETTERS Ian Kerr

Please check carefully the information you have given

Extent of Dredge Area Coordinates		
ID	Lat	Long
01	56° 0.318' N	003° 12.419' W
02	56° 0.354' N	003° 12.010' W
07	55° 59.347' N	003° 10.806' W
08	55° 59.274' N	003° 10.973' W





Legend:

- Extent of Dredge Area Coordinates
- 13m Berth Pocket
- 9m Approach Channel
- Mean High Water Spring Level
- Site of Special Scientific Interest (SSSI)
- Ramsar
- Special Protection Area (SPA)

Client: Forth Ports Limited	Project: Port of Leith Outer Berth: Approach Channel Deepening

Title: Marine Licence Application Extent of Works

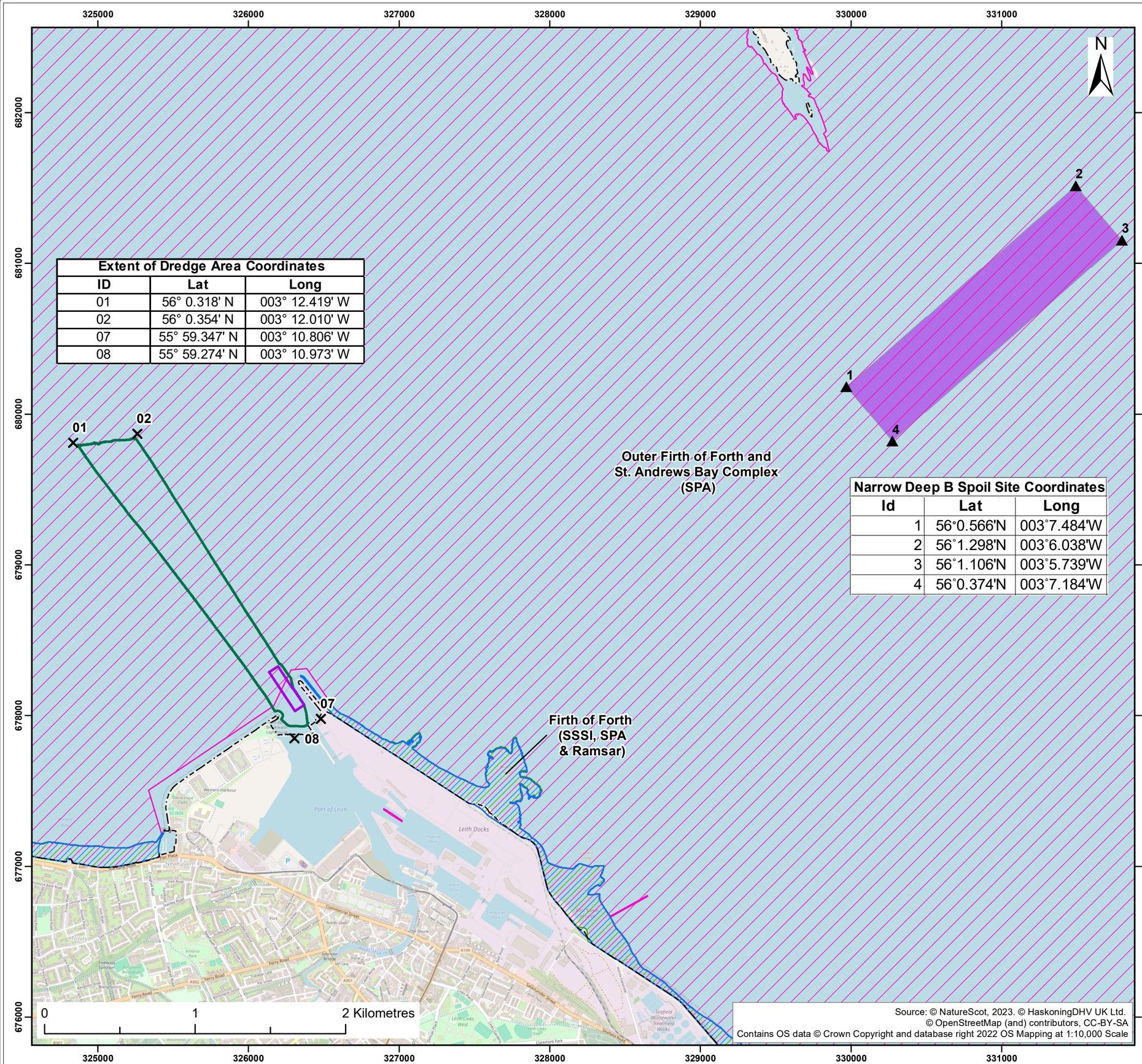
Figure: N/A	Drawing No: PC4514-RHD-ZZ-XX-DR-Z-0005

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
01	12/01/2024	GC	JG	A3	1:10,000

Co-ordinate system: British National Grid

Royal HaskoningDHV
Enhancing Society Together

ROYAL HASKONINGDHV
INDUSTRY & RENEWABLES
2 ABBEY GARDENS
GREAT COLLEGE STREET
LONDON
SW1P 3NL
+44 (0)20 7222 2115
www.royalhaskoningdhv.com



Client: Forth Ports Limited

Project: Port of Leith Outer Berth: Approach Channel Deepening

Title: Marine Licence Application Extent of Works and Narrow Deep B Disposal site

Figure: N/A

Drawing No: PC4514-RHD-ZZ-XX-DR-Z-0006

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
01	12/01/2024	GC	JG	A3	1:25,000

Co-ordinate system: British National Grid

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ROYAL HASKONINGDHV
INDUSTRY & RENEWABLES
2 ABBEY GARDENS
GREAT COLLEGE STREET
LONDON
SW1P 3NL
+44 (0)20 7222 2115
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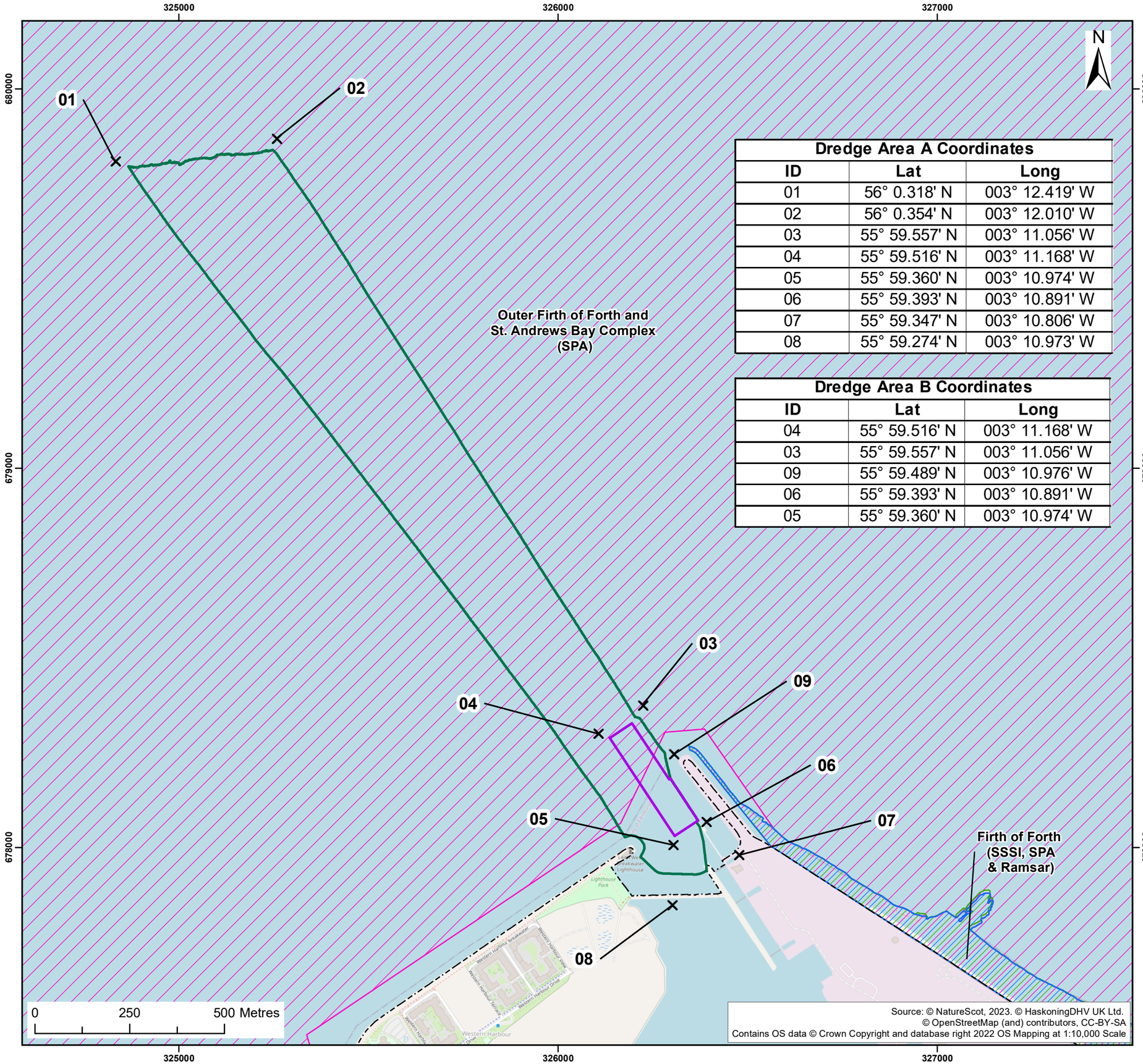
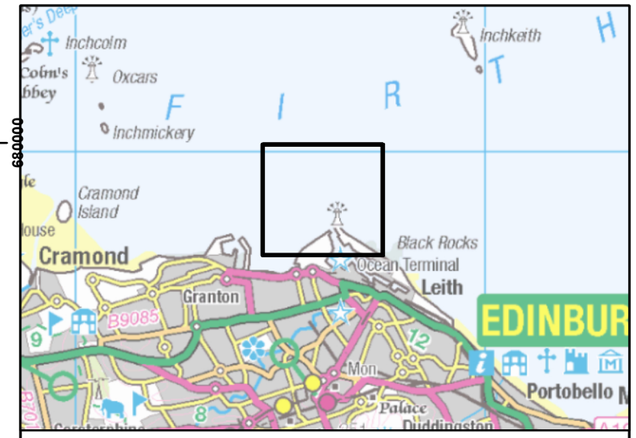


Dredge Area A Coordinates		
ID	Lat	Long
01	56° 0.318' N	003° 12.419' W
02	56° 0.354' N	003° 12.010' W
03	55° 59.557' N	003° 11.056' W
04	55° 59.516' N	003° 11.168' W
05	55° 59.360' N	003° 10.974' W
06	55° 59.393' N	003° 10.891' W
07	55° 59.347' N	003° 10.806' W
08	55° 59.274' N	003° 10.973' W

