Hunterston Construction Yard
Best Practicable Environmental Options Report

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CONTROL SHEET

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1 INTRODUCTION

1.1 Scope of Report

Clydeport Operations Limited are required to undertake a Best Practicable Environmental Option (BPEO) assessment for the disposal/re-use of dredged material originating from Hunterston Construction Yard.

The purpose of the BPEO report is to review each of the available potential disposal options for the dredged materials. The options which are not considered to be practicable are rejected and the reasons for doing so are explained.

Those options which are practicable are examined in detail and assessed against the following considerations:

- Environmental;
- Strategic; and
- Cost.

The report then compares the practicable disposal options and draws a conclusion on the BPEO.

1.2 Report Usage

The information and recommendations contained within this report have been prepared in the specific context stated above and should not be utilised in any other context without prior written permission from EnviroCentre Limited.

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1.3 Background to Application

The dredging works proposed are for the proposed capital dredging of an area adjacent to the existing Hunterston Construction Yard reducing the average dredge level from current levels to -12.0m below

Chart Datum (CD).

Table 1-1: Proposed Dredge Site and Approximate Dredge Volumes

Site Name	Dredge Volume (m^3)
Dredge Area (Blue Line)	1,546,660

Dredging would be carried out potentially by a combination of Trailer Suction Hopper Dredger, Cutter Suction Dredger and Backhoe Dredger, or combination as appropriate.

The proposed dredge sites are outwith the Southannan Sands of Special Scientific Interest (SSSI).

Arch Henderson drawings are included in Appendix A detailing the proposed dredge area for both the EIAR assessed dredge pocket (HMY-AHN-01-00-DR-C-003) and the actual proposed dredge pocket (HMY-AHN-01—DR-C-001). Accompanying sediment quality data is presented in Appendix C.

1.4 Action Levels – AL1 vs AL2

Two action levels are currently used to assess the suitability of sea-based disposal of dredged sediment material: Revised Action Level 1 (RAL1) and Revised Action Level 2 (RAL2).

Sediment with contaminant concentrations below RAL1 is generally considered to be below background levels for contamination and is suitable for disposal at sea.

For samples recording contaminant concentrations between RAL1 and RAL2, additional risk assessment may be required including further sampling and testing to fully identify pockets of contamination or implementation of bioassays to assess the materials suitability for sea disposal.

Material recording contaminant concentrations above RAL2 is generally considered to be unsuitable for disposal to sea. If the sea disposal route is to be pursued, further testing along the lines of bioassay accompanied by a robust justification for selecting sea disposal as the BPEO may be required. This would need to be supported further with additional information regarding any mitigation measures which could be put in place as part of these works. This would require further discussion and agreement with Marine Directorate.

2 SAMPLING LOCATIONS AND METHODOLOGY

2.1 Sample Locations and Collection

Sediment sampling was undertaken in March and April 2024 by Causeway Geotech Limited. A sonic drilling rig was used to recover cored sections for logging and sub-sampling. A total of 78 sediment samples were submitted for analysis, recovered from 26 boreholes.

Factual information, including sediment logs are included in Appendix B.

2.2 Proposed Sample Locations

Proposed sample locations are given in the table below

Table 2-1: Proposed Sample Stations

Location number	Type	National grid reference	
		Easting: m	Northing: m
1	BH	218255.0591	652988.517
2	BH	218299.36	653118.91
3	BH	218380.1	653304.3
4	BH	218471.92	653233.95
5	BH	218558.86	653294.14
6	BH	218655.17	653361.02
10	BH	218363.11	653424.06
12	BH	218433.12	653476.06
13	BH	218514.1173	653417.8501
14	BH	218242.08	653385.71
15	BH	218462.55	653576.38
16	BH	218140.72	653346.30
17	BH	218312.74	653466.69
18	BH	218187.00	653470.71

19	BH	218046.55	653477.39
20	BH	218304.71	653352.99
21	BH	217970.54	653348.89
22	BH	218038.01	653268.90
23	BH	218188.34	653185.79
24	BH	218175.69	653095.41
25	BH	218442.49	653379.75
26	BH	218191.01	653310.19
27	BH	218290.5	653243.3
29	BH	218542.81	653494.78
30	BH	218574.3245	653381.8516
GBS2-BH-SPT-11	BH	218385.3	653177.4

The sampling works were subject to some limited constraints which resulted in some minor micrositing of locations due to the substrate/working condition requirements. There is not deemed to have been a significant alteration in the specific locations that were drilled. The following table details the actual locations drilled.

Table 2-2: Actual Sample Stations

Location number	**Type**	**National grid reference**	
		Easting: m	Northing: m
1	BH	218251	652997
2	BH	218299	653115
3	BH	218380	653305
4	BH	218475	653230
5	BH	218559	653295
6	BH	218651	653363

10	BH	218363	653424
12	BH	218434	653476
13	BH	218510	653421
14	BH	218239	653386
15	BH	218462	653577
16	BH	218139	653345
17	BH	218311	653469
18	BH	218189	653471
19	BH	218045	653478
20	BH	218306	653354
21	BH	217968	653345
22	BH	218037	653269
23	BH	218189	653184
24	BH	218178	653092
25	BH	218444	653382
26	BH	218194	653311
27	BH	218288	653244
29	BH	218542	653494
30	BH	218573	653382
GBS2-BH-SPT-11	BH	218387	653174

A sampling plan detailing the actual locations is provided in Appendix A.

2.3 Analysis Requirements

The laboratory analysis undertaken to inform the marine licence application was as follows:

- Metals- As, Cr, Cd, Cu, Hg, Ni, Pb, Zn

- Tributyl Tin
- PAHs - USEPA 16
- PCBs – ICES 7
- Total Hydrocarbon

In addition to the core analytical suite, Brominated fire retardants (PBDEs) and Booster Biocides i.e. organochlorine pesticides and assessment of radionuclide potential were requested by Marine Directorate and was undertaken for all 78 samples (note for radionuclide testing a composite sample of all three samples from each location was collected and tested so there was 26 composite sample results to assess the full core length at these locations) .

- Alpha –hexachlorcyclohexane
- Beta- hexachlorcyclohexane
- Gamma- hexachlorocyclohexane
- Dieldrin
- Hexachlorobenzene
- DDD
- DDE
- DDT
- Radionuclide assessment

3 RESULTS

All chemical analytical results were assessed against Revised Action Levels (RAL) criteria as adopted by Marine Scotland. The results are summarised below and within the Summary Tables provided in Appendix C.

Summary reports detailing exceedances in the Marine Scotland format have been submitted along with the supporting information for the application. Please note that there is a formatting issue in the sheet which incorrectly highlights samples with results in exceedance of RAL2. This is noted where samples have a "<" denoting less than the limit of detection. So while the sheet indicates there is a breach of RAL2, there are no RAL2 exceedances with samples being below detectable limits where a "<" is denoted unless otherwise specified.

Where contaminants have RALs as adopted by Marine Scotland, recorded exceedances above these criteria are summarised in Table 3-1.

All chemical data is reported and assessed on a dry weight basis.

Further consideration of these exceedances undertaken in Section 4.

Table 3-1: Exceedances of Revised Action Levels – Hunterston

Contaminant	No. of Exceedances (of 78 samples)	
	RAL 1	RAL 2
Arsenic	0	0
Cadmium	0	0
Copper	0	0
Chromium	0	0
Lead	0	0
Mercury	0	0
Nickel	0	0
Zinc	0	0
PAH (All Species Maximum)	12	-
PCBs	0	0
TBT	0	0
THC	3	-
DBT	0	0

3.1.1 Organochlorine Pesticides

Samples were tested for an organochlorine pesticide suite at the request of Marine Directorate. It is noted there is no RAL1 or RAL2 for these parameters. Of the samples tested the majority of results were noted to be less than the laboratory detection limit.

For the purposes of an initial screen of the results Ecotoxicological Assessment Criteria (EACs) were derived from values detailed in the Ospar Commissions Report of the Third OSPAR Workshop on Ecotoxicological Assessment Criteria (1996). This incorporates EACs in sediment for:

- Dieldrin: 0.5 to 5ug/kg
- DDE: 0.5 to 5ug/kg.

With respect to Dieldrin, 9 of the samples recorded concentrations above the laboratory detection limits. The highest value recoded was 1.49 ug/kg (BH04, 6.1). None of the other 6 samples recorded concentrations above 0.5ug/kg with the exception of BH10-1.8 which recorded a concentration of 0.85ug/kg.

Of the samples tested 12 recorded concentrations of DDE above the limit of detection The maximum concentration recorded was 0.61ug/kg ((BH04, 6.1). The concentrations in the remaining samples did not exceed the 0.5ug/kg lower EAC threshold value with the exception of BH10-1.8 which recorded a concentration of 0.59ug/kg.

On the basis of the vast majority of samples not recording concentrations of organochlorine pesticides above the laboratory limit of detection, and on the basis of initial screening of results against applicable EAC values for specific parameters it is considered that there is not a significant risk associated with these contaminants within the sediment at Hunterston.

3.1.2 Brominated Flame Retardants (PBDEs)

Samples were tested for a PBDEs suite at the request of Marine Directorate. It is noted there is no RAL1 or RAL2 for these parameters. Of the samples tested the majority of results were noted to be less than the laboratory detection limit.

For the purposes of an initial screen of the results, values derived from the Ospar Commissions Background document for Canadian Federal Environmental Quality Guidelines (FEQGs) for Polybrominated Diphenyl Ethers (PBDEs) in sediment and biota were adopted as screening criteria. These values include:

- BDE28: 110ug/kg;
- BDE47: 97.5ug/kg;
- BDE66: 97.5ug/kg;
- BDE85: 1ug/kg;
- BDE99: 1ug/kg;
- BDE100: 1ug/kg;
- BDE153: 1,100ug/kg;
- BDE154: 1,100ug/kg;
- BDE183: 14,000ug/kg
- BDE209: 47.5ug/kg.

None of the samples recorded concentrations that exceeded the screening criteria. On this basis it is not considered that the sediments at Hunterston contain concentrations of PBDEs that would represent a significant risk to the environment during dredging or disposal.

3.1.3 Radionuclides

Composite samples from each location were tested for a radionuclide suite at the request of the Marine Directorate. It is noted there is no RAL1 or RAL2 for these parameters. Of the samples tested the majority of the resulted were less than the laboratory detection limit.

Under the London Convention (1972), only materials with de minimis levels of radioactivity may be considered for disposal to sea. For the purposes of this assessment the approach detailed in *IAEA*

Determining the suitability of materials for disposal at sea under the London Convention 1972: A radiological assessment procedure (2003) was adopted.

The Tables provided in Appendix E details the average (over all sample stations and depth ranges in cores) radionuclide results converted into radiation doses due to disposal. For the public assessment a mass conversion was carried out on the basis of disposal of 2.4 million tonnes of sediment per annum on a dry weight basis (i.e. assumes all material disposed of to one disposal ground within one year). As the majority of analytes were recorded as not exceeding the laboratory detection limit a 50% value of the limit of detection was adopted as the concentration for assessment.

The derived total doses to individual members of the crew and public were 2.06 μSv/year and 7.6 μSv/year, respectively. The total collective dose was 0.031 manSv/year. The values for individual members of the crew and public, and the collective dose, were found to be below the de minimis criteria of 10 μSv/year (individual doses) and 1 manSv/year (collective dose), respectively.

On this basis there is not considered to be a significant risk from radiological concentrations in the sediment in relation to proposed dredging or disposal of the material at sea.

4 DISCUSSION OF AVAILABLE DISPOSAL OPTIONS

The BPEO process is geared towards identifying a preferred overall strategy from the perspective of the environment as a whole, as opposed to detailed optimisation of any one selected scheme. It is a structured and systematic process to identify and compare strategic options in a transparent manner. Alternatives are evaluated in terms of their projected implications for the environment together with consideration of practicability, social and economic issues as well as within a wider strategic context.

The key stages of a BPEO are:

- Identification of options;
- Screening of options;
- Selection of assessment criteria;
- Analysis and evaluation of criteria; and
- Evaluation of BPEO.

Further details on methodology are provided within each section.

4.1 Identification and Screening of Available Disposal Options

A number of options are available for disposal of dredged sediments. The options considered are provided in Table 4-1 along with justification for screening out those options which have not been taken forward for further consideration.

Table 4-1: Initial Best Practicable Available Options

Location	Options	Screening Assessment	Carry forward?
Harbour / Quayside	Leave in situ	Not an option due to the project maintenance dredge level requirements	No
	Infilling of an existing dry dock/harbour facility/development site (beneficial re-use)	The development itself incorporates the requirement of suitable material for infilling of the existing dry dock at Hunterston. Where material is geotechnically suitable for the infilling works (based on assessment of elements such as % of fine material within the sediment) and the dredging and reuse of the material meets the programme requirements for the construction phase then material will be reused.	Yes
	Beach Nourishment	Areas of the Firth of Clyde and North Ayrshire Coastline are designated sites (SSSI, LNR) and hold both national and international importance to nature conservation. Specific beach nourishment projects would require to be supported by Environmental Assessments as a minimum to inform how the project could affect the environment as a result of disturbance to the intertidal area, changes to the sediment levels, the variable composition and quality of the material and measures devised from the assessment outcomes to minimise impacts on the environment. The material to be dredged comprises a mixture of gravel, sand and silt. Fine sediments (i.e. silt) is not generally suitable for beach nourishment in the traditional sense.	No

Location	Options	Screening Assessment	Carry forward?
Land	Landfill Disposal	This is possible but it is unlikely that this option will offer long term solution due to lack of space at landfills. Landfill space is currently at a premium and does not offer a sustainable solution either financially or environmentally for the disposal of dredged arisings. Dredged material likely to require treatment first in a dewatering facility. Significant cost associated with set up of dewatering facility at the quayside plus transportation and additional costs associated with gaining the necessary planning and regulatory consents.	Yes
	Land Incineration	The dredged material consists of non-combustible material (silts, sands, gravels, shells) with a low combustible component and very high-water content. This makes it unsuitable for treatment/disposal by this route.	No
	Application to Agricultural Land	The dredged material would need to be treated to reduce salt concentrations to acceptable levels. Would require detailed chemical analysis and assessment as well as a Waste Management License Exemption. Would require special precautions during spreading in relation to the risk of odour and watercourses / aquifers. The availability of land for this option will be limited within a reasonable haulage distance of the dredge arisings. Large volumes each year are unlikely to be viable to dispose of in this manner and would potentially have a detrimental effect on existing terrestrial habitats.	No
	Recycling	Recycling of dredged material is theoretically possible, however, due to the varied lithology there would need to be either segregation during dredging works to minimise the entrainment of fine-grained material into the sands, or energy and water rich processing on land. This is not currently understood to be an established disposal and reuse route in the Firth of Clyde at present and is not likely to be something which could be established in the project timeframes due to the requirement for various permitting requirements including waste management licencing, discharge consents for process water as well as increased road transportation for delivery of waste material and collection of processed material.	No
Sea	Aquatic disposal direct to seabed.	Relatively low cost, minimal transportation requirements compared to all other options and potential for low environmental risk. The closest licensed disposal grounds are Birch Point (MA17) and Brodick (MA19), both are located approximately 15 km from the closest proposed dredge site. An alternative disposal site that could also be used for the disposal (either in combination with Birch Point/Brodick or as a substitute) is Cloch Point (MA21) which is located 25km to the north of the site.	Yes

4.2 Summary of Identified BPEO Options

Following review of the available options, two options were identified for further detailed BPEO assessment which are as follows:

- Beneficial Re-use - Infilling of Dry Dock/Site Platforming
- Landfill
- Sea Disposal

A brief summary of the necessary works or methodology for each option being taken forward for detailed BPEO assessment is provided below.

4.2.1 Beneficial Reuse - Infilling of Dry Dock/Site Platforming

The proposed construction methodology for the infilling of the dry dock will retain the existing bund that is in place that isolates the dock from the Firth of Clyde. Discussion with Marine Scotland and SEPA have confirmed that on this basis the infilling of the dry dock would be deemed a terrestrial activity in relation to licensing requirements (i.e. material placement within the dry dock would not require a Marine Construction Licence).

Dredged material is considered to be controlled waste for the purpose of transport, storage and disposal as per Section 34 (7) of the Environmental Protection Act 1990. Discussions with SEPA have indicated that reuse of dredge arisings for the dry dock infill/site platforming will require to be regulated by SEPA, with a Recovery Waste Management Licence being the likely most relevant applicable license for the works.

Attached in Appendix D is correspondence from SEPA in relation to testing considerations for material proposed to be reused at the site. As such, there is a requirement to assess the material for reuse from a geochemical perspective to ensure that it meets the requirements of the SEPA licensed activity

With respect to the beneficial reuse of the material the dredge arisings will require to meet specific geotechnical parameters to be deemed appropriate for reuse on the site. This will incorporate assessment of the physical quality of the material for engineering fill.

Finally, the reuse of the material will be dependent on project programme requirements. Currently the dredge activity is likely to occur towards the end of the construction programme, as such the material may not be available at the appropriate time in the construction phase to make its reuse a certainty.

At the time of writing the detailed assessment of the physical quality, extent and volume of suitable dredge material for reuse has not been completed. As noted above, the project programme as it currently stands also may result in the beneficial reuse not being possible.

On this basis the BPEO will progress on a conservative assumption that the material is not viable for the beneficial reuse based on either the physical quality or the programme implications. However, should the material be identified as geotechnically suitable and the project programme allow for beneficial reuse, then this will be the preferred option.

4.2.2 Landfill Disposal

Dredged material is considered to be controlled waste for the purpose of transport, storage and disposal as per Section 34 (7) of the Environmental Protection Act 1990. The Landfill (Scotland) Regulations 2003 require the classification and characterisation (i.e. inert, non-hazardous or hazardous) of the dredged material to be determined prior to landfill acceptance.

Disposal to landfill would require several stages in material handling operations:

- Dredging and transport to shore;
- Transfer to shore to a dewatering facility;
- Dewatering;
- Transfer of dewatered material to storage area for stockpiling;
- Loading of lorries and transport to landfill site; and
- Disposal at Landfill site.

Transport to the shore would require the identification of an available space to allow for dewatering. It is assumed for the purposes of the BPEO that the Construction Yard itself would not be suitable for the dewatering activity due to the ongoing construction elements on site. As such the dewatering activity may need to take place elsewhere on the Hunterston Parc site assuming there is available land to facilitate the activity. Two options are available for off-loading; namely grabbing the spoil from the barge or hopper or pumping directly ashore.

The dewatering facility would require being purpose built and capable of receiving large quantities of bulk material. Currently no facility exists for this activity. Settlement tanks, with the aid of sluices and rotational management, would allow solids to settle out and the water element drain off and return to the sea. Temporary mobilisation of bespoke mechanical dewatering equipment could also be utilised but at greater cost. The dewatered dredged sediment would then be removed from the facility and stockpiled for transfer via lorry to a suitably licensed landfill.

We understand that the type of vehicle most suitable for transporting the dewatered dredged material is either a rigid bodied tipper or an articulated tanker both with a 16 tonne load capacity. It is estimated that the dredge volume equates to c. (approximately 1,546,660m^3) of material and approximately 154,666 return trips would typically be required to transport the dewatered dredged material to landfill.

The number of landfills within a viable distance of the Firth of Clyde is considered to be low. In addition, the available capacity of each site is limited by the amount of material it can receive per annum. Due to the proposed quantity of material to be dredged it is therefore unlikely that any landfill within viable distance of the site will have the capacity to receive the dredged material.

4.2.3 Sea disposal

This option handles material in a single stage namely transport to the disposal site. The existing closest licensed disposal sites are 15km south west of the site, Cloch Point could also be utilised for the disposal this is located 25km to the north of the site. They are located in naturally deep water with ease of access, have a large capacity and are anticipated to be active for the foreseeable future.

5 FURTHER CONSIDERATION OF REMAINING DISPOSAL OPTIONS

5.1 Detailed BPEO Assessment

Each of the identified options was assessed against the criteria detailed in Table 5-1 below.

Table 5-1: BPEO Detailed Assessment Criteria

Primary Criteria	Description and Attributes
Strategic	• Operational aspects, including handling, transport etc. • Availability of suitable sites/facilities • General Public/local acceptability • Legislative Implications • Summary of the outcome of consultation with third parties
Environmental	• Safety Implications • Public Health Implications • Pollution/ Contamination Implications • General Ecological Implications • Interference with other legitimate activities e.g. fishing • Amenity/Aesthetic Implications
Costs	• Operating costs e.g. labour, site operations, environmental monitoring • Capital e.g. Transport, equipment hire

5.1.1 BPEO Strategic Assessment

Table 5-2 provides details of the strategic assessment for each option taken forward for the detailed BPEO assessment:

Table 5-2: BPEO Strategic Assessment

Criteria	Beneficial Reuse – Dry Dock Infill/Site Platforming	Landfill	Sea Disposal
Operational Aspects (inc. handling and transport)	Assumed that dewatering would occur on the Construction yard, with the dry dock being the most likely location. Dewatering would be undertaken under a SEPA discharge consent incorporating appropriate plant to facilitate the removal/treatment of water to meet the consent requirements. Material would be subsequently moved on site and placed in final location to facilitate the development.	Would involve double handling of material through dewatering and transportation to landfill. As noted previously it is assumed that the dewatering activity would require to be undertaken outwith the Hunterston Construction yard, therefore a specific dewatering facility will require to developed elsewhere incorporating SEPA discharge consent. Would also increase the number of HGV's on the road network.	There would be no double handling of the dredged material. Transportation to the disposal site would be by dredger or barge(s) depending on methodology.
Availability of suitable sites/facilities	The project would incorporate installation of equipment to allow for dewatering likely to use the existing dry dock with material being pumped ashore. The geotechnical composition of the dewatered dredged material is still to be reviewed. As noted previously it is assumed at this stage that the material may not be suitable or may not be available at an adequate time during the programme.	The geotechnical composition of the dewatered dredged material is considered likely to be suitable for disposal via this route. However, there is typically a limit to the amount of waste that can be accepted both on a daily and annual basis at a landfill.	The marine disposal site has been designed to accommodate the quantities typically generated by dredging operations. The chemical analysis of the sediments from the proposed dredge sites would indicate that the material is likely to be acceptable for testing pending further risk assessment for contaminants present at levels between Action Level 1 and Action Level 2.

Criteria	Beneficial Reuse – Dry Dock Infill/Site Platforming	Landfill	Sea Disposal
General Public /Local acceptability	The overall project has had three Public Consultation Events associated with the Planning and Marine Licence Applications. The works will retain all material within the existing Hunterston Construction Yard. The activities are covered under the project EIAR and supporting documents.	Increase traffic on haul routes therefore potential for increase in public complaints.	Traditionally accepted disposal route for dredged material and limited public impact.
Legislative Implications	Beneficial re-use is the preferred option for dredge arisings. These works would require obtaining appropriate licence from SEPA.	Contravenes the principles of minimising waste and long-term commitments by the government to reduce landfilling.	This is an accepted disposal route as long as a Marine Licence is obtained.

5.1.2 BPEO Environmental Assessment

Table 5-3 below details the environmental assessment for each option taken forward for detailed BPEO assessment.

Table 5-3: BPEO Environmental Assessment

Criteria	Beneficial Reuse – Dry Dock Infill/Site Platforming	Landfill	Sea Disposal
Safety Implications	Double handling of material increases the potential for accidents to occur. Work would be undertaken in accordance with H&S legislation.	Double handling of material increases the potential for accidents to occur. Work would be undertaken in accordance with H&S legislation.	Minimal handling of material required as it is directly placed at the disposal site. Work would be undertaken in accordance with H&S legislation.

Criteria	Beneficial Reuse – Dry Dock Infill/Site Platforming	Landfill	Sea Disposal
Public Health	Measures will be required to limit human contact during transfer of material from dredger to dewatering facility. Reuse of material will incorporate assessment of risks to human health as part of the SEPA licensing requirements.	Measures will be required to limit human contact during transfer of material from dredger to dewatering facility and transportation to landfill. Security measures typically employed at licensed landfills which will minimise human contact once accepted and emplaced at site.	Low potential for human contact during dredging and disposal operations. Once deposited at disposal site pathways for human contact greatly reduced.
Pollution/contamination	Pumping ashore to dewatering facility and reuse will require energy. Reuse of material will incorporate assessment of risks to the environment as part of the SEPA licensing requirements.	Pumping ashore to dewatering facility and transportation to landfill will all require energy. Road transport increases the carbon footprint of this disposal option. Potential for spillages to occur. Suitability of material would need agreed with landfill manager.	Pollutant concentrations in dredged material to be disposed are limited to acceptable levels through regulatory licensing processes. Information with regards to the type of disposal site with regards to its effects on sediments has not been provided. Previous correspondence with Marine Scotland has previously concluded that disposal sites in Scotland are Dispersive.
General Ecological Implications	The EIAR for the development incorporates consideration of impact to ecology as a result of the proposed development.	Licensed landfill would be away from protected species and habitats with measures in place to prevent or minimise pollution of the surrounding environment.	Proposed to dispose at existing licensed facilities.
Interference with other legitimate activities	The EIAR incorporates consideration of cumulative impacts associated with the proposed development.	Potential for limited short term local impact to commercial and ferry operations in the area of the dredged material handling and road hauling principally related to noise and dust potential.	Disposal at the licensed sites has historically been used.

Criteria	Beneficial Reuse – Dry Dock Infill/Site Platforming	Landfill	Sea Disposal
Amenity / Aesthetic Implications	Odour release from dewatering facility. EIAR incorporates assessment of noise impact and supporting assessments on Construction Dust impacts.	Odour release from dewatering facility. Increase in traffic noise during transportation from dewatering facility to landfill facility. Potential for spillages on haul route. No significant additional visual / odour / noise effects as using existing landfill site.	Limited short term visual / odour / noise effects as dredged material is transported by dredger and disposed of below sea level.

5.1.3 BPEO Cost Assessment

Costs were assessed for each of the options taken forward for detailed BPEO assessment. The BPEO assessment considered the typical costs associated with dredging, transportation to the disposal site, construction of treatment facilities (where applicable) and methods employed to protect the environment for each of the identified options. As costs are generally “Commercially Sensitive” the rates are based on experience within industry (as opposed to formal quotations).

For the purposes of comparing costs associated with each option a benchmark of 2,474,665 tonnes (approximately 1,546,660m^3) of dredged material has been set.

The assumptions to calculate the costs are as follows:

- Dredging costs are estimated to be £3.21 per m^3;
- Ship transportation costs from the dredged area to disposal / transfer site have been calculated based on £1.85 per tonne;
- Costs associated with construction and operation of a dewatering facility are estimated to be in the order of £1,000,000 or greater;
- Cost associated with transfer of dewatered material to lorry are based on a wheeled shovel (costing £47 per hour) operating 7 hours per day for 24 weeks (though minimum hire charges may make this cost significantly greater);
- Transportation costs from a dewatering facility to landfill are estimated to be £4.85 per tonne; and
- Landfill gate fees are estimated to be £30 per tonne for a non-hazardous landfill (Note: Maintenance dredgings are currently exempt from landfill tax as defined in SLfT3006 – Dredgings – Material removed from water, August 2018).

Table 5-4 provides details on the Cost assessment for each option taken forward for detailed BPEO assessment:

Table 5-4: BPEO Cost Analysis (based on 2,474,665 tonnes only)

Activity	**Beneficial Reuse – Dry Dock Infill/Site Platforming (£)**	**Landfill Disposal (£)**	**Sea Disposal (£)**
Dredging	7,943,674	7,943,674	7,943,674
Transport by vessel to disposal site		-	4,578,130
Dewatering Facility	1,000,000	1,000,000	-
Transfer of material to lorry		39,480	-
Transportation Cost		12,002,125	-
Landfill Gate Fee		74,239,950	-
Total Costs	**8,943,674**	**94,325,229**	**12,521,804**

Note: The above costs do not take into account the cost required to gain planning or licensing consents or potentially to purchase land (where applicable). They also do not take account of the influence volumes will have on costs (economies of scale).

5.2 BPEO Assessment Discussion

Disposal to landfill is considered to be the least suitable option for the dredged material. It contravenes the principles of minimising waste and reducing landfilling. Several stages in material handling operations would be required to dispose of the material by this route. The cost associated with setting up a suitable treatment facility to dewater the dredged material is significant. Transportation of material by road is also undesirable as a result of increased traffic and the potential for accidental spillages. Landfill capacity is also typically limited and potentially unable to accommodate the quantities of material typically generated by the dredging operations. Any surplus dredged material will therefore require to be disposed of via an alternative route.

Beneficial reuse of the material is identified as the preferred option. As previously noted this would be subject to confirmation that the material meets the engineering specification requirements for the proposed dock infilling and site platforming. In addition, the material would require to be available at an appropriate time during the project programme to ensure that the reuse can be undertaken.

Deposition of the dredged material at a licensed marine disposal site is traditionally acceptable. The licensed marine disposal site has been designed to allow easy access as well as being capable of accommodating the quantities of material typically generated by dredging activities. Material handling is limited to transportation thereby reducing the risk for pollution incidents occurring. Pollutant concentrations are also limited to acceptable levels through regulatory requirements. Should beneficial reuse of the material not be possible due to the material not meeting the specification of programme requirements, then disposal at a licensed facility will be the preferred disposal option.

6 FURTHER ASSESSMENT

As detailed in Section 3, on the basis of the exceedances of Action Level 1 and Action Level 2, further assessment to determine the suitability of the material for sea disposal is deemed a requirement.

The approach for this further assessment is outlined as follows:

- Provide an overview of the proposed dredge works and the identified disposal site including existing chemical monitoring data for the site where available; and
- Compare existing chemical data with other recognised sediment assessment criteria including those listed below. Summary tables are provided in Appendix C

Background Assessment Concentration (BAC) - BACs were developed by the OSPAR Commission (OSPAR) for testing whether concentrations are near background levels. Mean concentrations significantly below the BAC are said to be near background. However, it should be noted that river catchments have their own unique geochemical fingerprints and are also governed by the geology within the catchment, so in theory one set of background level values is not applicable to all situations;

Effects Range Low (ERL) - ERLs were developed by the United States Environmental Protection Agency (USEPA) for assessing the ecological significance of sediment concentrations. Concentrations below the ERL rarely cause adverse effects in marine organisms. Concentrations above the ERL will often cause adverse effects in some marine organisms;

Probable Effects Level (PEL) – PELs (Marine) have been adopted from the Canadian Environmental Quality Guidelines (http://www.ccme.ca/en/resources/canadian_environmental_quality_guidelines/). If a concentration is recorded above the PEL this is the probable effect range within which adverse effects frequently occur. The Threshold Effect levels (TELs) have been included in the summary table in Appendix C, but have not been used as part of the further assessment as they typically fall below the RAL1.

The following section contains a review of potential risks to the list of receptors identified in “Water Framework Directive Assessment: estuarine and coastal waters” (https://www.gov.uk/guidance/water-framework-directive-assessment-estuarine-and-coastal-waters). The conclusions drawn from the available information will provide a recommendation on proposed disposal routes.

6.1.1 Action Level 1

Exceedances of RAL1 can be summarised as follows:

- 12 samples recorded exceedances of PAHs.
- 3 samples recorded exceedances of THC.

6.1.2 Action Level 2

No exceedances of RAL2 were recorded in the sediment at the site.

6.1.3 ERL & PEL Review

Exceedances of the ERL and PEL (where one is available) is summarised in **Table 6-1**. Full summary tables are provided in Table B in Appendix C : Note any contaminant of concern with N/A indicates no corresponding ERL or PEL value currently available.

Table 6-1: Exceedances of ERL and PEL

Contaminant	No. of Exceedances (of 78 samples)	
	ERL	PEL
Cadmium	0	0
Copper	0	0
Chromium	0	0
Lead	0	0
Mercury	1	0
Zinc	0	0
PAH (All Species Maximum)	3	1
PCBs	N/A	0

6.2 Averages

Review of the averaged data for all the data has been undertaken i.e. considering the material as a single volume for disposal to reflect the likely potential that the material is dredged as part of one exercise. The concentrations of the various contaminants of concern are quite variable, the review of average data against the available adopted assessment criteria are as follows:

Table 6-2: Exceedances of ERL and PEL – Average Concentrations

Contaminant	Do Average Concentrations exceed?	
	ERL	PEL
Cadmium	No	No
Copper	No	No
Chromium	No	No
Lead	No	No
Mercury	No	No
Zinc	No	No
PAH (All Species Maximum)*	No	No
PCBs	No	No

*Note – where values are available for review.

6.3 Water Framework Directive Assessment

As outlined in the Water Framework Directive Assessment: estuarine and coastal waters guidance (Environment Agency, 2017), there are several key receptors which can be impacted upon including the following:

- Hydromorphology;
- Biology – habitats;
- Biology – fish;

- Water quality; and
- Protected areas

Each of these points are considered in **Table 6-3** below.

Table 6-3: Receptor Risk Assessment

Key Receptor[1]	Brief Summary of Potential Effects on Receptor	Further Consideration Required?	Comment
Hydromorphology (Source Area and Disposal Site)	Morphological conditions, for example depth variation, the seabed and intertidal zone structure tidal patterns, for example dominant currents, freshwater flow and wave exposure	Yes	The EIAR incorporates assessment of the impact of the proposed dredge at the Hunterston Construction Yard. The assessment has not identified significant impact to the morphological conditions at the dredge site or in the surrounding area as a result of the proposed dredge. The EIAR is provided to support the application. The Birch Point and Brodick disposal sites are located within the Firth of Clyde Middle-Offshore area which is Classified as High for Hydromorphology and Morphology. The Cloch Point disposal site is located within the Firth of Clyde Inner - Dunoon and Wemyss Bay area which is Classified as Good and is not considered to be heavily Modified. The classification of the water bodies takes into account the presence of the disposal sites, so no further assessment is considered to be required. Birch Point and Brodick are identified as having a radius of 463m each whilst Cloch Point has a radius of 370m[2]. Assuming that Cloch Point (as the smallest disposal area) was adopted solely for the disposal, on the basis of the total quantity of dredge material being evenly distributed across the dredge site this would result in a deposit of 3.6m thickness across the deposition area. The depth of water at this disposal ground is 50m. Assuming total disposal at Birch Point was carried as descried above for Cloch Point a deposit of 2.3m across the deposition area. The depth of water at the disposal ground is 160m. It is considered that the disposal would therefore not result in a significant impact to the hydromorphology of the disposal grounds on the basis of one single location being used for the total disposal.

[1] https://www.gov.uk/guidance/water-framework-directive-assessment-estuarine-and-coastal-waters
[2] www.gov.scot.xlsx (live.com)

Key Receptor[1]	Brief Summary of Potential Effects on Receptor	Further Consideration Required?	Comment
Biology - habitats	Included to assess potential impacts to sensitive/high value habitats.	Yes	The EIAR incorporates assessment impact of the proposed development and dredge with respect to impact to biology including the existing priority marine features and SSSI in proximity to the site. The assessment has not identified significant potential for impact to the sensitive/high value habitats as a result of the proposed dredging works at the site. The EIAR is provided to support the application. The establishment of the Brodick, Birch Point and Cloch Point disposal sites will have taken the potential presence of sensitive/high value habitats into account. There are no statutory habitat designations in the immediate vicinity of the dredge or disposal sites. No further assessment is considered necessary.
Biology – fish	Consideration of fish both within the estuary and also potential effects on migratory fish in transit through the estuary	No	The Largs Channel (Fairlie Roads) (ID: 200026) and disposal site 'Firth of Clyde Middle – Offshore' (ID: 200310) are coastal water bodies that do not have a WFD classification for fish. The Firth of Clyde Inner - Dunoon and Wemyss Bay is classified as Good Potential/Status or pass for Coastal and Transitional Waters for fish. The proposed disposal site has been approved for use specifically for the purpose of dredged materials. Migratory fish may be present within the Firth of Clyde at certain times of year, but this will have been taken in account in the establishment of the Brodick, Birch Point and Cloch Point disposal sites. It is noted that under periods of exceptionally hot and dry weather the potential for oxygen related issues to arise i.e. oxygen depletion and it is proposed that dredging works will be avoided as far as practicable during such times.

Key Receptor[1]	Brief Summary of Potential Effects on Receptor	Further Consideration Required?	Comment
Water Quality	Consideration must be given to water quality when contaminants are present in exceedance of CEFAS RAL1.	Yes	The Largs Channel (Fairlie Roads) and disposal site 'Firth of Clyde Middle – Offshore' are coastal water bodies classified as "Pass" for specific pollutants. Both locations Pass p for "priority substances". The overall classification for overall status is "Good". The outer estuary and Firth of Clyde Inner - Dunoon and Wemyss Bay are classified as Good potential/status or pass for "specific pollutants". The Firth of Clyde Dunoon and Wemyss Bay is classified as "Good" Potential/Status or pass for Coastal and Transitional Waters Contaminants are noted to exceed CEFAS RAL1 within sediment samples. It is noted that there are no exceedances of RAL2. Average results do not exceed ERL or PEL. Potential effects are considered to be both local and temporary.
Protected Areas	If your activity is within 2km of any WFD protected area, include each identified area in your impact assessment. • special areas of conservation (SAC) • special protection areas (SPA) • shellfish waters • bathing waters • nutrient sensitive areas	Yes	The proposed dredging and disposal sites are not located within 2 km of an SAC or SPA, marine protected area or Ramsar sites. The dredge area is located approximately 1.7km from the site. A dredge plume assessment has been carried out as part of the EIAR. The closest designation to the disposal sites is the South Arran Protected Area which is 4.6m to the south of the sites. The dredge site is within 1.4km of a shellfish waters protected area. The EIAR has incorporated coastal modelling to assess impact potential from the dredge plume. The EIAR is provided as a supporting document to the application.

6.4 Potential Risk to Water Quality and Protected Areas

6.4.1 Water Quality

Neither coastal water body covering the dredge or disposal areas have a classification status for priority substances or specific pollutants. The classification status at both areas for general water quality is 'Good'.

Although concentrations of some contaminants of concern were recorded above the RAL1 within the sediment for disposal, it is considered that these levels will not contribute to an overall degradation of water quality at the disposal site. While any effects are considered to be both localised and temporary, the potential for dilution in the open waters beyond the disposal site is considerable.

The disposal sites are assumed to be dispersive in nature.

Additionally, when the sediment results are reviewed as an average to assess all of the dredged sediment as a single unit for disposal, then no exceedances of RAL1 are noted. When considering the averaged results for PAHs, RAL1, the BAC, ERL and PEL is exceeded for several species. Averaged concentrations also exceed RAL1 for TPH. The BAC is intended to be used to determine if concentrations are near to background concentrations, rather than qualify any potential environmental impact. It should also be noted that the BACs for PAH are generally lower than the Marine Scotland RAL1, therefore it is considered to be a very conservative assessment criterion. In addition, PAHs and hydrocarbons are hydrophobic with low aqueous solubility and will naturally remain associated with organic sediment fractions, rather than become dissolved within the water column. On this basis, the risks associated with impact to water quality from chemical contaminants in sediment are considered to be low, with the associated dilution potential providing further mitigation. There are no exceedances of RAL2 in any individual samples or averaged concentrations. The key risk to water quality is considered to be an increase in turbidity/suspended solids during the disposal activity (i.e. placement of sediment on receiving beach and potential subsequent dispersal by tides). Although this is likely to cause localised increase in suspended solids, it is considered that this will be both local and temporary in nature. The sediment material primarily comprises mostly of sand (60%) with silt forming 37% of the material.

Sand and gravel particles will generally fall out of suspension quickly with minimal lateral spread. Given that majority of the sediment to be disposed comprises sand, it is unlikely that there will be a prolonged significant increase in suspended solids/turbidity. Any silts and clays (in this case an average of 37% of material) will have the potential for dispersal due to longer times in suspension, however it is expected that the majority will quickly fall quickly to the seabed. It should be noted that both Brodick and Birch Point disposal sites are classified as having 'Good' water quality although being ongoingly utilised as a site for disposal. As a result, it is considered unlikely that this dredging campaign will result in a change in the classification status of coastal water bodies at both the dredge and disposal sites.

6.5 Potential Risk to Water Quality and Marine Life

The potential risks to water quality at the dredge site and disposal sites are further considered as all other receptors have been screened out of the assessment.

The coastal classification of this area of water in and around the disposal grounds is "good" in 2008 (SEPA) & 2015 as detailed on Scotland's Environment (http://www.environment.scotland.gov.uk/)

Although there are contaminants of concern above the RAL1 it is considered that these levels will not contribute to an overall degradation of water quality as the potential for dilution and attenuation in the Firth of Clyde is very considerable.

The key contaminants for impacting water quality are considered to be metals as these have the potential to dissolve/desorb from sorption sites, whereas the organic contaminants (e.g. PCBs and PAHs) have a greater affinity for the organic materials which they are bound to, and are more likely to remain strongly bound to the sediment, or if become dissolved, quickly adsorbed onto organic matter within the water column or sediments.

The key risk is considered to be an increase in turbidity/suspended solids during the dredging activity, although this is likely to cause localised degradation in water quality, it is considered that this will be a short term event and mitigation measures could be put in place if deemed necessary.

On this basis, the associated risk with degradation of water quality directly associated with the proposed disposal is considered to be Low i.e. unlikely to cause a significant adverse effect on the overall water quality.

7 CONCLUSIONS AND RECOMMENDATIONS

Peel Ports Group Ltd. has appointed EnviroCentre Ltd. to complete a Marine Licence application and BPEO assessment for dredging at Hunterston Construction Yard. This has been informed using sediment quality results from sampling undertaken in March and April 2024.

Beneficial reuse of the material as part of the terrestrial development is the best practicable environmental option subject to the material being geotechnically suitable for use and meeting the project programme with respect to material availability. This material reuse would be undertaken under SEPA Waste Management Licensing and as such the disposal activity would not require a Marine Scotland Disposal Licence.

At the time of writing a full assessment of the potential reuse viability of the material has not been completed. Where material is not available at the appropriate time for reuse or is considered geotechnically unsuitable the best practicable environmental option for the dredge arisings is disposal at sea.

For the purposes of the application a conservative assessment has been undertaken and it is assumed that none of the material will meet the requirements for beneficial reuse. This will however be assessed as the project design progresses and where possible material will be identified for beneficial reuse.

Results from analysis of sediment samples recorded various PAH species and THC in exceedance of RAL 1. However, assessment of key receptors identified from the Water Framework Directive assessment for estuarine and coastal waters concluded that there is a low risk of the sediments impacting upon the overall ecological or chemical status upon disposal.

Based on the multiple lines of evidence approach adopted to further assess the exceedances identified in the sediment assessment, the material as a whole is considered suitable for disposal at sea at either the Brodick (MA017), Birch Point (MA019) and Cloch Point (MA021) disposal sites (this is considered to be suitable on the basis of disposal at one site solely however the project could adopt disposal at multiple sites should this be considered desirable with respect the dredging programme for the works), within the Firth of Clyde. This option is considered to have no significant long-term impact on the marine environment, is readily accessible from the harbour and has been assessed as a suitable option.

REFERENCES

IAEA (2003). *Determining the suitability of materials for disposal at sea under the London Convention 1972: A radiological assessment procedure*

Marine Scotland (2017). *Pre-DredgeSampling Guidance Version 2*: Scottish Government.

Marine Scotland (2015). *Guidance for Marine Licence Applicants Version 2*: Scottish Government.

Marine Scotland National Marine Plan Interactive Viewer - https://marinescotland.atkinsgeospatial.com/nmpi/

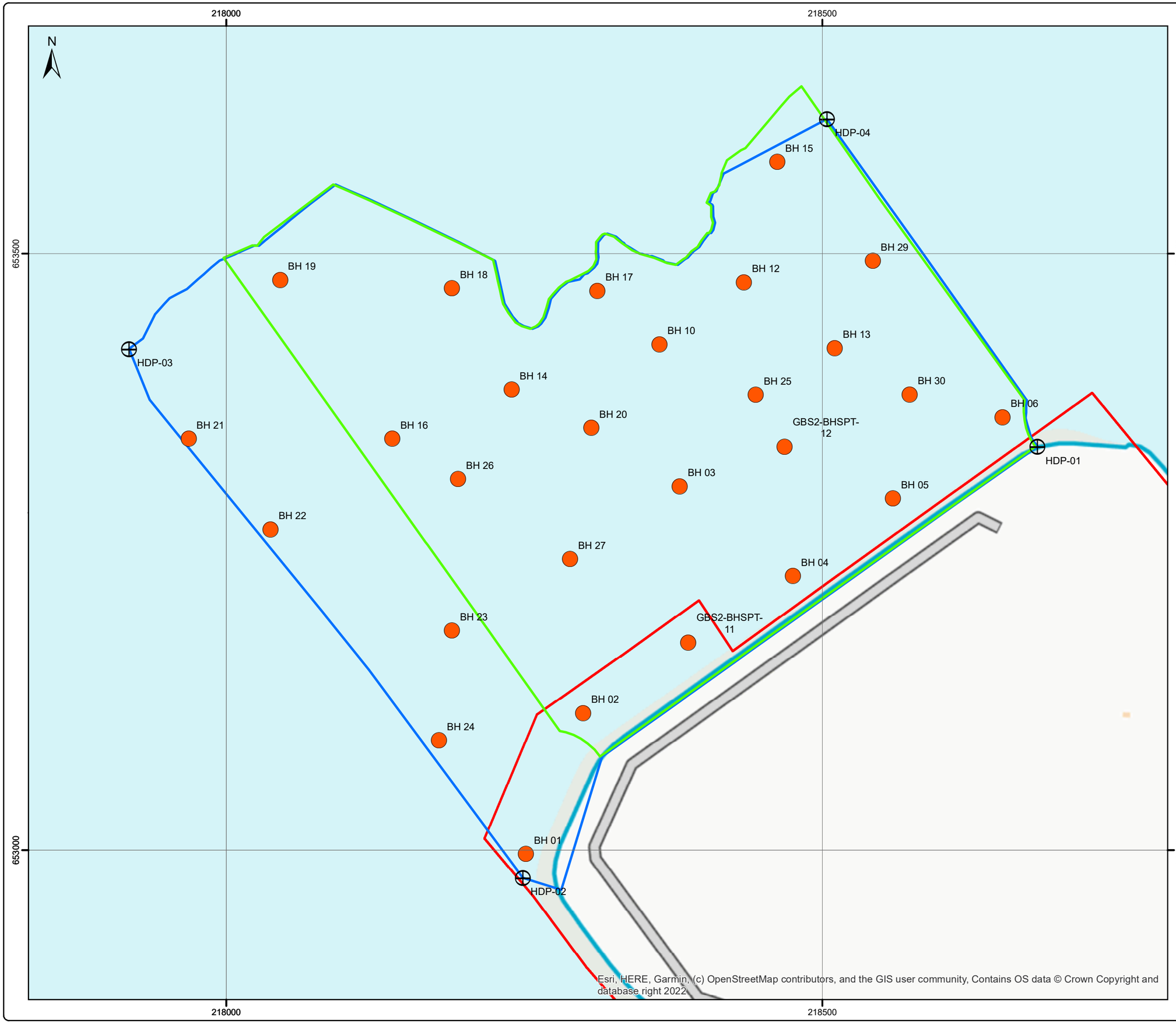
OSPAR/ICES (2004) *Workshop on the evaluation and update of background reference concentrations (B/RCs) and ecotoxicological assessment criteria (EACs) and how these assessment tools should be used in assessing contaminants in water, sediment and biota*

Ospar (2020) *Background document for Canadian Federal Environmental Quality Guidelines (FEQGs) for Polybrominated Diphenyl Ethers (PBDEs) in sediment and biota*

APPENDICES

APPENDICES

A FIGURES



Legend

- Site Boundary
- Updated Dredge Boundary 001
- Updated Dredge Boundary 003
- Dredge Works Coordinates Points 003
- Marine Borehole Locations

Do not scale this map

Client
Clydeport Operations Limited

Project
Hunterston Construction Yard

Title
Marine Borehole Locations

Status
FINAL

Drawing No.	Revision	Date
176482-GIS018	-	06 May 2024
Drawn	**Checked**	**Approved**
MMF	GD	GD

Scale
1:3,000 @A3
0 15 30 60 90 Metres

Rev	Date	Amendment	Initials
-	-	-	-

envirocentre
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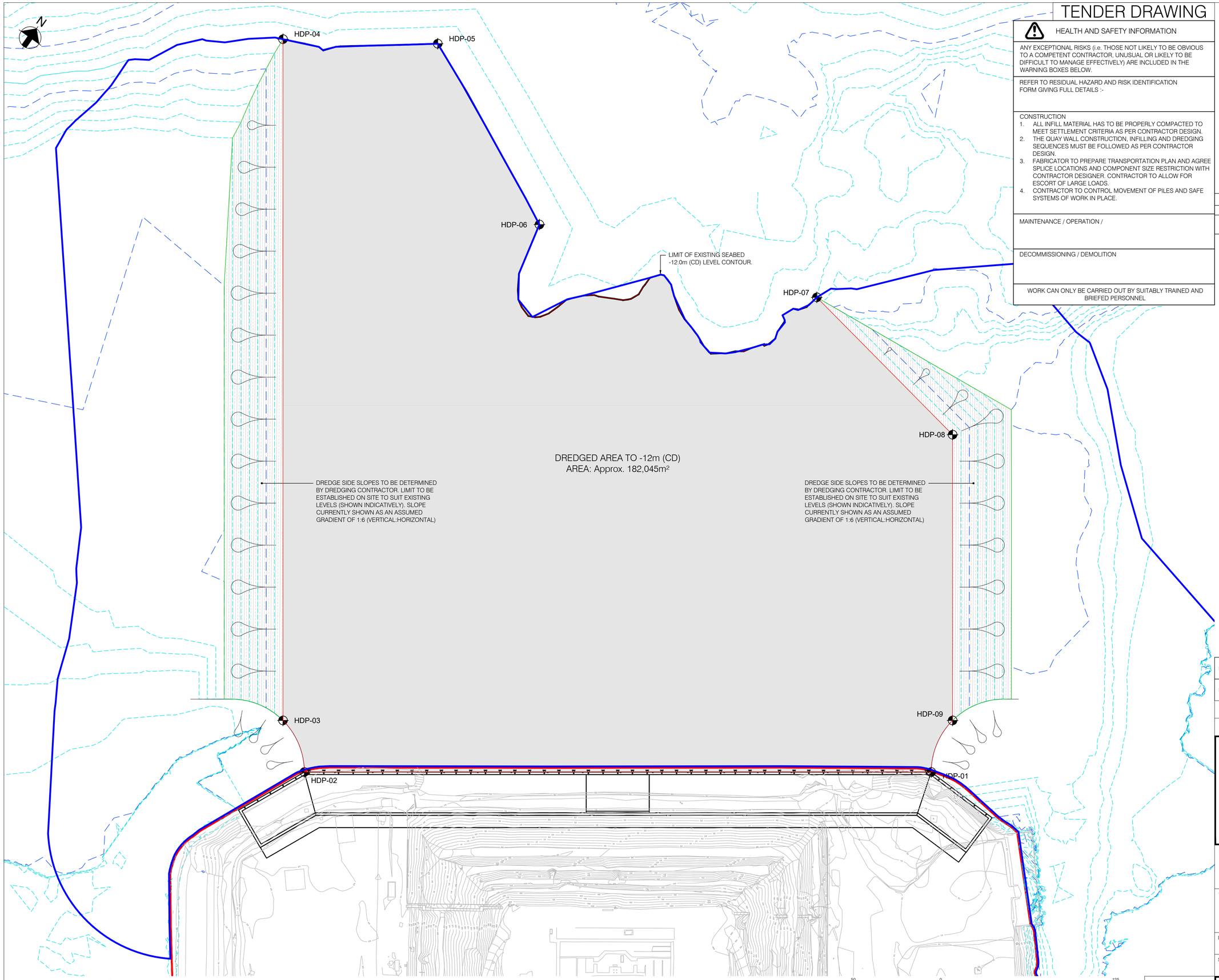
TENDER DRAWING



HEALTH AND SAFETY INFORMATION

ANY EXCEPTIONAL RISKS (i.e. THOSE NOT LIKELY TO BE OBVIOUS TO A COMPETENT CONTRACTOR, UNUSUAL OR LIKELY TO BE DIFFICULT TO MANAGE EFFECTIVELY) ARE INCLUDED IN THE WARNING BOXES BELOW.

REFER TO RESIDUAL HAZARD AND RISK IDENTIFICATION FORM GIVING FULL DETAILS :-

CONSTRUCTION

1. ALL INFILL MATERIAL HAS TO BE PROPERLY COMPACTED TO MEET SETTLEMENT CRITERIA AS PER CONTRACTOR DESIGN.
2. THE QUAY WALL CONSTRUCTION, INFILLING AND DREDGING SEQUENCES MUST BE FOLLOWED AS PER CONTRACTOR DESIGN.
3. FABRICATOR TO PREPARE TRANSPORTATION PLAN AND AGREE SPLICE LOCATIONS AND COMPONENT SIZE RESTRICTION WITH CONTRACTOR DESIGNER. CONTRACTOR TO ALLOW FOR ESCORT OF LARGE LOADS.
4. CONTRACTOR TO CONTROL MOVEMENT OF PILES AND SAFE SYSTEMS OF WORK IN PLACE.

MAINTENANCE / OPERATION /

DECOMMISSIONING / DEMOLITION

WORK CAN ONLY BE CARRIED OUT BY SUITABLY TRAINED AND BRIEFED PERSONNEL

NOTES

1. ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE RELATIVE TO CHART DATUM.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEER'S AND SPECIALIST'S DRAWINGS AND THE CONTRACT SPECIFICATION DOCUMENTS. THE CLIENT IS TO BE ADVISED OF ANY DISCREPANCIES ENCOUNTERED ON SITE DURING CONSTRUCTION WORKS.

LEGEND

MARINE CONSENT BOUNDARY

TERRESTRIAL PLANNING CONSENT BOUNDARY

MATERIAL DREDGE QUANTITIES

(Dredge to level -12.0m(CD) and side slopes)
PLAN AREA: 182,045m²
VOLUME: 1,162,035m³

Tide level in metres above Chart Datum (Millport)			
MHWS	MHWN	MLWN	MLWS
3.40	2.70	1.00	0.40

DREDGING WORKS COORDINATES

POINTS	EASTING	NORTHING
HDP-01	218680.284	653338.201
HDP-02	218315.303	653078.677
HDP-03	218281.499	653099.870
HDP-04	217999.435	653496.551
HDP-05	218091.437	653557.985
HDP-06	218225.504	653494.754
HDP-07	218417.126	653567.230
HDP-08	218553.041	653543.496
HDP-09	218671.367	653377.089

HDP-XX Denotes setting out coordinate point shown on dredge plan. All coordinates relate to the OSGB 36 / British National Grid

REV	DATE	REVISION DESCRIPTION	DRN	VER
P02	18.04.2024	ISSUED FOR FINAL COMMENTS	AH	MW
P01	28.02.24	ISSUED FOR INFORMATION	A.H.	M.W.

Arch Henderson 1919
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Structural Engineers
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Architects
Geotechnical services
Environmental services
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www.arch-henderson.co.uk - email : glasgow@arch-henderson.co.uk
Offices in : Aberdeen, Dundee, Falkland Islands, Glasgow, Inverness, Lerwick, Southampton, Stromness and Thurso

PROJECT :
CLYDEPORT OPERATIONS LTD
HUNTERSTON CONSTRUCTION YARD

TITLE :
450m QUAY WALL OPTION
DREDGE PLAN

DRAWN :	DATE :	VERIFIED :	APPROVED :
AH	27/02/24	M.W.	K.M.

SCALE : (A1) 1:1250

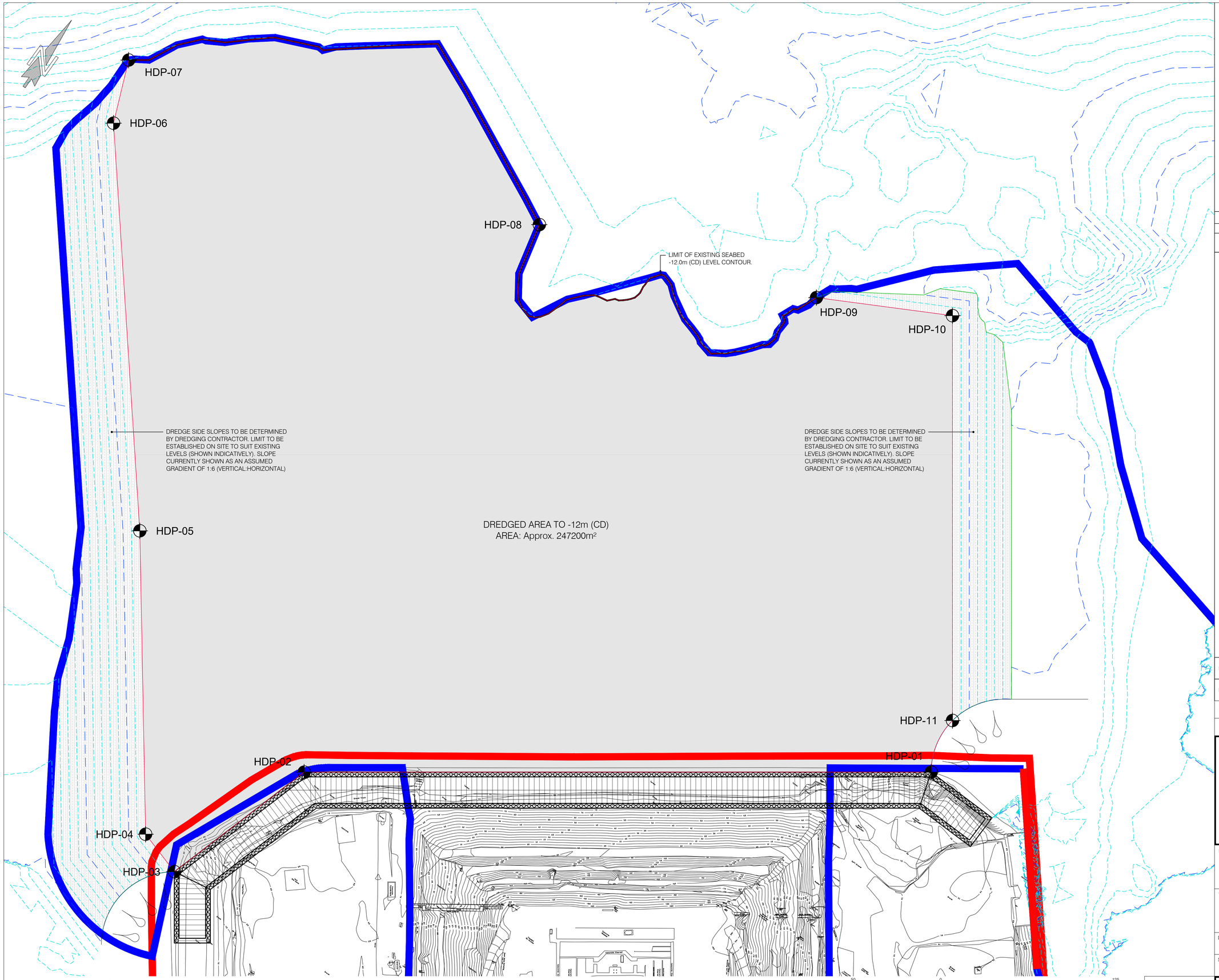
DRAWING STATUS : S4

DRAWING No : HMY-AHN-01-00-DR-C-0001

REV : P02

metres 50 0 125 metres
Scale 1:1250

DO NOT SCALE



NOTES

1. ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE RELATIVE TO CHART DATUM.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEER'S AND SPECIALIST'S DRAWINGS AND THE CONTRACT SPECIFICATION DOCUMENTS. THE CLIENT IS TO BE ADVISED OF ANY DISCREPANCIES ENCOUNTERED ON SITE DURING CONSTRUCTION WORKS.

MATERIAL DREDGE QUANTITIES...:

(Dredge to level -12.0m(CD) and side slopes)
PLAN AREA: 247,200m²
VOLUME: 1,546,660m³

Tide level in metres above Chart Datum (Millport)			
MHWS	MHWN	MLWN	MLWS
3.40	2.70	1.00	0.40

DREDGING WORKS COORDINATES		
POINTS	EASTING	NORTHING
HDP-01	218680.284	653338.201
HDP-02	218315.205	653078.607
HDP-03	218280.882	652966.918
HDP-04	218248.634	652976.828
HDP-05	218119.690	653151.090
HDP-06	217935.584	653377.583
HDP-07	217918.245	653420.539
HDP-08	218225.504	653494.754
HDP-09	218417.043	653567.010
HDP-10	218503.756	653612.809
HDP-11	218671.367	653377.089

HDP-XX Denotes setting out coordinate point shown on dredge plan. All coordinates relate to the OSGB 36 / British National Grid

REV	DATE	REVISION DESCRIPTION	DRN	VER
P02	28.02.24	ISSUED FOR INFORMATION	A.H.	M.W.
P01	02.11.23	FIRST ISSUE	K.M.	M.W.

Arch Henderson 1919
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www.arch-henderson.co.uk - email : glasgow@arch-henderson.co.uk
Offices in : Aberdeen, Dundee, Falkland Islands, Glasgow, Inverness, Lerwick, Southampton, Stromness and Thurso

PROJECT :
CLYDEPORT OPERATIONS LTD
HUNTERSTON CONSTRUCTION YARD

TITLE :
DREDGING WORKS - Maximum Dredge Option
GENERAL ARRANGEMENT PLAN

DRAWN :	DATE :	VERIFIED :	APPROVED :
K.M.	24/10/23	MW	A.K.

SCALE : (A1)	DRAWING STATUS :
1:1250	S0

DRAWING No : HMY-AHN-01-00-DR-C-0003 REV : P02

DO NOT SCALE

B SEDIMENT LOGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH01
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	11.30	218251.61 E 652997.80 N

Final Depth:	11.30 m	Start Date:	29/03/2024	Driller:	AM/MJ	Sheet 1 of 2 Scale: 1:50
Elevation:	-1.07 mCD	End Date:	30/03/2024	Logger:	MS	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Medium dense to dense grey fine to medium SAND.		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 0.80	B6									
0.80	D17		0.80	0.00						
0.80 - 2.30	B7									
0.80 - 1.25	SPT (S)	N=20 (1,3/3,4,6,7) Hammer SN = 1398								
2.30	D18		2.30	0.00						
2.30 - 3.80	B8									
2.30 - 2.75	SPT (S)	N=37 (2,3/6,8,10,13) Hammer SN = 1398								
3.80	D19		3.80	0.00	-4.87	3.80		Medium dense brown slightly silty fine to medium SAND.		
3.80 - 4.80	B9									
3.80 - 4.25	SPT (S)	N=14 (2,5/3,3,3,5) Hammer SN = 1398								
4.80 - 5.30	B10				-5.87	4.80		Stiff reddish brown slightly sandy silty CLAY. Sand is fine to medium.		
5.30	D20		5.30	0.00						
5.30 - 5.75	UT24	Ublow=20 67% Recovery								
5.30 - 6.80	B11									
5.50	ES2	Marine Scotland Sample								
6.80	D21		6.80	0.00						
6.80 - 8.30	B12									
6.80 - 7.25	SPT (S)	N=16 (3,6/4,5,3,4) Hammer SN = 1398								
8.30	D22		8.30	0.00	-9.37	8.30		Loose reddish brown slightly gravelly slightly clayey fine to coarse SAND. Gravel is angular to subangular fine to medium of various lithologies.		
8.30 - 9.40	B13									
8.30 - 8.75	SPT (S)	N=6 (1,0/2,1,1,2) Hammer SN = 1398								

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
11.30	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 6.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	02/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH01
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	11.30	218251.61 E 652997.80 N

Final Depth:	11.30 m	Start Date:	29/03/2024	Driller:	AM/MJ	Sheet 2 of 2 Scale: 1:50
Elevation:	-1.07 mCD	End Date:	30/03/2024	Logger:	MS	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
9.40 - 10.00	B14				-10.47	9.40		Very stiff reddish brown slightly sandy CLAY. Sand is fine to medium.		
9.80	D23		9.80	0.00						
9.80 - 10.07	SPT (S)	50 (25 for 115mm/50 for 160mm) Hammer SN = 1398								
10.00 - 10.60	B15									
10.60 - 11.30	B16				-11.67	10.60		Brown and reddish brown slightly sandy slightly clayey angular to subangular fine to coarse GRAVEL of various lithologies. Sand is fine to coarse.		
10.90	ES3	Marine Scotland Sample								
					-12.37	11.30		End of Borehole at 11.30m		

9.5 10.0 10.5 11.0 11.5 12.0 12.5 13.0 13.5 14.0 14.5 15.0 15.5 16.0 16.5 17.0 17.5 18.0 18.5

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
11.30	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 6.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	02/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH02
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	36.40	218299.51 E
Rotary Coring	Fraste CRS-XL140 Duo	36.40	45.40	653115.79 N

Final Depth:	45.40 m	Start Date:	30/03/2024	Driller:	AM/KW	Sheet 1 of 5
Elevation:	-1.16 mCD	End Date:	01/04/2024	Logger:	LW/MS	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
								Medium dense to dense grey slightly silty fine to coarse SAND.		
0.40	ES1	Marine Scotland Sample								
0.40	ES4	RAD Composit								
0.40	ES5	ENV Composite								
0.40 - 1.90	B6									
1.90 - 3.40	B7		1.90	0.00						
1.90 - 2.35	SPT (S)	N=11 (1,2/2,3,3,3) Hammer SN = 1398								
3.40	D36		3.40	0.00						
3.40 - 4.90	B8									
3.40 - 3.85	SPT (S)	N=35 (1,3/6,10,9,10) Hammer SN = 1398								
4.90	D37		4.90	0.00						
4.90 - 6.40	B9									
4.90 - 5.35	SPT (S)	N=26 (3,5/5,7,7,7) Hammer SN = 1398								
5.40	ES2	Marine Scotland Sample								
6.40	D38		6.40	0.00						
6.40 - 6.85	SPT (S)	N=5 (3,4/2,1,1,1) Hammer SN = 1398			-7.76	6.60				
6.60 - 6.80	B10				-7.96	6.80		Soft grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is angular fine to medium of various lithologies.		
6.80 - 7.90	B11							Loose reddish brown very clayey fine to medium SAND.		
7.90	D39		7.90	0.00						
7.90 - 9.40	B12									
7.90 - 8.35	SPT (S)	N=7 (3,2/3,2,1,1) Hammer SN = 1398								

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
36.40	177
45.40	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 7.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	05/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH02
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	36.40	218299.51 E
Rotary Coring	Fraste CRS-XL140 Duo	36.40	45.40	653115.79 N

Final Depth:	45.40 m	Start Date:	30/03/2024	Driller:	AM/KW	Sheet 2 of 5
Elevation:	-1.16 mCD	End Date:	01/04/2024	Logger:	LW/MS	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
9.40	D40		9.40	0.00						
9.40 - 9.85	SPT (S)	N=7 (1,1/2,2,2,1) Hammer SN = 1398			-10.66	9.50		Loose to medium dense grey fine to medium SAND.		
9.50 - 10.90	B13									
10.80	ES3	Marine Scotland Sample								
10.90	D41		10.9	0.00						
10.90 - 12.40	B14									
10.90 - 11.35	SPT (S)	N=10 (5,3/3,2,3,2) Hammer SN = 1398								
12.40	D42		12.4	0.00	-13.56	12.40		Very dense dark reddish brown gravelly slightly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of various lithologies.		
12.40 - 13.90	B15									
12.40 - 12.83	SPT (S)	50 (5,8/50 for 280mm) Hammer SN = 1398								
13.90	D43		13.9	0.00						
13.90 - 14.35	UT60	Ublow=120 100% Recovery								
13.90 - 15.40	B16									
15.40	D44		15.4	0.00	-16.56	15.40		Very stiff reddish brown slightly sandy silty CLAY. Sand is fine to coarse.		
15.40 - 16.50	B17									
15.40 - 15.76	SPT (S)	50 (8,12/50 for 205mm) Hammer SN = 1398								
16.50 - 17.70	B18									
16.90	D45		16.9	0.00						
16.90 - 17.35	UT61	Ublow=112 100% Recovery								
17.70 - 18.40	B19				-18.86	17.70		Very stiff reddish brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular fine to medium of various lithologies.		
18.40	D46									
18.40 - 19.90	B20									

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
36.40	177
45.40	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 7.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	05/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH02
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	36.40	218299.51 E
Rotary Coring	Fraste CRS-XL140 Duo	36.40	45.40	653115.79 N

Final Depth:	45.40 m	Start Date:	30/03/2024	Driller:	AM/KW	Sheet 3 of 5
Elevation:	-1.16 mCD	End Date:	01/04/2024	Logger:	LW/MS	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
19.90	D47		19.9	0.00						
19.90 - 21.40	B21									
19.90 - 20.34	SPT (S)	50 (2,2/50 for 295mm) Hammer SN = 1398								
21.40	D48		21.4	0.00						
21.40 - 21.95	UT62	Ublow=128 100% Recovery								
21.70 - 23.00	B22				-22.86	21.70		Very stiff reddish brown slightly sandy CLAY. Sand is fine to medium.		
22.90	D49		22.9	0.00						
22.90 - 23.28	SPT (S)	50 (5,10/50 for 225mm) Hammer SN = 1398			-24.16	23.00		Very stiff dark brown silty CLAY with rare pockets of angular to subangular fine to medium gravel of various lithologies.		
23.00 - 24.00	B23									
24.00 - 24.90	B24									
24.40	D50		24.4	0.00						
24.40 - 24.60	UT63	Ublow=100 0% Recovery								
24.90 - 25.75	B25				-26.06	24.90		Brown slightly clayey fine to coarse SAND.		
					-26.90	25.75		Very stiff dark brown silty CLAY with rare beds of reddish brown fine to coarse sand.		
25.90	D51		25.9	0.00						
25.90 - 27.40	B26									
25.90 - 26.28	SPT (S)	50 (6,10/50 for 230mm) Hammer SN = 1398								
27.40	D52		27.4	0.00						
27.40 - 27.55	UT64	Ublow=100 0% Recovery								
27.40 - 28.90	B27									

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
36.40	177
45.40	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 7.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	05/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH02
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	36.40	218299.51 E
Rotary Coring	Fraste CRS-XL140 Duo	36.40	45.40	653115.79 N

Final Depth:	45.40 m	Start Date:	30/03/2024	Driller:	AM/KW	Sheet 4 of 5
Elevation:	-1.16 mCD	End Date:	01/04/2024	Logger:	LW/MS	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
28.90	D53		28.9	0.00						
28.90 - 30.00	B28									
28.90 - 29.28	SPT (S)	50 (6,9/50 for 225mm) Hammer SN = 1398								
30.00 - 30.60	B29				-31.16	30.00		Very stiff dark brown silty CLAY with low cobble content. Cobbles are subangular of sandstone.		
30.40	D54		30.4	0.00						
30.40 - 30.78	SPT (S)	50 (9,9/50 for 225mm) Hammer SN = 1398			-31.76	30.60		Very dense reddish brown slightly gravelly slightly clayey fine to coarse SAND. Gravel is angular to subangular fine to medium of sandstone.		
30.60 - 32.10	B30									
31.90	D55		31.9	0.00						
31.90 - 32.35	SPT (S)	N=50 (9,9/8,12,12,18) Hammer SN = 1398			-33.26	32.10		Very stiff grey slightly sandy CLAY. Sand is fine to medium.		
32.10 - 33.30	B31									
33.30 - 34.00	B32				-34.46	33.30		Dark reddish brown very clayey fine to medium SAND.		
33.40	D56		33.4	0.00						
33.40 - 33.95	UT65	Ublow=140 100% Recovery								
34.00 - 34.90	B33				-35.16	34.00		Medium dense reddish brown gravelly slightly clayey fine to coarse SAND with low cobble content. Gravel is subangular to subrounded fine to coarse of various lithologies. Cobbles are subangular to subrounded of sandstone.		
34.90	D57		34.9	0.00						
34.90 - 35.90	B34									
34.90 - 35.35	SPT (S)	N=14 (5,5/4,4,3,3) Hammer SN = 1398								
35.90 - 36.40	B35				-37.06	35.90		Grey mottled reddish brown gravelly fine to coarse SAND. Gravel is subangular to subrounded of sandstone.		
36.40	D58		36.4	0.00						
36.40 - 36.48	SPT (S)	50 (25 for 75mm/50 for 0mm) Hammer SN = 1398			-37.56	36.40		Very dense brown very gravelly fine to medium SAND with low cobble content.. Gravel is rounded to subrounded fine to coarse of various lithologies. Cobbles are subrounded of various lithologies. (Low recovery: Probable fine material washed out during drilling)		

TCR	SCR	RQD	FI
100			NI

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
36.40	177
45.40	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 7.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	05/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH02
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	36.40	218299.51 E
Rotary Coring	Fraste CRS-XL140 Duo	36.40	45.40	653115.79 N

Final Depth:	45.40 m	Start Date:	30/03/2024	Driller:	AM/KW	Sheet 5 of 5
Elevation:	-1.16 mCD	End Date:	01/04/2024	Logger:	LW/MS	Scale: 1:50
						DRAFT

Depth (m)	Samples / Field Records	TCR	SCR	RQD	FI	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
37.90						37.9	0.00	-39.06	37.90				
37.90 - 37.90	SPT(S) 50 (25 for 0mm/50 for 0mm) Hammer SN = 1398 D59				NI						Weak very thinly to thinly bedded reddish brown medium grained poorly cemented SANDSTONE. Partially weathered: reduced strength, closer fracture spacing. Discontinuities: 1. 20-45 degree joints, very closely spaced, undulating, rough, deconstructed to sand on joint surfaces. 2. 70-90 degree joints are 37.90-38.40m and 38.70-38.90m, undulating, rough.		
37.90		100	25	16	10								
39.40								-40.56	39.40		Medium strong to strong very thinly bedded reddish brown medium grained well cemented SANDSTONE with rare light grey siltstone and quartz inclusions, up to 5mm. Partially weathered: slightly closer fracture spacing. Discontinuities: 1. 5-30 degree bedding fractures, medium spaced (35/315/750), planar, rough, clean.		
40.90		100	95	73									
42.40		100	98	98	3								
43.90		100	100	97									
45.40		100	97	91				-46.56	45.40		End of Borehole at 45.40m		
		TCR	SCR	RQD	FI								

Water Strikes			
Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Chiselling Details		
From (m)	To (m)	Time (hh:mm)

Casing Details	
To (m)	Diam (mm)
36.40	177
45.40	150

Water Added	
From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 7.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	05/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH03
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	29.00	218380.96 E
Rotary Coring	Fraste CRS-XL140 Duo	29.00	35.00	653305.73 N

Final Depth:	35.00 m	Start Date:	17/03/2024	Driller:	MJ/KW	Sheet 1 of 4
Elevation:	-8.29 mCD	End Date:	20/03/2024	Logger:	MS/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
								Very soft black organic SILT.		
0.50	ES1	Marine Scotland Sample	0.50	0.00						
0.50	ES4	RAD Composite								
0.50	ES5	ENV Composite								
0.50 - 0.90	B6				-9.19	0.90				
0.50 - 0.95	SPT (S)	N=0 (0,0/0,0,0,0) Hammer SN = 1398						Loose brownish grey slightly silty fine to medium SAND.		
0.90 - 2.00	B7									
1.90	ES2	Marine Scotland Sample								
2.00	D38		2.00	0.00						
2.00 - 2.50	B8									
2.00 - 2.45	SPT (S)	N=6 (1,2/1,2,1,2) Hammer SN = 1398			-10.79	2.50				
2.50 - 3.00	B9							Dark reddish brown slightly gravelly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to medium of various lithologies.		
3.00 - 3.50	B10				-11.29	3.00		Soft reddish brown CLAY.		
3.50	D39		3.50	0.00	-11.79	3.50				
3.50 - 4.30	B11							Very soft grey slightly gravelly sandy clayey SILT. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium of various lithologies.		
3.50 - 3.95	SPT (S)	N=2 (0,1/0,0,1,1) Hammer SN = 1398								
3.70	ES3	Marine Scotland Sample								
4.30 - 5.00	B12				-12.59	4.30		Soft reddish brown CLAY.		
5.00	D40		5.00	0.00	-13.29	5.00				
5.00 - 5.75	B13							Firm grey slightly gravelly sandy clayey SILT. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of various lithologies.		
5.00 - 5.45	SPT (S)	N=9 (0,0/1,2,3,3) Hammer SN = 1398								
5.75 - 6.50	B14				-14.04	5.75		Very loose reddish brown slightly gravelly fine to coarse SAND. Gravel is subangular to subrounded of various lithologies.		
6.50	D41		6.50	0.00						
6.50 - 8.00	B15									
6.50 - 6.95	SPT (S)	N=1 (1,0/1,0,0,0) Hammer SN = 1398								
8.00	D42		8.00	0.00	-16.29	8.00				
8.00 - 8.45	UT58	Ublow=300 100% Recovery						Reddish brown slightly clayey fine to coarse SAND.		
8.00 - 9.50	B16									

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
29.00	177
35.00	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 14.50m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	21/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH03
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	29.00	218380.96 E
Rotary Coring	Fraste CRS-XL140 Duo	29.00	35.00	653305.73 N

Final Depth:	35.00 m	Start Date:	17/03/2024	Driller:	MJ/KW	Sheet 2 of 4
Elevation:	-8.29 mCD	End Date:	20/03/2024	Logger:	MS/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
9.50	D43		9.50	0.00	-17.79	9.50				
9.50 - 11.00	B17							Very stiff reddish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is angular to subangular fine to medium of various lithologies.		
9.50 - 9.81	SPT (S)	50 (25 for 109mm/50 for 205mm) Hammer SN = 1398								
11.00	D44		11.0	0.00						
11.00 - 11.45	UT59	Ublow=276 100% Recovery								
11.00 - 11.50	B18									
11.50 - 12.50	B19				-19.79	11.50		Very dense reddish brown slightly gravelly slightly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of sandstone.		
12.50	D45		12.5	0.00						
12.50 - 14.00	B20									
12.50 - 12.88	SPT (S)	50 (7,10/50 for 232mm) Hammer SN = 1398								
14.00	D46		14.0	0.00						
14.00 - 14.45	UT60	Ublow=232 100% Recovery								
14.00 - 15.00	B21									
15.00 - 15.80	B22									
15.50	D47		15.5	0.00						
15.50 - 15.86	SPT (S)	50 (10,12/50 for 205mm) Hammer SN = 1398								
15.80 - 16.70	B23				-24.09	15.80		Very dense reddish brown slightly silty fine to coarse SAND.		
16.70 - 17.00	B24				-24.99	16.70		Very dense reddish brown fine to coarse SAND.		
17.00	D48		17.0	0.00						
17.00 - 17.40	B25									
17.00 - 17.30	SPT (S)	50 (10,15/50 for 150mm) Hammer SN = 1398								
17.40 - 18.30	B26				-25.69	17.40		Reddish brown slightly gravelly slightly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to medium of various lithologies.		
18.30 - 19.10	B27				-26.59	18.30		Reddish brown slightly silty fine to coarse SAND.		
18.50	D49		18.5	0.00						
18.50 - 18.95	UT61	Ublow=316 100% Recovery								

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
29.00	177
35.00	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 14.50m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	21/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH03
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	29.00	218380.96 E
Rotary Coring	Fraste CRS-XL140 Duo	29.00	35.00	653305.73 N

Final Depth:	35.00 m	Start Date:	17/03/2024	Driller:	MJ/KW	Sheet 3 of 4
Elevation:	-8.29 mCD	End Date:	20/03/2024	Logger:	MS/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
19.10 - 20.00	B28				-27.39	19.10		Stiff brown slightly sandy CLAY with pockets of reddish brown fine to medium sand. Sand is fine to coarse.		
20.00	D50		20.0	0.00	-28.29	20.00		Very stiff brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangluar fine to medium of various lithologies.		
20.00 - 21.50	B29									
20.00 - 20.37	SPT (S)	50 (7,9/50 for 220mm) Hammer SN = 1398								
21.50	D51		21.5	0.00						
21.50 - 21.95	UT62	Ublow=186 100% Recovery								
21.50 - 23.00	B30									
23.00	D52		23.0	0.00						
23.00 - 24.35	B31									
23.00 - 23.40	SPT (S)	50 (5,9/50 for 245mm) Hammer SN = 1398								
24.35 - 25.25	B32				-32.64	24.35		Very dense reddish brown slightly gravelly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to medium of various lithologies.		
24.50	D53		24.5	0.00						
24.50 - 24.86	SPT (S)	50 (25 for 135mm/50 for 225mm) Hammer SN = 1398								
25.25 - 25.65	B33				-33.54	25.25		Stiff reddish brown slightly sandy CLAY. Sand is fine to coarse.		
25.65 - 26.50	B34				-33.94	25.65		Very dense reddish brown gravelly slightly silty fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of various lithologies.		
26.00	D54		26.0	0.00						
26.00 - 26.34	SPT (S)	50 (25 for 135mm/50 for 210mm) Hammer SN = 1398								
26.50 - 27.50	B35									
27.50	D55		27.5	0.00						
27.50 - 28.60	B36									
27.50 - 27.85	SPT (S)	50 (25 for 125mm/50 for 227mm) Hammer SN = 1398								

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
29.00	177
35.00	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 14.50m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	21/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH03
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	29.00	218380.96 E
Rotary Coring	Fraste CRS-XL140 Duo	29.00	35.00	653305.73 N