Dredge Area B Coordinates		
ID	Lat	Long
04	55° 59.516' N	003° 11.168' W
03	55° 59.557' N	003° 11.056' W
09	55° 59.489' N	003° 10.976' W
06	55° 59.393' N	003° 10.891' W
05	55° 59.360' N	003° 10.974' W



Legend:

- coordcheck
- 13m Berth Pocket
- 9m Approach Channel
- Mean High Water Spring Level
- Site of Special Scientific Interest (SSSI)
- Ramsar
- Special Protection Area (SPA)

Client: Forth Ports Limited

Project: Port of Leith Outer Berth: Approach Channel Deepening

Title: Marine Licence Application Extent of Works, Area A and Area B

Figure: N/A

Drawing No: PC4514-RHD-ZZ-XX-DR-Z-0005

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
01	12/01/2024	GC	LE-J	A3	1:10,000

Co-ordinate system: British National Grid

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INDUSTRY & RENEWABLES
2 ABBEY GARDENS
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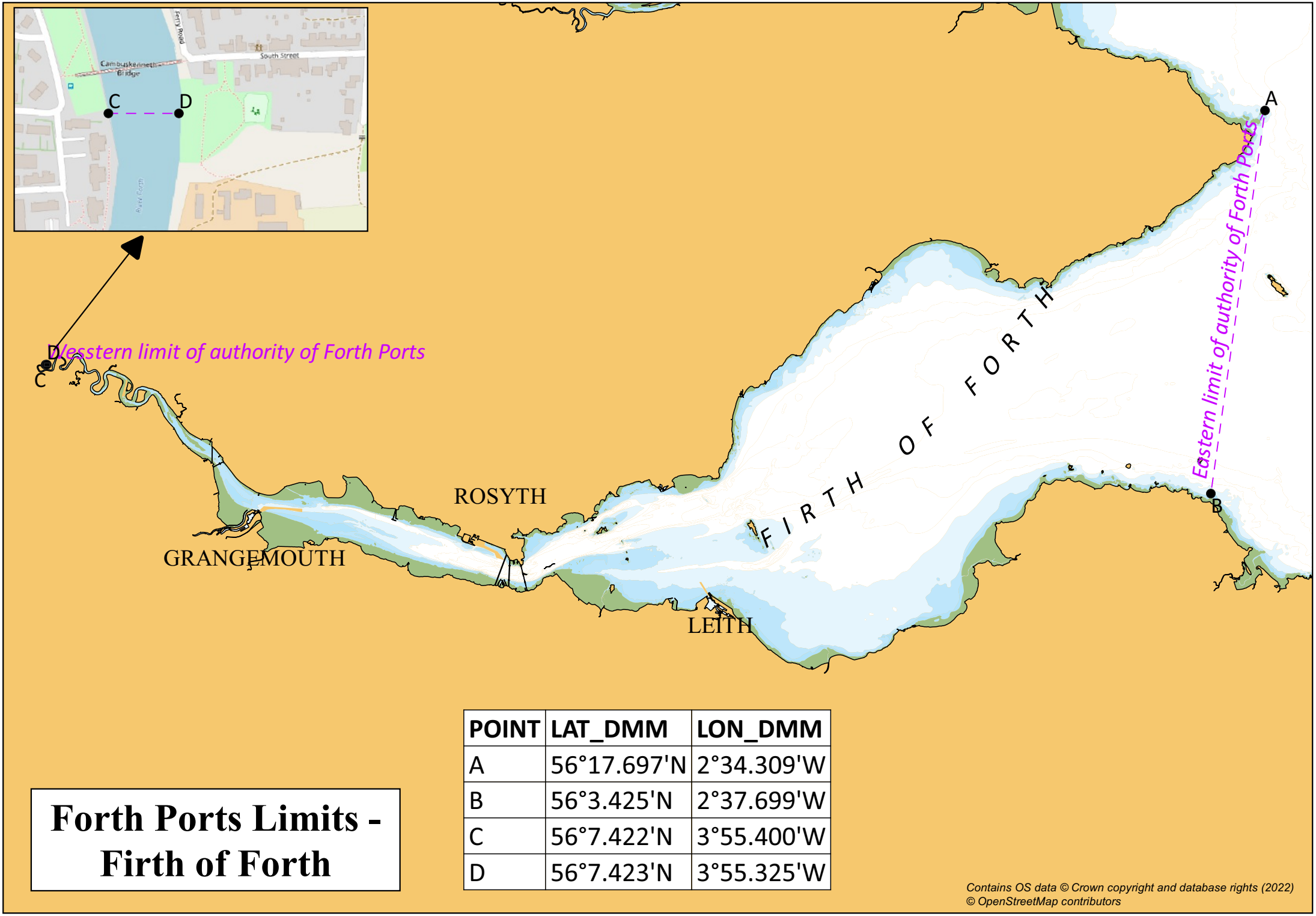

Forth Ports Limits - Firth of Forth

POINT	LAT_DMM	LON_DMM
A	56°17.697'N	2°34.309'W
B	56°3.425'N	2°37.699'W
C	56°7.422'N	3°55.400'W
D	56°7.423'N	3°55.325'W

plotted on 2022-04-04

An initial and revised sediment sampling plan was agreed (03 July and 06 November 2023 respectively) and sediment sampling was undertaken between 28 and 29 August 2023.

Sample Reference No.	Lat (WGS84 Decimal Degrees)	Long (WGS84 Decimal Degrees)
VC01	55.993173	3.1885969
VC02	55.995420	3.1903654
VC03	55.997273	3.1939017
VC04	55.999076	3.1960417
VC05	56.000851	3.1964173
VC06	56.001271	3.1994609
VC07	56.002649	3.1982368
VC08	56.004088	3.1999331
VC09	56.003949	3.2031361
VC10	56.005012	3.203312
VC11	56.005303	3.199510
VC12	56.002652	3.199385
VC13	55.999215	3.192255
VC14	55.992450	3.184598
NVC01B	55.991439	3.1848566
NVC02	55.990508	3.1853571
NVC03A	55.989952	3.1833683
NVC04	55.989395	3.1834154
NVC05	55.989011	3.1830991
NVC06	55.98898	3.18233
VCN03A	55.991176	3.1841271
VCN04A	55.990776	3.1836981
VCN05A	55.990235	3.1828961
VCN06A	55.989163	3.182318
VCN14	55.98945	3.182018
VCN15	55.98944	3.182279
VCN16	55.990547	3.1832102

Note

HaskoningDHV UK Ltd.
Water & Maritime

To:	Marine Scotland's Licensing Operations Team
From:	Emily Foster
Date:	31 October 2023
Copy:	Forth Ports Limited
Our reference:	PC4514-RHD-YY-XX-FN-EV-0019
Classification:	Project related
Checked by	Jamie Gardiner

Subject: **Port of Leith Outer Berth Development Approach Channel Deepening: Revised dredge depth**

---

1 Purpose of this Note

This note has been issued to Marine Scotland's Licensing Operations Team (MS-LOT) to:

1. inform them of changes to the proposed dredge depths to the Port of Leith Approaches and Outer Berth, and subsequent disposal volume (**Section 2**);
2. seek confirmation that the revised sediment sampling plan is suitable to inform an assessment of potential effects of the dredge and sea disposal operations (**Section 3**); and
3. provide details of the implications of the proposed changes on the findings of the environmental scoping exercise, as presented in the Environmental Scoping Report (PC4514-RHD-YY-XX-RP-EV-0013) issued in June 2023 (**Section 4**).

2 Revised dredge depth

Currently, the approach channel to the Port of Leith is dredged to a depth of *c.* -6.7m to -7.0m Chart Datum (CD), and which was originally planned to be dredged to a depth of -8.0m CD and to be extended to the -8m CD contour. The berth pocket, most of which will have been deepened to -9.0m CD as part of the Outer Berth development, will be deepened to -12m CD.

Further consideration of the types of vessels being used by the offshore renewables industry has identified that the approach channel to the Port of Leith needs to be deepened by an additional 1m to provide safe under-keel clearance for the required access the Outer Berth.

This additional metre would deepen the approach channel to -9m CD, and the berth pocket to -13m CD. This extends the approach channel seawards to the -9m CD contour, an increase in the dredge area of approximately 37,900m^2, and increases the width of the channel slightly, as a result of the required side slopes, in particular towards the entrance to the port (see **Figure 1**).

The total dredge volume to -9m CD, including side slopes, would be approximately 1,270,750m^3, and approximately 1,380,000m^3 when including a uniform over-dredge allowance of 0.25m. There is no change to the anticipated offshore disposal at Narrow Deep B Spoil Disposal Ground (FO038; 'Narrow Deep B') and a Best Practicable Environmental Option (BPEO) assessment will be undertaken to determine the most appropriate disposal option.

The revised dredge footprint can be seen in **Figure 1**. The extent of the dredge footprint falls within the points set out in **Table 1**.

NOTES

1. ALL DIMENSIONS ARE IN METRES, UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE RELATIVE TO CHART DATUM (mCD) UNLESS NOTED OTHERWISE.

LEGEND

- -13.0m BERTH POCKET
- -8.0m DREDGE APPROACH CHANNEL
- EXTENT OF SLOPES
- ADDITIONAL SAMPLING LOCATIONS
- PREVIOUSLY AGREED SAMPLING LOCATIONS
- -8m CONTOUR LINE
- -9m CONTOUR LINE

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	XX.XX.23	FOR INFORMATION	BM	BC	BC

REVISIONS

CLIENT

Forth Ports Limited

PROJECT

Port of Leith Outer Berth Development
Approach Channel Deepening

TITLE

Revised dredge footprint and additional sediment sampling positions

Marlborough House, Marlborough Crescent
Newcastle upon Tyne, NE1 4EE
Tel +44 (0)191 211 1320
Email info@newcastle.royalhaskoning.com
Website www.royalhaskoning.com

Royal HaskoningDHV
Enhancing Society Together

DRAWN	CHECKED	APPROVED
BM	BC	BC
DATE	SCALE	REF.
OCT 2023	AS SHOWN	

DRAWING No.	SUITABILITY	REVISION
PC4514-RHD-YY-XX-DG-GE-0025	S0	P01

Table 1 Dredge footprint coordinates

Latitude	Longitude
55.991598	-3.1836148
55.98920	-3.18106
55.988931	-3.1814976
55.988259	-3.1808968
55.988176	-3.1836214
55.989538	-3.1850306
56.005184	-3.2064299
56.005648	-3.2002862
55.991598	-3.1836148

3 Implications of Increased Dredge Volume on the Approved Sampling Plan

The previously approved sampling plan (**Appendix A**) included 18 stations. For a dredge volume of up to 1.4milion m^3, MS-LOT's guidance[1] requires that 24 stations are sampled within the dredge footprint, meaning a further six stations are required to meet the requirements of MS-LOT's guidance.

Given the slight increase in channel width, due to the increased side slopes, there are five samples from the previous survey, from which samples were included as part of the approved sampling plan (**Appendix A**), that now fall within the dredge footprint (see **Figure 1**). In order to ensure suitable coverage of the revised dredge footprint, a further five stations have also been included. This provides an overall total of 28 sample stations, which is considered sufficient to inform an assessment of potential effects of the dredge and sea disposal operations. The additional stations are presented in **Table 2** and shown on **Figure 1**.

Table 2 Additional sediment sample locations

Sample Station Reference	Latitude	Longitude
VCN06A	55.989163	-3.182318
NVC06	55.98898	-3.18233
VCN11A	55.98917	-3.181583
VCN14	55.98945	-3.182018
VCN15	55.98944	-3.182279
10	56.005012	-3.203312
11	56.005303	-3.199510
12	56.002652	-3.199385
13	55.999215	-3.192255
14	55.992450	-3.184598

[1] Pre-disposal+sampling+guidance.pdf (www.gov.scot)

4 Implications of Increased Dredge Depth on Environmental Scoping Exercise

An environmental scoping exercise was carried out on the proposed deepening of the approach channel to -8m CD and the berth pocket to -12m CD, as presented in the Environmental Scoping Report (PC4514-RHD-YY-XX-RP-EV-0013) issued to MS-LOT, along with a request for a Scoping Opinion, in June 2023. The subsequent Scoping Opinion was issued in September 2023.

The proposed increase in dredge depth to -9m CD and berth pocket to -13m CD would extend the approach channel to the -9m CD contour, an increase of approximately 37,600m^2, and increase the width of the channel slightly as a result of the required side slopes, in particular towards the entrance to the port. The increased depth of the channel and berth pocket would also increase the dredge and disposal volume from approximately 575,000m^3 of material, inclusive of side slopes (approximately 695,000m^3 inclusive of a uniform 0.25m over-dredge), to approximately 1,270,750m^3 of material, inclusive of side slopes (approximately 1,380,000m^3 inclusive of a uniform 0.25m over-dredge). It is anticipated that the capital dredge would now take approximately four months to complete, compared to the previously anticipated approximately three months.

As the proposed changes in dredge depth do not introduce any new activities to that considered by the environmental scoping exercise, there are no changes to the required surveys/studies and assessments set out in the Environmental Scoping Report and confirmed by the Scoping Opinion. The proposed changes do however affect the scope of the following surveys, the specifications of which were presented in the Environmental Scoping Report:

- Sediment sampling survey (Appendix C of the Environmental Scoping Report)
- Benthic ecology survey (Appendix D of the Environmental Scoping Report)

The implications on the sediment sampling survey have been described in **Section 3** above, with more than sufficient stations being sampled to meet the requires of MS-LOT's guidance.

The proposed scope of the benthic ecology survey included samples near to the -8m CD contour as well as further into the Firth of Forth, outside of the dredge footprint; however, within the expected Zone of Influence of potential effects as a result of the deepening of the approach channel (see **Figure 2**). The extension to the proposed dredge footprint is therefore within the envelope of sample sites, as shown on **Figure 2**.

Given this, the very small increase in dredge footprint and the ubiquitous nature of the benthic habitats throughout the local area within the Firth of Forth, as determined from the 2021 EUSeaMap benthic mapping project (see Section 4.6.1 of the Environmental Scoping Report), the benthic ecology survey is considered to remain suitable to assess the potential effects of the increased dredge depth on benthic ecology.

Figure 2 Benthic ecology survey station and transect locations

Pre-disposal Sampling Results Form

Version 2 - June 2017

This form should be used to submit the results from your pre-disposal sampling plan.
Full information must be provided in all relevant sheets of this workbook. The blue cells in each worksheet indicate where information can be entered.
Where information cannot be provided, or where there are more than 30 samples required, please contact the Marine Scotland - Licensing Operations Team (MS-LOT) using the contact details below.

Once you have completed this form, send it (including any reference number for the dredging and sea disposal marine licence application in the subject header of your email) to the following email address:
ms.marinelicensing@gov.scot

If you have any questions in relation to this form contact MS-LOT:

Marine Scotland - Licensing Operations Team
Marine Laboratory
375 Victoria Road
Aberdeen, AB11 9DB

01224 295579
ms.marinelicensing@gov.scot

Applicant Information

Applicant:	
Description of dredging:	
Total amount to be dredged (wet tonnes)	

Sample Details & Physical Properties

Explanatory Notes:
An example of a 'Dredge area' is: 'Dock A, Harbour X'
Provide description of the dredge area and the latitude and longitude co-oridnates (WGS84) for each sample location. Co-ordinates taken from GPS equipment should be set to WGS84.
Note for sample depth that the seabed is 0 metres.
Gravel is defined as >2mm, **Sand** is defined as >63um<2mm, **Silt** is deinfed as <63um).

Sample information:

Sample ID	Dredge area	Latitude	Longitude	Type of sample	Sample depth (m)	Total solids (%)	Gravel (%)	Sand (%)	Silt (%)	TOC (%)	Specific gravity	Asbestos
MAR02010.00	VC01 (0.00m)	° . 'N	° . 'W			79.4	0.83	36.72	62.45	5		
MAR02010.00	VC01 (1.00m)	° . 'N	° . 'W			87.2	30.84	12.4	56.75	1.68		
MAR02010.00	VC01 (1.50m)	° . 'N	° . 'W			80.2	18.02	3.48	78.5	1.92		
MAR02010.00	VC02 (0.00m)	° . 'N	° . 'W			74.2	0	2.29	97.71	1.87		
MAR02010.00	VC02 (3.00m)	° . 'N	° . 'W			74.5	0	1.59	98.41	2.74		
MAR02010.00	VC02 (4.50m)	° . 'N	° . 'W			40	0	3.35	96.65	7.86		
MAR02010.00	VC03 (0.00m)	° . 'N	° . 'W			73.1	10.57	29.86	59.57	1.18		
MAR02010.00	VC03 (1.00m)	° . 'N	° . 'W			67.3	4.74	30.4	64.85	1.63		
MAR02010.00	VC03 (2.00m)	° . 'N	° . 'W			86.7	35.88	29.42	34.7	1.27		
MAR02010.01	VC04 (0.00m)	° . 'N	° . 'W			71.2	12.35	33.4	54.26	1.86		
MAR02010.01	VC04 (2.00m)	° . 'N	° . 'W			75	0	1.59	98.41	1.56		
MAR02010.01	VC04 (3.00m)	° . 'N	° . 'W			72.8	0	3.42	96.58	1.84		
MAR02010.01	VC05 (0.00m)	° . 'N	° . 'W			59.9	8.72	35.09	56.19	1.1		
MAR02010.01	VC05 (1.00m)	° . 'N	° . 'W			85.8	0	92.89	7.11	0.44		
MAR02010.01	VC05 (2.00m)	° . 'N	° . 'W			81.7	0	92.79	7.21	0.6		
MAR02010.01	VC06 (0.00m)	° . 'N	° . 'W			63.7	15.43	25.97	58.6	4.62		
MAR02010.01	VC06 (2.00m)	° . 'N	° . 'W			70.1	0	20.44	79.56	0.78		
MAR02010.01	VC06 (3.00m)	° . 'N	° . 'W			85.7	0	53.12	46.88	0.75		
MAR02010.01	VC07 (0.00m)	° . 'N	° . 'W			66.2	6.79	27.49	65.72	1.87		
MAR02010.02	VC07 (2.00m)	° . 'N	° . 'W			70	0	22.55	77.45	1.05		
MAR02010.02	VC07 (3.00m)	° . 'N	° . 'W			83.6	13.12	44.03	42.84	0.6		
MAR02010.02	VC08 (0.00m)	° . 'N	° . 'W			71.4	1.74	17.94	80.32	0.77		
MAR02010.02	VC08 (2.00m)	° . 'N	° . 'W			74.4	0	3.22	96.78	2.05		
MAR02010.02	VC08 (3.50m)	° . 'N	° . 'W			71.8	0	6.2	93.8	1.09		
MAR02010.02	VC09 (0.00m)	° . 'N	° . 'W			60.5	3.85	22.56	73.59	2.15		
MAR02010.02	VC09 (2.00m)	° . 'N	° . 'W			69.9	0	17.58	82.42	0.56		
MAR02010.02	VC09 (3.00m)	° . 'N	° . 'W			71.4	1.02	17.24	81.75	0.83		
MAR02010.02	VC10 (0.00m)	° . 'N	° . 'W			73.4	26.28	30.7	43.02	2.97		
MAR02010.02	VC10 (2.00m)	° . 'N	° . 'W			89.3	13.53	53.09	33.39	0.08		
MAR02010.03	VC10 (3.50m)	° . 'N	° . 'W			86	7.44	45.68	46.88	0.93		
MAR02010.03	VC11 (0.00m)	° . 'N	° . 'W			65.8	21.58	33.18	45.25	4.19		
MAR02010.03	VC11 (2.00m)	° . 'N	° . 'W			70.1	0	17.17	82.83	0.78		
MAR02010.03	VC11 (3.50m)	° . 'N	° . 'W			69.1	0	10.71	89.29	0.75		
MAR02010.03	VC12 (0.00m)	° . 'N	° . 'W			64.7	10.12	29.69	60.19	4.11		
MAR02010.03	VC12 (2.00m)	° . 'N	° . 'W			70	3.62	18.94	77.44	1.17		
MAR02010.03	VC12 (4.50m)	° . 'N	° . 'W			66.3	0	15.24	84.76	0.95		
MAR02010.03	VC13 (0.00m)	° . 'N	° . 'W			73.5	4.22	21.37	74.41	1.44		
MAR02010.03	VC13 (1.00m)	° . 'N	° . 'W			82.8	11.66	45.38	42.97	0.64		
MAR02010.03	VC13 (2.00m)	° . 'N	° . 'W			87.6	8.87	50.77	40.36	0.7		
MAR02010.04	VC14 (0.00m)	° . 'N	° . 'W			75.5	22.33	40.2	37.47	0.75		
MAR02010.04	VC14 (1.00m)	° . 'N	° . 'W			84.9	33.23	40.59	26.18	1.36		
MAR02010.04	VC14 (1.50m)	° . 'N	° . 'W			88.6	20.69	41.91	37.4	0.98		
MAR1438.001	NVC01B 0.00	° . 'N	° . 'W			55.7	3.56	35.01	61.43	5.55	2.57	
MAR1438.002	NVC01B 0.50	° . 'N	° . 'W			85.3	26.41	19.94	53.65	1.62	2.7	
MAR1438.003	NVC01B 1.00	° . 'N	° . 'W			79.5	9.69	27.87	62.44	1.68		
MAR1438.004	NVC02 0.00	° . 'N	° . 'W			46.6	0	30.13	69.87	4.64	2.58	
MAR1438.005	NVC02 2.00	° . 'N	° . 'W			58.1	0	22.31	77.69	8.28	2.44	
MAR1438.006	NVC02 3.50	° . 'N	° . 'W			75.3	0	1.02	98.98	2.15	2.65	
MAR1438.007	NVC03A 0.00	° . 'N	° . 'W			47.5	0	21.68	78.32	4.99	2.58	
MAR1438.008	NVC03A 0.50	° . 'N	° . 'W			79.3	13.02	25.54	61.43	1.78	2.71	
MAR1438.009	NVC04 0.00	° . 'N	° . 'W			43.2	0	23.06	76.94	4.75	2.61	
MAR1438.010	NVC04 1.50	° . 'N	° . 'W			56.5	0	21.94	78.06	5.14	2.64	
MAR1438.011	NVC04 2.00	° . 'N	° . 'W			54	0	15.45	84.55	5.43	2.55	
MAR1438.012	NVC04 3.50	° . 'N	° . 'W			47.8	0	9.87	90.13	7.63	2.43	
MAR1438.013	NVC05 0.00	° . 'N	° . 'W			47.6	0	19.07	80.93	4.67	2.58	
MAR1438.014	NVC05 1.00	° . 'N	° . 'W			55.5	0	15.7	84.3	5.74	2.53	
MAR1438.015	NVC05 2.00	° . 'N	° . 'W			45.9	0	14.4	85.6	7.43	2.48	
MAR1438.016	NVC06 0.00	° . 'N	° . 'W			50	0	16.49	83.51	4.92	2.33	
MAR1438.017	NVC06 1.00	° . 'N	° . 'W			57.1	0	35.33	64.67	4.19	2.59	
MAR1438.018	NVC06 1.50	° . 'N	° . 'W			54.7	0	13.91	86.09	5.64	2.58	
MAR1438.019	VCN03A 0.00	° . 'N	° . 'W			41.4	0	20.46	79.54	5.43	2.55	
MAR1438.020	VCN03A 0.30	° . 'N	° . 'W			85.2	16.48	4.87	78.66	1.69	2.7	
MAR1438.021	VCN04A 0.00	° . 'N	° . 'W			42.5	0	20.41	79.59	5.22	2.64	
MAR1438.022	VCN04A 0.35	° . 'N	° . 'W			89.1	12.39	25.11	62.5	1.86	2.69	
MAR1438.023	VCN05A 0.00	° . 'N	° . 'W			52.4	14.24	19.51	66.25	3.14	2.66	
MAR1438.024	VCN05A 0.30	° . 'N	° . 'W			88.6	12.85	25.08	62.06	1.66	2.68	
MAR1438.025	VCN05A 0.65	° . 'N	° . 'W			89.3	21.31	23.09	55.6	1.52	2.67	
MAR1438.026	VCN06A 0.00	° . 'N	° . 'W			38.8	0	21.42	78.58	4.51	2.59	
MAR1438.027	VCN06A 0.20	° . 'N	° . 'W			37.5	0	14.54	85.46	5.41	2.6	
MAR1438.028	VCN06A 0.50	° . 'N	° . 'W			86.5	17.01	24.82	58.16	1.83	2.69	
MAR1438.038	VCN14 0.00	° . 'N	° . 'W			40.6	0	13.83	86.17	4.42	2.59	
MAR1438.039	VCN14 0.50	° . 'N	° . 'W			83	23.92	24.58	51.5	1.81	2.67	
MAR1438.040	VCN15 0.00	° . 'N	° . 'W			35.9	0	11.96	88.04	4.96	2.55	
MAR1438.041	VCN15 0.50	° . 'N	° . 'W			80.6	14.46	29.48	56.06	2.48	2.7	
MAR1438.042	VCN16 0.00	° . 'N	° . 'W			40.1	0	18.18	81.82	3.12	2.56	
MAR1438.043	VCN16 0.30	° . 'N	° . 'W			85.3	23.6	25.89	50.51	1.66	2.69	
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Trace Metals & Organotins