Final Depth:	35.00 m	Start Date:	17/03/2024	Driller:	MJ/KW	Sheet 4 of 4
Elevation:	-8.29 mCD	End Date:	20/03/2024	Logger:	MS/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
28.60 - 29.00	B37				-36.89	28.60		*28.50-28.60m: Bed of stiff brown slightly sandy clay. Sand is fine to coarse.* Weathered SANDSTONE/BRECCIA recovered as, reddish brown slightly sandy clayey subangular fine to coarse GRAVEL with low cobble content. (Recovered disturbed due to sonic drilling)		
					-37.29	29.00		Medium strong reddish brown and light grey well cemented CONGLOMERATE with widely spaced, thin to medium beds of medium strong reddish brown coarse grained well cemented SANDSTONE. Partially weathered: slightly reduced strength, slightly closer fracture spacing, with brown discolouration. Discontinuities: 1. 10-30 degree joints, medium spaced (90/300/420), undulating, rough, with brown staining on joint surfaces. 2. 85-90 degree joints, 29.90-30.50m, undulating, rough. with brown staining on joint surface.		
30.50		TCR 100 SCR 71 RQD 43 FI 4			-39.09	30.80		*29.50-29.60m: 100mm rounded clasts of siltstone.* Strong reddish brown and grey coarse grained well cemented pebbly SANDSTONE interbedded with strong reddish brown medium grained well cemented SANDSTONE. Partially weathered: slightly closer fracture spacing, occasional brown and yellowish brown discolouration. Discontinuities: 1. 5-30 degree joints, medium spaced (80/525/740), planar, rough, with brown staining and occasional yellowish brown staining on joint surfaces. *32.00-32.20m: 70 degree incipient joint.*		
32.00		TCR 100 SCR 100 RQD 91 FI								
33.50		TCR 100 SCR 100 RQD 82 FI 2								
35.00		TCR 100 SCR 100 RQD 78 FI			-43.29	35.00		End of Borehole at 35.00m		

Water Strikes			
Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details		Water Added	
To (m)	Diam (mm)	From (m)	To (m)
29.00	177		
35.00	150		

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 14.50m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	21/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH04
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	38.60	218475.93 E
Rotary Coring	Fraste CRS-XL140 Duo	38.60	45.50	653230.11 N

Final Depth:	45.50 m	Start Date:	02/04/2024	Driller:	AM/KW	Sheet 1 of 5
Elevation:	0.17 mCD	End Date:	03/04/2024	Logger:	LW/MS	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Light brown slightly gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to medium of various lithologies.		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 1.10	B6									
1.10	D36		1.10	0.00	-0.94	1.10				
1.10 - 1.55	SPT (S)	N=6 (1,1/2,1,1,2) Hammer SN = 1398						NO RECOVERY: Probable unrecoverable very loose non-cohesive material flushed out by drilling process.		
2.60	D37		2.60	0.00						
2.60 - 3.05	SPT (S)	N=2 (1,0/1,0,1,0) Hammer SN = 1398								
4.10	D38		4.10	0.00	-3.94	4.10				
4.10 - 5.60	B7							Very loose brown slightly gravelly fine to coarse SAND with rare shell fragments. Gravel is subangular to subrounded fine to medium of various lithologies.		
4.10 - 4.55	SPT (S)	N=1 (1,0/0,1,0,0) Hammer SN = 1398								
5.60	D39		5.60	0.00						
5.60 - 7.10	B8									
5.60 - 6.05	SPT (S)	N=2 (1,0/1,0,0,1) Hammer SN = 1398								
6.10	ES2	Marine Scotland Sample								
7.10	D40		7.10	0.00	-6.94	7.10				
7.10 - 8.60	B9							Very loose to loose greyish brown slightly gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of various lithologies.		
7.10 - 7.55	SPT (S)	N=2 (1,1/0,1,0,1) Hammer SN = 1398								
8.60	D41		8.60	0.00						
8.60 - 9.90	B10									
8.60 - 9.05	SPT (S)	N=8 (1,2/1,2,3,2) Hammer SN = 1398								

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
38.60	177
45.50	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 6.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing
No Recovery 1.10-4.10m due to very loose granular material washed away during drilling

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	05/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH04
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	38.60	218475.93 E
Rotary Coring	Fraste CRS-XL140 Duo	38.60	45.50	653230.11 N

Final Depth:	45.50 m	Start Date:	02/04/2024	Driller:	AM/KW	Sheet 2 of 5
Elevation:	0.17 mCD	End Date:	03/04/2024	Logger:	LW/MS	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
9.90 - 11.60	B11				-9.74	9.90				
10.10	D42		10.1	0.00				Medium dense greyish brown silty fine to medium SAND.		
10.10 - 10.55	SPT (S)	N=11 (2,3/3,3,2,3) Hammer SN = 1398								
11.60	D43		11.6	0.00	-11.44	11.60				
11.60 - 11.80	B12				-11.64	11.80		Very soft reddish brown very sandy CLAY. Sand is fine to medium.		
11.60 - 12.05	SPT (S)	N=0 (0,0/0,0,0,0) Hammer SN = 1398						Very loose brown very clayey fine to coarse SAND.		
11.80 - 12.55	B13									
12.20	ES3	Marine Scotland Sample								
12.55 - 13.10	B14				-12.38	12.55				
13.10	D44		13.1	0.00				Very stiff brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium of various lithologies.		
13.10 - 14.60	B15									
13.10 - 13.48	SPT (S)	50 (8,11/50 for 225mm) Hammer SN = 1398								
14.60 - 15.05	UT56	Ublow=45 100% Recovery	14.6	0.00						
14.60 - 16.10	B16									
16.10	D45		16.1	0.00						
16.10 - 17.60	B17									
16.10 - 16.42	SPT (S)	50 (10,10/50 for 170mm) Hammer SN = 1398								
17.60	D46		17.6	0.00						
17.60 - 19.10	B18									
17.60 - 17.94	SPT (S)	50 (9,9/50 for 195mm) Hammer SN = 1398								

9.5 10.0 10.5 11.0 11.5 12.0 12.5 13.0 13.5 14.0 14.5 15.0 15.5 16.0 16.5 17.0 17.5 18.0 18.5

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
38.60	177
45.50	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 6.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing
No Recovery 1.10-4.10m due to very loose granular material washed away during drilling

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	05/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH04
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	38.60	218475.93 E
Rotary Coring	Fraste CRS-XL140 Duo	38.60	45.50	653230.11 N

Final Depth:	45.50 m	Start Date:	02/04/2024	Driller:	AM/KW	Sheet 3 of 5
Elevation:	0.17 mCD	End Date:	03/04/2024	Logger:	LW/MS	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
19.10 - 19.55	UT57	Ublow=109 90% Recovery	19.2	0.00	-18.93	19.10		Reddish brown clayey fine to medium SAND.		
19.10 - 20.60	B19									
20.60	D47		20.6	0.00	-20.43	20.60		Very dense reddish brown gravelly slightly clayey fine to coarse SAND. Gravel is angular to subangular fine to medium of various lithologies.		
20.60 - 22.10	B20									
20.60 - 20.98	SPT (S)	50 (8,10/50 for 235mm) Hammer SN = 1398								
22.10 - 22.20	UT58	Ublow=100 0% Recovery	22.1	0.00						
22.10 - 23.60	B21									
23.60	D48		23.6	0.00						
23.60 - 25.10	B22									
23.60 - 23.98	SPT (S)	50 (12,11/50 for 225mm) Hammer SN = 1398								
25.10 - 25.55	UT59	Ublow=146 100% Recovery	25.1	0.00						
25.10 - 26.40	B23									
					-26.24	26.40		Very stiff brown and reddish brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular fine of various lithologies.		
26.60	D49		26.6	0.00						
26.60 - 28.10	B24									
26.60 - 26.91	SPT (S)	50 (10,14/50 for 160mm) Hammer SN = 1398								

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
38.60	177
45.50	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 6.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing
No Recovery 1.10-4.10m due to very loose granular material washed away during drilling

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	05/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH04
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	38.60	218475.93 E
Rotary Coring	Fraste CRS-XL140 Duo	38.60	45.50	653230.11 N

Final Depth:	45.50 m	Start Date:	02/04/2024	Driller:	AM/KW	Sheet 4 of 5
Elevation:	0.17 mCD	End Date:	03/04/2024	Logger:	LW/MS	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
28.10 - 28.55	UT60	Ublow=100 55% Recovery	28.1	0.00						
28.10 - 29.60	B25									
29.60	D50		29.6	0.00	-29.44	29.60		Very dense brown and reddish brown slightly clayey fine to coarse SAND.		
29.60 - 30.40	B26									
29.60 - 30.01	SPT (S)	50 (8,8/50 for 260mm) Hammer SN = 1398								
30.40 - 31.10	B27				-30.24	30.40		Very stiff brown and reddish brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular fine to medium of various lithologies.		
31.10	D51		31.1	0.00						
31.10 - 32.60	B28									
31.10 - 31.45	SPT (S)	50 (8,10/50 for 200mm) Hammer SN = 1398								
32.60	D52		32.6	0.00						
32.60 - 34.10	B29									
32.60 - 32.93	SPT (S)	50 (9,9/50 for 180mm) Hammer SN = 1398								
34.10	D53		34.1	0.00						
34.10 - 35.60	B30									
34.10 - 34.45	SPT (S)	50 (10,14/50 for 200mm) Hammer SN = 1398								
35.60	D54		35.6	0.00						
35.60 - 36.20	B31									
35.60 - 35.85	SPT (S)	50 (25 for 110mm/50 for 140mm) Hammer SN = 1398								
36.20 - 37.35	B32				-36.03	36.20		Very dense brown slightly gravelly clayey fine to medium SAND. Gravel is angular to subrounded fine of various lithologies.		
37.10	D55		37.1	0.00						

28.0 28.5 29.0 29.5 30.0 30.5 31.0 31.5 32.0 32.5 33.0 33.5 34.0 34.5 35.0 35.5 36.0 36.5 37.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
38.60	177
45.50	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 6.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing
No Recovery 1.10-4.10m due to very loose granular material washed away during drilling

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	05/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH04
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	38.60	218475.93 E
Rotary Coring	Fraste CRS-XL140 Duo	38.60	45.50	653230.11 N

Final Depth:	45.50 m	Start Date:	02/04/2024	Driller:	AM/KW	Sheet 5 of 5
Elevation:	0.17 mCD	End Date:	03/04/2024	Logger:	LW/MS	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	TCR	SCR	RQD	FI	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
37.10 - 37.28	SPT (S)	50 (25 for 75mm/50 for 100mm) Hammer SN = 1398							-37.18	37.35				
37.35 - 37.70	B33											Reddish brown gravelly slightly clayey fine to medium SAND. Gravel is subangular to subrounded fine of various lithologies.		
37.70 - 38.30	B34								-37.53	37.70		Stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium of various lithologies.		
38.30 - 38.60	B35								-38.14	38.30		Reddish brown fine to medium SAND.		
			89	89	89				-38.44	38.60		Medium strong to strong reddish brown medium grained well cemented pebbly SANDSTONE. Partially weathered: slightly reduced strength, slightly closer fracture spacing, with some sandy clay infill. Discontinuities: 1. 15-35 degree joints, medium spaced (120/490/1000), undulating, rough, rare sandy clay deposits on joint surfaces, 2. 55-75 degree joints at 40.40-40.60m, 40.70-41.00m, 41.45-41.70m and 43.00-43.25m, undulating, rough, with rare sandy clay deposits on joint surfaces.		
39.50			100	91	87									
41.00			100	82	80	3								
42.50			100	93	93									
44.00			100	100	100									
45.50									-45.34	45.50		End of Borehole at 45.50m		

Water Strikes			
Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details	
To (m)	Diam (mm)
38.60	177
45.50	150

Water Added	
From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 6.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing
No Recovery 1.10-4.10m due to very loose granular material washed away during drilling

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	05/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH05
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	34.90	218559.75 E
Rotary Coring	Fraste CRS-XL140 Duo	34.90	40.60	653295.99 N

Final Depth:	40.60 m	Start Date:	12/03/2024	Driller:	MJ+MJ/AM	Sheet 1 of 5
Elevation:	0.01 mCD	End Date:	14/03/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Very loose to loose light brown slightly gravelly silty fine to medium SAND and rare cobbles. Gravel is subangular to subrounded fine. Cobbles are angular or various lithologies.		
0.00	ES4	RAD Composit								
0.00	ES5	ENV Composite								
0.00 - 1.30	B6									
1.30 - 2.80	B7		1.30	0.00						
1.30 - 1.75	SPT (S)	N=2 (0,0/1,0,0,1) Hammer SN = 1398								
2.80 - 4.30	B8		2.80	0.00						
2.80 - 3.25	SPT (S)	N=7 (1,1/1,2,2,2) Hammer SN = 1398								
4.30 - 5.80	B9		4.30	0.00						
4.30 - 4.75	SPT (S)	N=3 (0,1/1,0,1,1) Hammer SN = 1398								
5.80 - 6.50	B10		5.80	0.00						
5.80 - 6.25	SPT (S)	N=4 (1,1/1,1,1,1) Hammer SN = 1398								
6.00	ES2	Marine Scotland Sample								
6.50 - 8.65	B11				-6.49	6.50		Loose to medium dense greyish brown silty fine to medium SAND.		
7.30	D34		7.30	0.00						
7.30 - 7.75	SPT (S)	N=10 (1,2/3,2,2,3) Hammer SN = 1398								
8.65 - 9.30	B12				-8.64	8.65		Very soft to soft greyish brown sandy silty CLAY. Sand is fie to medium.		
8.80 - 9.25	UT46	Ublow=13 100% Recovery	8.80	0.00						
9.30	D35				-9.29	9.30				

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
34.90	177
40.60	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 7.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	15/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH05
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	34.90	218559.75 E
Rotary Coring	Fraste CRS-XL140 Duo	34.90	40.60	653295.99 N

Final Depth:	40.60 m	Start Date:	12/03/2024	Driller:	MJ+MJ/AM	Sheet 2 of 5
Elevation:	0.01 mCD	End Date:	14/03/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
9.30 - 11.00	B13							Very soft light brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subrounded fine to medium of various lithologies.		
10.30	D36		10.3	0.00						
10.30 - 10.75	SPT (S)	N=5 (0,0/1,1,1,2) Hammer SN = 1398								
11.00 - 12.40	B14				-10.99	11.00		Loose to medium dense reddish brown fine to medium SAND.		
11.80 - 12.25	UT47	Ublow=42 100% Recovery	11.8	0.00						
12.00	ES3	Marine Scotland Sample								
12.40 - 13.70	B15									
13.30	D37		13.3	0.00						
13.30 - 13.75	SPT (S)	N=10 (1,1/2,2,3,3) Hammer SN = 1398								
13.70 - 14.90	B16				-13.69	13.70		Reddish brown silty fine to medium SAND.		
14.80 - 15.25	UT48	Ublow=120 100% Recovery	14.8	0.00						
14.90 - 16.30	B17				-14.89	14.90		Dense to very dense reddish brown slightly gravelly occasionally clayey fine to coarse SAND with rare thin beds of sandy clayey gravel. Gravel is subangular to subrounded fine to medium of various lithologies.		
16.30	D38		16.3	0.00						
16.30 - 17.80	B18									
16.30 - 16.74	SPT (S)	50 (4,4/50 for 285mm) Hammer SN = 1398								
17.80 - 18.25	UT49	Ublow=172 100% Recovery	17.8	0.00						
17.80 - 19.30	B19									

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
34.90	177
40.60	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 7.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	15/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH05
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	34.90	218559.75 E
Rotary Coring	Fraste CRS-XL140 Duo	34.90	40.60	653295.99 N

Final Depth:	40.60 m	Start Date:	12/03/2024	Driller:	MJ+MJ/AM	Sheet 3 of 5
Elevation:	0.01 mCD	End Date:	14/03/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
19.30	D39		19.3	0.00						
19.30 - 20.80	B20									
19.30 - 19.75	SPT (S)	N=45 (4,6/6,7,15,17) Hammer SN = 1398								
20.80 - 21.25	UT50	Ublow=149 100% Recovery	20.8	0.00						
20.80 - 22.30	B21									
22.30	D40		22.3	0.00						
22.30 - 24.20	B22									
22.30 - 22.75	SPT (S)	N=38 (3,4/6,6,9,17) Hammer SN = 1398								
23.80 - 24.25	UT51	Ublow=179 100% Recovery	23.8	0.00						
24.20 - 25.30	B23				-24.19	24.20		Very stiff brown slightly gravelly CLAY. Gravel is subangular to subrounded fine to medium of various lithologies.		
25.30	D41		25.3	0.00						
25.30 - 26.80	B24									
25.30 - 25.74	SPT (S)	50 (6,7/50 for 290mm) Hammer SN = 1398								
26.80 - 27.25	UT52	Ublow=190 100% Recovery	26.8	0.00						
26.80 - 27.65	B25									
27.65 - 28.40	B26				-27.64	27.65		Very stiff brown slightly sandy CLAY. Sand is fine to medium.		

19.0 19.5 20.0 20.5 21.0 21.5 22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
34.90	177
40.60	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 7.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	15/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH05
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	34.90	218559.75 E
Rotary Coring	Fraste CRS-XL140 Duo	34.90	40.60	653295.99 N

Final Depth:	40.60 m	Start Date:	12/03/2024	Driller:	MJ+MJ/AM	Sheet 4 of 5
Elevation:	0.01 mCD	End Date:	14/03/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
28.30	D42		28.3	0.00						
28.30 - 28.74	SPT (S)	50 (4,5/50 for 285mm) Hammer SN = 1398			-28.39	28.40		Very dense brown silty fine to medium SAND.		
28.40 - 28.90	B27									
28.90 - 30.10	B28				-28.89	28.90		Firm to stiff brown mottled grey sandy CLAY. Sand is fine.		
29.80 - 30.25	UT53	Ublow=100 100% Recovery	29.8	0.00						
30.10 - 31.30	B29							*31.00-31.20m: band of gravelly sandy CLAY.*		
31.30	D43		31.3	0.00	-31.29	31.30				
31.30 - 31.90	B30							Very stiff brown sandy CLAY. Sand is fine to medium		
31.30 - 31.75	SPT (S)	N=46 (6,8/7,9,15,15) Hammer SN = 1398								
31.90 - 33.70	B31				-31.89	31.90		Very stiff brown CLAY with occasional lenses of reddish grey fine sand.		
32.80	D44		32.8	0.00						
32.80 - 33.25	SPT (S)	N=43 (4,6/9,12,10,12) Hammer SN = 1398								
33.70 - 34.20	B32				-33.69	33.70		Brown very gravelly fine to coarse SAND. Gravel is angular to subrounded fine to coarse of various lithologies.		
					-34.19	34.20		Very stiff reddish brown mottled grey CLAY with pockets of grey fine to medium sand.		
34.30	D45		34.3	0.00	-34.29	34.30		POSSIBLE WEATHERED BEDROCK; recovered as reddish brown mottled grey sandy angular to subangular fine to medium GRAVEL of sandstone with low cobble content. Sand is fine to coarse. Cobbles are subangular of sandstone.		
34.30 - 34.90	B33									
34.30 - 34.72	SPT (S)	50 (5,8/50 for 265mm) Hammer SN = 1398								
					-35.09	35.10		SANDSTONE BEDROCK (Detailed description to follow)		
		100								
36.10		100								

TCR	SCR	RQD	FI

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
34.90	177
40.60	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 7.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	15/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH05
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	34.90	218559.75 E
Rotary Coring	Fraste CRS-XL140 Duo	34.90	40.60	653295.99 N

Final Depth:	40.60 m	Start Date:	12/03/2024	Driller:	MJ+MJ/AM	Sheet 5 of 5
Elevation:	0.01 mCD	End Date:	14/03/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Samples / Field Records	TCR	SCR	RQD	FI	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
37.60													
		100											
39.10													
		90											
40.60								-40.59	40.60		End of Borehole at 40.60m		
		TCR	SCR	RQD	FI								

37.5 38.0 38.5 39.0 39.5 40.0 40.5 41.0 41.5 42.0 42.5 43.0 43.5 44.0 44.5 45.0 45.5 46.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
34.90	177
40.60	150

Water Added

From (m)	To (m)

Chiselling Details

From (m)	To (m)	Time (hh:mm)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 7.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	15/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH06
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	33.80	218651.43 E
Rotary Coring	Fraste CRS-XL140 Duo	33.80	39.80	653363.70 N

Final Depth:	Start Date:	Driller:	Sheet 1 of 5
39.80 m	09/03/2024	AM/MJ	Scale: 1:50
Elevation: -0.13 mCD	**End Date:** 12/03/2024	**Logger:** LW/OG	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00 - 0.45	SPT (S)	N=4 (1,1/1,1,1,1) Hammer SN = 1398	0.00	0.00				NO RECOVERY: Probably very loose to loose silty fine SAND washed away during drilling.		
0.80 - 1.25	SPT (S)	N=3 (0,0/1,1,0,1) Hammer SN = 1398	0.80	0.00						
2.30	D32		2.30	0.00	-2.43	2.30		Loose brown silty fine to medium SAND.		
2.30	ES1	Marine Scotland Sample								
2.30	ES4	RAD Composite								
2.30	ES5	ENV Composite								
2.30 - 3.80	B6									
2.30 - 2.75	SPT (S)	N=10 (1,1/2,2,3,3) Hammer SN = 1398								
3.80	D33		3.80	0.00	-3.93	3.80		Medium dense brown fine to coarse SAND.		
3.80 - 4.00	B7				-4.13	4.00		Medium dense greyish black fine to coarse SAND.		
3.80 - 4.25	SPT (S)	N=10 (1,2/2,2,3,3) Hammer SN = 1398								
4.00 - 5.20	B8									
5.20 - 6.70	B9				-5.33	5.20		Medium dense reddish brown silty fine to medium SAND with occasional pockets of clay. *5.20-5.30m: Bed of stiff reddish brown CLAY.*		
5.30	D34		5.30	0.00						
5.30 - 5.75	SPT (S)	N=19 (1,2/4,4,4,7) Hammer SN = 1398								
5.94	ES2	Marine Scotland Sample								
6.70 - 7.90	B10				-6.83	6.70		Soft to firm reddish brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium of various lithologies.		
6.80	UT51	Ublow=84 100% Recovery	6.80	0.00						
7.90 - 9.05	B11				-8.03	7.90		Dense brown gravelly silty fine to coarse SAND with low cobble content. Gravel is subanglar to subrounded fine to coarse of various lithologies. Cobbles are subangular of sandstone.		
8.30	D35		8.30	0.00						
8.30 - 8.60	SPT (S)	50 (10,10/50 for 155mm) Hammer SN = 1398								
9.05 - 9.35	B12				-9.18	9.05		Brown sandy clayey subangular to subrounded fine to coarse GRAVEL of various lithologies. Sand is fine to coarse.		

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
33.80	177
39.80	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 6.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	13/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH06
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	33.80	218651.43 E
Rotary Coring	Fraste CRS-XL140 Duo	33.80	39.80	653363.70 N

Final Depth:	39.80 m	Start Date:	09/03/2024	Driller:	AM/MJ	Sheet 2 of 5
Elevation:	-0.13 mCD	End Date:	12/03/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
9.35 - 9.90	B13				-9.48	9.35		Brown slightly gravelly silty fine to coarse SAND with low cobble content. Gravel is subangular to subrounded fine to coarse of various lithologies. Cobbles are subangular of various lithologies.		
9.80	D36		9.80	0.00						
9.80 - 10.25	SPT (S)	N=43 (3,3/9,9,12,13) Hammer SN = 1398			-10.03	9.90		Very stiff brown slightly gravelly very sandy CLAY with rare (100 -150mm) gravelly sand lenses. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of various lithologies..		
9.90 - 11.30	B14									
11.30	D37		11.3	0.00						
11.30 - 12.80	B15									
11.30 - 11.61	SPT (S)	50 (10,10/50 for 157mm) Hammer SN = 1398								
11.87	ES3	Marine Scotland Sample								
12.80	D38		12.8	0.00						
12.80 - 14.30	B16									
12.80 - 13.25	SPT (S)	N=50 (4,7/12,14,17,7) Hammer SN = 1398								
14.30	D39		14.3	0.00						
14.30 - 15.45	B17									
14.30 - 14.75	SPT (S)	N=41 (1,3/4,12,12,13) Hammer SN = 1398								
15.45 - 16.50	B18				-15.58	15.45		Very dense brown slightly silty fine to medium SAND.		
15.80	D40		15.8	0.00						
15.80 - 16.25	SPT (S)	N=59 (4,7/12,14,17,16) Hammer SN = 1398								
16.50 - 17.30	B19				-16.63	16.50		Firm brown sandy silty CLAY. Sand is fine to medium.		
17.20 - 17.70	D41									
17.30	D42		17.3	0.00	-17.43	17.30		Very dense brown silty fine to medium SAND.		
17.30 - 18.80	B20									
17.30 - 17.68	SPT (S)	50 (5,15/50 for 235mm) Hammer SN = 1398								

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
33.80	177
39.80	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 6.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	13/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH06
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	33.80	218651.43 E
Rotary Coring	Fraste CRS-XL140 Duo	33.80	39.80	653363.70 N

Final Depth:	39.80 m	Start Date:	09/03/2024	Driller:	AM/MJ	Sheet 3 of 5
Elevation:	-0.13 mCD	End Date:	12/03/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
18.80	D43		18.8	0.00						
18.80 - 20.30	B21									
18.80 - 19.25	SPT (S)	N=62 (5,16/15,16,16,15) Hammer SN = 1398								
					-19.63	19.50		Stiff brown sandy silty CLAY. Sand is fine to medium		
					-20.18	20.05		Firm brown slightly sandy CLAY. Sand is fine to medium. *20.06-20.10m: Sandstone cobble.*		
20.30 - 20.50	D44		20.3	0.00	-20.43	20.30		Very stiff brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium of various lithologies.		
20.30 - 20.55	UT52	Ublow=24 50% Recovery								
20.30 - 22.10	B22									
21.80 - 22.25	SPT (C)	N=66 (10,15/16,17,17,16) Hammer SN = 1398	21.8	0.00						
22.10 - 22.90	B23				-22.23	22.10		Very dense light brown fine to coarse SAND		
22.90 - 24.40	B24				-23.03	22.90		Stiff brown slightly sandy CLAY. Sand is fine to medium.		
23.30 - 23.55	UT53	Ublow=52 50% Recovery	23.3	0.00						
24.40 - 26.30	B25				-24.53	24.40		Very dense reddish brown fine to medium SAND with occasional lenses (50-90mm) of very silty sand and clay.		
24.80	D45		24.8	0.00						
24.80 - 25.25	SPT (S)	N=68 (7,15/17,17,18,16) Hammer SN = 1398								
26.30	D46		26.3	0.00						
26.30 - 27.80	B26									
26.30 - 26.75	SPT (S)	N=73 (6,16/17,19,19,18) Hammer SN = 1398								
27.80	D47		27.8	0.00						
27.80 - 29.80	B27									

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
33.80	177
39.80	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 6.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	13/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH06
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	33.80	218651.43 E
Rotary Coring	Fraste CRS-XL140 Duo	33.80	39.80	653363.70 N

Final Depth:	39.80 m	Start Date:	09/03/2024	Driller:	AM/MJ	Sheet 4 of 5
Elevation:	-0.13 mCD	End Date:	12/03/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
27.80 - 28.25	SPT (S)	N=60 (8,15/15,16,14,15) Hammer SN = 1398								
29.30	D48		29.3	0.00						
29.30 - 29.75	SPT (S)	N=57 (7,14/14,13,15,15) Hammer SN = 1398								
29.80 - 30.50	B28				-29.93	29.80		Brown silty fine to medium SAND.		
30.50 - 31.90	B29				-30.63	30.50		Very dense reddish brown slightly gravelly fine to coarse SAND. Gravel is angular to subangular fine to medium of sandstone.		
30.80	D49		30.8	0.00						
30.80 - 31.16	SPT (S)	100 (9,16/100 for 215mm) Hammer SN = 1398								
31.90 - 33.20	B30				-32.03	31.90		Very dense reddish brown gravelly fine to coarse SAND. Gravel is angular to subangular fine to medium of sandstone.		
32.30	D50		32.3	0.00						
32.30 - 32.62	SPT (S)	100 (25 for 135mm/100 for 180mm) Hammer SN = 1398								
33.20 - 33.80	B31				-33.33	33.20		Extremely weak reddish brown SANDSTONE Destructured: recovered as reddish brown sandy very angular to angular fine to coarse GRAVEL.		
					-33.93	33.80		Strong reddish brown speckled white well cemented pebbly SANDSTONE with widely spaced medium beds of strong reddish brown fine grained well cemented SANDSTONE. Partially weathered. Discontinuities: 1. 5-15 degree joints, medium spaced (210/565/620), planar, rough and smooth, clean.		
35.30		TCR 100, SCR 100, RQD 100, FI 2								
					-35.63	35.50		Strong light reddish brown speckled white well cemented CONGLOMERATE. Partially weathered: occasional brown clay infill. Discontinuities: 1. 10 degree bedding fractures at 35.95m and 36.20m, planar, smooth, clean. 2. 60-65 degree joint at 35.85-35.80m, planar, rough, clean. 3. 75-85 degree joint at 36.60-36.80m, undulating, rough, clean.		
36.80		TCR 100, SCR 98, RQD 98, FI 2								
								37.10-37.25m: Incipient 65 degree joint.		

28.0 28.5 29.0 29.5 30.0 30.5 31.0 31.5 32.0 32.5 33.0 33.5 34.0 34.5 35.0 35.5 36.0 36.5 37.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
33.80	177
39.80	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 6.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	13/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH06
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	33.80	218651.43 E
Rotary Coring	Fraste CRS-XL140 Duo	33.80	39.80	653363.70 N

Final Depth:	39.80 m	Start Date:	09/03/2024	Driller:	AM/MJ	Sheet 5 of 5
Elevation:	-0.13 mCD	End Date:	12/03/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Samples / Field Records	TCR	SCR	RQD	FI	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
		100	90	88				-37.33	37.20		Strong thinly bedded reddish brown medium grained well cemented SANDSTONE with occasional pebbles. Partially weathered: slightly closer fracture spacing. Discontinuities: 1. 20-25 degree joints at 38.80-38.90m and 39.20-39.30m, planar, smooth, clean. 2. 60 degree joint at 39.50-39.60m, undulating, rough, clean. *37.50-37.85m: Bed of medium strong reddish brown fine grained moderately cemented sandstone.*		
38.30		100	94	85	2								
39.80								-39.93	39.80		End of Borehole at 39.80m		
		TCR	SCR	RQD	FI								

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Chiselling Details

From (m)	To (m)	Time (hh:mm)

Casing Details

To (m)	Diam (mm)
33.80	177
39.80	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 6.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	13/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH10
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet / Scale
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	4.50	218363.77 E 653424.61 N	4.50 m	14/03/2024	MJ	Sheet 1 of 1 Scale: 1:50
					Elevation: -8.45 mCD	End Date: 14/03/2024	Logger: OG	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Grey mottled black silty fine to medium SAND with rare shell fragments. [organic odour]		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 1.50	B6									
1.50 - 3.00	B7									
1.80	ES2	Marine Scotland Sample								
					-11.24	2.80		Brown mottled dark grey fine to coarse SAND.		
3.00 - 4.50	B8									
3.50	ES3	Marine Scotland Sample			-11.94	3.50		Very soft light grey mottled brown very sandy silty CLAY. Sand is fine to medium.		
					-12.94	4.50		End of Borehole at 4.50m		

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
4.50	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 11.90m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	19/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH12
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet 1 of 1
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	4.50	218434.56 E 653476.60 N	3.00 m	14/03/2024	MJ	Scale: 1:50
					Elevation: -8.98 mCD	End Date: 15/03/2024	Logger: OG	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Grey silty fine to medium SAND. [Organic odour]		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 1.50	B6									
					-9.88	0.90		Light brown fine to coarse SAND, predominantly fine to medium.		
1.50	ES2	Marine Scotland Sample								
1.50 - 3.00	B7									
3.00	ES3	Marine Scotland Sample			-11.98	3.00		End of Borehole at 3.00m		

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
4.50	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 13.50m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	19/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH13A
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	6.40	218510.05 E 653421.04 N

Final Depth:	6.40 m	Start Date:	08/03/2024	Driller:	AM	Sheet 1 of 1 Scale: 1:50
Elevation:	-7.59 mCD	End Date:	08/03/2024	Logger:	LW	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample			-7.69	0.10		Very soft black sandy SILT. Sand is fine to medium.		
0.00	ES4	RAD Composite						Brownish grey fine to coarse SAND.		
0.00	ES5	ENV Composite								
0.00 - 0.40	SB6									
0.40 - 1.90	SB7									
1.90 - 3.40	SB8				-9.49	1.90		Brownish grey slightly gravelly silty fine to medium SAND. Gravel is subangular to subrounded fine to coarse of various lithologies.		
2.40	ES2	Marine Scotland Sample								
					-10.39	2.80		Stiff reddish brown slightly sandy CLAY. Sand is fine to coarse.		
3.40 - 4.90	SB9				-10.89	3.30		Reddish brown slightly silty fine to medium SAND with occasional pockets of clay.		
4.80	ES3	Marine Scotland Sample								
4.90 - 6.40	SB10									
					-13.69	6.10		Dark reddish brown slightly gravelly fine to medium SAND. Gravel is angular to subrounded fine to coarse of various lithologies.		
					-13.99	6.40		End of Borehole at 6.40m		

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
6.40	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 11.70m
All elevations and reduced levels given in Chart Datum

Second attempted jacking location due to large boulder kicking casing off the vertical on first set-up
Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	11/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH14
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet / Scale
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	4.50	218239.75 E 653386.10 N	4.50 m	17/03/2024	AM	Sheet 1 of 1 Scale: 1:50
					Elevation: -7.81 mCD	End Date: 17/03/2024	Logger: LW	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Brownish grey fine to medium SAND.		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 1.50	B									
					-8.81	1.00		Brownish grey slightly silty fine to medium SAND.		
1.50 - 3.00	B				-9.31	1.50		Brownish grey fine to medium SAND with low cobble content. Cobbles are subangular to subrounded of various lithologies.		
2.10	ES2	Marine Scotland Sample								
3.00 - 4.50	B									
4.20	ES3	Marine Scotland Sample								
								At 4.40m: 150 x 70mm subangular cobble.		
					-12.31	4.50		End of Borehole at 4.50m		

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
4.50	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 12.50m
All elevations and reduced levels given in Chart Datum

Second attempted jacking location due to large boulder kicking casing off the vertical on first set-up
Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	19/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH15
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet 1 of 1
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	3.00	218462.22 E 653577.41 N	3.00 m	15/03/2024	MJ	Scale: 1:50
					Elevation: -9.20 mCD	End Date: 15/03/2024	Logger: OG	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Very soft grey very sandy silty CLAY with lenses of sand (20-30mm) throughout. Sand is fine to medium.		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 1.50	B6									
1.40	ES2	Marine Scotland Sample			-10.60	1.40		Soft light brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium.		
1.50 - 3.00	B7									
					-11.30	2.10		Light brown slightly silty fine to medium SAND.		
2.80	ES3	Marine Scotland Sample								
					-12.20	3.00		End of Borehole at 3.00m		

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
3.00	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 13.30m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	19/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH16
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet 1 of 1
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	9.00	218139.73 E 653345.29 N	9.00 m	16/03/2024	MJ	Scale: 1:50
					Elevation: -4.40 mCD	End Date: 16/03/2024	Logger: OG	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Grey becoming brown fine to coarse SAND with frequent shell fragments.		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 1.50	B6									
1.50 - 3.00	B7									
					-6.90	2.50		Soft to firm brown slightly gravelly very sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium.		
3.00 - 4.50	B8									
					-7.70	3.30		Reddish brown fine to medium SAND.		
3.80	ES2	Marine Scotland Sample								
4.50 - 6.00	B9									
6.00 - 7.50	B10									
7.50 - 9.00	B11									
7.60	ES3	Marine Scotland Sample								
					-13.05	8.65		Soft brown sandy CLAY. Sand is fine to medium.		
					-13.40	9.00		End of Borehole at 9.00m		

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
9.00	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 9.00m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	19/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH17
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet / Scale
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	3.70	218311.93 E 653469.02 N	3.70 m	15/03/2024	AM	Sheet 1 of 1 Scale: 1:50
					Elevation: -10.12 mCD	End Date: 15/03/2024	Logger: LW	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Brownish grey slightly silty fine to medium SAND.		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 0.70	B6									
0.70 - 2.20	B7									
0.90	ES2	Marine Scotland Sample			-11.02	0.90		Brownish grey fine to coarse SAND.		
1.90	ES3	Marine Scotland Sample								
2.20 - 3.70	B8									
					-13.82	3.70		End of Borehole at 3.70m		

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
3.70	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 15.50m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	19/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH18
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet / Scale
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	3.00	218189.09 E 653471.97 N	3.00 m	15/03/2024	AM	Sheet 1 of 1 Scale: 1:50
					Elevation: -13.21 mCD	End Date: 15/03/2024	Logger: OG	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample								
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 1.50	B6									
0.60	ES2	Marine Scotland Sample								
					-14.21	1.00		Grey SILT.		
1.20	ES3	Marine Scotland Sample						Reddish brown fine to coarse SAND.		
1.50 - 3.00	B7									
					-16.21	3.00		End of Borehole at 3.00m		

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
3.00	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 17.80m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	19/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH19
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet 1 of 1
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	3.00	218045.52 E 653478.25 N	3.00 m	16/03/2024	MJ	Scale: 1:50
					Elevation: -9.81 mCD	End Date: 16/03/2024	Logger: OG	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Light brown fine to coarse SAND with occasional shell fragments.		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 1.50	B6									
1.10	ES2	Marine Scotland Sample								
1.50 - 3.00	B7									
2.10	ES3	Marine Scotland Sample								
					-12.81	3.00		End of Borehole at 3.00m		

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
3.00	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 13.30m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	19/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH20
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet 1 of 1
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	4.50	218306.23 E 653354.94 N	4.50 m	17/03/2024	MJ	Scale: 1:50
					Elevation: -8.62 mCD	End Date: 17/03/2024	Logger: OG	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Grey slightly gravelly silty fine to coarse SAND with frequent shell fragments. Gravel is angular to rounded fine to coarse of various lithologies.		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 1.50	B6									
1.50 - 3.00	B7				-10.12	1.50		Grey slightly clayey fine to coarse SAND with occasional (20-40mm) lenses of clay and occasional shell fragments.		
1.70	ES2	Marine Scotland Sample						2.60-2.70m: Bed of gravelly clay.		
3.00 - 4.50	B8									
3.30	ES3	Marine Scotland Sample								
					-12.92	4.30		Soft grey mottled brown CLAY.		
					-13.12	4.50		End of Borehole at 4.50m		

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
4.50	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 13.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	19/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH21
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	3.00	217966.79 E 653346.67 N

Final Depth:	3.00 m	**Start Date:**	16/03/2024	**Driller:**	AM	Sheet 1 of 1	Scale: 1:50
Elevation:	-6.60 mCD	**End Date:**	16/03/2024	**Logger:**	LW	DRAFT	

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Greyish brown fine to medium SAND.		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 1.50	B6									
1.50	ES2	Marine Scotland Sample								
1.50 - 3.00	B7									
3.00	ES3	Marine Scotland Sample			-9.60	3.00		End of Borehole at 3.00m		

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
3.00	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 11.70m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	19/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH21A
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	6.00	217968.06 E 653345.84 N

Final Depth:	6.00 m	**Start Date:**	30/03/2024	**Driller:**	AM	Sheet 1 of 1	Scale: 1:50
Elevation:	-6.38 mCD	**End Date:**	30/03/2024	**Logger:**	MS	DRAFT	

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Reddish brown slightly silty fine to medium SAND with frequent shell fragments.		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 1.50	B6									
					-7.38	1.00				
								Reddish brown slightly gravelly slightly silty fine to coarse SAND. Gravel is angular fine to medium of various lithologies.		
1.50 - 3.00	B7									
2.80	ES2	Marine Scotland Sample								
3.00 - 4.50	B8									
4.50 - 6.00	B9									
5.60	ES3	Marine Scotland Sample								
					-12.38	6.00		End of Borehole at 6.00m		

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
6.00	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 11.50m
All elevations and reduced levels given in Chart Datum

Re-drill at BH21 due to insufficient depth of sampling during initial visit
Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	02/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH22
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet 1 of 1
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	9.00	218037.76 E 653269.30 N	9.00 m	16/03/2024	MJ	Scale: 1:50
					Elevation: -4.41 mCD	End Date: 16/03/2024	Logger: OG	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Orangish brown gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of various lithologies.		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 1.50	B6									
1.50 - 3.00	B7									
3.00 - 4.50	B8									
3.80	ES2	Marine Scotland Sample								
4.50 - 6.00	B9									
6.00 - 7.50	B10									
7.50	ES3	Marine Scotland Sample			-11.81	7.40		Soft to firm reddish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of various lithologies.		
7.50 - 9.00	B11									
					-13.41	9.00		End of Borehole at 9.00m		