Explanatory Notes:
Results above Action Level 1 will be highlighted in blue and above Action Level 2 in red.

Sample information:

Sample ID	Dredge area	Type of sample	Sample depth (m)	mg/kg dry weight									
				Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Copper (Cu)	Mercury (Hg)	Nickel (Ni)	Lead (Pb)	Zinc (Zn)	Dibutyltin (DBT)	Tributyltin (TBT)
MAR02010.00	VC01 (0.00m)	0	0	12.5	1.16	60.4	60.8	1.29	32.5	105	195	<0.005	<0.005
MAR02010.00	VC01 (1.00m)	0	0	3.4	0.28	46.4	23.5	0.06	51	13.9	78.7	<0.005	<0.005
MAR02010.00	VC01 (1.50m)	0	0	3.7	0.23	30.4	23.7	0.04	37.7	21.8	68	<0.005	<0.005
MAR02010.00	VC02 (0.00m)	0	0	5	0.25	116	27.5	0.04	90.5	15.7	73.9	<0.005	<0.005
MAR02010.00	VC02 (3.00m)	0	0	3.8	0.21	340	30.4	0.04	215	16	79.9	<0.005	<0.005
MAR02010.00	VC02 (4.50m)	0	0	16.5	0.3	72.8	31	0.63	46.2	66.6	129	<0.005	<0.005
MAR02010.00	VC03 (0.00m)	0	0	12.1	0.13	31.8	10.9	0.18	23.7	19.5	55.9	<0.005	<0.005
MAR02010.00	VC03 (1.00m)	0	0	12.6	0.14	31.5	10.1	0.17	22.8	17.8	75.5	<0.005	<0.005
MAR02010.00	VC03 (2.00m)	0	0	8.3	0.14	30.5	20.3	0.05	34.8	10.3	58.6	<0.005	<0.005
MAR02010.01	VC04 (0.00m)	0	0	12.2	0.19	34.8	13.4	0.28	28.4	94.1	75.9	<0.005	<0.005
MAR02010.01	VC04 (2.00m)	0	0	5.6	0.21	42.5	29.1	0.01	54.4	15.5	73.3	<0.005	<0.005
MAR02010.01	VC04 (3.00m)	0	0	5.2	0.18	42.5	29.8	<0.01	49.2	15.6	71.8	<0.005	<0.005
MAR02010.01	VC05 (0.00m)	0	0	9.4	0.14	29.4	13.3	0.19	22.2	36.4	65.6	<0.005	<0.005
MAR02010.01	VC05 (1.00m)	0	0	4.5	0.06	8.3	6	<0.01	11.7	5.8	25.3	<0.001	<0.001
MAR02010.01	VC05 (2.00m)	0	0	4.4	0.06	8.5	6.2	<0.01	15.6	5.6	24.7	<0.001	<0.001
MAR02010.01	VC06 (0.00m)	0	0	12.6	0.16	37.5	110	0.66	32.1	68.7	89.7	<0.005	<0.005
MAR02010.01	VC06 (2.00m)	0	0	7.1	0.11	33.2	6.6	<0.01	24.7	9	48.3	<0.005	<0.005
MAR02010.01	VC06 (3.00m)	0	0	7.4	0.14	25.1	13.4	0.04	25.3	8.7	42.9	<0.005	<0.005
MAR02010.01	VC07 (0.00m)	0	0	11.7	0.24	41.2	15.1	0.3	28.4	40.7	76.8	<0.005	<0.005
MAR02010.02	VC07 (2.00m)	0	0	6.9	0.15	34.5	6.3	<0.01	25.1	9.2	49.4	<0.005	<0.005
MAR02010.02	VC07 (3.00m)	0	0	8.6	0.13	21.2	12	0.07	20.7	10.5	45.2	<0.005	<0.005
MAR02010.02	VC08 (0.00m)	0	0	8.6	0.14	21.6	12.7	0.03	20.8	10.5	52.9	<0.005	<0.005
MAR02010.02	VC08 (2.00m)	0	0	7.3	0.14	37.4	8.3	<0.01	27.8	10.7	56.6	<0.005	<0.005
MAR02010.02	VC08 (3.50m)	0	0	7	0.2	38.4	20.8	0.14	38.7	20.8	67.5	<0.005	<0.005
MAR02010.02	VC09 (0.00m)	0	0	7.5	0.2	35.3	20.1	<0.01	40.7	12.5	62.9	<0.005	<0.005
MAR02010.02	VC09 (2.00m)	0	0	9.9	0.22	37.8	15.6	0.41	23.9	36.4	68.7	<0.005	<0.005
MAR02010.02	VC09 (3.00m)	0	0	7.4	0.16	47	7.3	0.01	35.5	9.9	54.7	<0.005	<0.005
MAR02010.02	VC10 (0.00m)	0	0	9.9	0.26	34.3	20.2	0.55	22.3	59	84.4	<0.005	<0.005
MAR02010.02	VC10 (2.00m)	0	0	9.1	0.15	25.6	16.9	<0.01	26.3	9.9	49.4	<0.005	<0.005
MAR02010.03	VC10 (3.50m)	0	0	6.1	0.18	25.6	15.8	<0.01	30.1	9.8	52.9	<0.005	<0.005
MAR02010.03	VC11 (0.00m)	0	0	9.5	0.18	32.8	11.9	0.23	22.4	30.2	61.5	<0.005	<0.005
MAR02010.03	VC11 (2.00m)	0	0	6.5	0.13	32.2	5.9	<0.01	25.3	8.4	47.9	<0.005	<0.005
MAR02010.03	VC11 (3.50m)	0	0	6.5	0.13	31.7	6	0.03	24.7	8.7	46.1	<0.005	<0.005
MAR02010.03	VC12 (0.00m)	0	0	12.5	0.32	44.4	26.2	0.77	26.4	62.9	100	<0.005	<0.005
MAR02010.03	VC12 (2.00m)	0	0	7.1	0.17	36.1	7	<0.01	27.3	10	59.1	<0.005	<0.005
MAR02010.03	VC12 (4.50m)	0	0	6.7	0.12	34.2	6.5	<0.01	25.3	9.2	50.1	<0.005	<0.005
MAR02010.03	VC13 (0.00m)	0	0	8.6	0.15	30.7	10.8	0.18	23.8	24.1	60	<0.005	<0.005
MAR02010.03	VC13 (1.00m)	0	0	7.2	0.13	25.2	12.6	<0.01	25.9	8.8	46.8	<0.005	<0.005
MAR02010.03	VC13 (2.00m)	0	0	7.9	0.15	29.1	15	<0.01	35	9.5	51.9	<0.005	<0.005
MAR02010.04	VC14 (0.00m)	0	0	7.2	0.12	21.6	7.1	<0.01	18.6	9.1	40.7	<0.005	<0.005
MAR02010.04	VC14 (1.00m)	0	0	9.2	0.14	23.7	13.3	<0.01	29.1	9.9	51.4	<0.005	<0.005
MAR02010.04	VC14 (1.50m)	0	0	4.5	0.2	25.1	21.8	<0.01	32.4	9.9	62	<0.005	<0.005
MAR1438.001	NVC01B 0.00	0	0	13.3	0.39	50.2	33.8	0.55	33.1	60.8	122	<0.005	0.0108
MAR1438.002	NVC01B 0.50	0	0	4.4	0.29	43.1	32.8	0.05	56.9	19.5	82.7	<0.005	<0.005
MAR1438.003	NVC01B 1.00	0	0	4.1	0.34	41.2	33	0.04	56.7	20	81.5	<0.005	0.00658
MAR1438.004	NVC02 0.00	0	0	16.4	2.45	91.5	78.9	1.42	41.3	105	190	0.0192	0.0239
MAR1438.005	NVC02 2.00	0	0	14.8	5.5	84.2	127	2.26	58.7	233	355	<0.005	0.0146
MAR1438.006	NVC02 3.50	0	0	4.8	0.49	41.1	32.3	0.14	42	25.6	81.2	<0.005	<0.005
MAR1438.007	NVC03A 0.00	0	0	15.3	0.34	59.1	33.5	0.62	36.2	65.4	132	<0.005	0.0114
MAR1438.008	NVC03A 0.50	0	0	5.6	0.23	41.6	32.3	0.07	56.7	24.5	83.8	<0.005	<0.005
MAR1438.009	NVC04 0.00	0	0	16	0.29	61.7	38.3	0.71	38.4	73.1	142	<0.005	<0.005
MAR1438.010	NVC04 1.50	0	0	16.3	1.01	75.6	63.1	1.19	40.7	115	189	0.0129	0.0119
MAR1438.011	NVC04 2.00	0	0	16.2	1.06	77.7	59.6	1.21	39.4	110	185	0.0112	0.0111
MAR1438.012	NVC04 3.50	0	0	14	3.06	77.6	115	2.05	38.7	178	267	<0.005	<0.005
MAR1438.013	NVC05 0.00	0	0	15.2	0.62	59.8	44.9	0.87	34.2	82.8	148	<0.005	0.0189
MAR1438.014	NVC05 1.00	0	0	15.5	1.48	77	64.4	1.35	37.9	114	185	0.0126	0.0336
MAR1438.015	NVC05 2.00	0	0	16.8	4.35	112	108	1.95	38.6	152	243	0.0141	0.0295
MAR1438.016	NVC06 0.00	0	0	15	0.7	65.3	48	0.91	36.8	87.3	156	<0.005	0.018
MAR1438.017	NVC06 1.00	0	0	16.6	0.82	71.6	56.4	1.17	40.4	106	176	0.0109	0.0127
MAR1438.018	NVC06 1.50	0	0	17.2	0.89	79.7	58.6	1.1	48.3	110	182	0.0227	0.149
MAR1438.019	VCN03A 0.00	0	0	17.6	0.57	66.4	43.6	0.85	39.3	86	155	<0.005	0.014
MAR1438.020	VCN03A 0.30	0	0	5.4	0.32	41.4	33.8	0.08	55.1	23.4	89.8	<0.005	<0.005
MAR1438.021	VCN04A 0.00	0	0	14.5	0.34	55.4	37	0.69	35.7	71.3	135	<0.005	0.0291
MAR1438.022	VCN04A 0.35	0	0	3.4	0.22	36.5	31.6	0.05	53.1	20.4	81.7	<0.005	0.00979
MAR1438.023	VCN05A 0.00	0	0	8.9	0.24	45.9	34.4	0.33	45.7	44.5	127	<0.005	0.0182
MAR1438.024	VCN05A 0.30	0	0	3.9	0.28	39.9	31.9	0.04	56.5	20.1	94.9	<0.005	<0.005
MAR1438.025	VCN05A 0.65	0	0	3.2	0.21	50.4	33.3	0.02	92.6	16.6	78.4	<0.005	<0.005
MAR1438.026	VCN06A 0.00	0	0	13.5	0.26	56.4	35.6	0.62	37.3	66.7	125	<0.005	<0.005
MAR1438.027	VCN06A 0.20	0	0	16.4	0.45	61.8	40.7	0.73	36	78	149	<0.005	0.0137
MAR1438.028	VCN06A 0.50	0	0	5	0.26	41.6	32.8	0.08	55.5	22.6	84.3	<0.005	<0.005
MAR1438.038	VCN14 0.00	0	0	14	0.26	50.8	33.3	0.58	33.7	67.6	124	<0.005	<0.005
MAR1438.039	VCN14 0.50	0	0	5.5	0.23	39.1	31.3	0.09	54.1	24.2	93	<0.005	<0.005
MAR1438.040	VCN15 0.00	0	0	14.8	0.22	51.6	30.8	0.57	33.5	60.3	117	<0.005	<0.005
MAR1438.041	VCN15 0.50	0	0	5.5	0.18	39	33.1	0.03	51.5	23.5	88.9	<0.005	<0.005
MAR1438.042	VCN16 0.00	0	0	11.1	0.18	48.5	37.8	0.36	42.3	50.7	120	<0.005	<0.005
MAR1438.043	VCN16 0.30	0	0	4.5	0.17	39.1	31.8	0.05	52.4	24.8	87.2	<0.005	<0.005
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Polyaromatic Hydrocarbons (PAH)

Explanatory Notes:
Results above Action Level 1 will be highlighted in blue

Definitions:

ACENAPTH	Acenaphthene
ACENAPHY	Acenaphthylene
ANTHRACN	Anthracene
BAA	Benz(a)anthracene
BAP	Benzo(a)pyrene
BBF	Benzo(b)fluoranthene
BEP	Benzo(e)pyrene
BENZGHIP	Benzo(ghi)perylene
BKF	Benzo(K)fluoranthene
C1N	C1-naphthalenes
C1PHEN	C1-phenanthrene
C2N	C2-naphthalenes
C3N	C3-naphthalenes
CHRYSENE	Chrysene
DBENZAH	Diben(ah)anthracene
FLUORANT	Fluoranthene
FLUORENE	Fluorene
INDPYR	Indeno(1,2,3-cd)pyrene
NAPTH	Naphthalene
PERYLENE	Perylene
PHENANT	Phenanthrene
PYRENE	Pyrene
THC	Total Hydrocarbon Content

Sample information:

		Type of	Sample depth												µg/kg											
Sample ID	Dredge area	sample	(m)	ACENAPTH	ACENAPHY	ANTHRACN	BAA	BAP	BBF	BEP	BENZGHIP	BKF	C1N	C1PHEN	C2N	C3N	CHRYSENE	DBENZAH	FLUORANT	FLUORENE	INDPYR	NAPTH	PERYLENE	PHENANT	PYRENE	THC
MAR02010.001	VC01 (0.00m)	0	0	24.1	10.2	38.8	65.4	101	111		226	75.7					134	21.5	122	108	44.3	129		422	164	157000
MAR02010.002	VC01 (1.00m)	0	0	6.59	<5	12.6	17.8	21.9	25.1		47.5	14.5					42.7	<5	31.7	18.7	10.9	21.1		97.5	48	68000
MAR02010.003	VC01 (1.50m)	0	0	43	8.2	46.1	72.4	92.3	115		244	52.5					136	21.1	125	113	51.2	97.7		400	167	149000
MAR02010.004	VC02 (0.00m)	0	0	33.7	9.88	39.8	74.8	110	140		251	72.6					145	23.6	128	159	61.1	249		484	179	153000
MAR02010.005	VC02 (3.00m)	0	0	29.8	16.4	50.1	66.9	103	119		224	47.5					129	19.7	122	156	50	169		429	168	152000
MAR02010.006	VC02 (4.50m)	0	0	49.3	47.9	194	352	414	426		403	365					375	66.1	654	100	350	216		410	770	456000
MAR02010.007	VC03 (0.00m)	0	0	<5	<5	<5	<5	7.75	10.3		15.5	8.47					10.4	<5	10.2	<5	<5	8.8		20.2	15	34300
MAR02010.008	VC03 (1.00m)	0	0	26.7	53.8	134	295	490	377		370	444					344	71.9	489	55.1	325	109		272	628	233000
MAR02010.009	VC03 (2.00m)	0	0	12.8	5.87	24	43.7	59.9	67.3		124	38					75.3	9.83	78.8	46.5	29.3	40.6		195	99.3	90800
MAR02010.010	VC04 (0.00m)	0	0	33.1	34.2	137	351	486	401		353	394					370	56.6	650	52.6	325	69.5		345	815	162000
MAR02010.011	VC04 (2.00m)	0	0	36.9	8.33	52.6	108	160	165		369	97.2					181	33.1	172	178	85.2	151		568	232	172000
MAR02010.012	VC04 (3.00m)	0	0	32.5	11.4	56.3	87.7	120	145		292	56.8					156	27.3	153	155	68.6	127		490	207	177000
MAR02010.013	VC05 (0.00m)	0	0	54	40.4	190	322	384	338		390	350					341	64	606	113	317	198		490	739	330000
MAR02010.014	VC05 (1.00m)	0	0	<5	<5	<5	7.41	7.33	11.1		15.3	<5					11.5	<5	11.8	<5	<5	<5		20.6	15.3	32000
MAR02010.015	VC05 (2.00m)	0	0	6.57	<5	16.7	21.1	22.3	23		35.3	11.9					22.3	<5	35.8	<5	8.58	6.87		39.3	39.8	29500
MAR02010.016	VC06 (0.00m)	0	0	50.6	51.1	227	499	681	639		502	520					528	83.5	849	97.7	470	139		502	1230	280000
MAR02010.017	VC06 (2.00m)	0	0	<5	<5	<5	9.63	12.5	19.3		22.2	10.1					15.2	<5	14.6	<5	8.86	9.96		32.1	23	34400
MAR02010.018	VC06 (3.00m)	0	0	6.36	<5	13	28.9	42.2	47		87.3	30.4					49.4	8.86	43.6	18.8	25.3	27.8		98.3	63.6	50100
MAR02010.019	VC07 (0.00m)	0	0	32.2	21.6	162	332	340	290		223	296					338	38.5	790	57.7	220	78.2		405	885	177000
MAR02010.020	VC07 (2.00m)	0	0	<5	<5	3.63	7.55	10.1	16.1		12.6	8.76					11.8	<5	12.1	<5	7.16	8.73		26.5	18.4	18500
MAR02010.021	VC07 (3.00m)	0	0	2.31	1.44	7.41	18.9	25.2	35.4		34.8	15.7					33	4.98	26.9	12.7	13.5	14.5		62.9	40	42600
MAR02010.022	VC08 (0.00m)	0	0	<1	<1	2.39	6.35	8.31	12.3		11	8.03					8.24	1.8	8.29	3.16	6.14	5.16		19	14.3	12300
MAR02010.023	VC08 (2.00m)	0	0	34.4	11	55.6	73.5	106	108		139	85.4					128	26.3	125	109	52.4	87.1		339	161	165000
MAR02010.024	VC08 (3.50m)	0	0	<1	<1	2.44	5.69	7.03	11.5		9.45	4.04					7.6	1.93	7.84	6.19	5.49	5.76		17.9	14.4	20200
MAR02010.025	VC09 (0.00m)	0	0	60.7	65.6	241	339	444	428		347	385					391	71.3	552	96.5	285	219		471	925	472000
MAR02010.026	VC09 (2.00m)	0	0	1.76	<1	3.04	7.69	9.67	16.6		13.5	7.94					9.62	2.35	9.42	6.11	8.85	6.77		24.7	14.5	31700
MAR02010.027	VC09 (3.00m)	0	0	2.06	<1	4.9	12.3	15.5	23.3		21	11.1					15.9	3.64	15.2	5.9	12.7	9.73		37.3	26.8	17500
MAR02010.028	VC10 (0.00m)	0	0	3.7	3.62	13.8	28.2	40.4	39.5		33.7	33.7					32.1	5.91	40.8	8.73	31	12.8		42.4	65.3	30600
MAR02010.029	VC10 (2.00m)	0	0	8.25	3.86	10	23.6	26.8	36.8		39.9	16.1					43.5	5.39	35.8	25.4	13.7	17		139	54.5	53900
MAR02010.030	VC10 (3.50m)	0	0	7.15	2.45	15.7	39.3	47.7	64.7		61.1	28.7					59.9	9.42	66.6	26	31.2	23.9		132	92.4	59600
MAR02010.031	VC11 (0.00m)	0	0	3	1.96	8.97	18.2	24	27.8		21.4	18					20.9	4.33	28	6.96	18.7	11.1		35.6	46.3	25900
MAR02010.032	VC11 (2.00m)	0	0	1.71	<1	4.16	8.77	11.6	17.4		15	8.29					12.1	2.72	13.1	5.5	9.74	8.67		30.7	18.7	17800
MAR02010.033	VC11 (3.50m)	0	0	1.76	<1	4.12	8.07	10.8	15.4		14.1	9.09					11.8	2.46	13.9	6.25	8.7	8.9		28.4	19	20700
MAR02010.034	VC12 (0.00m)	0	0	98	89.2	389	711	946	852		658	789					800	123	1150	154	595	267		733	1750	585000
MAR02010.035	VC12 (2.00m)	0	0	1.51	<1	3.22	6.68	9.06	15.6		11.5	6.62					8.72	2.04	9.07	4.53	7.68	7.07		21.2	14.9	32600