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
9.00	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 9.00m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	19/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH23
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	31.90	218189.09 E
Rotary Coring	Fraste CRS-XL140 Duo	31.90	39.40	653184.43 N

Final Depth:	39.40 m	Start Date:	27/03/2024	Driller:	MJ/AM	Sheet 1 of 5
Elevation:	-4.11 mCD	End Date:	29/03/2024	Logger:	LW/MS	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
								Very loose reddish brown slightly silty fine to coarse SAND.		
0.40	ES1	Marine Scotland Sample								
0.40	ES4	RAD Composite								
0.40	ES5	ENV Composite								
0.40 - 1.90	B6									
1.90	D32		1.90	0.00						
1.90 - 3.40	B7									
1.90 - 2.35	SPT (S)	N=2 (0,1/0,1,1,0) Hammer SN = 1398								
3.40	D33		3.40	0.00	-7.51	3.40				
3.40 - 4.90	B8							LOW RECOVERY: Very loose to medium dense reddish brown clayey fine to medium SAND.		
3.40 - 3.85	SPT (S)	N=15 (1,4/3,4,4,4) Hammer SN = 1398								
4.00	ES2	Marine Scotland Sample								
4.90	D34		4.90	0.00						
4.90 - 5.80	B9									
4.90 - 5.35	SPT (S)	N=3 (1,0/1,1,0,1) Hammer SN = 1398								
5.80 - 6.40	B10				-9.91	5.80		Very loose to loose reddish brown slightly silty fine to medium SAND.		
6.40 - 7.90	B11		6.40	0.00						
6.40 - 6.85	SPT (S)	N=3 (1,1/0,1,1,1) Hammer SN = 1398								
7.90	D35		7.90	0.00						
7.90	ES3	Marine Scotland Sample								
7.90 - 9.20	B12									
7.90 - 8.35	SPT (S)	N=6 (1,2/1,2,2,1) Hammer SN = 1398								
9.20 - 9.40	B13				-13.31	9.20		Stiff brown slightly sandy CLAY. Sand is fine to medium		

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
31.90	177
39.40	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 10.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	02/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH23
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	31.90	218189.09 E
Rotary Coring	Fraste CRS-XL140 Duo	31.90	39.40	653184.43 N

Final Depth:	39.40 m	Start Date:	27/03/2024	Driller:	MJ/AM	Sheet 2 of 5
Elevation:	-4.11 mCD	End Date:	29/03/2024	Logger:	LW/MS	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
9.40	D36		9.40	0.00	-13.51	9.40		Medium dense to dense reddish brown slightly silty fine to coarse SAND.		
9.40 - 10.90	B14									
9.40 - 9.85	UT51	Ublow=100 75% Recovery								
10.90	D37		10.9	0.00						
10.90 - 12.40	B15									
10.90 - 11.35	SPT (S)	N=49 (7,13/18,12,10,9) Hammer SN = 1398								
12.40	D38		12.4	0.00						
12.40 - 13.90	B16									
12.40 - 12.85	SPT (S)	N=10 (3,2/1,1,3,5) Hammer SN = 1398								
13.90	D39		13.9	0.00						
13.90 - 15.40	B17									
13.90 - 14.35	SPT (S)	N=37 (4,4/5,7,11,14) Hammer SN = 1398								
15.40	D40		15.4	0.00						
15.40 - 16.90	B18									
15.40 - 15.85	SPT (S)	N=36 (4,6/7,7,9,13) Hammer SN = 1398								
16.90	D41		16.9	0.00	-21.01	16.90		Dense reddish brown slightly silty fine to coarse SAND.		
16.90 - 18.40	B19									
16.90 - 17.35	SPT (S)	N=37 (5,6/7,8,10,12) Hammer SN = 1398								
18.40	D42		18.4	0.00						
18.40 - 19.90	B20									

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
31.90	177
39.40	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 10.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	02/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH23
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	31.90	218189.09 E
Rotary Coring	Fraste CRS-XL140 Duo	31.90	39.40	653184.43 N

Final Depth:	39.40 m	Start Date:	27/03/2024	Driller:	MJ/AM	Sheet 3 of 5
Elevation:	-4.11 mCD	End Date:	29/03/2024	Logger:	LW/MS	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
18.40 - 18.85	SPT (S)	N=35 (5,7/6,9,9,11) Hammer SN = 1398								
19.90	D43		19.9	0.00						
19.90 - 21.40	B21									
19.90 - 20.35	SPT (S)	N=33 (6,6/6,8,10,9) Hammer SN = 1398								
21.40	D44		21.4	0.00						
21.40 - 22.90	B22									
21.40 - 21.85	SPT (S)	N=35 (4,5/6,9,9,11) Hammer SN = 1398								
22.90	D45		22.9	0.00						
22.90 - 24.00	B23									
22.90 - 23.35	SPT (S)	N=44 (5,7/9,10,12,13) Hammer SN = 1398								
24.00 - 24.90	B24				-28.11	24.00		Very dense brown and reddish brown slightly silty fine to coarse SAND.		
24.40	D46		24.4	0.00						
24.40 - 24.84	SPT (S)	50 (8,10/50 for 285mm) Hammer SN = 1398								
24.90 - 25.90	B25									
25.90	D47		25.9	0.00						
25.90 - 27.00	B26									
25.90 - 26.32	SPT (S)	50 (9,11/50 for 270mm) Hammer SN = 1398								
27.00 - 28.00	B27				-31.11	27.00		Very dense brown clayey fine to medium SAND.		
27.40	D48		27.4	0.00						
27.40 - 27.80	SPT (S)	50 (9,14/50 for 245mm) Hammer SN = 1398								

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
31.90	177
39.40	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 10.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	02/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH23
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	31.90	218189.09 E
Rotary Coring	Fraste CRS-XL140 Duo	31.90	39.40	653184.43 N

Final Depth:	39.40 m	Start Date:	27/03/2024	Driller:	MJ/AM	Sheet 4 of 5 Scale: 1:50
Elevation:	-4.11 mCD	End Date:	29/03/2024	Logger:	LW/MS	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
28.00 - 28.90	B28									
28.90	D49		28.9	0.00	-33.01	28.90		Very stiff brown CLAY.		
28.90 - 30.40	B29									
28.90 - 29.35	SPT (S)	N=37 (5,8/9,8,10,10) Hammer SN = 1398								
30.40	D50		30.4	0.00						
30.40 - 31.30	B30									
30.40 - 30.80	SPT (S)	50 (10,15/50 for 245mm) Hammer SN = 1398								
31.30 - 31.90	B31				-35.41	31.30		Weathered SANDSTONE recovered as, reddish brown sandy clayey angular to subangular fine to coarse GRAVEL. (Disturbed due to sonic drilling)		
					-36.01	31.90		Extremely weak reddish brown fine grained poorly cemented SANDSTONE. Partially weathered: highly reduced strength, with grey discolouration.		
					-36.41	32.30		No discernible discontinuity sets. Medium strong reddish brown and light grey coarse grained well cemented pebbly SANDSTONE. Partially weathered: slightly reduced strength, with grey discolouration.		
33.40					-37.51	33.40		Discontinuities: 1. 5-15 degree joints at 32.50m and 33.25m, undulating, rough, with soft clay deposits on joint surfaces. Medium strong reddish brown and light grey well cemented CONGLOMERATE. Partially weathered: slightly reduced strength, slightly closer fracture spacing.		
34.90								Discontinuities: 1. 5-20 degree joints, widely spaced (170/900/1620), planar, rough, clean.		
36.40										

	TCR	SCR	RQD	FI
0				
2	100	60	60	
1	100	100	100	
	100	95	77	
	87	80	80	

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
31.90	177
39.40	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 10.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	02/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH23
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	31.90	218189.09 E
Rotary Coring	Fraste CRS-XL140 Duo	31.90	39.40	653184.43 N

Final Depth:	39.40 m	Start Date:	27/03/2024	Driller:	MJ/AM	Sheet 5 of 5
Elevation:	-4.11 mCD	End Date:	29/03/2024	Logger:	LW/MS	Scale: 1:50
						DRAFT

Depth (m)	Samples / Field Records	TCR	SCR	RQD	FI	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
37.90								-42.01	37.90				
		100	95	90	3						Medium strong reddish brown medium grained well cemented SANDSTONE. Partially weathered: slightly reduced strength, slightly closer fracture spacing, with occasional grey discolouration. Discontinuities: 1. 5-20 degree joints, medium spaced (40/375/750), planar, rough, with gravel infill between joint surfaces.		
39.40								-43.51	39.40		End of Borehole at 39.40m		
		TCR	SCR	RQD	FI								

37.5 38.0 38.5 39.0 39.5 40.0 40.5 41.0 41.5 42.0 42.5 43.0 43.5 44.0 44.5 45.0 45.5 46.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Chiselling Details

From (m)	To (m)	Time (hh:mm)

Casing Details

To (m)	Diam (mm)
31.90	177
39.40	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 10.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	02/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Hunterston Marine Yard	Borehole ID
23-1739	Client:	Peel Ports Limited	BH24
	Client's Rep:	Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet 1 of 2
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	10.50	218178.24 E 653092.15 N	10.50 m	30/03/2024	AM	Scale: 1:50
					Elevation: -2.58 mCD	End Date: 30/03/2024	Logger: LW	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Black slightly silty fine to medium SAND.		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 1.50	B6									
					-3.58	1.00		Grey silty fine to medium SAND.		
1.50 - 3.00	B7									
					-5.48	2.90		Brown very clayey fine SAND.		
3.00 - 4.50	B8									
								4.30-4.50m: Pocket of medium grained SAND		
4.50 - 6.00	B9									
4.70	ES2	Marine Scotland Sample								
					-7.98	5.40		Reddish brown fine to medium SAND.		
6.00 - 7.50	B10									
7.50 - 9.00	B11									
					-10.48	7.90		Reddish brown slightly gravelly clayey fine to medium SAND. Gravel is subangular to subrounded of various lithologies.		
					-11.08	8.50		Very stiff reddish brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular of various lithologies.		
9.00 - 10.50	B12									

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
10.50	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 7.80m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	02/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH24
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet 2 of 2
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	10.50	218178.24 E 653092.15 N	10.50 m	30/03/2024	AM	Scale: 1:50
					Elevation: -2.58 mCD	End Date: 30/03/2024	Logger: LW	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
9.40	ES3	Marine Scotland Sample			-13.08	10.50		End of Borehole at 10.50m		

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
10.50	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 7.80m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	02/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH25
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	4.50	218444.24 E 653382.56 N

Final Depth:	4.50 m	Start Date:	14/03/2024	Driller:	AM	Sheet 1 of 1 Scale: 1:50
Elevation:	-7.90 mCD	End Date:	14/03/2024	Logger:	LW	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample								
0.00	ES2	RAD Composite			-8.15	0.25		Brownish black slightly silty fine to medium SAND.		
0.00	ES3	ENV Composite						Brown slightly silty fine to medium SAND.		
0.00 - 1.50	B6									
1.50 - 3.00	B7									
2.10	ES4	Marine Scotland Sample								
3.00 - 4.50	B8									
					-11.60	3.70		Firm brown sandy SILT. Sand is fine to medium.		
4.10	ES5	Marine Scotland Sample								
					-12.40	4.50		End of Borehole at 4.50m		

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
4.50	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 13.30m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	19/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH26
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet 1 of 1
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	7.50	218194.47 E 653311.81 N	7.50 m	17/03/2024	AM	Scale: 1:50
					Elevation: -5.84 mCD	End Date: 17/03/2024	Logger: LW	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Brownish grey fine to coarse SAND.		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
1.50 - 3.00	B6									
3.00 - 4.50	B7				-8.84	3.00				
3.10	ES2	Marine Scotland Sample						Reddish brown slightly gravelly fine to coarse SAND with occasional shell fragments. Gravel is subangular to subrounded fine to medium.		
4.50 - 6.00	B8				-10.34	4.50		Very stiff brownish grey sandy CLAY. Sand is fine to medium.		
6.00 - 7.50	B9				-11.74	5.90		Reddish brown fine to coarse SAND.		
6.20	ES3	Marine Scotland Sample								
					-13.34	7.50		End of Borehole at 7.50m		

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
7.50	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 10.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	19/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH27
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	37.50	218288.83 E
Rotary Coring	Fraste CRS-XL140 Duo	37.50	43.50	653244.04 N

Final Depth:	43.50 m	Start Date:	20/03/2024	Driller:	KW/MJ	Sheet 1 of 5
Elevation:	-5.52 mCD	End Date:	24/03/2024	Logger:	MS/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Very loose black and brown slightly silty fine to medium SAND with rare shell fragments. [Organic Odour]		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 0.90	B6									
0.90 - 2.20	B7		0.90	0.00						
0.90 - 1.35	SPT (S)	N=1 (0,0/1,0,0,0) Hammer SN = 1398								
2.20 - 3.00	B8				-7.72	2.20				
2.40 - 2.85	SPT (S)	N=2 (0,0/0,1,1,0) Hammer SN = 1398	2.40	0.00				Very loose brown and reddish brown slightly silty fine to coarse SAND with rare shell fragments.		
3.00 - 3.90	B9				-8.52	3.00		Loose reddish brown slightly silty fine to medium SAND.		
3.30	ES2	Marine Scotland Sample								
3.90	D38		3.90	0.00						
3.90 - 5.40	B10									
3.90 - 4.35	SPT (S)	N=6 (1,1/0,1,2,3) Hammer SN = 1398								
5.40	D39		5.40	0.00	-10.92	5.40		Medium dense to dense reddish brown slightly silty fine to medium SAND.		
5.40 - 6.90	B11									
5.40 - 5.85	SPT (S)	N=21 (2,4/5,5,4,7) Hammer SN = 1398								
6.50	ES3	Marine Scotland Sample								
6.90	D40		6.90	0.00						
6.90 - 7.80	B12									
6.90 - 7.34	SPT (S)	50 (4,6/50 for 285mm) Hammer SN = 1398								
7.80 - 8.40	B13									
8.40	D41		8.40	0.00	-13.92	8.40		Dense reddish brown slightly clayey fine to medium SAND.		
8.40 - 9.90	B14									
8.40 - 8.85	SPT (S)	N=35 (0,2/5,6,10,14) Hammer SN = 1398								

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
37.50	177
43.50	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 12.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
No SPT completed at 20.40m due to blowing sands between 18.90-23.40m
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	27/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH27
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	37.50	218288.83 E
Rotary Coring	Fraste CRS-XL140 Duo	37.50	43.50	653244.04 N

Final Depth:	43.50 m	Start Date:	20/03/2024	Driller:	KW/MJ	Sheet 2 of 5
Elevation:	-5.52 mCD	End Date:	24/03/2024	Logger:	MS/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
9.90	D42		9.90	0.00						
9.90 - 11.60	B15									
9.90 - 10.31	SPT (S)	50 (6,7/50 for 263mm) Hammer SN = 1398								
11.40	D43		11.4	0.00						
11.40 - 11.67	UT58	Ublow=117 60% Recovery			-17.12	11.60				
11.60 - 12.80	B16							Very stiff brown slightly sandy silty CLAY. Sand is fine to medium.		
12.80 - 13.50	B17									
12.90	D44		12.9	0.00						
12.90 - 13.30	SPT (S)	50 (7,10/50 for 245mm) Hammer SN = 1398								
13.50 - 13.70	B18				-19.02	13.50		Reddish brown slightly silty fine to coarse SAND.		
13.70 - 14.40	B19				-19.22	13.70		Medium dense to dense reddish brown mottled grey fine to coarse SAND.		
14.40	D45		14.4	0.00						
14.40 - 15.90	B20									
14.40 - 14.70	SPT (S)	50 (9,14/50 for 150mm) Hammer SN = 1398								
15.90	D46		15.9	0.00						
15.90 - 17.40	B21									
15.90 - 16.26	SPT (S)	50 (3,7/50 for 210mm) Hammer SN = 1398								
17.40	D47		17.4	0.00						
17.40 - 18.90	B22									
17.40 - 17.85	SPT (S)	N=19 (1,2/3,4,6,6) Hammer SN = 1398								

9.5 10.0 10.5 11.0 11.5 12.0 12.5 13.0 13.5 14.0 14.5 15.0 15.5 16.0 16.5 17.0 17.5 18.0 18.5

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
37.50	177
43.50	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 12.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
No SPT completed at 20.40m due to blowing sands between 18.90-23.40m
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	27/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH27
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	37.50	218288.83 E
Rotary Coring	Fraste CRS-XL140 Duo	37.50	43.50	653244.04 N

Final Depth:	43.50 m	Start Date:	20/03/2024	Driller:	KW/MJ	Sheet 3 of 5
Elevation:	-5.52 mCD	End Date:	24/03/2024	Logger:	MS/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
18.90	D48		18.9	0.00	-24.42	18.90		Medium dense to dense grey slightly silty fine to medium SAND. [BLOWING]		
18.90 - 20.40	B23									
18.90 - 19.35	SPT (S)	N=44 (2,4/5,12,13,14) Hammer SN = 1398								
20.40 - 21.90	B24									
21.90	D49		21.9	0.00						
21.90 - 23.40	B25									
21.90 - 22.35	SPT (S)	N=36 (4,5/5,9,10,12) Hammer SN = 1398								
23.40	D50		23.4	0.00	-28.92	23.40		Dense to very dense reddish brown fine to coarse SAND. *23.40-24.00m: No Recovery*		
23.40 - 25.50	B26									
23.40 - 23.85	SPT (S)	N=49 (6,8/7,10,14,18) Hammer SN = 1398								
25.50	D51		25.5	0.00						
25.50 - 27.00	B27									
25.50 - 25.94	SPT (S)	50 (5,6/50 for 290mm) Hammer SN = 1398								
27.00	D52		27.0	0.00						
27.00 - 28.50	B28									
27.00 - 27.40	SPT (S)	50 (7,7/50 for 245mm) Hammer SN = 1398								

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
37.50	177
43.50	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 12.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
No SPT completed at 20.40m due to blowing sands between 18.90-23.40m
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	27/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH27
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	37.50	218288.83 E
Rotary Coring	Fraste CRS-XL140 Duo	37.50	43.50	653244.04 N

Final Depth:	43.50 m	Start Date:	20/03/2024	Driller:	KW/MJ	Sheet 4 of 5
Elevation:	-5.52 mCD	End Date:	24/03/2024	Logger:	MS/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
28.50 - 28.95	UT59	Ublow=153 100% Recovery	28.5	0.00	-34.02	28.50		Very stiff brown slightly sandy CLAY. Sand is fine to medium.		
28.50 - 29.80	B29									
29.80 - 31.50	B30				-35.32	29.80		Very stiff brown slightly silty CLAY.		
30.00	D53		30.0	0.00						
30.00 - 30.31	SPT (S)	50 (6,10/50 for 160mm) Hammer SN = 1398								
31.50	D54		31.5	0.00						
31.50 - 33.00	B31									
31.50 - 31.81	SPT (S)	50 (7,11/50 for 157mm) Hammer SN = 1398								
33.00	D55		33.0	0.00						
33.00 - 34.00	B32									
33.00 - 33.30	SPT (S)	50 (10,15/50 for 145mm) Hammer SN = 1398								
34.00 - 35.00	B33				-39.52	34.00		Very dense brown very gravelly slightly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of various lithologies.		
34.50	D56		34.5	0.00						
34.50 - 34.92	SPT (S)	50 (8,9/50 for 265mm) Hammer SN = 1398								
35.00 - 36.00	B34									
36.00	D57		36.0	0.00	-41.52	36.00		Very dense brown mottled grey fine to coarse SAND.		
36.00 - 36.90	B35									
36.00 - 36.38	SPT (S)	50 (7,10/50 for 225mm) Hammer SN = 1398								
36.90 - 37.20	B36				-42.42	36.90		Brown very gravelly slightly clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of various lithologies.		
~~37.20 - 37.50~~	B37				-42.72	37.20				

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
37.50	177
43.50	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 12.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
No SPT completed at 20.40m due to blowing sands between 18.90-23.40m
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	27/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH27
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	37.50	218288.83 E
Rotary Coring	Fraste CRS-XL140 Duo	37.50	43.50	653244.04 N

Final Depth:	43.50 m	Start Date:	20/03/2024	Driller:	KW/MJ	Sheet 5 of 5
Elevation:	-5.52 mCD	End Date:	24/03/2024	Logger:	MS/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
					-43.02	37.50		Weathered SANDSTONE recovered as, reddish brown slightly sandy clayey angular to subangular fine to coarse GRAVEL with low cobble content. (Recovered disturbed due to sonic drilling)		
		TCR 100 SCR 100 RQD 89 FI 1						Medium strong reddish brown coarse grained well cemented pebbly SANDSTONE. Partially weathered: slightly reduced strength, slightly closer fracture spacing, with occasional dark orangish brown discolouration. Discontinuities: 1. 30-55 degree bedding fractures, widely spaced (210/730/840), planar, rough, clean. *38.45-38.65m: Bed of conglomerate with clasts from 2-42mm.*		
39.00		TCR 100 SCR 100 RQD 100 FI 1								
40.50		TCR 97 SCR 97 RQD 97 FI 1								
42.00		TCR 96 SCR 96 RQD 96 FI 0						*42.50-42.60m: Bed of conglomerate with clasts from 1-39mm.*		
					-48.12	42.60		Medium strong thickly laminated reddish brown fine grained well cemented SANDSTONE. Partially weathered: slightly reduced strength. No discontinuities present. *42.65-43.10m: Stepped, sub-vertical quartz vein.*		
43.50					-49.02	43.50		End of Borehole at 43.50m		

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
37.50	177
43.50	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 12.40m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
No SPT completed at 20.40m due to blowing sands between 18.90-23.40m
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	27/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH29
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet 1 of 1
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	6.80	218542.31 E 653494.45 N	6.80 m	08/03/2024	KW	Scale: 1:50
					Elevation: -6.41 mCD	End Date: 09/03/2024	Logger: OG	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1	Marine Scotland Sample						Light brown fine to medium SAND.		
0.00	ES4	RAD Composite								
0.00	ES5	ENV Composite								
0.00 - 0.80	SB6									
0.80 - 2.30	SB7									
					-8.16	1.75		Brown silty fine to medium SAND with occasional shell fragments.		
					-8.61	2.20		Very soft brown sandy CLAY. Sand is fine to medium.		
2.30 - 3.80	SB8									
2.79	ES2	Marine Scotland Sample								
					-9.61	3.20		Very soft brown CLAY.		
3.80 - 5.30	SB9				-10.21	3.80		Brown fine to medium SAND.		
					-11.01	4.60		Very soft brown slightly sandy CLAY. Sand is fine to medium.		
5.30 - 6.80	SB10				-11.71	5.30		Brown silty fine to medium SAND.		
5.59	ES3	Marine Scotland Sample								
					-12.21	5.80		Soft to firm slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is angular to subangular fine to medium of mixed lithologies.		
					-13.21	6.80		End of Borehole at 6.80m		

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
6.80	177

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 11.60m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
		Terminated at scheduled depth	11/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH30
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	33.90	218573.89 E
Rotary Coring	Fraste CRS-XL140 Duo	33.90	37.20	653382.49 N

Final Depth:	37.20 m	Start Date:	07/03/2024	Driller:	AM/KW	Sheet 1 of 5
Elevation:	-4.28 mCD	End Date:	08/03/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
0.00	ES1							Medium dense to dense reddish brown fine to medium SAND.		
0.00	ES4									
0.00	ES5									
0.00 - 0.90	B6									
0.90 - 2.40	B7									
2.40	D31		2.40	0.00						
2.40 - 3.90	B8									
2.40 - 2.85	SPT (S)	N=47 (7,8/8,10,12,17) Hammer SN = 1398								
								3.70-3.75m: Bed of light red sandy angular fine to coarse GRAVEL of various lithologies. Sand is fine to coarse.		
3.86	ES2		3.90	0.00						
3.90	D32									
3.90 - 4.65	B9									
3.90 - 4.35	SPT (S)	N=16 (5,4/4,4,4,4) Hammer SN = 1398								
4.65 - 5.30	B10				-8.93	4.65		Very soft brown sandy CLAY. Sand is fine to medium.		
5.30 - 6.40	B11				-9.58	5.30		Medium dense brown slightly gravelly clayey fine to medium SAND. Gravel is subangular fine of various lithologies.		
5.40	D33		5.40	0.00						
5.40 - 5.85	SPT (S)	N=18 (3,3/4,4,4,6) Hammer SN = 1398								
6.40 - 7.65	B12				-10.68	6.40		Stiff reddish brown very sandy CLAY. Sand is fine to medium.		
								6.70-6.80m: Shell fragments		
6.90	D34		6.90	0.00						
6.90 - 7.35	SPT (S)	N=30 (4,6/7,8,7,8) Hammer SN = 1398								
7.65 - 8.70	B13				-11.93	7.65		Medium dense brown silty fine to medium SAND.		
7.72	ES3									
8.40	D35		8.40	0.00						
8.40 - 8.85	SPT (S)	N=13 (2,5/4,4,3,2) Hammer SN = 1398								
8.70 - 9.90	B14				-12.98	8.70		Stiff to very stiff brown slightly sandy slightly gravelly CLAY with low cobble content. Sand is fine to coarse. Gravel is subangular fine to coarse of various lithologies. Cobbles are subangular of various lithologies.		

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
33.90	177
37.20	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 9.70m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	11/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH30
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	33.90	218573.89 E
Rotary Coring	Fraste CRS-XL140 Duo	33.90	37.20	653382.49 N

Final Depth:	37.20 m	Start Date:	07/03/2024	Driller:	AM/KW	Sheet 2 of 5
Elevation:	-4.28 mCD	End Date:	08/03/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
9.90 - 10.35	UT49	Ublow=197 100% Recovery	9.90	0.00						
9.90 - 11.40	B15									
11.40	D36		11.4	0.00						
11.40 - 12.90	B16									
11.40 - 11.83	SPT (S)	50 (15,9/50 for 282mm) Hammer SN = 1398								
12.90 - 14.40	B17		12.9	0.00						
12.90 - 13.21	SPT (S)	50 (7,16/50 for 162mm) Hammer SN = 1398								
14.40	D37		14.4	0.00						
14.40 - 15.90	B18									
14.40 - 14.78	SPT (S)	50 (9,11/50 for 225mm) Hammer SN = 1398								
15.90	D38		15.9	0.00						
15.90 - 16.35	SPT (S)	N=36 (3,4/6,9,10,11) Hammer SN = 1398								
17.40	D39		17.4	0.00						
17.40 - 17.85	SPT (S)	N=33 (3,5/7,8,8,10) Hammer SN = 1398								
18.00 - 18.15	B19				-22.28	18.00		Firm brown slightly sandy SILT. Sand is fine.		
18.15 - 19.80	B20				-22.43	18.15		Very stiff brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular fine to coarse of various lithologies.		

9.5 10.0 10.5 11.0 11.5 12.0 12.5 13.0 13.5 14.0 14.5 15.0 15.5 16.0 16.5 17.0 17.5 18.0 18.5

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
33.90	177
37.20	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 9.70m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	11/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH30
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	33.90	218573.89 E
Rotary Coring	Fraste CRS-XL140 Duo	33.90	37.20	653382.49 N

Final Depth:	37.20 m	Start Date:	07/03/2024	Driller:	AM/KW	Sheet 3 of 5
Elevation:	-4.28 mCD	End Date:	08/03/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
18.90	D40		18.9	0.00						
18.90 - 19.35	SPT (S)	N=42 (5,5/8,11,11,12) Hammer SN = 1398								
19.80 - 21.40	B21				-24.08	19.80		Very stiff brown slightly sandy slightly gravelly CLAY with low cobble content. Sand is fine to medium. Gravel is subangular fine to coarse of various lithologies. Cobbles are subangular of various lithologies. *19.80-19.82m: Thin bed of very clayey SAND*		
20.40	D41		20.4	0.00						
20.40 - 20.85	SPT (S)	N=41 (3,6/9,12,8,12) Hammer SN = 1398								
21.40 - 22.30	B22				-25.68	21.40		Very stiff brown slightly sandy CLAY with frequent pockets of clayey silty fine sand. Sand is fine to medium.		
21.90	D42		21.9	0.00						
21.90 - 22.35	SPT (S)	N=34 (4,4/6,7,9,12) Hammer SN = 1398								
22.30 - 24.60	B23				-26.58	22.30		Medium dense brown slightly silty fine SAND with occasional pockets of sandy clay.		
23.40	D43		23.4	0.00						
23.40 - 23.85	SPT (S)	N=28 (3,4/5,6,6,11) Hammer SN = 1398								
24.60 - 24.90	B24				-28.88	24.60		*24.40-24.50m: Very thin bed of interbedded laminations of sand and clay*		
24.90	D44		24.9	0.00	-29.18	24.90		Firm brown CLAY with frequent laminations of fine to medium red sand.		
24.90 - 26.40	B25							Dense brown slightly silty fine SAND.		
24.90 - 25.35	SPT (S)	N=41 (3,3/5,8,12,16) Hammer SN = 1398								
26.40 - 27.10	UT50	Ublow=87 100% Recovery	26.4	0.00	-30.68	26.40		Stiff to very stiff brown slightly sandy CLAY. Sand is fine to medium.		
26.40 - 28.20	B26									
~~27.90~~	D45		27.9	0.00						

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
33.90	177
37.20	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 9.70m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	11/03/2024

AGS

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH30
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates	Final Depth:	Start Date:	Driller:	Sheet 4 of 5
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	33.90	218573.89 E	37.20 m	07/03/2024	AM/KW	Scale: 1:50
Rotary Coring	Fraste CRS-XL140 Duo	33.90	37.20	653382.49 N	Elevation: -4.28 mCD	End Date: 08/03/2024	Logger: LW/OG	DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
27.90 - 28.28	SPT (S)	50 (5,6/50 for 230mm) Hammer SN = 1398								
28.20 - 29.80	B27				-32.48	28.20		Very stiff brown clayey SILT with occasional (100-180mm) clay lenses.		
29.40	D46		29.4	0.00						
29.40 - 29.74	SPT (S)	50 (10,12/50 for 195mm) Hammer SN = 1398								
29.80 - 30.90	B28				-34.08	29.80		Very dense brown gravelly silty fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of various lithologies.		
30.90	D47		30.9	0.00	-35.18	30.90		Very stiff reddish brown slightly sandy slightly gravelly CLAY with medium cobble content. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse various lithologies. Cobbles are subrounded of sandstone.		
30.90 - 32.60	B29									
30.90 - 31.07	SPT (S)	50 (25 for 100mm/50 for 70mm) Hammer SN = 1398								
32.40	D48		32.4	0.00						
32.40 - 32.53	SPT (S)	50 (25 for 65mm/50 for 70mm) Hammer SN = 1398			-36.88	32.60		Weathered SANDSTONE/BRECCIA recovered as, reddish brown sandy slightly clayey angular to subnagular fine to coarse GRAVEL with low cobble content. (Recovered disturbed due to sonic drilling)		
32.60 - 33.90	B30									
34.20		TCR 100, SCR 70, RQD 70, FI 0			-38.18	33.90		Medium strong reddish brown and light grey well cemented BRECCIA with angular to subangular fine to coarse gravel sized clasts of various lithologies. Partially weathered weathered: slightly reduced strength. No discernible discontinuity sets.		
		TCR 100, SCR 65, RQD 45, FI 6			-39.28	35.00		Medium strong reddish brown coarse grained well cemented pebbly SANDSTONE. Partially weathered: slightly reduced strength, slightly closer fracture spacing, with rare brown discolouration. Discontinuities: 1. 20-40 degree joints, medium spaced (200/235/270), undulating, rough, with faint brown staining on joint surfaces.		
35.70		TCR 100, SCR 100, RQD 100, FI 2			-39.98	35.70		2. 80-85 degree joint at 35.05-35.30m, undulating, rough, with brown staining on joint surface. Medium strong medium bedded reddish brown and light grey well cemented BRECCIA with angular to subangular fine to coarse gravel sized clasts of various lithologies. Partially weathered: slightly reduced strength. No discernible discontinuity sets.		
		FI 0			-40.98	36.70		Medium strong reddish brown medium grained well cemented		

Water Strikes			
Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details		Water Added	
To (m)	Diam (mm)	From (m)	To (m)
33.90	177		
37.20	150		

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 9.70m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	11/03/2024

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	BH30
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	33.90	218573.89 E
Rotary Coring	Fraste CRS-XL140 Duo	33.90	37.20	653382.49 N

Final Depth:	37.20 m	Start Date:	07/03/2024	Driller:	AM/KW	Sheet 5 of 5
Elevation:	-4.28 mCD	End Date:	08/03/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Samples / Field Records	TCR	SCR	RQD	FI	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
37.20								-41.48	37.20		pebbly SANDSTONE. Partially weathered: slightly reduced strength, with faint brown discolouration. Discontinuities: 1. 25-30 degree joint at 37.00m, planar, rough, with patchy and faint brown staining on joint surface. End of Borehole at 37.20m		
		TCR	SCR	RQD	FI								

37.5 38.0 38.5 39.0 39.5 40.0 40.5 41.0 41.5 42.0 42.5 43.0 43.5 44.0 44.5 45.0 45.5 46.0

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Chiselling Details

From (m)	To (m)	Time (hh:mm)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 9.70m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Casing Details

To (m)	Diam (mm)
33.90	177
37.20	150

Water Added

From (m)	To (m)

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated at scheduled depth	11/03/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	GBS2-BH-SPT-11
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	21.90	218387.30 E
Rotary Coring	Fraste CRS-XL140 Duo	21.90	41.90	653174.10 N

Final Depth:	41.90 m	Start Date:	04/04/2024	Driller:	AM/KW	Sheet 1 of 5
Elevation:	-0.39 mCD	End Date:	08/04/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
								Medium dense greyish brown gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to medium of various lithologies.		
0.90	D23		0.90	0.00						
0.90	ES1	Marine Scotland Sample								
0.90	ES4	RAD Composite								
0.90	ES5	ENV Composite								
0.90 - 2.40	B6									
0.90 - 1.35	SPT (S)	N=11 (2,2/3,3,2,3) Hammer SN = 1398								
2.40	D24		2.40	0.00						
2.40 - 3.90	B7									
2.40 - 2.85	SPT (S)	N=10 (2,1/2,2,3,3) Hammer SN = 1398								
3.90	D25		3.90	0.00	-4.29	3.90				
3.90 - 4.40	B8							Medium dense greyish brown slightly gravelly medium to coarse SAND with frequent shell fragments. Gravel is subangular to subrounded fine of various lithologies.		
3.90 - 4.35	SPT (S)	N=18 (2,3/4,4,5,5) Hammer SN = 1398								
					-4.79	4.40				
4.40 - 5.40	B9							Medium dense greyish brown silty fine to medium SAND.		
5.40	D26		5.40	0.00						
5.40 - 6.90	B10									
5.40 - 5.85	SPT (S)	N=20 (2,3/4,5,5,6) Hammer SN = 1398								
5.80	ES2	Marine Scotland Sample								
6.90	D27		6.90	0.00						
6.90 - 8.40	B11									
6.90 - 7.35	SPT (S)	N=19 (3,3/4,5,5,5) Hammer SN = 1398								
8.40	D28		8.40	0.00						
8.40 - 9.70	B12									
8.40 - 8.85	SPT (S)	N=12 (2,3/3,2,3,4) Hammer SN = 1398								

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
21.90	177
41.90	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 8.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated on Client's instruction	10/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	GBS2-BH-SPT-11
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	21.90	218387.30 E
Rotary Coring	Fraste CRS-XL140 Duo	21.90	41.90	653174.10 N

Final Depth:	41.90 m	Start Date:	04/04/2024	Driller:	AM/KW	Sheet 2 of 5
Elevation:	-0.39 mCD	End Date:	08/04/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
9.70 - 10.60	B13				-10.09	9.70				
9.90	D29		9.90	0.00				Very loose grey gravelly clayey fine to coarse SAND with frequent shell fragments. Gravel is subangular to subrounded fine to medium of various lithologies.		
9.90 - 10.35	SPT (S)	N=0 (0,0/0,0,0,0) Hammer SN = 1398								
10.60 - 11.40	B14				-10.99	10.60		Soft reddish brown slightly sandy CLAY with occasional pockets of fine sand. Sand is fine to medium.		
11.40 - 11.85	UT45	Ublow=4 100% Recovery	11.4	0.00						
11.40 - 12.90	B15									
11.60	ES3	Marine Scotland Sample								
12.90	D30		12.9	0.00	-13.29	12.90		Very loose brownish grey silty fine to medium SAND.		
12.90 - 14.40	B16									
12.90 - 13.35	SPT (S)	N=1 (1,1/0,0,0,1) Hammer SN = 1398								
14.40 - 14.85	UT46	Ublow=68 100% Recovery	14.4	0.00	-14.79	14.40		Medium dense brownish grey very silty fine to medium SAND.		
14.40 - 15.90	B17									
15.90	D31		15.9	0.00						
15.90 - 17.40	B18									
15.90 - 16.35	SPT (S)	N=18 (3,3/4,4,5,5) Hammer SN = 1398								
17.40	D32		17.4	0.00	-17.79	17.40		Very soft reddish brown slightly sandy CLAY. Sand is fine to coarse.		
17.40 - 18.90	B19									
17.40 - 17.85	SPT (S)	N=0 (0,0/0,0,0,0) Hammer SN = 1398								

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
21.90	177
41.90	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 8.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated on Client's instruction	10/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Hunterston Marine Yard	Borehole ID
23-1739	Client:	Peel Ports Limited	GBS2-BH-SPT-11
	Client's Rep:	Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	21.90	218387.30 E
Rotary Coring	Fraste CRS-XL140 Duo	21.90	41.90	653174.10 N

Final Depth:	41.90 m	Start Date:	04/04/2024	Driller:	AM/KW	Sheet 3 of 5
Elevation:	-0.39 mCD	End Date:	08/04/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	TCR	SCR	RQD	FI	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
18.90	D33						18.9	0.00	-19.29	18.90				
18.90 - 20.40	B20											Very stiff reddish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium of various lithologies.		
18.90 - 19.35	SPT (S)	N=46 (6,9/9,10,12,15) Hammer SN = 1398												
20.40	D34						20.4	0.00						
20.40 - 21.10	B21													
20.40 - 20.85	SPT (S)	N=50 (7,8/10,10,15,15) Hammer SN = 1398												
21.10 - 21.90	B22								-21.49	21.10		Reddish brown BOULDER of sandstone recovered as angular coarse gravel and angular cobbles.		
21.90 - 21.90	SPT (S)	~~50 (25 for 0mm/50 for 0mm)~~ Hammer SN = 1398	64	0	0		21.9	0.00						
									-22.69	22.30		Very stiff brownish grey slight gravelly sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of various lithologies.		
22.60							22.6	0.00						
22.60 - 22.92	SPT(S) 50 (7,8/50 for 170mm) Hammer SN = 1398													
22.60	D35		73	0	0									
24.10							24.1	0.00						
24.10 - 24.46	SPT(S) 50 (7,10/50 for 215mm) Hammer SN = 1398													
24.10	D36		80	0	0									
25.60							25.6	0.00						
25.60 - 25.96	SPT(S) 50 (8,12/50 for 210mm) Hammer SN = 1398													
25.60	D37		83	0	0									
27.10							27.1	0.00						
27.10 - 27.46	SPT(S) 50 (8,15/50 for 215mm) Hammer SN = 1398		80	0	0									
27.10	D38													

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
21.90	177
41.90	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 8.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated on Client's instruction	10/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Hunterston Marine Yard	Borehole ID
23-1739	Client:	Peel Ports Limited	GBS2-BH-SPT-11
	Client's Rep:	Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	21.90	218387.30 E
Rotary Coring	Fraste CRS-XL140 Duo	21.90	41.90	653174.10 N

Final Depth:	41.90 m	Start Date:	04/04/2024	Driller:	AM/KW	Sheet 4 of 5
Elevation:	-0.39 mCD	End Date:	08/04/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Samples / Field Records	TCR	SCR	RQD	FI	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
28.60						28.6	0.00	-28.99	28.60				
28.60 - 28.98	SPT(S) 50 (7,10/50 for 225mm) Hammer SN = 1398										Very dense reddish brown gravelly fine to coarse SAND with pockets (50 x 60mm) of clay. Gravel is subangular to subrounded fine to medium of various lithologies.		
28.60	D39	93	0	0									
30.10						30.1	0.00						
30.10 - 30.52	SPT(S) 50 (7,9/50 for 265mm) Hammer SN = 1398												
30.10	D40	100	0	0									
								-31.49	31.10		Very dense brown mottled grey slightly gravelly clayey fine to coarse SAND. Gravel is angular to subangular fine to coarse of sandstone.		
31.60						31.6	0.00						
31.60 - 32.03	SPT(S) 50 (6,11/50 for 280mm) Hammer SN = 1398												
31.60	D41	73	0	0									
33.10						33.1	0.00						
33.10 - 33.49	SPT(S) 50 (6,9/50 for 240mm) Hammer SN = 1398												
33.10	D42	93	0	0									
34.60						34.6	0.00						
34.60 - 34.97	SPT(S) 50 (6,10/50 for 215mm) Hammer SN = 1398												
34.60	D43	80	0	0									
36.10						36.1	0.00						
36.10 - 36.48	SPT(S) 50 (7,12/50 for 225mm) Hammer SN = 1398												
36.10	D44	33	13	0							36.50-37.40m: AZCL, Core washed out during drilling		
		TCR	SCR	RQD	FI								