MAR02010.036	VC12 (4.50m)	0	0	<1	<1	3.77	7.71	9.94	18.4		13.4	6.38					11.4	2.26	11.4	5.81	9.79	9.56		27.9	17.6	22200
MAR02010.037	VC13 (0.00m)	0	0	3.59	2.52	9.85	18.9	25.9	25.4		23.4	19.7					22.4	4.18	30.1	8.69	17.4	9.82		33.3	50.9	26000
MAR02010.038	VC13 (1.00m)	0	0	2.36	1.42	5.23	9.46	12	17.3		21.3	6.62					20.3	3.15	15.2	9.2	7.16	11		42.6	20.5	36500
MAR02010.039	VC13 (2.00m)	0	0	4.24	2.27	7.38	16.9	21.2	27		41.7	14.5					30	3.95	26.5	17.3	13	19.4		75.5	37.9	71500
MAR02010.040	VC14 (0.00m)	0	0	1.39	<1	3.27	8.15	13.1	13		19.4	10.7					11.5	2.21	11.3	3.59	7.6	6.21		22.4	15.3	12600
MAR02010.041	VC14 (1.00m)	0	0	9.67	2.82	18.2	37.4	42	63.1		96.7	26.7					84.8	8.82	73.3	31.2	22.6	23.8		164	105	86300
MAR02010.042	VC14 (1.50m)	0	0	19.4	5.29	28.3	37.5	43.6	62.4		115	32.4					84.3	9.9	63.5	59	24.6	47.6		201	104	130000
MAR1438.001	NVC01B 0.00	0	0	191	33.4	370	649	601	577		458	264					659	77.9	1400	176	376	232		1100	1390	329000
MAR1438.002	NVC01B 0.50	0	0	12.7	6.93	17.3	40.3	48.1	88.4		143	16.9					130	16.6	68.7	63.6	31.5	104		302	101	187000
MAR1438.003	NVC01B 1.00	0	0	16.7	7.91	23.9	48.2	57.4	105		163	19.7					162	18.5	85.6	76	38.3	118		369	132	233000
MAR1438.004	NVC02 0.00	0	0	117	42.9	367	761	714	751		608	301					787	118	1580	174	557	219		839	1640	283000
MAR1438.005	NVC02 2.00	0	0	1700	235	2350	5430	5210	4780		3680	2310					5750	619	11800	1480	3460	1130		7250	11100	2190000
MAR1438.006	NVC02 3.50	0	0	31.3	10.6	38.1	98.2	136	155		362	40.5					156	29.1	149	136	86.6	219		457	193	221000
MAR1438.007	NVC03A 0.00	0	0	56.5	38.6	205	461	476	488		460	200					489	72.2	838	95	412	195		518	961	594000
MAR1438.008	NVC03A 0.50	0	0	10.6	7.9	19.4	44.8	47.4	57.7		94.6	15					92.2	10.3	65.6	44.5	28.1	56.2		186	100	166000
MAR1438.009	NVC04 0.00	0	0	72.8	55.4	256	551	611	650		585	346					569	103	967	120	531	243		612	1140	605000
MAR1438.010	NVC04 1.50	0	0	212	68.6	589	1120	999	1070		786	550					1130	158	2530	245	692	300		1210	2310	862000
MAR1438.011	NVC04 2.00	0	0	163	66.9	596	1020	928	1030		777	453					1070	155	2130	290	756	328		1120	2050	993000
MAR1438.012	NVC04 3.50	0	0	269	92.6	747	1590	1550	1680		1260	907					1660	205	3030	449	1170	550		1630	3110	2250000
MAR1438.013	NVC05 0.00	0	0	67.7	37.6	200	431	457	517		455	251					456	72.2	797	98.6	399	194		489	975	577000
MAR1438.014	NVC05 1.00	0	0	237	70.1	1050	1860	1520	1660		1070	726					1940	207	4290	419	1110	310		1620	3790	1190000
MAR1438.015	NVC05 2.00	0	0	154	84.3	528	931	908	1110		858	446					1050	143	1890	350	825	485		1260	2090	3900000
MAR1438.016	NVC06 0.00	0	0	124	55.4	283	589	615	634		565	310					606	90.9	1080	148	499	233		661	1180	729000
MAR1438.017	NVC06 1.00	0	0	266	68.3	591	995	912	986		762	430					1040	145	2340	285	724	320		1460	2210	856000
MAR1438.018	NVC06 1.50	0	0	176	83.5	579	1400	1200	1260		869	496					1390	166	2880	235	882	301		1420	2760	855000
MAR1438.019	VCN03A 0.00	0	0	86.8	54.2	227	469	501	467		486	300					480	83.2	826	109	436	189		531	938	563000
MAR1438.020	VCN03A 0.30	0	0	16.8	7.9	23.1	49	55.5	98.7		144	26.6					148	17.8	88.4	82.5	36.6	124		346	126	252000
MAR1438.021	VCN04A 0.00	0	0	69.5	39.4	195	423	459	484		458	207					448	83.4	708	119	396	229		479	858	522000
MAR1438.022	VCN04A 0.35	0	0	16.3	7.42	20.6	44.8	54.7	94		164	16					147	16.2	80.1	71.7	39.7	74.5		328	119	248000
MAR1438.023	VCN05A 0.00	0	0	50.8	34.9	168	342	350	411		410	202					379	71.4	642	97	323	179		503	730	490000
MAR1438.024	VCN05A 0.30	0	0	16.1	6.84	20	43.8	53.6	94.8		160	22.8					132	15.4	74.5	79.3	34.2	78.8		315	117	229000
MAR1438.025	VCN05A 0.65	0	0	21.3	7.89	35	63	64.9	106		186	26.6					148	20.3	93.5	87.9	52.3	142		376	140	235000
MAR1438.026	VCN06A 0.00	0	0	59.4	34.8	157	356	400	432		416	224					370	66.8	583	73.4	359	176		364	739	464000
MAR1438.027	VCN06A 0.20	0	0	95.8	58.1	282	587	639	712		662	305					625	113	1040	147	580	279		672	1250	804000
MAR1438.028	VCN06A 0.50	0	0	17.5	7.96	22	48.3	57.3	97.3		165	25.9					146	16.1	80.1	90	39.3	184		371	119	243000
MAR1438.038	VCN14 0.00	0	0	48.2	36.2	174	375	424	453		418	212					397	74.5	657	81.1	382	177		429	761	463000
MAR1438.039	VCN14 0.50	0	0	13.6	7.31	18.2	42.1	53	87.8		154	19.5					132	18.1	72.9	70.8	42.2	110		308	105	234000
MAR1438.040	VCN15 0.00	0	0	43.4	51.2	147	333	380	433		405	184					359	71.6	561	74.8	368	161		359	706	498000
MAR1438.041	VCN15 0.50	0	0	8.7	4.54	12.5	23.2	26	46.1		67.2	9.61					67.5	7.88	41.9	45.2	14.6	64.2		183	60.8	111000
MAR1438.042	VCN16 0.00	0	0	57.1	36.1	147	294	329	377		356	180					317	51.4	511	77.9	315	177		346	635	444000
MAR1438.043	VCN16 0.30	0	0	14.9	6.69	18.7	39.9	46.9	81.4		141	19.3					135	15.3	68.6	76.3	31.3	74.4		317	107	231000
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Organohalogens

Explanatory Notes:
Results above Action Level 1 will be highlighted in blue and above Action Level 2 in red.
ICES7 is the sum of PCB 28,52,101,138,153,180 and 118.

Definitions:

AHCH	alpha-Hexachlorcyclohexane
BHCH	beta-Hexachlorcyclohexane
GHCH	gamma-Hexachlorcyclohexane
DIELDRIN	Dieldrin
HCB	Hexachlorobenzene
PPDDE	p,p'-Dichorodiphenyldicloroethylene
PPDDT	p,p'-Dichorodiphenyltrichloroethane
PPTDE	p,p'-Dichorodiphenyldicloroethan

Sample information:

µg/kg

Sample ID	Dredge area	Type of sample	Sample depth (m)	PCB28	PCB52	PCB101	PCB118	PCB138	PCB153	PCB18	PCB105	PCB110	PCB128	PCB141	PCB149	PCB151	PCB156	PCB158	PCB170	PCB180	PCB183	PCB187	PCB194	PCB31	PCB44	PCB47	PCB49	PCB66	ICES7	AHCH	BHCH	GHCH	DIELDRIN	HCB	DDE	DDT	TDE	BDE100	BDE138	BDE153	BDE154	BDE17	BDE183	BDE209	BDE28	BDE47	BDE66	BDE85	BDE99
MAR02010.00	VC01 (0.00m)	0	0	3.42	3.52	3.67	3.49	7.18	8.36											6.12									35.8																				
MAR02010.00	VC01 (1.00m)	0	0	0.1	<0.08	<0.08	<0.08	<0.08	0.13											<0.08									0.52																				
MAR02010.00	VC01 (1.50m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.08																				
MAR02010.00	VC02 (0.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.00	VC02 (3.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.00	VC02 (4.50m)	0	0	1.36	1.29	1.46	1.51	2.17	2.82											2.14									12.7																				
MAR02010.00	VC03 (0.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.00	VC03 (1.00m)	0	0	<0.08	<0.08	<0.08	<0.08	0.1	0.14											0.12									0.6																				
MAR02010.00	VC03 (2.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.01	VC04 (0.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.01	VC04 (2.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.01	VC04 (3.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.01	VC05 (0.00m)	0	0	0.39	0.29	0.35	0.47	0.41	0.68											0.42									3.02																				
MAR02010.01	VC05 (1.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.01	VC05 (2.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.01	VC06 (0.00m)	0	0	0.36	0.37	0.47	0.6	0.53	0.79											0.5									3.61																				
MAR02010.01	VC06 (2.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									0.08																				
MAR02010.01	VC06 (3.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.01	VC07 (0.00m)	0	0	0.62	0.59	0.74	0.74	0.92	1.49											1.04									6.14																				
MAR02010.02	VC07 (2.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.02	VC07 (3.00m)	0	0	0.11	<0.08	0.12	0.13	0.11	0.24											0.12									0.9																				
MAR02010.02	VC08 (0.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.02	VC08 (2.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.02	VC08 (3.50m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.02	VC09 (0.00m)	0	0	0.95	4.98	29.8	10.3	51.2	84.4											81.9									263																				
MAR02010.02	VC09 (2.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.02	VC09 (3.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.02	VC10 (0.00m)	0	0	0.66	0.66	0.8	0.94	1.01	1.38											1.03									6.48																				
MAR02010.02	VC10 (2.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.03	VC10 (3.50m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.03	VC11 (0.00m)	0	0	0.22	0.22	0.35	0.2	0.45	0.67											0.53									2.63																				
MAR02010.03	VC11 (2.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.03	VC11 (3.50m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.03	VC12 (0.00m)	0	0	1.43	1.13	1.37	1.35	1.88	2.75											1.81									11.7																				
MAR02010.03	VC12 (2.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.03	VC12 (4.50m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.03	VC13 (0.00m)	0	0	0.09	<0.08	<0.08	0.09	0.13	0.1											<0.08									0.62																				
MAR02010.03	VC13 (1.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.03	VC13 (2.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.04	VC14 (0.00m)	0	0	<0.08	<0.08	<0.08	0.08	0.09	0.09											<0.08									<0.56																				
MAR02010.04	VC14 (1.00m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR02010.04	VC14 (1.50m)	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									<0.56																				
MAR1438.001	NVC01B 0.00	0	0	1.16	1.32	1.39	1.41	2.02	2.12											1.53									10.95																				
MAR1438.002	NVC01B 0.50	0	0	0.1	0.09	<0.08	<0.08	<0.08	<0.08											<0.08									0.59																				
MAR1438.003	NVC01B 1.00	0	0	0.18	0.18	0.14	0.11	0.11	0.24											0.22									1.18																				
MAR1438.004	NVC02 0.00	0	0	11.1	7.77	4.95	4.47	9.94	10.5											9.37									58.1																				
MAR1438.005	NVC02 2.00	0	0	2.01	4.89	4.84	4.13	7.83	7.45											5.05									36.2																				
MAR1438.006	NVC02 3.50	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									0.56																				
MAR1438.007	NVC03A 0.00	0	0	1.15	0.99	1.04	1.11	1.44	1.83											1.3									8.86																				
MAR1438.008	NVC03A 0.50	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									0.56																				
MAR1438.009	NVC04 0.00	0	0	1.39	1.47	1.71	1.77	3.19	3.17											1.97									14.67																				
MAR1438.010	NVC04 1.50	0	0	1.57	2.07	1.74	1.52	2.92	3.28											2.37									15.47																				
MAR1438.011	NVC04 2.00	0	0	3.95	4.4	3.88	3.61	4.71	6.17											3.89									30.61																				
MAR1438.012	NVC04 3.50	0	0	21.9	30.5	29	16.6	49.7	88.2											71.1									307																				
MAR1438.013	NVC05 0.00	0	0	1.92	1.98	2.07	2.11	3.13	3.33											2.89									17.43																				
MAR1438.014	NVC05 1.00	0	0	5.81	6.04	5.47	4.99	7.58	10.7											6.83									47.42																				
MAR1438.015	NVC05 2.00	0	0	45.2	38.3	11.9	9.44	16.8	21.9											16.3									159.84																				
MAR1438.016	NVC06 0.00	0	0	4.01	3.55	2.78	2.26	3.52	4.57											2.87									23.56																				
MAR1438.017	NVC06 1.00	0	0	2.89	2.95	2.81	2.58	3.58	4.8											3.05									22.66																				
MAR1438.018	NVC06 1.50	0	0	3.18	4.09	3.18	2.7	3.88	4.53											3.46									25.02																				
MAR1438.019	VCN03A 0.00	0	0	1.82	1.88	1.83	1.66	2.51	3.24											2.27									15.21																				
MAR1438.020	VCN03A 0.30	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									0.56																				
MAR1438.021	VCN04A 0.00	0	0	1.53	1.5	1.51	1.38	2.2	2.95											2.19									13.26																				
MAR1438.022	VCN04A 0.35	0	0	0.1	<0.08	<0.08	<0.08	<0.08	0.12											<0.08									0.62																				
MAR1438.023	VCN05A 0.00	0	0	0.82	1.14	1.18	1.19	1.42	1.47											1.08									8.3																				
MAR1438.024	VCN05A 0.30	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									0.56																				
MAR1438.025	VCN05A 0.65	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									0.56																				
MAR1438.026	VCN06A 0.00	0	0	1.39	1.35	1.38	1.53	2.28	2.75											1.82									12.5																				
MAR1438.027	VCN06A 0.20	0	0	1.8	1.9	1.82	1.83	3.63	3.54											2.63									17.15																				
MAR1438.028	VCN06A 0.50	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									0.56																				
MAR1438.038	VCN14 0.00	0	0	1.38	1.37	1.35	1.4	2.06	2.8											1.73									12.09																				
MAR1438.039	VCN14 0.50	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									0.56																				
MAR1438.040	VCN15 0.00	0	0	1.39	1.56	2.45	2.87	2.13	2.62											1.75									14.77																				
MAR1438.041	VCN15 0.50	0	0	0.09	0.1	<0.08	<0.08	<0.08	<0.08											<0.08									0.59																				
MAR1438.042	VCN16 0.00	0	0	0.65	0.69	0.6	0.61	1.04	0.92											0.73									5.24																				
MAR1438.043	VCN16 0.30	0	0	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08											<0.08									0.56																				
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PR Details

Total amount to be dredged (wet tonnes)	

Explanatory Notes:
The values entered for each determinand should be an average wet weight concentration from all the samples representing the material to be disposed to sea. They should be entered in the units stated in the Unit of measurement column in the table below.
Results above Action Level 1 will be highlighted in blue and above Action Level 2 in red.

Average for the total dredge area:

Sample ID	Unit of measurement	
Total Solids	%	68.05
Gravel	%	7.32
Sand	%	24.65
Silt	%	68.03
Arsenic (As)	mg/kg	6.1
Cadmium (Cd)		0.31
Chromium (Cr)		32.3
Copper (Cu)		21
Mercury (Hg)		0.23
Nickel (Ni)		28.3
Lead (Pb)		27.5
Zinc (Zn)		64.8
Dibutyltin (DBT)		0.006
Tributyltin (TBT)		0.007
Acenapth	µg/kg	43.1
Acenapthylene		16.1
Anthracn		100
BAA		203
BAP		208
BBF		218
BEP		
Benzghip		205
BKF		113
C1N		
C1PHEN		
C2N		
C3N		
Chrysene		233
Debenzah		32
Flurant		407
Fluorene		70.7
Indypr		153
napth		89.1
perylene		
phenant		314
pyrene		433
THC		219342
PCB28		0.97
PCB52		1.03
PCB101		1
PCB118		0.72
PCB138		1.56
PCB153		2.26
PCB18		
PCB105		
PCB110		
PCB128		
PCB141		
PCB149		
PCB151		
PCB156		
PCB158		
PCB170		
PCB180		1.85
PCB183		
PCB187		
PCB194		
PCB31		
PCB44		
PCB47		
PCB49		
PCB66		
ICES7		9.36
AHCH		
BHCH		
GHCH		
DIELDRIN		
HCB		
DDE		
DDT		
TDE		
BDE100		
BDE138		
BDE153		
BDE154		
BDE17		
BDE183		
BDE209		
BDE28		
BDE47		
BDE66		
BDE85		
BDE99		

Comments:

Laboratory Details

Explanatory Notes:
Please complete a separate worksheet for each laboratory (e.g. complete 'Laboartory_1' worksheet for 1 laboratory and complete 'Laboartory_2' worksheet for a second laboratory). If there are more than 3 laboratories then please contact MS-LOT.