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Chiselling Details

From (m)	To (m)	Time (hh:mm)

Casing Details

To (m)	Diam (mm)
21.90	177
41.90	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 8.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated on Client's instruction	10/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	GBS2-BH-SPT-11
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	21.90	218387.30 E
Rotary Coring	Fraste CRS-XL140 Duo	21.90	41.90	653174.10 N

Final Depth:	41.90 m	Start Date:	04/04/2024	Driller:	AM/KW	Sheet 5 of 5
Elevation:	-0.39 mCD	End Date:	08/04/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Samples / Field Records	TCR	SCR	RQD	FI	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
								-37.79	37.40				
37.60		100	87	48							Medium strong thinly bedded reddish brown fine grained well cemented SANDSTONE. Partially weathered: slightly reduced strength, slightly closer fracture spacing, with brown discolouration. Discontinuities: 1. 10-20 degree joints, widely spaced (500/900/1400), planar and undulating, rough, with patchy brown staining on joint surfaces. 2. 50-60 degree joints at 39.00-39.25m and 40.00-40.15m, planar, rough, with brown staining on joint surfaces. *37.80-38.50m: Incipient 60-90 degree joints.*		
39.10		100	100	77	2								
40.60		72	60	37									
					AZCL						*41.60-41.90m: AZCL, core scrubbed during drilling*		
41.90								-42.29	41.90		End of Borehole at 41.90m		
		TCR	SCR	RQD	FI								

Water Strikes			
Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Chiselling Details		
From (m)	To (m)	Time (hh:mm)

Casing Details	
To (m)	Diam (mm)
21.90	177
41.90	150

Water Added	
From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 8.10m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L	Polymer	Terminated on Client's instruction	10/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	GBS2-BH-SPT-12
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	31.00	218468.94 E
Rotary Coring	Fraste CRS-XL140 Duo	31.00	37.80	653338.77 N

Final Depth:	37.80 m	Start Date:	12/04/2024	Driller:	AM/MJ	Sheet 1 of 5
Elevation:	-6.91 mCD	End Date:	14/04/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
								NO RECOVERY: Probably very loose to loose silty fine SAND washed away during drilling.		
1.00	ES1	Marine Scotland Sample	1.00	0.00	-7.91	1.00				
1.00	ES4	RAD Composite						Very loose grey silty fine to medium SAND with rare shell fragments.		
1.00	ES5	ENV Composite								
1.00 - 1.50	B6				-8.41	1.50				
1.00 - 1.45	SPT (S)	N=1 (0,1/0,0,1,0) Hammer SN = 1398						Grey slightly clayey fine to medium SAND.		
1.50 - 2.35	B7									
2.35 - 3.90	B8				-9.26	2.35				
2.50	D40		2.50	0.00				Very soft brown silty CLAY.		
2.50	ES2	Marine Scotland Sample								
2.50 - 2.95	SPT (S)	N=3 (1,1/0,1,1,1) Hammer SN = 1398								
3.90 - 4.10	B9				-10.81	3.90				
4.00	D41		4.00	0.00				Loose brown silty fine to medium SAND.		
4.00 - 4.45	SPT (S)	N=6 (1,1/2,2,1,1) Hammer SN = 1398			-11.01	4.10		Soft brown very sandy silty CLAY. Sand is fine.		
4.10 - 5.40	B10									
5.00	ES3	Marine Scotland Sample								
5.40 - 5.50	B11				-12.31	5.40				
5.50	D42		5.50	0.00	-12.41	5.50		Brown slightly gravelly fine to medium sand. Gravel is subangular to subrounded fine of sandstone.		
5.50 - 5.90	B12							Medium dense brown slightly gravelly silty fine to coarse SAND. Gravel is subangular to subrounded fine to medium of sandstone.		
5.50 - 5.95	SPT (S)	N=19 (2,3/5,5,4,5) Hammer SN = 1398			-12.81	5.90				
5.90 - 7.00	B13							Very stiff brown sandy CLAY. Sand is fine to coarse.		
7.00	D43		7.00	0.00						
7.00 - 8.50	B14									
7.00 - 7.38	SPT (S)	50 (7,12/50 for 230mm) Hammer SN = 1398								
8.50	D44		8.50	0.00						
8.50 - 9.60	B15									
8.50 - 8.86	SPT (S)	50 (25 for 140mm/50 for 215mm) Hammer SN = 1398								

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
31.00	177
37.80	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 14.00m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L		Terminated at scheduled depth	15/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	GBS2-BH-SPT-12
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	31.00	218468.94 E
Rotary Coring	Fraste CRS-XL140 Duo	31.00	37.80	653338.77 N

Final Depth:	37.80 m	Start Date:	12/04/2024	Driller:	AM/MJ	Sheet 2 of 5
Elevation:	-6.91 mCD	End Date:	14/04/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
9.60 - 9.75	B16				-16.51	9.60				
9.75 - 11.50	B17				-16.66	9.75		Brown fine to coarse SAND.		
10.00	D45		10.0	0.00				Very stiff brown slightly gravelly very sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded of various lithologies.		
10.00 - 10.32	SPT (S)	50 (25 for 125mm/50 for 200mm) Hammer SN = 1398								
11.50 - 12.95	B18									
12.95 - 13.60	B19		13.0	0.00	-19.86	12.95				
13.00	D46		13.0	0.00				Very dense brown slightly gravelly silty fine to coarse SAND. Gravel is subangular to subrounded fine to medium of various lithologies.		
13.00 - 13.35	UT57	Ublow=100 75% Recovery								
13.00 - 13.30	SPT (S)	50 (25 for 105mm/50 for 190mm) Hammer SN = 1398								
					-20.51	13.60				
13.60 - 14.50	B20							Very stiff brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of various lithologies.		
14.50	D47		14.5	0.00	-21.41	14.50				
14.50 - 15.90	B21							Very stiff light brown very sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subrounded fine to medium of various lithologies.		
14.50 - 14.82	SPT (S)	50 (25 for 135mm/50 for 180mm) Hammer SN = 1398								
15.90 - 16.00	B22				-22.81	15.90				
16.00	D48		16.0	0.00	-22.91	16.00		Very stiff brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is angular to subrounded fine to medium of various lithologies.		
16.00 - 17.50	B23							Very stiff brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of various lithologies.		
16.00 - 16.30	SPT (S)	50 (7,10/50 for 150mm) Hammer SN = 1398						*16.30-16.50m: Pocket of very soft very sandy CLAY.*		
17.50	D49		17.5	0.00						
17.50 - 17.55	UT58	Ublow=100 0% Recovery	17.5	0.00						
17.50 - 18.40	B24									
17.50 - 17.64	SPT (S)	50 (25 for 60mm/50 for 85mm) Hammer SN = 1398								
18.40 - 19.00	B25				-25.31	18.40		Very stiff brown CLAY.		

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
31.00	177
37.80	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 14.00m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L		Terminated at scheduled depth	15/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Hunterston Marine Yard	Borehole ID
23-1739	Client:	Peel Ports Limited	GBS2-BH-SPT-12
	Client's Rep:	Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	31.00	218468.94 E
Rotary Coring	Fraste CRS-XL140 Duo	31.00	37.80	653338.77 N

Final Depth:	37.80 m	Start Date:	12/04/2024	Driller:	AM/MJ	Sheet 3 of 5
Elevation:	-6.91 mCD	End Date:	14/04/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
19.00	D50		19.0	0.00	-25.91	19.00				
19.00 - 19.45	B26							Very dense brown slightly gravelly silty fine to coarse SAND. Gravel is subangular to subrounded fine to medium of various lithologies.		
19.00 - 19.19	SPT (S)	50 (25 for 65mm/50 for 125mm) Hammer SN = 1398								
					-26.36	19.45		Very stiff brown sandy CLAY. Sand is fine to coarse.		
19.45 - 19.60	B27				-26.51	19.60		Brown slightly gravelly silty fine to coarse SAND. Gravel is subangular to subrounded fine to medium of various lithologies.		
19.60 - 20.00	B28									
20.00 - 21.00	B29				-26.91	20.00		Very stiff brown slightly gravelly very sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium of various lithologies.		
20.50	D51		20.5	0.00						
20.50 - 20.76	SPT (S)	50 (25 for 85mm/50 for 170mm) Hammer SN = 1398								
21.00 - 22.30	B30									
22.00	D52		22.0	0.00						
22.00 - 22.30	SPT (S)	50 (25 for 95mm/50 for 210mm) Hammer SN = 1398								
					-29.21	22.30		Very stiff brown slightly gravelly sandy CLAY with occasional lenses of fine to medium sand. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of various lithologies.		
22.30 - 23.50	B31									
23.50	D53		23.5	0.00	-30.41	23.50		Very dense brown clayey fine SAND.		
23.50 - 24.20	B32									
23.50 - 23.86	SPT (S)	50 (25 for 125mm/50 for 235mm) Hammer SN = 1398								
24.20 - 25.00	B33				-31.11	24.20		Brown silty fine SAND.		
25.00	D54		25.0	0.00	-31.91	25.00				
25.00 - 25.90	B34							Very dense brown slightly gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to medium of various lithologies.		
25.00 - 25.33	SPT (S)	50 (25 for 105mm/50 for 225mm) Hammer SN = 1398								
25.90 - 27.00	B35				-32.81	25.90		Very dense brown silty fine SAND.		
26.50	D55		26.5	0.00						
26.50 - 26.84	SPT (S)	50 (25 for 115mm/50 for 230mm) Hammer SN = 1398								
27.00 - 28.00	B36									

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
31.00	177
37.80	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 14.00m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L		Terminated at scheduled depth	15/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	GBS2-BH-SPT-12
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	31.00	218468.94 E
Rotary Coring	Fraste CRS-XL140 Duo	31.00	37.80	653338.77 N

Final Depth:	37.80 m	Start Date:	12/04/2024	Driller:	AM/MJ	Sheet 4 of 5
Elevation:	-6.91 mCD	End Date:	14/04/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Sample / Tests	Field Records	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
28.00	D56		28.0	0.00	-34.91	28.00				
28.00 - 29.50	B37							Stiff to very stiff brown slightly gravelly sandy CLAY . Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of various lithologies.		
28.00 - 28.33	SPT (S)	50 (25 for 105mm/50 for 228mm) Hammer SN = 1398						*28.90-29.00m: Sandstone cobble*		
29.50 - 30.65	B38		29.5	0.00						
29.50 - 29.51	SPT (S)	50 (25 for 5mm/50 for 5mm) Hammer SN = 1398								
30.65 - 31.10	B39				-37.56	30.65		Very stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of various lithologies predominantly sandstone.		
					-38.01	31.10		Medium strong reddish brown and light grey well cemented BRECCIA with angular to subangular fine to coarse gravel sized clasts of various lithologies. Partially weathered: slightly reduced strength.		
31.80		100 65 65						(Detailed description to follow)		
		100 100 100								
33.30										
		100 100 100								
34.80										
		100 100 100								
36.30										
		100 95 95								
		TCR SCR RQD FI								

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
31.00	177
37.80	150

Water Added

From (m)	To (m)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 14.00m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L		Terminated at scheduled depth	15/04/2024

AGS

CAUSEWAY GEOTECH

Project No.	Project Name:	Borehole ID
23-1739	Hunterston Marine Yard	GBS2-BH-SPT-12
	Client: Peel Ports Limited	
	Client's Rep: Envirocentre	

Method	Plant Used	Top (m)	Base (m)	Coordinates
Sonic Drilling	Fraste CRS-XL140 Duo	0.00	31.00	218468.94 E
Rotary Coring	Fraste CRS-XL140 Duo	31.00	37.80	653338.77 N

Final Depth:	37.80 m	Start Date:	12/04/2024	Driller:	AM/MJ	Sheet 5 of 5
Elevation:	-6.91 mCD	End Date:	14/04/2024	Logger:	LW/OG	Scale: 1:50
						DRAFT

Depth (m)	Samples / Field Records	TCR	SCR	RQD	FI	Casing Depth (m)	Water Depth (m)	Level mCD	Depth (m)	Legend	Description	Water	Backfill
37.80								-44.71	37.80		End of Borehole at 37.80m		

TCR	SCR	RQD	FI

Water Strikes

Struck at (m)	Casing to (m)	Time (min)	Rose to (m)

Casing Details

To (m)	Diam (mm)
31.00	177
37.80	150

Water Added

From (m)	To (m)

Chiselling Details

From (m)	To (m)	Time (hh:mm)

Remarks

Overwater borehole drilled from the Causeway Giant 1
Deck to bed = 14.00m
All elevations and reduced levels given in Chart Datum

Marine Scotland Sampling location (3 samples taken)
Composite sample for radiological testing
Composite sample for environmental testing

Core Barrel	Flush Type	Termination Reason	Last Updated
SK6L		Terminated at scheduled depth	15/04/2024

AGS

C ANALYTICAL RESULTS

Summary Table A

Sampling Results Incorporated with BPEO Assessment (mg/kg)

	AL1	AL2	BAC	ERL	PEL	BH01 (ES1) 0.40m	BH01 (ES2) 4.00m	BH01 (ES3) 7.90m	BH02 (ES1) 0.40m	BH02 (ES2) 5.40m	BH02 (ES3) 10.80m	BH03 (ES1) 0.50m	BH03 (ES2) 1.90m	BH03 (ES3) 3.70m	BH04 (ES1) 0.00m	BH04 (ES2) 6.10m	BH04 (ES3) 12.20m	BH05 (ES1) 0.00m	BH05 (ES2) 6.00m	BH05 (ES3) 12.00m	BH06 (ES1) 2.30m	BH06 (ES2) 5.94m	BH06 (ES3) 11.87m	BH10 (ES1) 0.00m	BH10 (ES2) 1.80m	BH10 (ES3) 3.50m
Source			CSEMP	CSEMP	Canada																					
Arsenic	20	70	25		41.6	2.6	3.2	2.1	2	3.7	2	4.2	7.2	8.2	1.2	1.2	2.9	1.4	2.7	3.7	2	4.9	1.2	3.9	4.9	3.6
Cadmium	0.4	4	0.31	1.2	4.2	0.04	0.05	0.04	0.04	0.04	0.04	0.12	0.13	0.12	0.04	0.06	0.05	0.07	0.08	0.12	0.06	0.15	0.05	0.13	0.13	0.07
Chromium	50	370	81	81	160	7.8	13.4	16.1	9.1	12.1	5.2	16.8	17.2	20.2	6.3	7.4	12.7	8.8	10.9	15.6	7.1	20.7	4.9	21.3	25.1	13.9
Copper	30	300	27	34	108	6.2	16.4	14.8	5.1	6.3	15.1	8.2	8.4	9.9	2.6	7.8	10.6	3.8	5.3	15.5	5.5	19.8	4.2	6.4	8.7	5.5
Mercury	0.25	1.5	0.07	0.15	0.7	0.06	0.03	0.03	0.02	0.02	0.03	0.03	0.01	0.01	0.06	0.06	0.04	0.01	0.06	0.01	0.02	0.01	0.01	0.03	0.04	0.01
Nickel	30	150	36	-	-	7.5	17.5	15.7	9.3	12.6	8.6	16.9	18.4	21.5	5.2	10.6	14.6	9.5	9.3	19.5	7.6	25.5	6	20.6	27.8	13.8
Lead	50	400	38	47	112	4.7	6.3	5.5	2.4	4.7	7.1	7.1	6.1	7.2	2.7	2.7	4.5	2.7	2.9	6.5	3.2	7.2	1.9	11.2	13.6	5.2
Zinc	130	600	122	150	271	24.6	42.3	34	16.4	24.2	20.4	32.4	33	40.3	15.2	30.4	56.9	27.7	18.4	44.4	18.3	55.8	14.9	45.1	77	27.5
Napthalene	0.1		0.08	0.16	0.391	0.00229	0.001	0.00118	0.00193	0.00305	0.001	0.0022	0.00565	0.00552	0.00188	0.001	0.001	0.001	0.00278	0.00174	0.005	0.001	0.001	0.0156	0.0291	0.00577
Acenaphthylene	0.1		-	-	0.128	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.005	0.005	0.00179
Acenaphthene	0.1		-	-	0.0889	0.001	0.001	0.001	0.00129	0.001	0.001	0.001	0.00174	0.00232	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.005	0.0159	0.00263
Fluorene	0.1		-	-	0.144	0.001	0.001	0.001	0.00131	0.00261	0.001	0.00132	0.00448	0.00485	0.001	0.001	0.001	0.001	0.00215	0.00156	0.005	0.001	0.001	0.00876	0.0162	0.0042
Phenanthrene	0.1		0.032	0.24	0.544	0.00366	0.00144	0.00252	0.0089	0.011	0.001	0.03	0.0172	0.00000127	0.0061	0.001	0.00193	1.51	1.22	0.643	0.667	0.483	0.798	0.0476	0.118	0.0258
Anthracene	0.1		0.05	0.085	0.245	0.001	0.001	0.001	0.00149	0.00143	0.001	0.00191	0.00199	0.00428	0.00153	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.0167	0.0367	0.00768
Fluoranthene	0.1		0.039	0.6	1.494	0.00186	0.001	0.00224	0.00444	0.00439	0.001	0.015	0.00631	0.0204	0.00837	0.00128	0.0023	0.00604	0.00251	0.00369	0.019	0.001	0.00116	0.0678	0.249	0.0402
Pyrene	0.1		0.024	0.665	1.398	0.00205	0.001	0.00184	0.00593	0.00623	0.001	0.0164	0.00954	0.0242	0.00824	0.00135	0.0027	0.0057	0.00375	0.0037	0.0196	0.001	0.00188	0.0759	0.273	0.0455
Benzo(a)anthracene	0.1		0.016	0.261	0.693	0.001	0.001	0.001	0.00292	0.00318	0.001	0.009	0.00199	0.00428	0.00462	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.0167	0.0367	0.00768
Chrysene	0.1		0.02	0.384	0.846	0.00139	0.001	0.00165	0.00366	0.00498	0.001	0.00905	0.00747	0.0161	0.00552	0.001	0.00169	0.00399	0.00314	0.00324	0.0101	0.001	0.00145	0.0398	0.149	0.0227
Benzo(b)fluoranthene	0.1		-	-	-	0.001	0.001	0.0023	0.00282	0.005	0.001	0.00876	0.00725	0.0168	0.00472	0.001	0.00199	0.00356	0.0036	0.00473	0.00757	0.001	0.00202	0.033	0.0902	0.0203
Benzo(k)fluoranthene	0.1		-	-	-	0.001	0.001	0.0011	0.00238	0.00218	0.001	0.00793	0.00383	0.0115	0.00503	0.001	0.001	0.00417	0.0014	0.00162	0.00843	0.001	0.001	0.0442	0.114	0.022
Benzo(a)pyrene	0.1		0.03	0.384	0.763	0.001	0.001	0.001	0.00329	0.00476	0.001	0.0105	0.00675	0.0169	0.0055	0.001	0.001	0.00462	0.00279	0.00237	0.0101	0.001	0.001	0.0391	0.117	0.0263
Indeno(1,2,3cd)pyrene	0.1		0.103	0.24	-	0.001	0.001	0.001	0.00158	0.0023	0.001	0.00596	0.00412	0.00891	0.00293	0.001	0.001	0.00265	0.00155	0.00172	0.00505	0.001	0.001	0.0229	0.057	0.0148
Benzo(ghi)perylene	0.1		0.08	0.085	-	0.00123	0.0016	0.0024	0.00487	0.00929	0.001	0.00846	0.0158	0.022	0.00373	0.001	0.00277	0.00327	0.0066	0.00635	0.00748	0.001	0.00309	0.0301	0.071	0.0229
Dibenzo(a,h)anthracene	0.01		-	-	0.135	0.001	0.001	0.001	0.001	0.001	0.001	0.00134	0.00122	0.00287	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.0111	0.00292
TPH	100		-	-	-	5.97	1.91	1.06	5.24	7.26	0.452	7.37	7.68	23.2	3.23	2.67	2.43	12.5	2.82	23.4	80.2	3.31	1.75	32.6	71.6	22
PCBs	0.02	0.18	-	-	0.189	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00527	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00316	0.00056
TBT	0.1	0.5	-	-	-	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.001	0.005	0.005	0.001

Note: Underlined Values are < LOD. Values highlighted red are equal to or greater than AL1.
PEL Data Source: http://ceqg-rcqe.ccme.ca/en/index.html#void

	AL1	AL2	BAC	ERL	PEL	BH12 (ES1) 0.00m	BH12 (ES2) 1.50m	BH12 (ES3) 3.00m	BH13A (ES1) 0.00m	BH13A (ES2) 2.40m	BH13A (ES3) 4.80m	BH14 (ES1) 0.00m	BH14 (ES2) 2.10m	BH14 (ES3) 4.20m	BH15 (ES1) 0.00m	BH15 (ES2) 1.40m	BH15 (ES3) 2.80m	BH16 (ES1) 0.00m	BH16 (ES2) 3.80m	BH16 (ES3) 7.60m	BH17 (ES1) 0.00m	BH17 (ES2) 0.90m	BH17 (ES3) 1.90m	BH18 (ES1) 0.00m	BH18 (ES2) 0.60m	BH18 (ES3) 1.20m
Source			CSEMP	CSEMP	Canada																					
Arsenic	20	70	25		41.6	4.9	1.5	1.4	3.1	9.7	3.7	2.1	1.2	2.4	2.9	5	2.7	1.8	3.3	2.8	1.7	1.4	1.8	3.4	2.3	2.4
Cadmium	0.4	4	0.31	1.2	4.2	0.12	0.04	0.07	0.09	0.16	0.09	0.04	0.04	0.04	0.04	0.08	0.06	0.04	0.05	0.04	0.04	0.04	0.05	0.08	0.05	0.04
Chromium	50	370	81	81	160	24.7	6.6	6.4	17	23.1	12.9	5.6	5.5	7.9	12.3	21.8	15	7.4	16.1	7.2	9.4	6.3	8.5	16.2	8.1	8.3
Copper	30	300	27	34	108	7.7	2.6	2.8	4.7	9.8	15.7	1.9	2.9	3.7	5.3	10.1	16	3.6	16.1	11.8	3.9	3.2	2.8	5.2	9.2	4.3
Mercury	0.25	1.5	0.07	0.15	0.7	0.04	0.01	0.01	0.03	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.04	0.01	0.01	0.04	0.01	0.01
Nickel	30	150	36	-	-	26	5.9	5.4	16.2	25.2	16.8	5.3	5.9	7.8	12.3	23.7	19	5.4	19.2	10.1	9.1	6.5	8	14.7	9.2	7.4
Lead	50	400	38	47	112	13.2	2.2	2.5	7.5	8.6	5.7	2.4	2.3	2.7	4.8	8.1	6.2	4.9	6.4	4.4	4.7	1.7	2.7	9.5	4.2	3.9
Zinc	130	600	122	150	271	75.5	18.8	22.4	46.4	51.1	51.5	19.4	19.9	14.6	23.7	48.9	45.8	17.7	41.5	23.3	22.1	14.8	27.8	42.4	39.1	28.3
Napthalene	0.1		0.08	0.16	0.391	0.0357	0.001	0.001	0.019	0.00526	0.001	0.001	0.00184	0.00169	0.0029	0.00395	0.001	0.001	0.001	0.001	0.0153	0.00315	0.0112	0.0132	0.001	0.001
Acenaphthylene	0.1		-	-	0.128	0.00991	0.001	0.001	0.00674	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.0064	0.001	0.001	0.00429	0.001	0.001
Acenaphthene	0.1		-	-	0.0889	0.0374	0.001	0.001	0.00839	0.001	0.001	0.001	0.00332	0.001	0.001	0.00133	0.001	0.001	0.00179	0.001	0.00819	0.001	0.00331	0.00577	0.001	0.001
Fluorene	0.1		-	-	0.144	0.0344	0.001	0.001	0.0123	0.00592	0.001	0.001	0.00114	0.001	0.00264	0.00367	0.001	0.001	0.001	0.001	0.0122	0.00188	0.00587	0.0089	0.001	0.001
Phenanthrene	0.1		0.032	0.24	0.544	0.205	0.00346	0.00164	0.0842	0.0234	0.00157	0.00367	0.00578	0.00418	0.012	0.0159	0.00148	0.00258	0.001	0.001	0.0799	0.00934	0.0312	0.0483	0.001	0.00204
Anthracene	0.1		0.05	0.085	0.245	0.0514	0.001	0.001	0.0303	0.00212	0.001	0.001	0.00148	0.001	0.001	0.00152	0.001	0.001	0.001	0.001	0.0267	0.0014	0.00887	0.0174	0.001	0.001
Fluoranthene	0.1		0.039	0.6	1.494	0.271	0.00559	0.00123	0.176	0.0112	0.001	0.00479	0.00719	0.00189	0.00468	0.00605	0.001	0.00455	0.001	0.001	0.132	0.00471	0.0361	0.103	0.001	0.00148
Pyrene	0.1		0.024	0.665	1.398	0.279	0.00556	0.00158	0.171	0.0153	0.001	0.00532	0.00815	0.0028	0.00617	0.00843	0.001	0.00497	0.001	0.001	0.133	0.00596	0.0415	0.103	0.001	0.0018
Benzo(a)anthracene	0.1		0.016	0.261	0.693	0.0514	0.001	0.001	0.0303	0.00212	0.001	0.001	0.00148	0.001	0.001	0.00152	0.001	0.001	0.001	0.001	0.0267	0.0014	0.00887	0.0174	0.001	0.001
Chrysene	0.1		0.02	0.384	0.846	0.145	0.00331	0.001	0.105	0.0118	0.001	0.00284	0.00437	0.00191	0.00582	0.00717	0.001	0.00291	0.001	0.001	0.073	0.00445	0.0241	0.0559	0.001	0.00135
Benzo(b)fluoranthene	0.1		-	-	-	0.115	0.00211	0.001	0.0712	0.0119	0.001	0.00277	0.00304	0.002	0.00586	0.00765	0.001	0.00419	0.001	0.001	0.0622	0.00383	0.0201	0.0487	0.001	0.001
Benzo(k)fluoranthene	0.1		-	-	-	0.131	0.0027	0.001	0.0808	0.00788	0.001	0.00258	0.00362	0.00113	0.00356	0.00485	0.001	0.0032	0.001	0.001	0.0684	0.00318	0.0198	0.0502	0.001	0.001
Benzo(a)pyrene	0.1		0.03	0.384	0.763	0.156	0.00307	0.001	0.0886	0.00966	0.001	0.00252	0.00401	0.00191	0.00516	0.0067	0.001	0.00394	0.001	0.001	0.0847	0.00328	0.0245	0.0614	0.001	0.001
Indeno(1,2,3cd)pyrene	0.1		0.103	0.24	-	0.0848	0.00156	0.001	0.0508	0.00523	0.001	0.00183	0.00217	0.001	0.00262	0.00367	0.001	0.0029	0.001	0.001	0.0478	0.00213	0.0128	0.0364	0.001	0.001
Benzo(ghi)perylene	0.1		0.08	0.085	-	0.105	0.00215	0.001	0.0617	0.0222	0.001	0.00267	0.00457	0.00319	0.011	0.0149	0.001	0.00367	0.001	0.001	0.0591	0.00754	0.0241	0.0437	0.001	0.001
Dibenzo(a,h)anthracene	0.01		-	-	0.135	0.0176	0.001	0.001	0.0104	0.00193	0.001	0.001	0.001	0.001	0.001	0.00121	0.001	0.001	0.001	0.001	0.00974	0.001	0.0029	0.00763	0.001	0.001
TPH	100		-	-	-	77.3	5.22	2.62	43	34.7	8.82	10.7	16.9	15.7	6.25	7.23	0.898	9.58	0.827	0.529	137	11.7	137	33.1	1.84	2.86
PCBs	0.02	0.18	-	-	0.189	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00136	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00127	0.00056	0.00056	0.00056	0.00056	0.00092
TBT	0.1	0.5	-	-	-	0.001	0.001	0.001	0.005	0.001	0.005	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.005	0.001	0.001	0.001	0.001	0.001

Note: Underlined Values are < LOD. Values highlighted red are equal to or greater than AL1.
PEL Data Source: http://ceqg-rcqe.ccme.ca/en/index.html#void

	AL1	AL2	BAC	ERL	PEL	BH19 (ES1) 0.00m	BH19 (ES2) 1.10m	BH19 (ES3) 2.10m	BH20 (ES1) 0.00m	BH20 (ES2) 1.70m	BH20 (ES3) 3.30m	BH21 (ES1) 0.00m	BH21 (ES3) 3.00m	BH21A (ES3) 5.60m	BH22 (ES1) 0.00m	BH22 (ES2) 3.80m	BH22 (ES3) 7.50m	BH23 (ES1) 0.40m	BH23 (ES2) 4.00m	BH23 (ES3) 7.90m	BH24 (ES1) 0.00m	BH24 (ES2) 4.70m	BH24 (ES3) 9.40m	BH25 (ES1) 0.00m	BH25 (ES2) 2.10m	BH25 (ES3) 4.10m
Source			CSEMP	CSEMP	Canada																					
Arsenic	20	70	25		41.6	2.4	1.8	1.3	4.3	5.1	2.9	1.3	1	2	1.2	3.2	2.6	1.6	3.7	3.8	1.8	4.5	4	4.8	4	3.9
Cadmium	0.4	4	0.31	1.2	4.2	0.04	0.04	0.04	0.05	0.06	0.04	0.04	0.04	0.04	0.04	0.05	0.08	0.04	0.05	0.04	0.04	0.1	0.23	0.14	0.04	0.07
Chromium	50	370	81	81	160	8.2	5.8	7.2	13.3	15	14.5	7.8	11.8	6.1	10.1	8.2	12.7	5.2	17	11.6	7.7	18.3	18.9	34	14.3	16.2
Copper	30	300	27	34	108	2.4	1.8	3	4.7	5.5	7.7	3.8	3.2	2.6	12.3	16.5	10.3	10.2	21	17.2	10.1	22.4	21.6	9.8	6.3	8
Mercury	0.25	1.5	0.07	0.15	0.7	0.01	0.01	0.01	0.01	0.01	0.03	0.02	0.01	0.03	0.03	0.07	0.04	0.03	0.03	0.03	0.08	0.06	0.05	0.08	0.02	0.01
Nickel	30	150	36	-	-	4.8	4	4.8	13.1	15.2	14.8	5.8	5.5	5.7	10.8	12.3	15.7	5.1	21.5	15.3	6.3	23.5	22.9	27.9	15.7	17.5
Lead	50	400	38	47	112	6.8	1.6	1.7	4.1	5	4.9	8.1	1.9	2.7	4.5	5.2	5.4	1.6	6.6	8.2	5.2	7.3	6.7	15	5.6	6.1
Zinc	130	600	122	150	271	40.5	21.5	16.8	32.5	34.3	34.4	18.6	14	17	24.6	44.3	36.4	16	52.6	37.9	21.4	56.2	52	65.1	29.9	34.4
Napthalene	0.1		0.08	0.16	0.391	0.001	0.001	0.001	0.00422	0.00611	0.00206	0.00193	0.001	0.00207	0.00144	0.001	0.001	0.001	0.001	0.001	0.00554	0.00195	0.00168	0.0339	0.00452	0.001
Acenaphthylene	0.1		-	-	0.128	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.00686	0.00131	0.001
Acenaphthene	0.1		-	-	0.0889	0.001	0.001	0.001	0.00366	0.00199	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.0202	0.00276	0.001
Fluorene	0.1		-	-	0.144	0.001	0.001	0.001	0.00319	0.00365	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.00559	0.00176	0.001	0.0196	0.00337	0.001
Phenanthrene	0.1		0.032	0.24	0.544	0.00251	0.001	0.001	0.0146	0.0156	0.00558	0.00435	0.00128	0.00249	0.017	0.00133	0.001	0.00225	0.00236	0.00354	0.0301	0.00625	0.00479	0.114	0.017	0.00133
Anthracene	0.1		0.05	0.085	0.245	0.001	0.001	0.001	0.00273	0.00206	0.00174	0.00173	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.0367	0.00455	0.001
Fluoranthene	0.1		0.039	0.6	1.494	0.00332	0.001	0.001	0.00845	0.00675	0.0115	0.00687	0.001	0.001	0.00576	0.001	0.00132	0.00165	0.0013	0.00217	0.0487	0.00388	0.00291	0.184	0.0252	0.001
Pyrene	0.1		0.024	0.665	1.398	0.00412	0.001	0.0014	0.01	0.00871	0.0122	0.00832	0.001	0.00165	0.00572	0.001	0.00116	0.0019	0.00152	0.00271	0.0482	0.00434	0.00307	0.19	0.0255	0.001
Benzo(a)anthracene	0.1		0.016	0.261	0.693	0.001	0.001	0.001	0.00273	0.00206	0.00174	0.00173	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.0367	0.00455	0.001
Chrysene	0.1		0.02	0.384	0.846	0.00236	0.001	0.001	0.00731	0.00752	0.00708	0.00429	0.001	0.00142	0.00468	0.001	0.001	0.001	0.001	0.0021	0.0261	0.00337	0.00223	0.102	0.0153	0.001
Benzo(b)fluoranthene	0.1		-	-	-	0.00273	0.001	0.00132	0.007	0.00813	0.0074	0.00603	0.001	0.00158	0.00292	0.001	0.00134	0.00124	0.0014	0.00228	0.0223	0.0043	0.00274	0.0883	0.0155	0.001
Benzo(k)fluoranthene	0.1		-	-	-	0.0033	0.001	0.00148	0.00424	0.00485	0.00574	0.00533	0.001	0.001	0.00342	0.001	0.001	0.001	0.001	0.00101	0.0252	0.00234	0.00121	0.0899	0.0155	0.001
Benzo(a)pyrene	0.1		0.03	0.384	0.763	0.00319	0.001	0.00125	0.00634	0.0064	0.00774	0.00674	0.001	0.00144	0.00282	0.001	0.001	0.001	0.001	0.0014	0.0272	0.00238	0.00142	0.113	0.0184	0.001
Indeno(1,2,3cd)pyrene	0.1		0.103	0.24	-	0.0031	0.001	0.00127	0.00306	0.00318	0.00435	0.00573	0.001	0.001	0.00212	0.001	0.001	0.001	0.001	0.001	0.016	0.00173	0.00124	0.0668	0.0119	0.001
Benzo(ghi)perylene	0.1		0.08	0.085	-	0.00375	0.001	0.00171	0.0118	0.0128	0.00623	0.00723	0.001	0.00244	0.00301	0.001	0.00129	0.0014	0.00184	0.00357	0.0181	0.00636	0.00455	0.0923	0.0149	0.001
Dibenzo(a,h)anthracene	0.01		-	-	0.135	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.0023	0.001	0.001	0.0145	0.00263	0.001
TPH	100		-	-	-	13.7	1.81	13.3	7.94	9.53	10.5	33.4	1.24	1.88	13.2	1.69	5.71	12	8.36	4.66	73.9	5.98	4.74	65.1	63.4	70.5
PCBs	0.02	0.18	-	-	0.189	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00322	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00126	0.00056	0.00056
TBT	0.1	0.5	-	-	-	0.001	0.001	0.001	0.001	0.005	0.005	0.005	0.001	0.001	0.001	0.005	0.005	0.001	0.005	0.001	0.005	0.005	0.005	0.001	0.001	0.001

Note: Underlined Values are < LOD. Values highlighted red are equal to or greater than AL1.
PEL Data Source: http://ceqg-rcqe.ccme.ca/en/index.html#void

	AL1	AL2	BAC	ERL	PEL	BH26 (ES1) 0.00m	BH26 (ES2) 3.10m	BH26 (ES3) 6.20m	BH27 (ES1) 0.00m	BH27 (ES2) 3.30m	BH27 (ES3) 6.50m	BH29 (ES1) 0.00m	BH29 (ES2) 2.79m	BH29 (ES3) 5.59m	BH30 (ES1) 0.00m	BH30 (ES2) 3.86m	BH30 (ES3) 7.72m	GBS2-BH-SPT-11 (ES1) 0.90m	GBS2-BH-SPT-11 (ES2) 5.80m	GBS2-BH-SPT-11 (ES3) 11.60m
Source			CSEMP	CSEMP	Canada															
Arsenic	20	70	25		41.6	2.1	3.3	2.1	1.9	4.4	3	2.8	3.9	3.1	1.8	2.2	3.4	1.8	2.8	5.6
Cadmium	0.4	4	0.31	1.2	4.2	0.04	0.24	0.04	0.04	0.09	0.07	0.04	0.06	0.04	0.04	0.04	0.08	0.04	0.04	0.1
Chromium	50	370	81	81	160	10.2	7.5	4.5	5.2	21.6	13.8	6.5	17	10.5	8.1	7.7	13.8	6.7	10.4	21.3
Copper	30	300	27	34	108	3.7	7.6	6.9	7.1	7.7	5.6	10.2	8.2	13	4.2	4	16.8	7.1	6.7	25.2
Mercury	0.25	1.5	0.07	0.15	0.7	0.02	0.01	0.03	0.02	0.07	0.04	0.01	0.02	0.02	0.02	0.12	0.2	0.06	0.03	0.07
Nickel	30	150	36	-	-	8.7	9.6	6.7	8.4	21.5	14.4	9.9	18.9	13.5	7.8	7.7	18.6	6.4	9.4	27.6
Lead	50	400	38	47	112	5.4	3.8	2.8	2.7	12.8	7.6	3.8	6.5	5.1	3.2	2.6	5.9	2.4	2.7	8
Zinc	130	600	122	150	271	25.7	27.7	18.8	18.1	47.7	38.8	30.2	37	35	35	24.3	42.9	29.4	20.5	62.6
Napthalene	0.1		0.08	0.16	0.391	0.001	0.0556	0.0044	0.001	0.00818	0.00524	0.00406	0.00586	0.001	0.00245	0.00146	0.001	0.00933	0.00453	0.00196
Acenaphthylene	0.1		-	-	0.128	0.001	0.0187	0.00289	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.00184	0.001	0.001
Acenaphthene	0.1		-	-	0.0889	0.001	0.0583	0.00275	0.001	0.00294	0.00162	0.00153	0.00167	0.001	0.001	0.001	0.001	0.00605	0.001	0.001
Fluorene	0.1		-	-	0.144	0.001	0.0606	0.00413	0.001	0.00786	0.00363	0.00294	0.00513	0.001	0.00137	0.001	0.001	0.00641	0.00204	0.001
Phenanthrene	0.1		0.032	0.24	0.544	0.001	0.465	0.0256	0.001	0.0309	0.0141	0.0145	0.0199	0.001	1.07	0.00283	1.24	0.0438	0.00979	0.0056
Anthracene	0.1		0.05	0.085	0.245	0.001	0.128	0.0121	0.001	0.00358	0.00207	0.00226	0.00202	0.001	0.00259	0.001	0.001	0.0118	0.00136	0.001
Fluoranthene	0.1		0.039	0.6	1.494	0.001	0.709	0.0472	0.001	0.0135	0.00598	0.00814	0.00782	0.001	0.0116	0.00317	0.001	0.0662	0.00362	0.003
Pyrene	0.1		0.024	0.665	1.398	0.001	0.677	0.0464	0.001	0.021	0.00874	0.0102	0.0127	0.001	0.0125	0.00383	0.001	0.0666	0.00494	0.00361
Benzo(a)anthracene	0.1		0.016	0.261	0.693	0.001	0.128	0.0121	0.001	0.00358	0.00207	0.00226	0.00202	0.001	0.00259	0.001	0.001	0.0342	0.00289	0.00151
Chrysene	0.1		0.02	0.384	0.846	0.001	0.333	0.0258	0.001	0.0144	0.00666	0.00733	0.00985	0.001	0.0073	0.00247	0.001	0.0363	0.00442	0.00272
Benzo(b)fluoranthene	0.1		-	-	-	0.001	0.272	0.0199	0.001	0.0142	0.00732	0.00737	0.00952	0.001	0.00483	0.00218	0.001	0.0303	0.00359	0.00363
Benzo(k)fluoranthene	0.1		-	-	-	0.001	0.273	0.0219	0.001	0.00921	0.0034	0.00451	0.00539	0.001	0.00508	0.00197	0.001	0.0302	0.00186	0.001
Benzo(a)pyrene	0.1		0.03	0.384	0.763	0.001	0.357	0.0279	0.001	0.0145	0.00643	0.00668	0.00855	0.001	0.00707	0.00265	0.001	0.0408	0.00374	0.00221
Indeno(1,2,3cd)pyrene	0.1		0.103	0.24	-	0.001	0.216	0.0143	0.001	0.00921	0.0035	0.00363	0.00482	0.001	0.00338	0.00129	0.001	0.0225	0.00194	0.00145
Benzo(ghi)perylene	0.1		0.08	0.085	-	0.001	0.22	0.017	0.001	0.0342	0.0139	0.0124	0.0196	0.001	0.00601	0.00207	0.001	0.0269	0.00756	0.00553
Dibenzo(a,h)anthracene	0.01		-	-	0.135	0.001	0.047	0.00263	0.001	0.00285	0.00134	0.001	0.00172	0.001	0.001	0.001	0.001	0.00502	0.001	0.001
TPH	100		-	-	-	1	86.4	12.3	1.63	13.4	7.74	13.4	9.25	0.741	14.1	11.2	0.593	687	18.3	29.1
PCBs	0.02	0.18	-	-	0.189	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056
TBT	0.1	0.5	-	-	-	0.005	0.001	0.001	0.005	0.001	0.001	0.001	0.005	0.001	0.001	0.001	0.001	0.005	0.005	0.005

Note: Underlined Values are < LOD. Values highlighted red are equal to or greater than AL1.
PEL Data Source: http://ceqg-rcqe.ccme.ca/en/index.html#void

Summary Table B

River Clyde Average Concentrations
All units in mg/kg

	AL1	AL2	BAC	<ERL	PEL	Dredge Average	Exceed AL1?	Exceed AL2?	Exceed BAC?	Exceed ERL ?	Exceed PEL?
Source			CSEMP	CSEMP	Canada						
Arsenic	20	70	25	-	41.6	3.0	No	No	No	No	No
Cadmium	0.4	4	0.31	1.2	4.2	0.1	No	No	No	No	No
Chromium	50	370	81	81	160	12.1	No	No	No	No	No
Copper	30	300	27	34	108	8.5	No	No	No	No	No
Mercury	0.25	1.5	0.07	0.15	0.7	0.0	No	No	No	No	No
Nickel	30	150	36	-	-	13.0	No	No	No	No	No
Lead	50	400	38	47	112	5.3	No	No	No	No	No
Zinc	130	600	122	150	271	33.2	No	No	No	No	No
					-						
Napthalene	0.1	-	0.08	0.16	0.319	0.0	No	N/A	No	No	No
Acenaphthylene	0.1	-	-	-	0.128	0.0	No	N/A	N/A	No	No
Acenaphthene	0.1	-	-	-	0.0889	0.0	No	N/A	N/A	No	No
Fluorene	0.1	-	-	-	0.144	0.0	No	N/A	N/A	No	No
Phenanthrene	0.1	-	0.032	0.24	0.544	0.1	**Yes**	N/A	**Yes**	No	No
Anthracene	0.1	-	0.05	0.085	0.245	0.0	No	N/A	No	No	No
Fluoranthene	0.1	-	0.039	0.6	1.494	0.0	No	N/A	No	No	No
Pyrene	0.1	-	0.024	0.665	1.398	0.0	No	N/A	**Yes**	No	No
Benzo(a)anthracene	0.1	-	0.016	0.261	0.693	0.0	No	N/A	No	No	No
Chrysene	0.1	-	0.02	0.384	0.846	0.0	No	N/A	No	No	No
Benzo(b)fluoranthene	0.1	-	-	-	-	0.0	No	N/A	N/A	No	No
Benzo(k)fluoranthene	0.1	-	-	-	-	0.0	No	N/A	N/A	No	No
Benzo(a)pyrene	0.1	-	0.03	0.384	0.763	0.0	No	N/A	No	No	No
Indeno(1,2,3cd)pyrene	0.1	-	0.103	0.24	-	0.0	No	N/A	No	No	No
Benzo(ghi)perylene	0.1	-	0.08	0.085	-	0.0	No	N/A	No	No	No
Dibenzo(a,h)anthracene	0.01	-	-	-	0.135	0.0	No	N/A	N/A	No	No
TPH	100	-	-	-	-	28.3	No	N/A	N/A	No	No
PCBs	0.02	0.18	-	-	0.189	0.0	No	No	N/A	No	No
TBT	0.1	0.5	-	-	-	0.0	No	No	N/A	No	No

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247

Issue Version: 1

Customer: Causeway Geotech Ltd, 8 Drumahiskey Rd, Bendooragh, Balnamore, Ballymoney, BT53 7QL

Customer Reference: 23-1739 - Hunterston Marine Yard GI

Date Sampled: 07-20-Mar-24

Date Samples Received: 28-Mar-24

Test Report Date: 29-Apr-24

Condition of samples: Ambient Satisfactory

Opinions and Interpretations expressed herein are outside the scope of our UKAS accreditaion
The results reported relate only to the sample tested
The results apply to the sample as received

<Redacted>

Authorised by: Jane Colbourne

Position: Customer Service Specialist

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	%	%	%	%	%	Mg/m3
		Method No	ASC/SOP/303	ASC/SOP/303	SUB_01*	SUB_01*	SUB_01*	SUB_03*
		Limit of Detection	0.2	0.2	N/A	N/A	N/A	N/A
		Accreditation	UKAS	UKAS	N	N	N	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Total Moisture @ 120°C**	**Total Solids**	**Gravel (>2mm)**	**Sand (63-2000 µm)**	**Silt (<63 µm)**	**Particle Density**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	22.5	77.5	0.00	67.10	32.90	2.67
BH03 (ES2) 1.90m	MAR02247.002	Sediment	14.1	85.9	0.00	51.38	48.62	2.67
BH03 (ES3) 3.70m	MAR02247.003	Sediment	17.5	82.5	0.00	7.23	92.77	2.72
BH05 (ES1) 0.00m	MAR02247.004	Sediment	17.5	82.5	1.25	89.89	8.87	2.67
BH05 (ES2) 6.00m	MAR02247.005	Sediment	13.6	86.4	10.05	50.33	39.61	2.70
BH05 (ES3) 12.00m	MAR02247.006	Sediment	22.0	78.0	0.93	8.94	90.13	2.72
BH06 (ES1) 2.30m	MAR02247.007	Sediment	20.8	79.2	1.03	83.54	15.43	2.66
BH06 (ES2) 5.94m	MAR02247.008	Sediment	18.3	81.7	0.00	31.79	68.21	2.72
BH06 (ES3) 11.87m	MAR02247.009	Sediment	8.60	91.4	18.30	22.62	59.08	2.69
BH10 (ES1) 0.00m	MAR02247.010	Sediment	24.3	75.7	0.00	77.43	22.57	2.66
BH10 (ES2) 1.80m	MAR02247.011	Sediment	23.9	76.1	0.00	60.28	39.72	2.68
BH10 (ES3) 3.50m	MAR02247.012	Sediment	19.5	80.5	4.55	58.26	37.19	2.68
BH12 (ES1) 0.00m	MAR02247.013	Sediment	22.7	77.3	0.00	76.07	23.93	2.67
BH12 (ES2) 1.50m	MAR02247.014	Sediment	18.5	81.5	0.00	94.29	5.71	2.66
BH12 (ES3) 3.00m	MAR02247.015	Sediment	17.9	82.1	0.00	96.88	3.12	2.67
BH13A (ES1) 0.00m	MAR02247.016	Sediment	26.1	73.9	0.00	73.60	26.40	2.67
BH13A (ES2) 2.40m	MAR02247.017	Sediment	18.7	81.3	5.03	26.39	68.58	2.70
BH13A (ES3) 4.80m	MAR02247.018	Sediment	21.0	79.0	0.00	33.26	66.74	2.74
BH14 (ES1) 0.00m	MAR02247.019	Sediment	23.9	76.1	0.00	85.20	14.80	2.68
BH14 (ES2) 2.10m	MAR02247.020	Sediment	19.2	80.8	0.00	89.00	11.00	2.67
BH14 (ES3) 4.20m	MAR02247.021	Sediment	23.4	76.6	0.00	63.24	36.76	2.67
BH15 (ES1) 0.00m	MAR02247.022	Sediment	15.9	84.1	1.17	44.77	54.06	2.69
BH15 (ES2) 1.40m	MAR02247.023	Sediment	15.5	84.5	0.78	26.00	73.22	2.69
BH15 (ES3) 2.80m	MAR02247.024	Sediment	19.2	80.8	0.00	50.45	49.55	2.73
BH16 (ES1) 0.00m	MAR02247.025	Sediment	25.0	75.0	4.30	69.92	25.78	2.65
BH16 (ES2) 3.80m	MAR02247.026	Sediment	24.9	75.1	0.00	23.30	76.70	2.73
BH16 (ES3) 7.60m	MAR02247.027	Sediment	14.9	85.1	0.00	65.84	34.16	2.68
BH17 (ES1) 0.00m	MAR02247.028	Sediment	26.0	74.0	0.34	88.95	10.70	2.66
BH17 (ES2) 0.90m	MAR02247.029	Sediment	18.0	82.0	0.62	66.56	32.82	2.66
BH17 (ES3) 1.90m	MAR02247.030	Sediment	23.5	76.5	0.00	71.16	28.84	2.67
BH18 (ES1) 0.00m	MAR02247.031	Sediment	21.3	78.7	0.34	76.49	23.17	2.67
BH18 (ES2) 0.60m	MAR02247.032	Sediment	14.1	85.9	0.00	60.36	39.64	2.67

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	%	%	%	%	%	Mg/m3
		Method No	ASC/SOP/303	ASC/SOP/303	SUB_01*	SUB_01*	SUB_01*	SUB_03*
		Limit of Detection	0.2	0.2	N/A	N/A	N/A	N/A
		Accreditation	UKAS	UKAS	N	N	N	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Total Moisture @ 120°C**	**Total Solids**	**Gravel (>2mm)**	**Sand (63-2000 µm)**	**Silt (<63 µm)**	**Particle Density**
BH18 (ES3) 1.20m	MAR02247.033	Sediment	21.4	78.6	0.00	87.86	12.14	2.67
BH19 (ES1) 0.00m	MAR02247.034	Sediment	23.3	76.7	0.00	88.63	11.37	2.67
BH19 (ES2) 1.10m	MAR02247.035	Sediment	21.7	78.3	0.19	65.44	34.37	2.68
BH19 (ES3) 2.10m	MAR02247.036	Sediment	17.8	82.2	1.82	73.81	24.37	2.67
BH20 (ES1) 0.00m	MAR02247.037	Sediment	34.9	65.1	0.11	59.28	40.61	2.66
BH20 (ES2) 1.70m	MAR02247.038	Sediment	16.3	83.7	0.63	52.12	47.24	2.67
BH20 (ES3) 3.30m	MAR02247.039	Sediment	24.3	75.7	0.34	60.93	38.73	2.69
BH21 (ES1) 0.00m	MAR02247.040	Sediment	24.7	75.3	0.29	91.54	8.17	2.66
BH21 (ES3) 3.00m	MAR02247.041	Sediment	18.7	81.3	0.28	69.53	30.18	2.66
BH22 (ES1) 0.00m	MAR02247.042	Sediment	23.8	76.2	0.47	65.16	34.37	2.67
BH22 (ES2) 3.80m	MAR02247.043	Sediment	21.3	78.7	6.19	64.37	29.44	2.69
BH22 (ES3) 7.50m	MAR02247.044	Sediment	10.4	89.6	23.88	21.48	54.64	2.71
BH25 (ES1) 0.00m	MAR02247.045	Sediment	23.1	76.9	0.43	73.61	25.96	2.67
BH25 (ES2) 2.10m	MAR02247.046	Sediment	16.7	83.3	0.00	46.55	53.45	2.69
BH25 (ES3) 4.10m	MAR02247.047	Sediment	17.7	82.3	6.82	38.67	54.51	2.71
BH26 (ES1) 0.00m	MAR02247.048	Sediment	28.7	71.3	1.00	75.91	23.09	2.66
BH26 (ES2) 3.10m	MAR02247.049	Sediment	14.3	85.7	12.79	42.10	45.12	2.68
BH26 (ES3) 6.20m	MAR02247.050	Sediment	18.7	81.3	0.00	81.80	18.20	2.68
BH27 (ES1) 0.00m	MAR02247.051	Sediment	23.0	77.0	6.98	66.80	26.22	2.68
BH27 (ES2) 3.30m	MAR02247.052	Sediment	15.7	84.3	0.27	68.77	30.96	2.67
BH27 (ES3) 6.50m	MAR02247.053	Sediment	13.0	87.0	1.51	50.74	47.75	2.70
BH29 (ES1) 0.00m	MAR02247.054	Sediment	14.5	85.5	0.15	66.25	33.60	2.67
BH29 (ES2) 2.79m	MAR02247.055	Sediment	16.1	83.9	3.38	31.26	65.36	2.68
BH29 (ES3) 5.59m	MAR02247.056	Sediment	17.9	82.1	3.41	48.05	48.54	2.69
BH30 (ES1) 0.00m	MAR02247.057	Sediment	18.9	81.1	0.03	89.95	10.02	2.67
BH30 (ES2) 3.86m	MAR02247.058	Sediment	17.2	82.8	0.06	57.55	42.39	2.68
BH30 (ES3) 7.72m	MAR02247.059	Sediment	17.4	82.6	0.00	34.15	65.85	2.75
		Reference Material (% Recovery)	N/A	N/A	N/A	N/A	N/A	N/A
		QC Blank	N/A	N/A	N/A	N/A	N/A	N/A

* See Report Notes

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	% M/M
		Method No	WSLM59*
		Limit of Detection	0.02
		Accreditation	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**TOC**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	0.44
BH03 (ES2) 1.90m	MAR02247.002	Sediment	0.38
BH03 (ES3) 3.70m	MAR02247.003	Sediment	0.37
BH05 (ES1) 0.00m	MAR02247.004	Sediment	0.21
BH05 (ES2) 6.00m	MAR02247.005	Sediment	0.17
BH05 (ES3) 12.00m	MAR02247.006	Sediment	0.18
BH06 (ES1) 2.30m	MAR02247.007	Sediment	0.19
BH06 (ES2) 5.94m	MAR02247.008	Sediment	0.18
BH06 (ES3) 11.87m	MAR02247.009	Sediment	0.16
BH10 (ES1) 0.00m	MAR02247.010	Sediment	0.58
BH10 (ES2) 1.80m	MAR02247.011	Sediment	0.56
BH10 (ES3) 3.50m	MAR02247.012	Sediment	0.25
BH12 (ES1) 0.00m	MAR02247.013	Sediment	0.62
BH12 (ES2) 1.50m	MAR02247.014	Sediment	0.09
BH12 (ES3) 3.00m	MAR02247.015	Sediment	0.13
BH13A (ES1) 0.00m	MAR02247.016	Sediment	0.48
BH13A (ES2) 2.40m	MAR02247.017	Sediment	0.46
BH13A (ES3) 4.80m	MAR02247.018	Sediment	0.14
BH14 (ES1) 0.00m	MAR02247.019	Sediment	0.11
BH14 (ES2) 2.10m	MAR02247.020	Sediment	0.14
BH14 (ES3) 4.20m	MAR02247.021	Sediment	0.16
BH15 (ES1) 0.00m	MAR02247.022	Sediment	0.30
BH15 (ES2) 1.40m	MAR02247.023	Sediment	0.47
BH15 (ES3) 2.80m	MAR02247.024	Sediment	0.15
BH16 (ES1) 0.00m	MAR02247.025	Sediment	0.14
BH16 (ES2) 3.80m	MAR02247.026	Sediment	0.19
BH16 (ES3) 7.60m	MAR02247.027	Sediment	0.11
BH17 (ES1) 0.00m	MAR02247.028	Sediment	0.31
BH17 (ES2) 0.90m	MAR02247.029	Sediment	0.13
BH17 (ES3) 1.90m	MAR02247.030	Sediment	0.25
BH18 (ES1) 0.00m	MAR02247.031	Sediment	0.48
BH18 (ES2) 0.60m	MAR02247.032	Sediment	0.16

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	% M/M
		Method No	WSLM59*
		Limit of Detection	0.02
		Accreditation	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**TOC**
BH18 (ES3) 1.20m	MAR02247.033	Sediment	0.27
BH19 (ES1) 0.00m	MAR02247.034	Sediment	0.13
BH19 (ES2) 1.10m	MAR02247.035	Sediment	0.10
BH19 (ES3) 2.10m	MAR02247.036	Sediment	0.10
BH20 (ES1) 0.00m	MAR02247.037	Sediment	0.24
BH20 (ES2) 1.70m	MAR02247.038	Sediment	0.30
BH20 (ES3) 3.30m	MAR02247.039	Sediment	0.21
BH21 (ES1) 0.00m	MAR02247.040	Sediment	0.10
BH21 (ES3) 3.00m	MAR02247.041	Sediment	0.11
BH22 (ES1) 0.00m	MAR02247.042	Sediment	0.10
BH22 (ES2) 3.80m	MAR02247.043	Sediment	0.11
BH22 (ES3) 7.50m	MAR02247.044	Sediment	0.14
BH25 (ES1) 0.00m	MAR02247.045	Sediment	1.17
BH25 (ES2) 2.10m	MAR02247.046	Sediment	0.33
BH25 (ES3) 4.10m	MAR02247.047	Sediment	0.39
BH26 (ES1) 0.00m	MAR02247.048	Sediment	0.21
BH26 (ES2) 3.10m	MAR02247.049	Sediment	0.24
BH26 (ES3) 6.20m	MAR02247.050	Sediment	0.07
BH27 (ES1) 0.00m	MAR02247.051	Sediment	0.06
BH27 (ES2) 3.30m	MAR02247.052	Sediment	0.77
BH27 (ES3) 6.50m	MAR02247.053	Sediment	0.48
BH29 (ES1) 0.00m	MAR02247.054	Sediment	0.11
BH29 (ES2) 2.79m	MAR02247.055	Sediment	0.31
BH29 (ES3) 5.59m	MAR02247.056	Sediment	0.13
BH30 (ES1) 0.00m	MAR02247.057	Sediment	0.16
BH30 (ES2) 3.86m	MAR02247.058	Sediment	0.11
BH30 (ES3) 7.72m	MAR02247.059	Sediment	0.13
		Reference Material (% Recovery)	101
		QC Blank	<0.02

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	mg/Kg (Dry Weight)							
		Method No	ICPMSS*							
		Limit of Detection	0.5	0.04	0.5	0.5	0.01	0.5	0.5	2
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Arsenic**	**Cadmium**	**Chromium**	**Copper**	**Mercury**	**Nickel**	**Lead**	**Zinc**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	4.2	0.12	16.8	8.2	0.03	16.9	7.1	32.4
BH03 (ES2) 1.90m	MAR02247.002	Sediment	7.2	0.13	17.2	8.4	0.01	18.4	6.1	33.0
BH03 (ES3) 3.70m	MAR02247.003	Sediment	8.2	0.12	20.2	9.9	0.01	21.5	7.2	40.3
BH05 (ES1) 0.00m	MAR02247.004	Sediment	1.4	0.07	8.8	3.8	<0.01	9.5	2.7	27.7
BH05 (ES2) 6.00m	MAR02247.005	Sediment	2.7	0.08	10.9	5.3	0.06	9.3	2.9	18.4
BH05 (ES3) 12.00m	MAR02247.006	Sediment	3.7	0.12	15.6	15.5	<0.01	19.5	6.5	44.4
BH06 (ES1) 2.30m	MAR02247.007	Sediment	2.0	0.06	7.1	5.5	0.02	7.6	3.2	18.3
BH06 (ES2) 5.94m	MAR02247.008	Sediment	4.9	0.15	20.7	19.8	0.01	25.5	7.2	55.8
BH06 (ES3) 11.87m	MAR02247.009	Sediment	1.2	0.05	4.9	4.2	<0.01	6.0	1.9	14.9
BH10 (ES1) 0.00m	MAR02247.010	Sediment	3.9	0.13	21.3	6.4	0.03	20.6	11.2	45.1
BH10 (ES2) 1.80m	MAR02247.011	Sediment	4.9	0.13	25.1	8.7	0.04	27.8	13.6	77.0
BH10 (ES3) 3.50m	MAR02247.012	Sediment	3.6	0.07	13.9	5.5	<0.01	13.8	5.2	27.5
BH12 (ES1) 0.00m	MAR02247.013	Sediment	4.9	0.12	24.7	7.7	0.04	26.0	13.2	75.5
BH12 (ES2) 1.50m	MAR02247.014	Sediment	1.5	<0.04	6.6	2.6	0.01	5.9	2.2	18.8
BH12 (ES3) 3.00m	MAR02247.015	Sediment	1.4	0.07	6.4	2.8	<0.01	5.4	2.5	22.4
BH13A (ES1) 0.00m	MAR02247.016	Sediment	3.1	0.09	17.0	4.7	0.03	16.2	7.5	46.4
BH13A (ES2) 2.40m	MAR02247.017	Sediment	9.7	0.16	23.1	9.8	0.01	25.2	8.6	51.1
BH13A (ES3) 4.80m	MAR02247.018	Sediment	3.7	0.09	12.9	15.7	<0.01	16.8	5.7	51.5
BH14 (ES1) 0.00m	MAR02247.019	Sediment	2.1	<0.04	5.6	1.9	<0.01	5.3	2.4	19.4
BH14 (ES2) 2.10m	MAR02247.020	Sediment	1.2	<0.04	5.5	2.9	<0.01	5.9	2.3	19.9
BH14 (ES3) 4.20m	MAR02247.021	Sediment	2.4	<0.04	7.9	3.7	0.02	7.8	2.7	14.6
BH15 (ES1) 0.00m	MAR02247.022	Sediment	2.9	<0.04	12.3	5.3	0.02	12.3	4.8	23.7
BH15 (ES2) 1.40m	MAR02247.023	Sediment	5.0	0.08	21.8	10.1	0.02	23.7	8.1	48.9
BH15 (ES3) 2.80m	MAR02247.024	Sediment	2.7	0.06	15.0	16.0	0.01	19.0	6.2	45.8
BH16 (ES1) 0.00m	MAR02247.025	Sediment	1.8	<0.04	7.4	3.6	0.01	5.4	4.9	17.7
BH16 (ES2) 3.80m	MAR02247.026	Sediment	3.3	0.05	16.1	16.1	0.01	19.2	6.4	41.5
BH16 (ES3) 7.60m	MAR02247.027	Sediment	2.8	<0.04	7.2	11.8	0.02	10.1	4.4	23.3
BH17 (ES1) 0.00m	MAR02247.028	Sediment	1.7	<0.04	9.4	3.9	0.04	9.1	4.7	22.1
BH17 (ES2) 0.90m	MAR02247.029	Sediment	1.4	<0.04	6.3	3.2	0.01	6.5	1.7	14.8
BH17 (ES3) 1.90m	MAR02247.030	Sediment	1.8	0.05	8.5	2.8	<0.01	8.0	2.7	27.8
BH18 (ES1) 0.00m	MAR02247.031	Sediment	3.4	0.08	16.2	5.2	0.04	14.7	9.5	42.4
BH18 (ES2) 0.60m	MAR02247.032	Sediment	2.3	0.05	8.1	9.2	<0.01	9.2	4.2	39.1

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	mg/Kg (Dry Weight)							
		Method No	ICPMSS*							
		Limit of Detection	0.5	0.04	0.5	0.5	0.01	0.5	0.5	2
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Arsenic**	**Cadmium**	**Chromium**	**Copper**	**Mercury**	**Nickel**	**Lead**	**Zinc**
BH18 (ES3) 1.20m	MAR02247.033	Sediment	2.4	0.04	8.3	4.3	<0.01	7.4	3.9	28.3
BH19 (ES1) 0.00m	MAR02247.034	Sediment	2.4	<0.04	8.2	2.4	<0.01	4.8	6.8	40.5
BH19 (ES2) 1.10m	MAR02247.035	Sediment	1.8	<0.04	5.8	1.8	<0.01	4.0	1.6	21.5
BH19 (ES3) 2.10m	MAR02247.036	Sediment	1.3	<0.04	7.2	3.0	<0.01	4.8	1.7	16.8
BH20 (ES1) 0.00m	MAR02247.037	Sediment	4.3	0.05	13.3	4.7	<0.01	13.1	4.1	32.5
BH20 (ES2) 1.70m	MAR02247.038	Sediment	5.1	0.06	15.0	5.5	<0.01	15.2	5.0	34.3
BH20 (ES3) 3.30m	MAR02247.039	Sediment	2.9	0.04	14.5	7.7	0.03	14.8	4.9	34.4
BH21 (ES1) 0.00m	MAR02247.040	Sediment	1.3	<0.04	7.8	3.8	0.02	5.8	8.1	18.6
BH21 (ES3) 3.00m	MAR02247.041	Sediment	1.0	<0.04	11.8	3.2	0.01	5.5	1.9	14.0
BH22 (ES1) 0.00m	MAR02247.042	Sediment	1.2	<0.04	10.1	12.3	0.03	10.8	4.5	24.6
BH22 (ES2) 3.80m	MAR02247.043	Sediment	3.2	0.05	8.2	16.5	0.07	12.3	5.2	44.3
BH22 (ES3) 7.50m	MAR02247.044	Sediment	2.6	0.08	12.7	10.3	0.04	15.7	5.4	36.4
BH25 (ES1) 0.00m	MAR02247.045	Sediment	4.8	0.14	34.0	9.8	0.08	27.9	15.0	65.1
BH25 (ES2) 2.10m	MAR02247.046	Sediment	4.0	0.04	14.3	6.3	0.02	15.7	5.6	29.9
BH25 (ES3) 4.10m	MAR02247.047	Sediment	3.9	0.07	16.2	8.0	0.01	17.5	6.1	34.4
BH26 (ES1) 0.00m	MAR02247.048	Sediment	2.1	<0.04	10.2	3.7	0.02	8.7	5.4	25.7
BH26 (ES2) 3.10m	MAR02247.049	Sediment	3.3	0.24	7.5	7.6	0.01	9.6	3.8	27.7
BH26 (ES3) 6.20m	MAR02247.050	Sediment	2.1	<0.04	4.5	6.9	0.03	6.7	2.8	18.8
BH27 (ES1) 0.00m	MAR02247.051	Sediment	1.9	<0.04	5.2	7.1	0.02	8.4	2.7	18.1
BH27 (ES2) 3.30m	MAR02247.052	Sediment	4.4	0.09	21.6	7.7	0.07	21.5	12.8	47.7
BH27 (ES3) 6.50m	MAR02247.053	Sediment	3.0	0.07	13.8	5.6	0.04	14.4	7.6	38.8
BH29 (ES1) 0.00m	MAR02247.054	Sediment	2.8	<0.04	6.5	10.2	0.01	9.9	3.8	30.2
BH29 (ES2) 2.79m	MAR02247.055	Sediment	3.9	0.06	17.0	8.2	0.02	18.9	6.5	37.0
BH29 (ES3) 5.59m	MAR02247.056	Sediment	3.1	<0.04	10.5	13.0	0.02	13.5	5.1	35.0
BH30 (ES1) 0.00m	MAR02247.057	Sediment	1.8	<0.04	8.1	4.2	0.02	7.8	3.2	35.0
BH30 (ES2) 3.86m	MAR02247.058	Sediment	2.2	<0.04	7.7	4.0	0.12	7.7	2.6	24.3
BH30 (ES3) 7.72m	MAR02247.059	Sediment	3.4	0.08	13.8	16.8	0.2	18.6	5.9	42.9
Certified Reference Material SETOC 768 (% Recovery)			105	104	108	106	106	109	106	110
QC Blank			<0.5	<0.04	<0.5	<0.5	<0.01	<0.5	<0.5	<2

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	
		Method No	ASC/SOP/301	
		Limit of Detection	1	1
		Accreditation	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Dibutyltin (DBT)**	**Tributyltin (TBT)**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	<5	<5
BH03 (ES2) 1.90m	MAR02247.002	Sediment	<1	<1
BH03 (ES3) 3.70m	MAR02247.003	Sediment	<1	<1
BH05 (ES1) 0.00m	MAR02247.004	Sediment	<1	<1
BH05 (ES2) 6.00m	MAR02247.005	Sediment	<1	<1
BH05 (ES3) 12.00m	MAR02247.006	Sediment	<5	<5
BH06 (ES1) 2.30m	MAR02247.007	Sediment	<1	<1
BH06 (ES2) 5.94m	MAR02247.008	Sediment	<1	<1
BH06 (ES3) 11.87m	MAR02247.009	Sediment	<1	<1
BH10 (ES1) 0.00m	MAR02247.010	Sediment	<5	<5
BH10 (ES2) 1.80m	MAR02247.011	Sediment	<5	<5
BH10 (ES3) 3.50m	MAR02247.012	Sediment	<1	<1
BH12 (ES1) 0.00m	MAR02247.013	Sediment	<1	<1
Certified Reference Material BCR-646 (% Recovery)			64	71
QC Blank			<1	<1

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	
		Method No	ASC/SOP/301	
		Limit of Detection	1	1
		Accreditation	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Dibutyltin (DBT)**	**Tributyltin (TBT)**
BH12 (ES2) 1.50m	MAR02247.014	Sediment	<1	<1
BH12 (ES3) 3.00m	MAR02247.015	Sediment	<1	<1
BH13A (ES1) 0.00m	MAR02247.016	Sediment	<5	<5
BH13A (ES2) 2.40m	MAR02247.017	Sediment	<1	<1
BH13A (ES3) 4.80m	MAR02247.018	Sediment	<5	<5
BH14 (ES1) 0.00m	MAR02247.019	Sediment	<1	<1
BH14 (ES2) 2.10m	MAR02247.020	Sediment	<1	<1
BH14 (ES3) 4.20m	MAR02247.021	Sediment	<1	<1
BH15 (ES1) 0.00m	MAR02247.022	Sediment	<1	<1
BH15 (ES2) 1.40m	MAR02247.023	Sediment	<1	<1
BH15 (ES3) 2.80m	MAR02247.024	Sediment	<1	<1
BH16 (ES1) 0.00m	MAR02247.025	Sediment	<1	<1
BH16 (ES2) 3.80m	MAR02247.026	Sediment	<5	<5
BH16 (ES3) 7.60m	MAR02247.027	Sediment	<1	<1
BH17 (ES1) 0.00m	MAR02247.028	Sediment	<5	<5
BH17 (ES2) 0.90m	MAR02247.029	Sediment	<1	<1
BH17 (ES3) 1.90m	MAR02247.030	Sediment	<1	<1
BH18 (ES1) 0.00m	MAR02247.031	Sediment	<1	<1
BH18 (ES2) 0.60m	MAR02247.032	Sediment	<1	<1
Certified Reference Material BCR-646 (% Recovery)			64	71
QC Blank			<1	<1

* See Report Notes

Certificate of Analysis

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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	
		Method No	ASC/SOP/301	
		Limit of Detection	1	1
		Accreditation	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Dibutyltin (DBT)**	**Tributyltin (TBT)**
BH18 (ES3) 1.20m	MAR02247.033	Sediment	<1	<1
BH19 (ES1) 0.00m	MAR02247.034	Sediment	<1	<1
BH19 (ES2) 1.10m	MAR02247.035	Sediment	<1	<1
BH19 (ES3) 2.10m	MAR02247.036	Sediment	<1	<1
BH20 (ES1) 0.00m	MAR02247.037	Sediment	<1	<1
BH20 (ES2) 1.70m	MAR02247.038	Sediment	<5	<5
BH20 (ES3) 3.30m	MAR02247.039	Sediment	<5	<5
BH21 (ES1) 0.00m	MAR02247.040	Sediment	<5	<5
BH21 (ES3) 3.00m	MAR02247.041	Sediment	<1	<1
BH22 (ES1) 0.00m	MAR02247.042	Sediment	<1	<1
BH22 (ES2) 3.80m	MAR02247.043	Sediment	<5	<5
BH22 (ES3) 7.50m	MAR02247.044	Sediment	<5	<5
BH25 (ES1) 0.00m	MAR02247.045	Sediment	<1	<1
BH25 (ES2) 2.10m	MAR02247.046	Sediment	<1	<1
BH25 (ES3) 4.10m	MAR02247.047	Sediment	<1	<1
BH26 (ES1) 0.00m	MAR02247.048	Sediment	<5	<5
BH26 (ES2) 3.10m	MAR02247.049	Sediment	<1	<1
BH26 (ES3) 6.20m	MAR02247.050	Sediment	<1	<1
BH27 (ES1) 0.00m	MAR02247.051	Sediment	<5	<5
Certified Reference Material BCR-646 (% Recovery)			63	72
QC Blank			<1	<1

* See Report Notes

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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	
		Method No	ASC/SOP/301	
		Limit of Detection	1	1
		Accreditation	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Dibutyltin (DBT)**	**Tributyltin (TBT)**
BH27 (ES2) 3.30m	MAR02247.052	Sediment	<1	<1
BH27 (ES3) 6.50m	MAR02247.053	Sediment	<1	<1
BH29 (ES1) 0.00m	MAR02247.054	Sediment	<1	<1
BH29 (ES2) 2.79m	MAR02247.055	Sediment	<5	<5
BH29 (ES3) 5.59m	MAR02247.056	Sediment	<1	<1
BH30 (ES1) 0.00m	MAR02247.057	Sediment	<1	<1
BH30 (ES2) 3.86m	MAR02247.058	Sediment	<1	<1
BH30 (ES3) 7.72m	MAR02247.059	Sediment	<1	<1
Certified Reference Material BCR-646 (% Recovery)			67	76
QC Blank			<1	<1

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**ACENAPTH**	**ACENAPHY**	**ANTHRACN**	**BAA**	**BAP**	**BBF**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	<1	<1	1.91	9.00	10.5	8.76
BH03 (ES2) 1.90m	MAR02247.002	Sediment	1.74	<1	1.99	5.05	6.75	7.25
BH03 (ES3) 3.70m	MAR02247.003	Sediment	2.32	<1	4.28	13.5	16.9	16.8
BH05 (ES1) 0.00m	MAR02247.004	Sediment	<1	<1	<1	3.16	4.62	3.56
BH05 (ES2) 6.00m	MAR02247.005	Sediment	<1	<1	<1	1.90	2.79	3.60
BH05 (ES3) 12.00m	MAR02247.006	Sediment	<1	<1	<1	1.69	2.37	4.73
BH06 (ES1) 2.30m	MAR02247.007	Sediment	<5	<5	<5	9.39	10.1	7.57
BH06 (ES2) 5.94m	MAR02247.008	Sediment	<1	<1	<1	<1	<1	<1
BH06 (ES3) 11.87m	MAR02247.009	Sediment	<1	<1	<1	<1	<1	2.02
Certified Reference Material NIST 1941b (% Recovery)			102	120	71	60	57	82
QC Blank			<1	<1	<1	<1	<1	<1

For full analyte name see method summaries
~ Indicates result is for an In-house Reference Material as no Certified Reference Materials are avaliable.
As the method uses surrogate standards to correct for losses, the RM results are reported as percentage trueness, not recovery.
*See report notes

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS	UKAS	UKAS	N	N	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**BEP**	**BENZGHIP**	**BKF***	**C1N**	**C1PHEN**	**C2N**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	6.38	8.46	7.93	7.70	11.0	11.6
BH03 (ES2) 1.90m	MAR02247.002	Sediment	8.43	15.8	3.83	25.0	28.2	32.7
BH03 (ES3) 3.70m	MAR02247.003	Sediment	14.2	22.0	11.5	26.4	30.3	37.0
BH05 (ES1) 0.00m	MAR02247.004	Sediment	2.91	3.27	4.17	2.53	3.50	4.06
BH05 (ES2) 6.00m	MAR02247.005	Sediment	3.35	6.60	1.40	11.3	12.7	14.7
BH05 (ES3) 12.00m	MAR02247.006	Sediment	3.96	6.35	1.62	8.24	8.02	11.5
BH06 (ES1) 2.30m	MAR02247.007	Sediment	<5	7.48	8.43	11.9	15.3	16.1
BH06 (ES2) 5.94m	MAR02247.008	Sediment	<1	<1	<1	1.73	<1	1.78
BH06 (ES3) 11.87m	MAR02247.009	Sediment	1.78	3.09	<1	2.31	2.17	2.52
Certified Reference Material NIST 1941b (% Recovery)			69	77	75	74	75	114
QC Blank			<1	<1	<1	<1	<1	<1

For full analyte name see method summaries
~ Indicates result is for an In-house Reference Material as no Certified Reference Materials are avaliable.
As the method uses surrogate standards to correct for losses, the RM results are reported as percentage trueness, not recovery.
*See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	N	UKAS	UKAS	UKAS	N*	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**C3N**	**CHRYSENE***	**DBENZAH**	**FLUORANT**	**FLUORENE**	**INDPYR**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	13.9	9.05	1.34	15.0	1.32	5.96
BH03 (ES2) 1.90m	MAR02247.002	Sediment	34.8	7.47	1.22	6.31	4.48	4.12
BH03 (ES3) 3.70m	MAR02247.003	Sediment	41.9	16.10	2.87	20.4	4.85	8.91
BH05 (ES1) 0.00m	MAR02247.004	Sediment	4.15	3.99	<1	6.04	<1	2.65
BH05 (ES2) 6.00m	MAR02247.005	Sediment	18.3	3.14	<1	2.51	2.15	1.55
BH05 (ES3) 12.00m	MAR02247.006	Sediment	10.9	3.24	<1	3.69	1.56	1.72
BH06 (ES1) 2.30m	MAR02247.007	Sediment	15.8	10.1	<5	19.0	<5	5.05
BH06 (ES2) 5.94m	MAR02247.008	Sediment	1.69	<1	<1	<1	<1	<1
BH06 (ES3) 11.87m	MAR02247.009	Sediment	2.42	1.45	<1	1.16	<1	<1
Certified Reference Material NIST 1941b (% Recovery)			109	79	105	81	60	70
QC Blank			<1	<1	<1	<1	<1	<1

For full analyte name see method summaries
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*See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/306
		Limit of Detection	1	1	1	1	100
		Accreditation	UKAS	N	UKAS	UKAS	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**NAPTH**	**PERYLENE**	**PHENANT**	**PYRENE**	**THC**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	2.20	3.30	6.01	16.4	7370
BH03 (ES2) 1.90m	MAR02247.002	Sediment	5.65	8.46	17.2	9.54	7680
BH03 (ES3) 3.70m	MAR02247.003	Sediment	5.52	9.92	20.8	24.2	23200
BH05 (ES1) 0.00m	MAR02247.004	Sediment	<1	<1	3.43	5.70	12500
BH05 (ES2) 6.00m	MAR02247.005	Sediment	2.78	2.94	7.28	3.75	2820
BH05 (ES3) 12.00m	MAR02247.006	Sediment	1.74	1.80	6.07	3.70	23400
BH06 (ES1) 2.30m	MAR02247.007	Sediment	<5	<5	13.6	19.6	80200
BH06 (ES2) 5.94m	MAR02247.008	Sediment	<1	<1	<1	<1	3310
BH06 (ES3) 11.87m	MAR02247.009	Sediment	<1	1.34	1.49	1.88	1750
Certified Reference Material NIST 1941b (% Recovery)			63	44	83	70	92~
QC Blank			<1	<1	<1	<1	<100

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Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	N*
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**ACENAPTH**	**ACENAPHY**	**ANTHRACN**	**BAA**	**BAP**	**BBF**
BH10 (ES1) 0.00m	MAR02247.010	Sediment	<5	<5	16.7	32.7	39.1	33.0
BH10 (ES2) 1.80m	MAR02247.011	Sediment	15.9	<5	36.7	119	117	90.2
BH10 (ES3) 3.50m	MAR02247.012	Sediment	2.63	1.79	7.68	20.8	26.3	20.3
BH12 (ES1) 0.00m	MAR02247.013	Sediment	37.4	9.91	51.4	132	156	115
BH12 (ES2) 1.50m	MAR02247.014	Sediment	<1	<1	<1	3.13	3.07	2.11
BH12 (ES3) 3.00m	MAR02247.015	Sediment	<1	<1	<1	<1	<1	<1
BH13A (ES1) 0.00m	MAR02247.016	Sediment	8.39	6.74	30.3	91.4	88.6	71.2
BH13A (ES2) 2.40m	MAR02247.017	Sediment	<1	<1	2.12	7.16	9.66	11.9
BH13A (ES3) 4.80m	MAR02247.018	Sediment	<1	<1	<1	<1	<1	<1
BH14 (ES1) 0.00m	MAR02247.019	Sediment	<1	<1	<1	2.50	2.52	2.77
BH14 (ES2) 2.10m	MAR02247.020	Sediment	3.32	<1	1.48	3.68	4.01	3.04
BH14 (ES3) 4.20m	MAR02247.021	Sediment	<1	<1	<1	1.35	1.91	2.00
BH15 (ES1) 0.00m	MAR02247.022	Sediment	<1	<1	<1	3.56	5.16	5.86
BH15 (ES2) 1.40m	MAR02247.023	Sediment	1.33	<1	1.52	4.44	6.70	7.65
BH15 (ES3) 2.80m	MAR02247.024	Sediment	<1	<1	<1	<1	<1	<1
Certified Reference Material NIST 1941b (% Recovery)			91	117	66	58	54	75
QC Blank			<1	<1	<1	<1	<1	<1