Laboratory 1 Details:

Laboratory name:	SOCOTEC
Year:	2023

LabRefMat	**Q1**	Does the laboratory carrying out the analyses undertake the analysis of blank samples and laboratory reference materials with each batch of samples of waste and other material dumped in the maritime area that is analysed by that laboratory?	Yes
CompAnal	**Q2**	Does the laboratory carrying out the analyses undertake periodic comparative analysis of laboratory reference materials and certified reference materials?	Yes
QAQC	**Q3**	Does the laboratory carrying out the analyses undertake the compilation of quality control charts based upon the data resulting from the analyses of the laboratory reference materials and certified reference materials, and the use of those quality control charts to monitor analytical performance in relation to all samples of dumped wastes or other materials?	Yes
InterlabCaleb	**Q4**	Does the laboratory carrying out the analyses undertake periodic participation in interlaboratory comparison exercises, including, where possible, international comparison exercises?	Yes
InternatCaleb	**Q5**	Does the laboratory carrying out the analyses undertake periodic participation in national and, where possible, international laboratory proficiency schemes?	Yes
SpikedSamples	**Q6**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory analyse samples of substances which are provided by the organisers of the scheme?	Yes
BlindSamples	**Q7**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the composition of those samples is not disclosed in advance?	Yes
Ranking	**Q8**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the results of the scheme for each participating laboratory are made available to all participating laboratories?	Yes
FracAnal	**Q9**	Enter the size fraction that is analysed i.e. Whole or less than 63µm etc.	<63um(metals)
GranMeth	**Q10**	PSA method	Distribution by wet & dry sieving and laser detraction
OCMeth	**Q11**	Organic Carbon method	Carbonate removal and sulfurous acid/combustion at 1600°C/NDIR,
MetExtrType	**Q12**	Method of extraction used for metal analysis	Aquaregia
MethOfDetMetals	**Q13**	Method of detection used for metal analysis	ICP-MS
PAHExtrType	**Q14**	Method of extraction used for poly aromatic hydrocarbon analysis	Methanol/DCM solvent extraction with silica clean up and copper clean up stages
MethOfDetPAH	**Q15**	Method of detection used for poly aromatic hydrocarbons analysis	GCMS
OHExtrType	**Q16**	Method of extraction used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	Ultrasonic acetone/hexane solvent extraction
MethOfDetOH	**Q17**	Method of detection used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	GCMSMS
OTExtrType	**Q18**	Method of extraction used for organotin analysis	Derivatisation and solvent extraction
MethOfDetOT	**Q19**	Method of detection used for organotin analysis	GCMS

		LOD/LOQ	Precision (%)	Recovery (%)
mg/kg	Hg	0.01	4.2	105
	As	0.5	2.7	102
	Cd	0.04	3.6	102
	Cu	0.5	2.9	104
	Pb	0.5	3	105
	Zn	2	2.6	105
	Cr	0.5	3.1	104
	Ni	0.5	3.6	103
	TBT	0.001	12.62	88
	DBT	0.001	12.62	90
µg/kg	PCB28	0.08	12.56	72
	PCB31	0.08	5.3	105
	PCB44	0.08	5.7	83
	PCB47	0.08	5.7	103
	PCB49	0.08	5.2	100
	PCB52	0.08	6.999	91
	PCB66	0.08	10.7	93
	PCB101	0.08	8.43	88
	PCB105	0.08	8.6	85
	PCB110	0.08	5.2	96
	PCB118	0.08	14.61	104
	PCB128	0.08	7.6	103
	PCB138+163	0.08	12.93	94
	PCB141	0.08	7.6	98
	PCB149	0.08	6.7	80
	PCB151	0.08	7.6	101
	PCB153	0.08	7.41	94
	PCB156	0.08	8.4	125
	PCB158	0.08	7.6	89
	PCB170	0.08	6	93
	PCB180	0.08	9.85	96
	PCB183	0.08	6.2	86
	PCB187	0.08	6.6	90
	PCB194	0.08	6.5	89
	DDE			
	DDT			
	DDD			
	Dieldrin			
	Lindane			
	HCB			
	BDE17			
	BDE28			
	BDE47			
	BDE66			
	BDE85			
	BDE99			
	BDE100			
	BDE138			
	BDE153			
	BDE154			
	BDE183			
	BDE209			
	ACENAPTH	1	6.68	73
	ACENAPHY	1	7.74	109
	ANTHRACN	1	4.95	69
	BAA	1	9.8	73
	BAP	1	9.07	58
	BBF	1	8.44	93
	BENZGHIP	1	13.46	41
	BEP	1	7.9	83
	BKF	1	8.9	86
	C1N	1	8.27	78
	C1PHEN	1	N/A	92
	C2N	1	N/A	112
	C3N	1	N/A	116
	CHRYSENE	1	7.87	92
	DBENZAH	1	19.23	113
	FLUORENE	1	5.25	52
	FLUORANT	1	4.36	91
	INDPYR	1	17.1	63
	NAPTH	1	3.02	64
	PERYLENE	1	N/A	50
	PHENANT	1	5.41	84
	PYRENE	1	4.29	81
	THC	100	N/A	87

Laboratory Details

Explanatory Notes:
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Laboratory 2 Details:

Laboratory name:	
Year:	

LabRefMat	**Q1**	Does the laboratory carrying out the analyses undertake the analysis of blank samples and laboratory reference materials with each batch of samples of waste and other material dumped in the maritime area that is analysed by that laboratory?	
CompAnal	**Q2**	Does the laboratory carrying out the analyses undertake periodic comparative analysis of laboratory reference materials and certified reference materials?	
QAQC	**Q3**	Does the laboratory carrying out the analyses undertake the compilation of quality control charts based upon the data resulting from the analyses of the laboratory reference materials and certified reference materials, and the use of those quality control charts to monitor analytical performance in relation to all samples of dumped wastes or other materials?	
InterlabCaleb	**Q4**	Does the laboratory carrying out the analyses undertake periodic participation in interlaboratory comparison exercises, including, where possible, international comparison exercises?	
InternatCaleb	**Q5**	Does the laboratory carrying out the analyses undertake periodic participation in national and, where possible, international laboratory proficiency schemes	
SpikedSamples	**Q6**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory analyse samples of substances which are provided by the organisers of the scheme?	
BlindSamples	**Q7**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the composition of those samples is not disclosed in advance?	
Ranking	**Q8**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the results of the scheme for each participating laboratory are made available to all participating laboratories?	
FracAnal	**Q9**	Enter the size fraction that is analysed i.e. Whole or less than 63µm etc.	
GranMeth	**Q10**	PSA method	
OCMeth	**Q11**	Organic Carbon method	
MetExtrType	**Q12**	Method of extraction used for metal analysis	
MethOfDetMetals	**Q13**	Method of detection used for metal analysis	
PAHExtrType	**Q14**	Method of extraction used for poly aromatic hydrocarbon analysis	
MethOfDetPAH	**Q15**	Method of detection used for poly aromatic hydrocarbons analysis	
OHExtrType	**Q16**	Method of extraction used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	
MethOfDetOH	**Q17**	Method of detection used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	
OTExtrType	**Q18**	Method of extraction used for organotin analysis	
MethOfDetOT	**Q19**	Method of detection used for organotin analysis	

		LOD/LOQ	Precision (%)	Recovery (%)
mg/kg	Hg			
	As			
	Cd			
	Cu			
	Pb			
	Zn			
	Cr			
	Ni			
	TBT			
	DBT			
µg/kg	PCB28			
	PCB31			
	PCB44			
	PCB47			
	PCB49			
	PCB52			
	PCB66			
	PCB101			
	PCB105			
	PCB110			
	PCB118			
	PCB128			
	PCB138+163			
	PCB141			
	PCB149			
	PCB151			
	PCB153			
	PCB156			
	PCB158			
	PCB170			
	PCB180			
	PCB183			
	PCB187			
	PCB194			
	DDE			
	DDT			
	DDD			
	Dieldrin			
	Lindane			
	HCB			
	BDE17			
	BDE28			
	BDE47			
	BDE66			
	BDE85			
	BDE99			
	BDE100			
	BDE138			
	BDE153			
	BDE154			
	BDE183			
	BDE209			
	ACENAPTH			
	ACENAPHY			
	ANTHRACN			
	BAA			
	BAP			
	BBF			
	BENZGHIP			
	BEP			
	BKF			
	C1N			
	C1PHEN			
	C2N			
	C3N			
	CHRYSENE			
	DBENZAH			
	FLUORENE			
	FLUORANT			
	INDPYR			
	NAPTH			
	PERYLENE			
	PHENANT			
	PYRENE			
	THC			

Laboratory Details

Explanatory Notes:
Please complete a separate worksheet for each laboratory (e.g. complete 'Laboartory_1' worksheet for 1 laboratory and complete 'Laboartory_2' worksheet for a second laboratory). If there are more than 3 laboratories then please contact MS-LOT.

Laboratory 3 Details:

Laboratory name:	
Year:	

LabRefMat	**Q1**	Does the laboratory carrying out the analyses undertake the analysis of blank samples and laboratory reference materials with each batch of samples of waste and other material dumped in the maritime area that is analysed by that laboratory?	
CompAnal	**Q2**	Does the laboratory carrying out the analyses undertake periodic comparative analysis of laboratory reference materials and certified reference materials?	
QAQC	**Q3**	Does the laboratory carrying out the analyses undertake the compilation of quality control charts based upon the data resulting from the analyses of the laboratory reference materials and certified reference materials, and the use of those quality control charts to monitor analytical performance in relation to all samples of dumped wastes or other materials?	
InterlabCaleb	**Q4**	Does the laboratory carrying out the analyses undertake periodic participation in interlaboratory comparison exercises, including, where possible, international comparison exercises?	
InternatCaleb	**Q5**	Does the laboratory carrying out the analyses undertake periodic participation in national and, where possible, international laboratory proficiency schemes	
SpikedSamples	**Q6**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory analyse samples of substances which are provided by the organisers of the scheme?	
BlindSamples	**Q7**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the composition of those samples is not disclosed in advance?	
Ranking	**Q8**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the results of the scheme for each participating laboratory are made available to all participating laboratories?	
FracAnal	**Q9**	Enter the size fraction that is analysed i.e. Whole or less than 63µm etc.	
GranMeth	**Q10**	PSA method	
OCMeth	**Q11**	Organic Carbon method	
MetExtrType	**Q12**	Method of extraction used for metal analysis	
MethOfDetMetals	**Q13**	Method of detection used for metal analysis	
PAHExtrType	**Q14**	Method of extraction used for poly aromatic hydrocarbon analysis	
MethOfDetPAH	**Q15**	Method of detection used for poly aromatic hydrocarbons analysis	
OHExtrType	**Q16**	Method of extraction used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	
MethOfDetOH	**Q17**	Method of detection used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	
OTExtrType	**Q18**	Method of extraction used for organotin analysis	
MethOfDetOT	**Q19**	Method of detection used for organotin analysis	

		LOD/LOQ	Precision (%)	Recovery (%)
mg/kg	Hg			
	As			
	Cd			
	Cu			
	Pb			
	Zn			
	Cr			
	Ni			
	TBT			
	DBT			
µg/kg	PCB28			
	PCB31			
	PCB44			
	PCB47			
	PCB49			
	PCB52			
	PCB66			
	PCB101			
	PCB105			
	PCB110			
	PCB118			
	PCB128			
	PCB138+163			
	PCB141			
	PCB149			
	PCB151			
	PCB153			
	PCB156			
	PCB158			
	PCB170			
	PCB180			
	PCB183			
	PCB187			
	PCB194			
	DDE			
	DDT			
	DDD			
	Dieldrin			
	Lindane			
	HCB			
	BDE17			
	BDE28			
	BDE47			
	BDE66			
	BDE85			
	BDE99			
	BDE100			
	BDE138			
	BDE153			
	BDE154			
	BDE183			
	BDE209			
	ACENAPTH			
	ACENAPHY			
	ANTHRACN			
	BAA			
	BAP			
	BBF			
	BENZGHIP			
	BEP			
	BKF			
	C1N			
	C1PHEN			
	C2N			
	C3N			
	CHRYSENE			
	DBENZAH			
	FLUORENE			
	FLUORANT			
	INDPYR			
	NAPTH			
	PERYLENE			
	PHENANT			
	PYRENE			
	THC			