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*See report notes

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS	UKAS	UKAS	N	N	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**BEP**	**BENZGHIP**	**BKF***	**C1N**	**C1PHEN**	**C2N**
BH10 (ES1) 0.00m	MAR02247.010	Sediment	28.5	30.1	44.2	43.4	67.1	73.0
BH10 (ES2) 1.80m	MAR02247.011	Sediment	74.8	71.0	114	84.3	135	111
BH10 (ES3) 3.50m	MAR02247.012	Sediment	18.3	22.9	22.0	23.5	35.2	33.0
BH12 (ES1) 0.00m	MAR02247.013	Sediment	96.3	105	131	110	178	148
BH12 (ES2) 1.50m	MAR02247.014	Sediment	1.98	2.15	2.70	2.68	3.97	3.86
BH12 (ES3) 3.00m	MAR02247.015	Sediment	<1	<1	<1	2.98	2.73	3.23
BH13A (ES1) 0.00m	MAR02247.016	Sediment	57.6	61.7	80.8	56.0	105	76.3
BH13A (ES2) 2.40m	MAR02247.017	Sediment	13.1	22.2	7.88	32.2	33.4	46.6
BH13A (ES3) 4.80m	MAR02247.018	Sediment	<1	<1	<1	1.98	1.90	2.61
BH14 (ES1) 0.00m	MAR02247.019	Sediment	2.64	2.67	2.58	3.69	5.67	7.64
BH14 (ES2) 2.10m	MAR02247.020	Sediment	3.33	4.57	3.62	5.31	7.54	8.26
BH14 (ES3) 4.20m	MAR02247.021	Sediment	2.13	3.19	1.13	6.73	6.64	9.06
BH15 (ES1) 0.00m	MAR02247.022	Sediment	6.77	11.0	3.56	16.0	19.7	22.5
BH15 (ES2) 1.40m	MAR02247.023	Sediment	8.97	14.9	4.85	22.2	22.9	29.7
BH15 (ES3) 2.80m	MAR02247.024	Sediment	<1	<1	<1	2.17	1.66	2.59
Certified Reference Material NIST 1941b (% Recovery)			71	62	76	73	88	111
QC Blank			<1	<1	<1	<1	<1	<1

For full analyte name see method summaries
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Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	N	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**C3N**	**CHRYSENE***	**DBENZAH**	**FLUORANT**	**FLUORENE**	**INDPYR**
BH10 (ES1) 0.00m	MAR02247.010	Sediment	78.8	39.8	<5	67.8	8.76	22.9
BH10 (ES2) 1.80m	MAR02247.011	Sediment	127	149	11.1	249	16.2	57.0
BH10 (ES3) 3.50m	MAR02247.012	Sediment	43.6	22.7	2.92	40.2	4.20	14.8
BH12 (ES1) 0.00m	MAR02247.013	Sediment	200	145	17.6	271	34.4	84.8
BH12 (ES2) 1.50m	MAR02247.014	Sediment	3.97	3.31	<1	5.59	<1	1.56
BH12 (ES3) 3.00m	MAR02247.015	Sediment	2.78	<1	<1	1.23	<1	<1
BH13A (ES1) 0.00m	MAR02247.016	Sediment	111	105	10.4	176	12.3	50.8
BH13A (ES2) 2.40m	MAR02247.017	Sediment	50.8	11.8	1.93	11.2	5.92	5.23
BH13A (ES3) 4.80m	MAR02247.018	Sediment	2.99	<1	<1	<1	<1	<1
BH14 (ES1) 0.00m	MAR02247.019	Sediment	8.09	2.84	<1	4.79	<1	1.83
BH14 (ES2) 2.10m	MAR02247.020	Sediment	10.1	4.37	<1	7.19	1.14	2.17
BH14 (ES3) 4.20m	MAR02247.021	Sediment	10.4	1.91	<1	1.89	<1	<1
BH15 (ES1) 0.00m	MAR02247.022	Sediment	24.4	5.82	<1	4.68	2.64	2.62
BH15 (ES2) 1.40m	MAR02247.023	Sediment	34.6	7.17	1.21	6.05	3.67	3.67
BH15 (ES3) 2.80m	MAR02247.024	Sediment	2.55	<1	<1	<1	<1	<1
Certified Reference Material NIST 1941b (% Recovery)			110	86	98	78	51	57
QC Blank			<1	<1	<1	<1	<1	<1

For full analyte name see method summaries
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Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/306
		Limit of Detection	1	1	1	1	100
		Accreditation	UKAS	N	UKAS	UKAS	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**NAPTH**	**PERYLENE**	**PHENANT**	**PYRENE**	**THC**
BH10 (ES1) 0.00m	MAR02247.010	Sediment	15.6	8.84	47.6	75.9	32600
BH10 (ES2) 1.80m	MAR02247.011	Sediment	29.1	25.8	118	273	71600
BH10 (ES3) 3.50m	MAR02247.012	Sediment	5.77	7.46	25.8	45.5	22000
BH12 (ES1) 0.00m	MAR02247.013	Sediment	35.7	33.1	205	279	77300
BH12 (ES2) 1.50m	MAR02247.014	Sediment	<1	<1	3.46	5.56	5220
BH12 (ES3) 3.00m	MAR02247.015	Sediment	<1	<1	1.64	1.58	2620
BH13A (ES1) 0.00m	MAR02247.016	Sediment	19.0	21.2	84.2	171	43000
BH13A (ES2) 2.40m	MAR02247.017	Sediment	5.26	6.63	23.4	15.3	34700
BH13A (ES3) 4.80m	MAR02247.018	Sediment	<1	<1	1.57	<1	8820
BH14 (ES1) 0.00m	MAR02247.019	Sediment	<1	<1	3.67	5.32	10700
BH14 (ES2) 2.10m	MAR02247.020	Sediment	1.84	1.82	5.78	8.15	16900
BH14 (ES3) 4.20m	MAR02247.021	Sediment	1.69	1.87	4.18	2.80	15700
BH15 (ES1) 0.00m	MAR02247.022	Sediment	2.90	7.40	12.0	6.17	6250
BH15 (ES2) 1.40m	MAR02247.023	Sediment	3.95	12.4	15.9	8.43	7230
BH15 (ES3) 2.80m	MAR02247.024	Sediment	<1	<1	1.48	<1	898
Certified Reference Material NIST 1941b (% Recovery)			55	51	77	69	98~
QC Blank			<1	<1	<1	<1	<100

For full analyte name see method summaries
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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**ACENAPTH**	**ACENAPHY**	**ANTHRACN**	**BAA**	**BAP**	**BBF**
BH16 (ES1) 0.00m	MAR02247.025	Sediment	<1	<1	<1	2.51	3.94	4.19
BH16 (ES2) 3.80m	MAR02247.026	Sediment	1.79	<1	<1	<1	<1	<1
BH16 (ES3) 7.60m	MAR02247.027	Sediment	<1	<1	<1	<1	<1	<1
BH17 (ES1) 0.00m	MAR02247.028	Sediment	8.19	6.40	26.7	67.7	84.7	62.2
BH17 (ES2) 0.90m	MAR02247.029	Sediment	<1	<1	1.40	3.19	3.28	3.83
BH17 (ES3) 1.90m	MAR02247.030	Sediment	3.31	<1	8.87	21.6	24.5	20.1
BH18 (ES1) 0.00m	MAR02247.031	Sediment	5.77	4.29	17.4	54.7	61.4	48.7
BH18 (ES2) 0.60m	MAR02247.032	Sediment	<1	<1	<1	<1	<1	<1
BH18 (ES3) 1.20m	MAR02247.033	Sediment	<1	<1	<1	<1	<1	<1
BH19 (ES1) 0.00m	MAR02247.034	Sediment	<1	<1	<1	2.00	3.19	2.73
BH19 (ES2) 1.10m	MAR02247.035	Sediment	<1	<1	<1	<1	<1	<1
BH19 (ES3) 2.10m	MAR02247.036	Sediment	<1	<1	<1	<1	1.25	1.32
BH20 (ES1) 0.00m	MAR02247.037	Sediment	3.66	<1	2.73	5.65	6.34	7.00
BH20 (ES2) 1.70m	MAR02247.038	Sediment	1.99	<1	2.06	4.79	6.40	8.13
BH20 (ES3) 3.30m	MAR02247.039	Sediment	<1	<1	1.74	6.08	7.74	7.40
Certified Reference Material NIST 1941b (% Recovery)			73	113	66	66	66	81
QC Blank			<1	<1	<1	<1	<1	<1

For full analyte name see method summaries
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Certificate of Analysis

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Test Report ID MAR02247
Issue Version 1
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		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS	UKAS	UKAS	N	N	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**BEP**	**BENZGHIP**	**BKF***	**C1N**	**C1PHEN**	**C2N**
BH16 (ES1) 0.00m	MAR02247.025	Sediment	3.16	3.67	3.20	3.25	3.72	5.99
BH16 (ES2) 3.80m	MAR02247.026	Sediment	<1	<1	<1	1.67	<1	1.73
BH16 (ES3) 7.60m	MAR02247.027	Sediment	<1	<1	<1	<1	<1	<1
BH17 (ES1) 0.00m	MAR02247.028	Sediment	51.3	59.1	68.4	42.6	77.2	67.2
BH17 (ES2) 0.90m	MAR02247.029	Sediment	4.73	7.54	3.18	12.4	15.8	19.5
BH17 (ES3) 1.90m	MAR02247.030	Sediment	17.5	24.1	19.8	32.5	53.0	84.7
BH18 (ES1) 0.00m	MAR02247.031	Sediment	37.6	43.7	50.2	35.5	65.0	61.0
BH18 (ES2) 0.60m	MAR02247.032	Sediment	<1	<1	<1	1.48	<1	1.67
BH18 (ES3) 1.20m	MAR02247.033	Sediment	<1	<1	<1	1.64	4.21	4.57
BH19 (ES1) 0.00m	MAR02247.034	Sediment	2.81	3.75	3.30	3.83	3.21	5.23
BH19 (ES2) 1.10m	MAR02247.035	Sediment	<1	<1	<1	1.30	<1	1.93
BH19 (ES3) 2.10m	MAR02247.036	Sediment	1.33	1.71	1.48	<1	<1	1.93
BH20 (ES1) 0.00m	MAR02247.037	Sediment	7.63	11.8	4.24	16.8	29.9	31.7
BH20 (ES2) 1.70m	MAR02247.038	Sediment	8.13	12.8	4.85	22.5	26.2	36.0
BH20 (ES3) 3.30m	MAR02247.039	Sediment	5.44	6.23	5.74	5.42	8.90	10.8
Certified Reference Material NIST 1941b (% Recovery)			78	76	94	78	80	114
QC Blank			<1	<1	<1	<1	<1	<1

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*See report notes

Certificate of Analysis

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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	N	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**C3N**	**CHRYSENE***	**DBENZAH**	**FLUORANT**	**FLUORENE**	**INDPYR**
BH16 (ES1) 0.00m	MAR02247.025	Sediment	4.62	2.91	<1	4.55	<1	2.90
BH16 (ES2) 3.80m	MAR02247.026	Sediment	1.38	<1	<1	<1	<1	<1
BH16 (ES3) 7.60m	MAR02247.027	Sediment	<1	<1	<1	<1	<1	<1
BH17 (ES1) 0.00m	MAR02247.028	Sediment	84.4	73.0	9.74	132	12.2	47.8
BH17 (ES2) 0.90m	MAR02247.029	Sediment	20.1	4.45	<1	4.71	1.88	2.13
BH17 (ES3) 1.90m	MAR02247.030	Sediment	72.2	24.1	2.90	36.1	5.9	12.8
BH18 (ES1) 0.00m	MAR02247.031	Sediment	63.2	55.9	7.63	103	8.9	36.4
BH18 (ES2) 0.60m	MAR02247.032	Sediment	1.38	<1	<1	<1	<1	<1
BH18 (ES3) 1.20m	MAR02247.033	Sediment	5.96	1.35	<1	1.48	<1	<1
BH19 (ES1) 0.00m	MAR02247.034	Sediment	4.77	2.36	<1	3.32	<1	3.10
BH19 (ES2) 1.10m	MAR02247.035	Sediment	1.33	<1	<1	<1	<1	<1
BH19 (ES3) 2.10m	MAR02247.036	Sediment	<1	<1	<1	<1	<1	1.27
BH20 (ES1) 0.00m	MAR02247.037	Sediment	38.0	7.31	<1	8.45	3.19	3.06
BH20 (ES2) 1.70m	MAR02247.038	Sediment	32.4	7.52	<1	6.75	3.65	3.18
BH20 (ES3) 3.30m	MAR02247.039	Sediment	9.68	7.08	<1	11.5	<1	4.35
Certified Reference Material NIST 1941b (% Recovery)			113	87	97	77	56	69
QC Blank			<1	<1	<1	<1	<1	<1

For full analyte name see method summaries
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*See report notes

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/306
		Limit of Detection	1	1	1	1	100
		Accreditation	UKAS	N	UKAS	UKAS	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**NAPTH**	**PERYLENE**	**PHENANT**	**PYRENE**	**THC**
BH16 (ES1) 0.00m	MAR02247.025	Sediment	<1	<1	2.58	4.97	9580
BH16 (ES2) 3.80m	MAR02247.026	Sediment	<1	<1	<1	<1	827
BH16 (ES3) 7.60m	MAR02247.027	Sediment	<1	<1	<1	<1	529
BH17 (ES1) 0.00m	MAR02247.028	Sediment	15.3	18.5	79.9	133	137000
BH17 (ES2) 0.90m	MAR02247.029	Sediment	3.15	3.27	9.34	5.96	11700
BH17 (ES3) 1.90m	MAR02247.030	Sediment	11.2	12.0	31.2	41.5	137000
BH18 (ES1) 0.00m	MAR02247.031	Sediment	13.2	13.8	48.3	103	33100
BH18 (ES2) 0.60m	MAR02247.032	Sediment	<1	<1	<1	<1	1840
BH18 (ES3) 1.20m	MAR02247.033	Sediment	<1	1.41	2.04	1.80	2860
BH19 (ES1) 0.00m	MAR02247.034	Sediment	<1	<1	2.51	4.12	13700
BH19 (ES2) 1.10m	MAR02247.035	Sediment	<1	<1	<1	<1	1810
BH19 (ES3) 2.10m	MAR02247.036	Sediment	<1	<1	<1	1.40	13300
BH20 (ES1) 0.00m	MAR02247.037	Sediment	4.22	5.05	14.6	10.0	7940
BH20 (ES2) 1.70m	MAR02247.038	Sediment	6.11	7.96	15.6	8.71	9530
BH20 (ES3) 3.30m	MAR02247.039	Sediment	2.06	2.56	5.58	12.2	10500
Certified Reference Material NIST 1941b (% Recovery)			61	55	76	70	93~
QC Blank			<1	<1	<1	<1	<100

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Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	N*	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**ACENAPTH**	**ACENAPHY**	**ANTHRACN**	**BAA**	**BAP**	**BBF**
BH21 (ES1) 0.00m	MAR02247.040	Sediment	<1	<1	1.73	4.03	6.74	6.03
BH21 (ES3) 3.00m	MAR02247.041	Sediment	<1	<1	<1	<1	<1	<1
BH22 (ES1) 0.00m	MAR02247.042	Sediment	<1	<1	<1	3.19	2.82	2.92
BH22 (ES2) 3.80m	MAR02247.043	Sediment	<1	<1	<1	<1	<1	<1
BH22 (ES3) 7.50m	MAR02247.044	Sediment	<1	<1	<1	<1	<1	1.34
BH25 (ES1) 0.00m	MAR02247.045	Sediment	20.2	6.86	36.7	95.8	113	88.3
BH25 (ES2) 2.10m	MAR02247.046	Sediment	2.76	1.31	4.55	15.3	18.4	15.5
BH25 (ES3) 4.10m	MAR02247.047	Sediment	<1	<1	<1	<1	<1	<1
BH26 (ES1) 0.00m	MAR02247.048	Sediment	<1	<1	<1	<1	<1	<1
BH26 (ES2) 3.10m	MAR02247.049	Sediment	58.3	18.7	128	323	357	272
BH26 (ES3) 6.20m	MAR02247.050	Sediment	2.75	2.89	12.1	25.5	27.9	19.9
BH27 (ES1) 0.00m	MAR02247.051	Sediment	<1	<1	<1	<1	<1	<1
BH27 (ES2) 3.30m	MAR02247.052	Sediment	2.94	<1	3.58	10.2	14.5	14.2
BH27 (ES3) 6.50m	MAR02247.053	Sediment	1.62	<1	2.07	4.64	6.43	7.32
BH29 (ES1) 0.00m	MAR02247.054	Sediment	1.53	<1	2.26	5.49	6.68	7.37
BH29 (ES2) 2.79m	MAR02247.055	Sediment	1.67	<1	2.02	5.86	8.55	9.52
BH29 (ES3) 5.59m	MAR02247.056	Sediment	<1	<1	<1	<1	<1	<1
BH30 (ES1) 0.00m	MAR02247.057	Sediment	<1	<1	2.59	6.15	7.07	4.83
BH30 (ES2) 3.86m	MAR02247.058	Sediment	<1	<1	<1	2.04	2.65	2.18
BH30 (ES3) 7.72m	MAR02247.059	Sediment	<1	<1	<1	<1	<1	<1
Certified Reference Material NIST 1941b (% Recovery)			66	114	66	67	66	81
QC Blank			<1	<1	<1	<1	<1	<1

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS	UKAS	UKAS	N	N	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**BEP**	**BENZGHIP**	**BKF***	**C1N**	**C1PHEN**	**C2N**
BH21 (ES1) 0.00m	MAR02247.040	Sediment	4.88	7.23	5.33	3.17	5.58	4.76
BH21 (ES3) 3.00m	MAR02247.041	Sediment	<1	<1	<1	2.33	1.67	3.11
BH22 (ES1) 0.00m	MAR02247.042	Sediment	2.64	3.01	3.42	2.16	4.69	3.82
BH22 (ES2) 3.80m	MAR02247.043	Sediment	<1	<1	<1	<1	<1	<1
BH22 (ES3) 7.50m	MAR02247.044	Sediment	<1	1.29	<1	1.83	1.66	2.23
BH25 (ES1) 0.00m	MAR02247.045	Sediment	74.1	92.3	89.9	75.4	114	101
BH25 (ES2) 2.10m	MAR02247.046	Sediment	12.0	14.9	15.5	13.0	19.5	21.0
BH25 (ES3) 4.10m	MAR02247.047	Sediment	<1	<1	<1	2.03	1.79	2.90
BH26 (ES1) 0.00m	MAR02247.048	Sediment	<1	<1	<1	<1	<1	<1
BH26 (ES2) 3.10m	MAR02247.049	Sediment	202	220	273	143	358	168
BH26 (ES3) 6.20m	MAR02247.050	Sediment	15.5	17.0	21.9	10.6	27.6	17.2
BH27 (ES1) 0.00m	MAR02247.051	Sediment	<1	<1	<1	<1	<1	<1
BH27 (ES2) 3.30m	MAR02247.052	Sediment	18.0	34.2	9.21	45.0	47.4	59.4
BH27 (ES3) 6.50m	MAR02247.053	Sediment	8.07	13.9	3.40	24.3	24.9	30.6
BH29 (ES1) 0.00m	MAR02247.054	Sediment	7.57	12.4	4.51	17.3	22.9	25.2
BH29 (ES2) 2.79m	MAR02247.055	Sediment	12.2	19.6	5.39	27.8	31.0	36.1
BH29 (ES3) 5.59m	MAR02247.056	Sediment	<1	<1	<1	<1	<1	1.32
BH30 (ES1) 0.00m	MAR02247.057	Sediment	5.15	6.01	5.08	6.93	13.8	14.5
BH30 (ES2) 3.86m	MAR02247.058	Sediment	2.20	2.07	1.97	3.75	3.77	4.97
BH30 (ES3) 7.72m	MAR02247.059	Sediment	<1	<1	<1	1.60	<1	1.55
Certified Reference Material NIST 1941b (% Recovery)			81	83	88	76	80	111
QC Blank			<1	<1	<1	<1	<1	<1

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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	N	UKAS	UKAS	UKAS	N*	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**C3N**	**CHRYSENE***	**DBENZAH**	**FLUORANT**	**FLUORENE**	**INDPYR**
BH21 (ES1) 0.00m	MAR02247.040	Sediment	4.96	4.29	<1	6.87	<1	5.73
BH21 (ES3) 3.00m	MAR02247.041	Sediment	2.50	<1	<1	<1	<1	<1
BH22 (ES1) 0.00m	MAR02247.042	Sediment	3.41	4.68	<1	5.76	<1	2.12
BH22 (ES2) 3.80m	MAR02247.043	Sediment	<1	<1	<1	<1	<1	<1
BH22 (ES3) 7.50m	MAR02247.044	Sediment	1.90	<1	<1	1.32	<1	<1
BH25 (ES1) 0.00m	MAR02247.045	Sediment	122	102	14.5	184	19.6	66.8
BH25 (ES2) 2.10m	MAR02247.046	Sediment	22.0	15.3	2.63	25.20	3.37	11.9
BH25 (ES3) 4.10m	MAR02247.047	Sediment	2.52	<1	<1	<1	<1	<1
BH26 (ES1) 0.00m	MAR02247.048	Sediment	<1	<1	<1	<1	<1	<1
BH26 (ES2) 3.10m	MAR02247.049	Sediment	227	333	47.0	709	60.6	216
BH26 (ES3) 6.20m	MAR02247.050	Sediment	24.1	25.8	2.63	47.2	4.13	14.3
BH27 (ES1) 0.00m	MAR02247.051	Sediment	<1	<1	<1	<1	<1	<1
BH27 (ES2) 3.30m	MAR02247.052	Sediment	63.6	14.4	2.85	13.5	7.86	9.21
BH27 (ES3) 6.50m	MAR02247.053	Sediment	37.2	6.66	1.34	5.98	3.63	3.50
BH29 (ES1) 0.00m	MAR02247.054	Sediment	29.3	7.33	<1	8.14	2.94	3.63
BH29 (ES2) 2.79m	MAR02247.055	Sediment	37.8	9.85	1.72	7.82	5.13	4.82
BH29 (ES3) 5.59m	MAR02247.056	Sediment	<1	<1	<1	<1	<1	<1
BH30 (ES1) 0.00m	MAR02247.057	Sediment	14.9	7.30	<1	11.6	1.37	3.38
BH30 (ES2) 3.86m	MAR02247.058	Sediment	5.35	2.47	<1	3.17	<1	1.29
BH30 (ES3) 7.72m	MAR02247.059	Sediment	1.40	<1	<1	<1	<1	<1
Certified Reference Material NIST 1941b (% Recovery)			121	88	92	78	57	76
QC Blank			<1	<1	<1	<1	<1	<1

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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/306
		Limit of Detection	1	1	1	1	100
		Accreditation	UKAS	N	UKAS	UKAS	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**NAPTH**	**PERYLENE**	**PHENANT**	**PYRENE**	**THC**
BH21 (ES1) 0.00m	MAR02247.040	Sediment	1.93	1.37	4.35	8.32	33400
BH21 (ES3) 3.00m	MAR02247.041	Sediment	<1	<1	1.28	<1	1240
BH22 (ES1) 0.00m	MAR02247.042	Sediment	1.44	<1	2.48	5.72	13200
BH22 (ES2) 3.80m	MAR02247.043	Sediment	<1	<1	<1	<1	1690
BH22 (ES3) 7.50m	MAR02247.044	Sediment	<1	<1	1.34	1.16	5710
BH25 (ES1) 0.00m	MAR02247.045	Sediment	33.9	29.9	114	190	65100
BH25 (ES2) 2.10m	MAR02247.046	Sediment	4.52	4.65	17.0	25.5	63400
BH25 (ES3) 4.10m	MAR02247.047	Sediment	<1	<1	1.33	<1	70500
BH26 (ES1) 0.00m	MAR02247.048	Sediment	<1	<1	<1	<1	1000
BH26 (ES2) 3.10m	MAR02247.049	Sediment	55.6	77.8	465	677	86400
BH26 (ES3) 6.20m	MAR02247.050	Sediment	4.40	6.16	25.6	46.4	12300
BH27 (ES1) 0.00m	MAR02247.051	Sediment	<1	<1	<1	<1	1630
BH27 (ES2) 3.30m	MAR02247.052	Sediment	8.18	19.9	30.9	21.0	13400
BH27 (ES3) 6.50m	MAR02247.053	Sediment	5.24	8.65	14.1	8.74	7740
BH29 (ES1) 0.00m	MAR02247.054	Sediment	4.06	4.69	14.5	10.2	13400
BH29 (ES2) 2.79m	MAR02247.055	Sediment	5.86	17.4	19.9	12.7	9250
BH29 (ES3) 5.59m	MAR02247.056	Sediment	<1	<1	<1	<1	741
BH30 (ES1) 0.00m	MAR02247.057	Sediment	2.45	1.99	8.66	12.5	14100
BH30 (ES2) 3.86m	MAR02247.058	Sediment	1.46	<1	2.83	3.83	11200
BH30 (ES3) 7.72m	MAR02247.059	Sediment	<1	<1	<1	<1	593
Certified Reference Material NIST 1941b (% Recovery)			62	55	76	70	96~
QC Blank			<1	<1	<1	<1	<100

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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB28**	**PCB52**	**PCB101**	**PCB118**	**PCB138**	**PCB153**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	<0.08	<0.08	<0.08	<0.08	0.10	0.08
BH03 (ES2) 1.90m	MAR02247.002	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH03 (ES3) 3.70m	MAR02247.003	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH05 (ES1) 0.00m	MAR02247.004	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH05 (ES2) 6.00m	MAR02247.005	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH05 (ES3) 12.00m	MAR02247.006	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH06 (ES1) 2.30m	MAR02247.007	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH06 (ES2) 5.94m	MAR02247.008	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH06 (ES3) 11.87m	MAR02247.009	Sediment	<0.08	<0.08	<0.08	0.13	0.18	0.12
BH10 (ES1) 0.00m	MAR02247.010	Sediment	<0.08	<0.08	0.09	0.13	<0.08	0.10
BH10 (ES2) 1.80m	MAR02247.011	Sediment	0.29	0.30	0.43	0.63	0.54	0.56
BH10 (ES3) 3.50m	MAR02247.012	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			73	88	89	102	104	87
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries
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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB18**	**PCB105**	**PCB110**	**PCB128**	**PCB141**	**PCB149**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	<0.08	<0.08	0.08	<0.08	<0.08	<0.08
BH03 (ES2) 1.90m	MAR02247.002	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH03 (ES3) 3.70m	MAR02247.003	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH05 (ES1) 0.00m	MAR02247.004	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH05 (ES2) 6.00m	MAR02247.005	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH05 (ES3) 12.00m	MAR02247.006	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH06 (ES1) 2.30m	MAR02247.007	Sediment	0.08	<0.08	<0.08	<0.08	<0.08	0.20
BH06 (ES2) 5.94m	MAR02247.008	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH06 (ES3) 11.87m	MAR02247.009	Sediment	<0.08	0.15	0.15	0.25	0.12	0.13
BH10 (ES1) 0.00m	MAR02247.010	Sediment	<0.08	<0.08	0.10	<0.08	<0.08	<0.08
BH10 (ES2) 1.80m	MAR02247.011	Sediment	0.09	0.37	0.51	0.49	0.37	0.55
BH10 (ES3) 3.50m	MAR02247.012	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			81	83	102	89	105~	96
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB151**	**PCB156**	**PCB158**	**PCB170**	**PCB180**	**PCB183**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH03 (ES2) 1.90m	MAR02247.002	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH03 (ES3) 3.70m	MAR02247.003	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH05 (ES1) 0.00m	MAR02247.004	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH05 (ES2) 6.00m	MAR02247.005	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH05 (ES3) 12.00m	MAR02247.006	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH06 (ES1) 2.30m	MAR02247.007	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH06 (ES2) 5.94m	MAR02247.008	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH06 (ES3) 11.87m	MAR02247.009	Sediment	0.15	0.31	0.17	0.15	0.21	0.22
BH10 (ES1) 0.00m	MAR02247.010	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH10 (ES2) 1.80m	MAR02247.011	Sediment	0.45	0.40	0.41	0.35	0.40	0.35
BH10 (ES3) 3.50m	MAR02247.012	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			108~	98	97	86	92	76
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries
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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB187**	**PCB194**	**PCB31**	**PCB44**	**PCB47**	**PCB49**	**PCB66**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH03 (ES2) 1.90m	MAR02247.002	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH03 (ES3) 3.70m	MAR02247.003	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH05 (ES1) 0.00m	MAR02247.004	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH05 (ES2) 6.00m	MAR02247.005	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH05 (ES3) 12.00m	MAR02247.006	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH06 (ES1) 2.30m	MAR02247.007	Sediment	<0.08	<0.08	0.09	<0.08	0.24	<0.08	<0.08
BH06 (ES2) 5.94m	MAR02247.008	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH06 (ES3) 11.87m	MAR02247.009	Sediment	0.19	0.19	<0.08	<0.08	<0.08	<0.08	0.10
BH10 (ES1) 0.00m	MAR02247.010	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH10 (ES2) 1.80m	MAR02247.011	Sediment	0.42	0.36	0.27	0.37	0.29	0.30	0.53
BH10 (ES3) 3.50m	MAR02247.012	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			102	104	92	88	104~	94	98
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302
		Limit of Detection	0.56
		Accreditation	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**ICES7**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	<0.56
BH03 (ES2) 1.90m	MAR02247.002	Sediment	<0.56
BH03 (ES3) 3.70m	MAR02247.003	Sediment	<0.56
BH05 (ES1) 0.00m	MAR02247.004	Sediment	<0.56
BH05 (ES2) 6.00m	MAR02247.005	Sediment	<0.56
BH05 (ES3) 12.00m	MAR02247.006	Sediment	<0.56
BH06 (ES1) 2.30m	MAR02247.007	Sediment	<0.56
BH06 (ES2) 5.94m	MAR02247.008	Sediment	<0.56
BH06 (ES3) 11.87m	MAR02247.009	Sediment	<0.56
BH10 (ES1) 0.00m	MAR02247.010	Sediment	<0.56
BH10 (ES2) 1.80m	MAR02247.011	Sediment	3.16
BH10 (ES3) 3.50m	MAR02247.012	Sediment	<0.56
Certified Reference Material NIST 1941b (% Recovery)			103
QC Blank			<0.08

For full analyte name see method summaries
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Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB28**	**PCB52**	**PCB101**	**PCB118**	**PCB138**	**PCB153**
BH12 (ES1) 0.00m	MAR02247.013	Sediment	<0.08	<0.08	<0.08	0.11	0.09	<0.08
BH12 (ES2) 1.50m	MAR02247.014	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH12 (ES3) 3.00m	MAR02247.015	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH13A (ES1) 0.00m	MAR02247.016	Sediment	<0.08	<0.08	0.09	<0.08	<0.08	<0.08
BH13A (ES2) 2.40m	MAR02247.017	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH13A (ES3) 4.80m	MAR02247.018	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH14 (ES1) 0.00m	MAR02247.019	Sediment	<0.08	0.17	0.29	0.26	0.21	0.20
BH14 (ES2) 2.10m	MAR02247.020	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH14 (ES3) 4.20m	MAR02247.021	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			84	87	88	101	107	100
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries
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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB18**	**PCB105**	**PCB110**	**PCB128**	**PCB141**	**PCB149**
BH12 (ES1) 0.00m	MAR02247.013	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH12 (ES2) 1.50m	MAR02247.014	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH12 (ES3) 3.00m	MAR02247.015	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH13A (ES1) 0.00m	MAR02247.016	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH13A (ES2) 2.40m	MAR02247.017	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH13A (ES3) 4.80m	MAR02247.018	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH14 (ES1) 0.00m	MAR02247.019	Sediment	<0.08	0.08	0.29	<0.08	<0.08	0.23
BH14 (ES2) 2.10m	MAR02247.020	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH14 (ES3) 4.20m	MAR02247.021	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			83	86	105	119	107~	101
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries
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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB151**	**PCB156**	**PCB158**	**PCB170**	**PCB180**	**PCB183**
BH12 (ES1) 0.00m	MAR02247.013	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH12 (ES2) 1.50m	MAR02247.014	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH12 (ES3) 3.00m	MAR02247.015	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH13A (ES1) 0.00m	MAR02247.016	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH13A (ES2) 2.40m	MAR02247.017	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH13A (ES3) 4.80m	MAR02247.018	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH14 (ES1) 0.00m	MAR02247.019	Sediment	0.09	<0.08	<0.08	0.12	0.19	<0.08
BH14 (ES2) 2.10m	MAR02247.020	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH14 (ES3) 4.20m	MAR02247.021	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			110~	92	88	97	99	59
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Certificate of Analysis

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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB187**	**PCB194**	**PCB31**	**PCB44**	**PCB47**	**PCB49**	**PCB66**
BH12 (ES1) 0.00m	MAR02247.013	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH12 (ES2) 1.50m	MAR02247.014	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH12 (ES3) 3.00m	MAR02247.015	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH13A (ES1) 0.00m	MAR02247.016	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH13A (ES2) 2.40m	MAR02247.017	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH13A (ES3) 4.80m	MAR02247.018	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH14 (ES1) 0.00m	MAR02247.019	Sediment	<0.08	<0.08	<0.08	0.12	<0.08	0.14	0.24
BH14 (ES2) 2.10m	MAR02247.020	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH14 (ES3) 4.20m	MAR02247.021	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			103	92	103	89	105~	92	100
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302
		Limit of Detection	0.7
		Accreditation	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**ICES7**
BH12 (ES1) 0.00m	MAR02247.013	Sediment	<0.56
BH12 (ES2) 1.50m	MAR02247.014	Sediment	<0.56
BH12 (ES3) 3.00m	MAR02247.015	Sediment	<0.56
BH13A (ES1) 0.00m	MAR02247.016	Sediment	<0.56
BH13A (ES2) 2.40m	MAR02247.017	Sediment	<0.56
BH13A (ES3) 4.80m	MAR02247.018	Sediment	<0.56
BH14 (ES1) 0.00m	MAR02247.019	Sediment	1.36
BH14 (ES2) 2.10m	MAR02247.020	Sediment	<0.56
BH14 (ES3) 4.20m	MAR02247.021	Sediment	<0.56
	Certified Reference Material NIST 1941b (% Recovery)		104
	QC Blank		<0.56

For full analyte name see method summaries

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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB28**	**PCB52**	**PCB101**	**PCB118**	**PCB138**	**PCB153**
BH15 (ES1) 0.00m	MAR02247.022	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH15 (ES2) 1.40m	MAR02247.023	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH15 (ES3) 2.80m	MAR02247.024	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH16 (ES1) 0.00m	MAR02247.025	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH16 (ES2) 3.80m	MAR02247.026	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH16 (ES3) 7.60m	MAR02247.027	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH17 (ES1) 0.00m	MAR02247.028	Sediment	<0.08	<0.08	0.17	0.21	0.26	0.26
BH17 (ES2) 0.90m	MAR02247.029	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH17 (ES3) 1.90m	MAR02247.030	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH18 (ES1) 0.00m	MAR02247.031	Sediment	<0.08	<0.08	<0.08	<0.08	0.10	0.08
BH18 (ES2) 0.60m	MAR02247.032	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH18 (ES3) 1.20m	MAR02247.033	Sediment	<0.08	<0.08	0.14	0.16	0.29	0.24
BH19 (ES1) 0.00m	MAR02247.034	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			79	84	95	103	94	95
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

~ Indicates result is for an In-house Reference Material as no Certified Reference Materials are avaliable.

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB18**	**PCB105**	**PCB110**	**PCB128**	**PCB141**	**PCB149**
BH15 (ES1) 0.00m	MAR02247.022	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH15 (ES2) 1.40m	MAR02247.023	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH15 (ES3) 2.80m	MAR02247.024	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH16 (ES1) 0.00m	MAR02247.025	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH16 (ES2) 3.80m	MAR02247.026	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH16 (ES3) 7.60m	MAR02247.027	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH17 (ES1) 0.00m	MAR02247.028	Sediment	<0.08	0.22	0.21	0.22	0.22	0.20
BH17 (ES2) 0.90m	MAR02247.029	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH17 (ES3) 1.90m	MAR02247.030	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH18 (ES1) 0.00m	MAR02247.031	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH18 (ES2) 0.60m	MAR02247.032	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH18 (ES3) 1.20m	MAR02247.033	Sediment	<0.08	<0.08	0.16	0.09	<0.08	0.20
BH19 (ES1) 0.00m	MAR02247.034	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			83	86	102	92	102~	99
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

~ Indicates result is for an In-house Reference Material as no Certified Reference Materials are avaliable.

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB151**	**PCB156**	**PCB158**	**PCB170**	**PCB180**	**PCB183**
BH15 (ES1) 0.00m	MAR02247.022	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH15 (ES2) 1.40m	MAR02247.023	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH15 (ES3) 2.80m	MAR02247.024	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH16 (ES1) 0.00m	MAR02247.025	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH16 (ES2) 3.80m	MAR02247.026	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH16 (ES3) 7.60m	MAR02247.027	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH17 (ES1) 0.00m	MAR02247.028	Sediment	0.14	0.28	0.16	0.23	0.24	0.26
BH17 (ES2) 0.90m	MAR02247.029	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH17 (ES3) 1.90m	MAR02247.030	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH18 (ES1) 0.00m	MAR02247.031	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH18 (ES2) 0.60m	MAR02247.032	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH18 (ES3) 1.20m	MAR02247.033	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH19 (ES1) 0.00m	MAR02247.034	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			112~	97	86	101	103	70
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB187**	**PCB194**	**PCB31**	**PCB44**	**PCB47**	**PCB49**	**PCB66**
BH15 (ES1) 0.00m	MAR02247.022	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH15 (ES2) 1.40m	MAR02247.023	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH15 (ES3) 2.80m	MAR02247.024	Sediment	<0.08	<0.08	<0.08	<0.08	0.18	<0.08	<0.08
BH16 (ES1) 0.00m	MAR02247.025	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH16 (ES2) 3.80m	MAR02247.026	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH16 (ES3) 7.60m	MAR02247.027	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH17 (ES1) 0.00m	MAR02247.028	Sediment	0.15	0.27	<0.08	<0.08	<0.08	<0.08	0.18
BH17 (ES2) 0.90m	MAR02247.029	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH17 (ES3) 1.90m	MAR02247.030	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH18 (ES1) 0.00m	MAR02247.031	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH18 (ES2) 0.60m	MAR02247.032	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH18 (ES3) 1.20m	MAR02247.033	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH19 (ES1) 0.00m	MAR02247.034	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			107	98	97	87	98~	94	99
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302
		Limit of Detection	0.7
		Accreditation	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**ICES7**
BH15 (ES1) 0.00m	MAR02247.022	Sediment	<0.56
BH15 (ES2) 1.40m	MAR02247.023	Sediment	<0.56
BH15 (ES3) 2.80m	MAR02247.024	Sediment	<0.56
BH16 (ES1) 0.00m	MAR02247.025	Sediment	<0.56
BH16 (ES2) 3.80m	MAR02247.026	Sediment	<0.56
BH16 (ES3) 7.60m	MAR02247.027	Sediment	<0.56
BH17 (ES1) 0.00m	MAR02247.028	Sediment	1.27
BH17 (ES2) 0.90m	MAR02247.029	Sediment	<0.56
BH17 (ES3) 1.90m	MAR02247.030	Sediment	<0.56
BH18 (ES1) 0.00m	MAR02247.031	Sediment	<0.56
BH18 (ES2) 0.60m	MAR02247.032	Sediment	<0.56
BH18 (ES3) 1.20m	MAR02247.033	Sediment	0.92
BH19 (ES1) 0.00m	MAR02247.034	Sediment	<0.56
Certified Reference Material NIST 1941b (% Recovery)			104
QC Blank			<0.56

For full analyte name see method summaries

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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB28**	**PCB52**	**PCB101**	**PCB118**	**PCB138**	**PCB153**
BH19 (ES2) 1.10m	MAR02247.035	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH19 (ES3) 2.10m	MAR02247.036	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH20 (ES1) 0.00m	MAR02247.037	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH20 (ES2) 1.70m	MAR02247.038	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH20 (ES3) 3.30m	MAR02247.039	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH21 (ES1) 0.00m	MAR02247.040	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH21 (ES3) 3.00m	MAR02247.041	Sediment	0.26	0.31	0.55	0.54	0.60	0.45
BH22 (ES1) 0.00m	MAR02247.042	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH22 (ES2) 3.80m	MAR02247.043	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH22 (ES3) 7.50m	MAR02247.044	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH25 (ES1) 0.00m	MAR02247.045	Sediment	0.11	0.11	0.18	0.24	0.22	0.28
BH25 (ES2) 2.10m	MAR02247.046	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH25 (ES3) 4.10m	MAR02247.047	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH26 (ES1) 0.00m	MAR02247.048	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH26 (ES2) 3.10m	MAR02247.049	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH26 (ES3) 6.20m	MAR02247.050	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH27 (ES1) 0.00m	MAR02247.051	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH27 (ES2) 3.30m	MAR02247.052	Sediment	0.11	<0.08	0.13	0.17	0.15	0.15
Certified Reference Material NIST 1941b (% Recovery)			77	87	91	103	92	99
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB18**	**PCB105**	**PCB110**	**PCB128**	**PCB141**	**PCB149**
BH19 (ES2) 1.10m	MAR02247.035	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH19 (ES3) 2.10m	MAR02247.036	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH20 (ES1) 0.00m	MAR02247.037	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH20 (ES2) 1.70m	MAR02247.038	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH20 (ES3) 3.30m	MAR02247.039	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH21 (ES1) 0.00m	MAR02247.040	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH21 (ES3) 3.00m	MAR02247.041	Sediment	0.10	0.51	0.61	0.41	0.43	0.60
BH22 (ES1) 0.00m	MAR02247.042	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH22 (ES2) 3.80m	MAR02247.043	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH22 (ES3) 7.50m	MAR02247.044	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH25 (ES1) 0.00m	MAR02247.045	Sediment	<0.08	<0.08	0.17	0.12	0.10	0.21
BH25 (ES2) 2.10m	MAR02247.046	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH25 (ES3) 4.10m	MAR02247.047	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH26 (ES1) 0.00m	MAR02247.048	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH26 (ES2) 3.10m	MAR02247.049	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH26 (ES3) 6.20m	MAR02247.050	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH27 (ES1) 0.00m	MAR02247.051	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH27 (ES2) 3.30m	MAR02247.052	Sediment	<0.08	<0.08	0.10	<0.08	<0.08	0.17
Certified Reference Material NIST 1941b (% Recovery)			82	97	102	98	102~	104
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

~ Indicates result is for an In-house Reference Material as no Certified Reference Materials are avaliable.

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB151**	**PCB156**	**PCB158**	**PCB170**	**PCB180**	**PCB183**
BH19 (ES2) 1.10m	MAR02247.035	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH19 (ES3) 2.10m	MAR02247.036	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH20 (ES1) 0.00m	MAR02247.037	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH20 (ES2) 1.70m	MAR02247.038	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH20 (ES3) 3.30m	MAR02247.039	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH21 (ES1) 0.00m	MAR02247.040	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH21 (ES3) 3.00m	MAR02247.041	Sediment	0.62	0.67	0.47	0.50	0.50	0.50
BH22 (ES1) 0.00m	MAR02247.042	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH22 (ES2) 3.80m	MAR02247.043	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH22 (ES3) 7.50m	MAR02247.044	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH25 (ES1) 0.00m	MAR02247.045	Sediment	<0.08	<0.08	<0.08	0.12	0.12	<0.08
BH25 (ES2) 2.10m	MAR02247.046	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH25 (ES3) 4.10m	MAR02247.047	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH26 (ES1) 0.00m	MAR02247.048	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH26 (ES2) 3.10m	MAR02247.049	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH26 (ES3) 6.20m	MAR02247.050	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH27 (ES1) 0.00m	MAR02247.051	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH27 (ES2) 3.30m	MAR02247.052	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			106~	83	83	92	96	71
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB187**	**PCB194**	**PCB31**	**PCB44**	**PCB47**	**PCB49**	**PCB66**
BH19 (ES2) 1.10m	MAR02247.035	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH19 (ES3) 2.10m	MAR02247.036	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH20 (ES1) 0.00m	MAR02247.037	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH20 (ES2) 1.70m	MAR02247.038	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH20 (ES3) 3.30m	MAR02247.039	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH21 (ES1) 0.00m	MAR02247.040	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH21 (ES3) 3.00m	MAR02247.041	Sediment	0.60	0.55	0.24	0.47	0.37	0.32	0.59
BH22 (ES1) 0.00m	MAR02247.042	Sediment	<0.08	<0.08	<0.08	<0.08	0.21	<0.08	<0.08
BH22 (ES2) 3.80m	MAR02247.043	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH22 (ES3) 7.50m	MAR02247.044	Sediment	<0.08	<0.08	<0.08	<0.08	0.28	<0.08	<0.08
BH25 (ES1) 0.00m	MAR02247.045	Sediment	0.12	<0.08	0.11	<0.08	<0.08	<0.08	0.14
BH25 (ES2) 2.10m	MAR02247.046	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH25 (ES3) 4.10m	MAR02247.047	Sediment	<0.08	<0.08	<0.08	<0.08	0.15	<0.08	<0.08
BH26 (ES1) 0.00m	MAR02247.048	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH26 (ES2) 3.10m	MAR02247.049	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH26 (ES3) 6.20m	MAR02247.050	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH27 (ES1) 0.00m	MAR02247.051	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH27 (ES2) 3.30m	MAR02247.052	Sediment	0.09	<0.08	<0.08	<0.08	<0.08	<0.08	0.12
Certified Reference Material NIST 1941b (% Recovery)			98	104	91	93	105~	98	96
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302
		Limit of Detection	0.7
		Accreditation	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**ICES7**
BH19 (ES2) 1.10m	MAR02247.035	Sediment	<0.56
BH19 (ES3) 2.10m	MAR02247.036	Sediment	<0.56
BH20 (ES1) 0.00m	MAR02247.037	Sediment	<0.56
BH20 (ES2) 1.70m	MAR02247.038	Sediment	<0.56
BH20 (ES3) 3.30m	MAR02247.039	Sediment	<0.56
BH21 (ES1) 0.00m	MAR02247.040	Sediment	<0.56
BH21 (ES3) 3.00m	MAR02247.041	Sediment	3.22
BH22 (ES1) 0.00m	MAR02247.042	Sediment	<0.56
BH22 (ES2) 3.80m	MAR02247.043	Sediment	<0.56
BH22 (ES3) 7.50m	MAR02247.044	Sediment	<0.56
BH25 (ES1) 0.00m	MAR02247.045	Sediment	1.26
BH25 (ES2) 2.10m	MAR02247.046	Sediment	<0.56
BH25 (ES3) 4.10m	MAR02247.047	Sediment	<0.56
BH26 (ES1) 0.00m	MAR02247.048	Sediment	<0.56
BH26 (ES2) 3.10m	MAR02247.049	Sediment	<0.56
BH26 (ES3) 6.20m	MAR02247.050	Sediment	<0.56
BH27 (ES1) 0.00m	MAR02247.051	Sediment	<0.56
BH27 (ES2) 3.30m	MAR02247.052	Sediment	<0.56
Certified Reference Material NIST 1941b (% Recovery)			103
QC Blank			<0.56

For full analyte name see method summaries

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Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB28**	**PCB52**	**PCB101**	**PCB118**	**PCB138**	**PCB153**
BH27 (ES3) 6.50m	MAR02247.053	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH29 (ES1) 0.00m	MAR02247.054	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH29 (ES2) 2.79m	MAR02247.055	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH29 (ES3) 5.59m	MAR02247.056	Sediment	<0.08	<0.08	<0.08	0.10	<0.08	<0.08
BH30 (ES1) 0.00m	MAR02247.057	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH30 (ES2) 3.86m	MAR02247.058	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH30 (ES3) 7.72m	MAR02247.059	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			83	101	90	95	103	93
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries
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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB18**	**PCB105**	**PCB110**	**PCB128**	**PCB141**	**PCB149**
BH27 (ES3) 6.50m	MAR02247.053	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH29 (ES1) 0.00m	MAR02247.054	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH29 (ES2) 2.79m	MAR02247.055	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH29 (ES3) 5.59m	MAR02247.056	Sediment	<0.08	<0.08	0.09	<0.08	<0.08	<0.08
BH30 (ES1) 0.00m	MAR02247.057	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH30 (ES2) 3.86m	MAR02247.058	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH30 (ES3) 7.72m	MAR02247.059	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			95	74	100	88	98~	98
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB151**	**PCB156**	**PCB158**	**PCB170**	**PCB180**	**PCB183**
BH27 (ES3) 6.50m	MAR02247.053	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH29 (ES1) 0.00m	MAR02247.054	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH29 (ES2) 2.79m	MAR02247.055	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH29 (ES3) 5.59m	MAR02247.056	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH30 (ES1) 0.00m	MAR02247.057	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH30 (ES2) 3.86m	MAR02247.058	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH30 (ES3) 7.72m	MAR02247.059	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			98~	85	93	97	96	80
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries
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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB187**	**PCB194**	**PCB31**	**PCB44**	**PCB47**	**PCB49**	**PCB66**
BH27 (ES3) 6.50m	MAR02247.053	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH29 (ES1) 0.00m	MAR02247.054	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH29 (ES2) 2.79m	MAR02247.055	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH29 (ES3) 5.59m	MAR02247.056	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH30 (ES1) 0.00m	MAR02247.057	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH30 (ES2) 3.86m	MAR02247.058	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH30 (ES3) 7.72m	MAR02247.059	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			84	106	106	99	98~	106	98
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302
		Limit of Detection	0.7
		Accreditation	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**ICES7**
BH27 (ES3) 6.50m	MAR02247.053	Sediment	<0.56
BH29 (ES1) 0.00m	MAR02247.054	Sediment	<0.56
BH29 (ES2) 2.79m	MAR02247.055	Sediment	<0.56
BH29 (ES3) 5.59m	MAR02247.056	Sediment	<0.56
BH30 (ES1) 0.00m	MAR02247.057	Sediment	<0.56
BH30 (ES2) 3.86m	MAR02247.058	Sediment	<0.56
BH30 (ES3) 7.72m	MAR02247.059	Sediment	<0.56
	Certified Reference Material NIST 1941b (% Recovery)		103
	QC Blank		<0.1

For full analyte name see method summaries

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Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**AHCH**	**BHCH**	**GHCH**	**DIELDRIN**	**HCB**	**DDE**	**DDT**	**DDD**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	0.11	<0.1	0.40
BH03 (ES2) 1.90m	MAR02247.002	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH03 (ES3) 3.70m	MAR02247.003	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH05 (ES1) 0.00m	MAR02247.004	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH05 (ES2) 6.00m	MAR02247.005	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH05 (ES3) 12.00m	MAR02247.006	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH06 (ES1) 2.30m	MAR02247.007	Sediment	<0.1	0.12	0.36	<0.1	<0.1	<0.1	0.67	<0.1
BH06 (ES2) 5.94m	MAR02247.008	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH06 (ES3) 11.87m	MAR02247.009	Sediment	<0.1	<0.1	<0.1	0.16	<0.1	0.11	0.39	0.36
BH10 (ES1) 0.00m	MAR02247.010	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	0.17	<0.1	0.31
BH10 (ES2) 1.80m	MAR02247.011	Sediment	<0.1	0.30	0.15	0.85	<0.1	0.59	0.51	1.37
BH10 (ES3) 3.50m	MAR02247.012	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Certified Reference Material NIST 1941b (% Recovery)			90~	91~	89~	89~	103	84	63	77
QC Blank			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

For full analyte name see method summaries
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Certificate of Analysis

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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**AHCH**	**BHCH**	**GHCH**	**DIELDRIN**	**HCB**	**DDE**	**DDT**	**DDD**
BH12 (ES1) 0.00m	MAR02247.013	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	0.24	<0.1	0.38
BH12 (ES2) 1.50m	MAR02247.014	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH12 (ES3) 3.00m	MAR02247.015	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH13A (ES1) 0.00m	MAR02247.016	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	0.11	<0.1	0.16
BH13A (ES2) 2.40m	MAR02247.017	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH13A (ES3) 4.80m	MAR02247.018	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH14 (ES1) 0.00m	MAR02247.019	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH14 (ES2) 2.10m	MAR02247.020	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH14 (ES3) 4.20m	MAR02247.021	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Certified Reference Material NIST 1941b (% Recovery)			89~	99~	90~	102~	120	81	58	92
QC Blank			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

For full analyte name see method summaries

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Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**AHCH**	**BHCH**	**GHCH**	**DIELDRIN**	**HCB**	**DDE**	**DDT**	**DDD**
BH15 (ES1) 0.00m	MAR02247.022	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH15 (ES2) 1.40m	MAR02247.023	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH15 (ES3) 2.80m	MAR02247.024	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH16 (ES1) 0.00m	MAR02247.025	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH16 (ES2) 3.80m	MAR02247.026	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH16 (ES3) 7.60m	MAR02247.027	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH17 (ES1) 0.00m	MAR02247.028	Sediment	<0.1	0.12	<0.1	0.12	<0.1	0.27	0.24	0.55
BH17 (ES2) 0.90m	MAR02247.029	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH17 (ES3) 1.90m	MAR02247.030	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH18 (ES1) 0.00m	MAR02247.031	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.26
BH18 (ES2) 0.60m	MAR02247.032	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH18 (ES3) 1.20m	MAR02247.033	Sediment	<0.1	<0.1	<0.1	0.13	<0.1	<0.1	<0.1	0.12
BH19 (ES1) 0.00m	MAR02247.034	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Certified Reference Material NIST 1941b (% Recovery)			98~	91~	94~	102~	123	98	77	102
QC Blank			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

For full analyte name see method summaries

~ Indicates result is for an In-house Reference Material as no Certified Reference Materials are avaliable.

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**AHCH**	**BHCH**	**GHCH**	**DIELDRIN**	**HCB**	**DDE**	**DDT**	**DDD**
BH19 (ES2) 1.10m	MAR02247.035	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH19 (ES3) 2.10m	MAR02247.036	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH20 (ES1) 0.00m	MAR02247.037	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH20 (ES2) 1.70m	MAR02247.038	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH20 (ES3) 3.30m	MAR02247.039	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH21 (ES1) 0.00m	MAR02247.040	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH21 (ES3) 3.00m	MAR02247.041	Sediment	0.10	0.32	0.14	0.62	<0.1	0.45	0.31	0.79
BH22 (ES1) 0.00m	MAR02247.042	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH22 (ES2) 3.80m	MAR02247.043	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH22 (ES3) 7.50m	MAR02247.044	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH25 (ES1) 0.00m	MAR02247.045	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	0.33	<0.1	0.93
BH25 (ES2) 2.10m	MAR02247.046	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.12	<0.1
BH25 (ES3) 4.10m	MAR02247.047	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH26 (ES1) 0.00m	MAR02247.048	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH26 (ES2) 3.10m	MAR02247.049	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH26 (ES3) 6.20m	MAR02247.050	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH27 (ES1) 0.00m	MAR02247.051	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH27 (ES2) 3.30m	MAR02247.052	Sediment	<0.1	<0.1	<0.1	0.41	<0.1	0.36	<0.1	0.60
Certified Reference Material NIST 1941b (% Recovery)			91~	70~	72~	93~	116	85	81	90
QC Blank			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

For full analyte name see method summaries

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**AHCH**	**BHCH**	**GHCH**	**DIELDRIN**	**HCB**	**DDE**	**DDT**	**DDD**
BH27 (ES3) 6.50m	MAR02247.053	Sediment	<0.1	<0.1	<0.1	0.27	<0.1	0.13	<0.1	0.24
BH29 (ES1) 0.00m	MAR02247.054	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH29 (ES2) 2.79m	MAR02247.055	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH29 (ES3) 5.59m	MAR02247.056	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH30 (ES1) 0.00m	MAR02247.057	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH30 (ES2) 3.86m	MAR02247.058	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH30 (ES3) 7.72m	MAR02247.059	Sediment	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Certified Reference Material NIST 1941b (% Recovery)			94~	104~	98~	94~	104	78	70	62
QC Blank			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

For full analyte name see method summaries

~ Indicates result is for an In-house Reference Material as no Certified Reference Materials are avaliable.

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308
		Limit of Detection	0.05	0.05	0.05	0.05	0.05	0.05	0.05
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PBDE 17**	**PBDE 28**	**PBDE 47**	**PBDE 66**	**PBDE 100**	**PBDE 99**	**PBDE 85**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	<0.05	<0.05	0.06	<0.05	<0.05	0.13	<0.05
BH03 (ES2) 1.90m	MAR02247.002	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH03 (ES3) 3.70m	MAR02247.003	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH05 (ES1) 0.00m	MAR02247.004	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH05 (ES2) 6.00m	MAR02247.005	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH05 (ES3) 12.00m	MAR02247.006	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH06 (ES1) 2.30m	MAR02247.007	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH06 (ES2) 5.94m	MAR02247.008	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH06 (ES3) 11.87m	MAR02247.009	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH10 (ES1) 0.00m	MAR02247.010	Sediment	<0.05	<0.05	0.07	<0.05	<0.05	0.11	<0.05
BH10 (ES2) 1.80m	MAR02247.011	Sediment	<0.05	<0.05	0.19	0.06	<0.05	0.37	<0.05
BH10 (ES3) 3.50m	MAR02247.012	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH12 (ES1) 0.00m	MAR02247.013	Sediment	<0.05	<0.05	0.10	<0.05	<0.05	0.18	<0.05
BH12 (ES2) 1.50m	MAR02247.014	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH12 (ES3) 3.00m	MAR02247.015	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH13A (ES1) 0.00m	MAR02247.016	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	<0.05
BH13A (ES2) 2.40m	MAR02247.017	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH13A (ES3) 4.80m	MAR02247.018	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Certified Reference Material Quasimeme SED56 (% Recovery)			109~	101	96	87~	122	106	87~
QC Blank			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308
		Limit of Detection	0.05	0.05	0.05	0.05	0.1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PBDE 154**	**PBDE 153**	**PBDE 138**	**PBDE 183**	**PBDE 209**
BH03 (ES1) 0.50m	MAR02247.001	Sediment	<0.05	<0.05	<0.05	<0.05	14.0
BH03 (ES2) 1.90m	MAR02247.002	Sediment	<0.05	<0.05	<0.05	<0.05	0.13
BH03 (ES3) 3.70m	MAR02247.003	Sediment	<0.05	<0.05	<0.05	<0.05	<0.1
BH05 (ES1) 0.00m	MAR02247.004	Sediment	<0.05	<0.05	<0.05	<0.05	0.11
BH05 (ES2) 6.00m	MAR02247.005	Sediment	<0.05	<0.05	<0.05	<0.05	0.16
BH05 (ES3) 12.00m	MAR02247.006	Sediment	<0.05	<0.05	<0.05	<0.05	<0.1
BH06 (ES1) 2.30m	MAR02247.007	Sediment	<0.05	<0.05	<0.05	<0.05	0.17
BH06 (ES2) 5.94m	MAR02247.008	Sediment	<0.05	<0.05	<0.05	<0.05	0.12
BH06 (ES3) 11.87m	MAR02247.009	Sediment	<0.05	<0.05	<0.05	<0.05	<0.1
BH10 (ES1) 0.00m	MAR02247.010	Sediment	<0.05	<0.05	<0.05	<0.05	1.82
BH10 (ES2) 1.80m	MAR02247.011	Sediment	<0.05	0.06	<0.05	<0.05	1.73
BH10 (ES3) 3.50m	MAR02247.012	Sediment	<0.05	<0.05	<0.05	<0.05	0.25
BH12 (ES1) 0.00m	MAR02247.013	Sediment	<0.05	<0.05	<0.05	<0.05	1.52
BH12 (ES2) 1.50m	MAR02247.014	Sediment	<0.05	<0.05	<0.05	<0.05	0.16
BH12 (ES3) 3.00m	MAR02247.015	Sediment	<0.05	<0.05	<0.05	<0.05	0.24
BH13A (ES1) 0.00m	MAR02247.016	Sediment	<0.05	<0.05	<0.05	<0.05	1.76
BH13A (ES2) 2.40m	MAR02247.017	Sediment	<0.05	<0.05	<0.05	<0.05	1.12
BH13A (ES3) 4.80m	MAR02247.018	Sediment	<0.05	<0.05	<0.05	<0.05	<0.1
Certified Reference Material Quasimeme SED56 (% Recovery)			74~	124	82~	81	74
QC Blank			<0.05	<0.05	<0.05	<0.05	<0.1

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308
		Limit of Detection	0.05	0.05	0.05	0.05	0.05	0.05	0.05
		Accreditation	UKAS	N*	N*	N*	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PBDE 17**	**PBDE 28**	**PBDE 47**	**PBDE 66**	**PBDE 100**	**PBDE 99**	**PBDE 85**
BH14 (ES1) 0.00m	MAR02247.019	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH14 (ES2) 2.10m	MAR02247.020	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH14 (ES3) 4.20m	MAR02247.021	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH15 (ES1) 0.00m	MAR02247.022	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH15 (ES2) 1.40m	MAR02247.023	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH15 (ES3) 2.80m	MAR02247.024	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH16 (ES1) 0.00m	MAR02247.025	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH16 (ES2) 3.80m	MAR02247.026	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH16 (ES3) 7.60m	MAR02247.027	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Certified Reference Material Quasimeme SED56 (% Recovery)			82~	81	70	69~	99	75	65~
QC Blank			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308
		Limit of Detection	0.05	0.05	0.05	0.05	0.1
		Accreditation	N*	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PBDE 154**	**PBDE 153**	**PBDE 138**	**PBDE 183**	**PBDE 209**
BH14 (ES1) 0.00m	MAR02247.019	Sediment	<0.05	<0.05	<0.05	<0.05	0.39
BH14 (ES2) 2.10m	MAR02247.020	Sediment	<0.05	<0.05	<0.05	<0.05	0.47
BH14 (ES3) 4.20m	MAR02247.021	Sediment	<0.05	<0.05	<0.05	<0.05	0.39
BH15 (ES1) 0.00m	MAR02247.022	Sediment	<0.05	<0.05	<0.05	<0.05	0.49
BH15 (ES2) 1.40m	MAR02247.023	Sediment	<0.05	<0.05	<0.05	<0.05	0.39
BH15 (ES3) 2.80m	MAR02247.024	Sediment	<0.05	<0.05	<0.05	<0.05	0.84
BH16 (ES1) 0.00m	MAR02247.025	Sediment	<0.05	<0.05	<0.05	<0.05	0.51
BH16 (ES2) 3.80m	MAR02247.026	Sediment	<0.05	<0.05	<0.05	<0.05	0.51
BH16 (ES3) 7.60m	MAR02247.027	Sediment	<0.05	<0.05	<0.05	<0.05	0.31
Certified Reference Material Quasimeme SED56 (% Recovery)			64~	84	73~	72	51
QC Blank			<0.05	<0.05	<0.05	<0.05	<0.1

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308
		Limit of Detection	0.05	0.05	0.05	0.05	0.05	0.05	0.05
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PBDE 17**	**PBDE 28**	**PBDE 47**	**PBDE 66**	**PBDE 100**	**PBDE 99**	**PBDE 85**
BH17 (ES1) 0.00m	MAR02247.028	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH17 (ES2) 0.90m	MAR02247.029	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH17 (ES3) 1.90m	MAR02247.030	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH18 (ES1) 0.00m	MAR02247.031	Sediment	<0.05	<0.05	0.12	<0.05	<0.05	0.17	<0.05
BH18 (ES2) 0.60m	MAR02247.032	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH18 (ES3) 1.20m	MAR02247.033	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH19 (ES1) 0.00m	MAR02247.034	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH19 (ES2) 1.10m	MAR02247.035	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH19 (ES3) 2.10m	MAR02247.036	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH20 (ES1) 0.00m	MAR02247.037	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH20 (ES2) 1.70m	MAR02247.038	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH20 (ES3) 3.30m	MAR02247.039	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH21 (ES1) 0.00m	MAR02247.040	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH21 (ES3) 3.00m	MAR02247.041	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH22 (ES1) 0.00m	MAR02247.042	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH22 (ES2) 3.80m	MAR02247.043	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH22 (ES3) 7.50m	MAR02247.044	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH25 (ES1) 0.00m	MAR02247.045	Sediment	<0.05	<0.05	0.24	0.08	<0.05	0.37	<0.05
Certified Reference Material Quasimeme SED56 (% Recovery)			113~	108	114	106~	126	107	103~
QC Blank			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

* See Report Notes

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308
		Limit of Detection	0.05	0.05	0.05	0.05	0.1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PBDE 154**	**PBDE 153**	**PBDE 138**	**PBDE 183**	**PBDE 209**
BH17 (ES1) 0.00m	MAR02247.028	Sediment	<0.05	<0.05	<0.05	<0.05	1.11
BH17 (ES2) 0.90m	MAR02247.029	Sediment	<0.05	<0.05	<0.05	<0.05	0.56
BH17 (ES3) 1.90m	MAR02247.030	Sediment	<0.05	<0.05	<0.05	<0.05	0.39
BH18 (ES1) 0.00m	MAR02247.031	Sediment	<0.05	<0.05	<0.05	<0.05	2.37
BH18 (ES2) 0.60m	MAR02247.032	Sediment	<0.05	<0.05	<0.05	<0.05	0.28
BH18 (ES3) 1.20m	MAR02247.033	Sediment	<0.05	<0.05	<0.05	<0.05	0.20
BH19 (ES1) 0.00m	MAR02247.034	Sediment	<0.05	<0.05	<0.05	<0.05	0.36
BH19 (ES2) 1.10m	MAR02247.035	Sediment	<0.05	<0.05	<0.05	<0.05	0.24
BH19 (ES3) 2.10m	MAR02247.036	Sediment	<0.05	<0.05	<0.05	<0.05	<0.2
BH20 (ES1) 0.00m	MAR02247.037	Sediment	<0.05	<0.05	<0.05	<0.05	0.30
BH20 (ES2) 1.70m	MAR02247.038	Sediment	<0.05	<0.05	<0.05	<0.05	0.25
BH20 (ES3) 3.30m	MAR02247.039	Sediment	<0.05	<0.05	<0.05	<0.05	0.32
BH21 (ES1) 0.00m	MAR02247.040	Sediment	<0.05	<0.05	<0.05	<0.05	<0.2
BH21 (ES3) 3.00m	MAR02247.041	Sediment	<0.05	<0.05	<0.05	<0.05	<0.2
BH22 (ES1) 0.00m	MAR02247.042	Sediment	<0.05	<0.05	<0.05	<0.05	<0.2
BH22 (ES2) 3.80m	MAR02247.043	Sediment	<0.05	<0.05	<0.05	<0.05	<0.2
BH22 (ES3) 7.50m	MAR02247.044	Sediment	<0.05	<0.05	<0.05	<0.05	<0.2
BH25 (ES1) 0.00m	MAR02247.045	Sediment	<0.05	0.08	<0.05	<0.05	3.31
Certified Reference Material Quasimeme SED56 (% Recovery)			95~	128	104~	88	92
QC Blank			<0.05	<0.05	<0.05	<0.05	<0.2*

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308
		Limit of Detection	0.05	0.05	0.05	0.05	0.05	0.05	0.05
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PBDE 17**	**PBDE 28**	**PBDE 47**	**PBDE 66**	**PBDE 100**	**PBDE 99**	**PBDE 85**
BH25 (ES2) 2.10m	MAR02247.046	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH25 (ES3) 4.10m	MAR02247.047	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH26 (ES1) 0.00m	MAR02247.048	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH26 (ES2) 3.10m	MAR02247.049	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH26 (ES3) 6.20m	MAR02247.050	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH27 (ES1) 0.00m	MAR02247.051	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH27 (ES2) 3.30m	MAR02247.052	Sediment	<0.05	<0.05	0.11	<0.05	<0.05	0.15	<0.05
BH27 (ES3) 6.50m	MAR02247.053	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05
BH29 (ES1) 0.00m	MAR02247.054	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Certified Reference Material Quasimeme SED56 (% Recovery)			126~	108	135	107~	169	144	97~
QC Blank			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308
		Limit of Detection	0.05	0.05	0.05	0.05	0.1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PBDE 154**	**PBDE 153**	**PBDE 138**	**PBDE 183**	**PBDE 209**
BH25 (ES2) 2.10m	MAR02247.046	Sediment	<0.05	<0.05	<0.05	<0.05	0.29
BH25 (ES3) 4.10m	MAR02247.047	Sediment	<0.05	<0.05	<0.05	<0.05	0.39
BH26 (ES1) 0.00m	MAR02247.048	Sediment	<0.05	<0.05	<0.05	<0.05	1.40
BH26 (ES2) 3.10m	MAR02247.049	Sediment	<0.05	<0.05	<0.05	<0.05	0.19
BH26 (ES3) 6.20m	MAR02247.050	Sediment	<0.05	<0.05	<0.05	<0.05	7.77
BH27 (ES1) 0.00m	MAR02247.051	Sediment	<0.05	<0.05	<0.05	<0.05	0.30
BH27 (ES2) 3.30m	MAR02247.052	Sediment	<0.05	<0.05	<0.05	<0.05	1.92
BH27 (ES3) 6.50m	MAR02247.053	Sediment	<0.05	<0.05	<0.05	<0.05	0.33
BH29 (ES1) 0.00m	MAR02247.054	Sediment	<0.05	<0.05	<0.05	<0.05	0.42
Certified Reference Material Quasimeme SED56 (% Recovery)			97~	135	105~	104	81
QC Blank			<0.05	<0.05	<0.05	<0.05	<0.1

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308
		Limit of Detection	0.05	0.05	0.05	0.05	0.05	0.05	0.05
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PBDE 17**	**PBDE 28**	**PBDE 47**	**PBDE 66**	**PBDE 100**	**PBDE 99**	**PBDE 85**
BH29 (ES2) 2.79m	MAR02247.055	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH29 (ES3) 5.59m	MAR02247.056	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH30 (ES1) 0.00m	MAR02247.057	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH30 (ES2) 3.86m	MAR02247.058	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH30 (ES3) 7.72m	MAR02247.059	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Certified Reference Material Quasimeme SED56 (% Recovery)			108~	112	119	100~	135	108	93~
QC Blank			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

* See Report Notes

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308
		Limit of Detection	0.05	0.05	0.05	0.05	0.1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PBDE 154**	**PBDE 153**	**PBDE 138**	**PBDE 183**	**PBDE 209**
BH29 (ES2) 2.79m	MAR02247.055	Sediment	<0.05	<0.05	<0.05	<0.05	<0.3
BH29 (ES3) 5.59m	MAR02247.056	Sediment	<0.05	<0.05	<0.05	<0.05	0.54
BH30 (ES1) 0.00m	MAR02247.057	Sediment	<0.05	<0.05	<0.05	<0.05	0.37
BH30 (ES2) 3.86m	MAR02247.058	Sediment	<0.05	<0.05	<0.05	<0.05	<0.3
BH30 (ES3) 7.72m	MAR02247.059	Sediment	<0.05	<0.05	<0.05	<0.05	0.36
Certified Reference Material Quasimeme SED56 (% Recovery)			89~	116	96~	99	96
QC Blank			<0.05	<0.05	<0.05	<0.05	<0.3*

* See Report Notes

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

REPORT NOTES

Method Code	Sample ID	The following information should be taken into consideration when using the data contained within this report
WSLM59*	MAR02247.001-059	Analysis was conducted by an internal SOCOTEC laboratory. UKAS accredited analysis by this laboratory is under UKAS number 1252.
ICPMSS*	MAR02247.001-059	Analysis was conducted by an internal SOCOTEC laboratory. UKAS accredited analysis by this laboratory is under UKAS number 1252.
SUB_01*	MAR02247.001-059	Analysis was conducted by an approved subcontracted laboratory.
SUB_02*	MAR02247.001-059	Analysis was conducted by an approved subcontracted laboratory.
SUB_03*	MAR02247.001-059	Analysis was conducted by an approved subcontracted laboratory.
ASC/SOP/301	MAR02247.001, 006, 010-011, .016, .018, .026, .028, 038-40, .043-44, .048, .051, .055	The matrix of this sample has been found to interfere with the result for this test. The sample has therefore been diluted, but in doing so, the detection limit for this test has been elevated.
ASC/SOP/303/304	MAR02247.007, .010-011	The matrix of this sample has been found to interfere with the result for this test. The sample has therefore been diluted, but in doing so, the detection limit for this test has been elevated.
ASC/SOP/303/304	MAR02247.001-009	The Primary process control data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with one or more target analytes falling outside acceptable limits. The remaining data gives the Laboratory confidence that the test has performed satisfactorily and that the validity of the data may not have been significantly affected. However in line with our QMS policy we have removed accreditation, where applicable, from the affected analytes (FLUORENE) . These circumstances should be taken into consideration when utilising the data.
ASC/SOP/303/304	MAR02247.010-024	The Primary process control data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with one or more target analytes falling outside acceptable limits. The remaining data gives the Laboratory confidence that the test has performed satisfactorily and that the validity of the data may not have been significantly affected. However in line with our QMS policy we have removed accreditation, where applicable, from the affected analytes (BBF) . These circumstances should be taken into consideration when utilising the data.
ASC/SOP/303/304	MAR02247.040-059	The Primary process control data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with one or more target analytes falling outside acceptable limits. The remaining data gives the Laboratory confidence that the test has performed satisfactorily and that the validity of the data may not have been significantly affected. However in line with our QMS policy we have removed accreditation, where applicable, from the affected analytes (ACENAPTH, FLUORENE) . These circumstances should be taken into consideration when utilising the data.
ASC/SOP/303/304	MAR02247.001-059	Benzo[k]fluoranthene is known to coelute with Benzo[j]fluoranthene and these peaks can not be resolved. It is believed Benzo[j]fluoranthene is present in these samples therefore it is suggested that the Benzo[k]fluoranthene results should be taken as a Benzo[k]fluoranthene (inc. Benzo[j]fluoranthene). Benzo[j]fluoranthene is not UKAS accredited. This should be taken into consideration when utilising the data.
ASC/SOP/303/304	MAR02247.001-059	Chrysene is known to coelute with Triphenylene and these peaks can not be resolved. It is believed Triphenylene is present in these samples therefore it is suggested that the Chrysene results should be taken as a Chrysene (inc. Triphenylene).This should be taken into consideration when utilising the data.
ASC/SOP/308	MAR02247.019-027	The Primary process control data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with one or more target analytes falling outside acceptable limits. The remaining data gives the Laboratory confidence that the test has performed satisfactorily and that the validity of the data may not have been significantly affected. However in line with our QMS policy we have removed accreditation, where applicable, from the affected analytes (PBDE 28, 47, 66, 154) . These circumstances should be taken into consideration when utilising the data.
ASC/SOP/308	MAR02247.028-045, .055-059	The Primary process control blank data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with BDE209 falling above acceptable reporting limits. The remaining data gives the Laboratory confidence that the test has performed satisfactorily and that the validity of the data may not have been significantly affected.However in line with our QMS policy the report limit for this compound has been raised and samples have been blank subtracted.

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02247
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

DEVIATING SAMPLE STATEMENT

Deviation Code	Deviation Definition	Sample ID	Deviation Details. The following information should be taken into consideration when using the data contained within this report
D1	Holding Time Exceeded	N/A	N/A
D2	Sample Contaminated through Damaged Packaging	N/A	N/A
D3	Sample Contaminated through Sampling	N/A	N/A
D4	Inappropriate Container/Packaging	N/A	N/A
D5	Damaged in Transit	N/A	N/A
D6	Insufficient Quantity of Sample	N/A	N/A
D7	Inappropriate Headspace	N/A	N/A
D8	Retained at Incorrect Temperature	N/A	N/A
D9	Lack of Date & Time of Sampling	N/A	N/A
D10	Insufficient Sample Details	N/A	N/A
D11	Sample integrity compromised or not suitable for analysis	N/A	N/A

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02247
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

Method	Sample and Fraction Size	Method Summary
Total Solids	Wet Sediment	Calculation (100%-Moisture Content).Moisture content determined by drying a portion of the sample at 120°C to constant weight.
Particle Size Analysis	Wet Sediment	Wet and dry sieving followed by laser diffraction analysis.
Total Organic Carbon (TOC)	Air dried and ground	Carbonate removal and sulphurous acid/combustion at 1600°C/NDIR.
Metals	Air dried and seived to <63µm	Aqua-regia extraction followed by ICP analysis.
Organotins	Wet Sediment	Solvent extraction and derivatisation followed by GC-MS analysis.
Polyaromatic Hydrocarbons (PAH)	Wet Sediment	Solvent extraction and clean up followed by GC-MS analysis.
Total Hydrocarbon Content (THC)	Wet Sediment	Solvent extraction and clean up followed by GC-FID analysis.
Polychlorinated Biphenyls (PCBs)	Air dried and seived to <2mm	Solvent extraction and clean up followed by GC-MS-MS analysis.
Organochlorine Pesticides (OCPs)	Air dried and seived to <2mm	Solvent extraction and clean up followed by GC-MS-MS analysis.
Brominated Flame Retardants (PBDEs)	Air dried and seived to <2mm	Solvent extraction and clean up followed by GC-MS-MS analysis.

Analyte Definitions

Analyte Abbreviation	Full Analyte name	Analyte Abbreviation	Full Analyte name	Analyte Abbreviation	Full Analyte name
ACENAPTH	Acenaphthene	C2N	C2-naphthalenes	THC	Total Hydrocarbon Content
ACENAPHY	Acenaphthylene	C3N	C3-naphthalenes	AHCH	alpha-Hexachlorcyclohexane
ANTHRACN	Anthracene	CHRYSENE	Chrysene	BHCH	beta-Hexachlorcyclohexane
BAA	Benzo[a]anthracene	DBENZAH	Dibenzo[ah]anthracene	GHCH	gamma-Hexachlorcyclohexane
BAP	Benzo[a]pyrene	FLUORANT	Fluoranthene	DIELDRIN	Dieldrin
BBF	Benzo[b]fluoranthene	FLUORENE	Fluorene	HCB	Hexachlorobenzene
BEP	Benzo[e]pyrene	INDPYR	Indeno[1,2,3-cd]pyrene	DDD	p,p'-Dichlorodiphenyldichloroethane
BENZGHIP	Benzo[ghi]perylene	NAPTH	Naphthalene	DDE	p,p'-Dichlorodiphenyldichloroethylene
BKF	Benzo[k]fluoranthene	PERYLENE	Perylene	DDT	p,p'-Dichlorodiphenyltrichloroethane
C1N	C1-naphthalenes	PHENANT	Phenanthrene		
C1PHEN	C1-phenanthrene	PYRENE	Pyrene		

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02253

Issue Version: 1

Customer: Causeway Geotech Ltd, 8 Drumahiskey Rd, Bendooragh, Balnamore, Ballymoney, BT53 7QL

Customer Reference: 23-1739 - Hunterston Marine Yard GI - Radiological Testing

Date Sampled: 07-18-Mar-24

Date Samples Received: 03-Apr-24

Test Report Date: 03-May-24

Condition of samples: Cold Satisfactory

Opinions and Interpretations expressed herein are outside the scope of our UKAS accreditaion
The results reported relate only to the sample tested
The results apply to the sample as received

<Redacted>

Authorised by: Jane Colbourne

Position: Customer Service Specialist

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02253
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI - Radiological Testing

		Units	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Gross Alpha as Pu-242**	**Gross Beta as Cs-137**	**Be-7**	**K-40**	**Co-60**	**I-125**	**I-129**
BH03 (ES4) 0.50m - COMPOSITE	MAR02253.001	Sediment	400 ± 160	890 ± 200	<16	418 ± 44	<1.7	<43	<19
BH05 (ES4) 0.00m - COMPOSITE	MAR02253.002	Sediment	340 ± 130	690 ± 170	<13	419 ± 39	<1.1	<31	<13
BH06 (ES4) 2.30m - COMPOSITE	MAR02253.003	Sediment	360 ± 140	730 ± 170	<16	437 ± 47	<1.5	<37	<15
BH10 (ES4) 0.00m - COMPOSITE	MAR02253.004	Sediment	210 ± 120	590 ± 150	<16	327 ± 38	<1.7	<25	<11
BH12 (ES4) 0.00m - COMPOSITE	MAR02253.005	Sediment	<200	660 ± 160	<16	295 ± 34	<1.4	<40	<18
BH13A (ES4) 0.00m - COMPOSITE	MAR02253.006	Sediment	310 ± 130	870 ± 200	<14	527 ± 47	<1.1	<33	<13
BH14 (ES4) 0.00m - COMPOSITE	MAR02253.007	Sediment	<160	420 ± 130	<12	247 ± 30	<1.2	<33	<14
BH15 (ES4) 0.00m - COMPOSITE	MAR02253.008	Sediment	550 ± 180	1010 ± 230	<17	546 ± 59	<2.0	<26	<12
BH16 (ES4) 0.00m - COMPOSITE	MAR02253.009	Sediment	<210	620 ± 150	<16	317 ± 35	<1.5	<42	<18
BH17 (ES4) 0.00m - COMPOSITE	MAR02253.010	Sediment	<170	440 ± 120	<9.8	297 ± 31	<0.86	<26	<11
BH18 (ES4) 0.00m - COMPOSITE	MAR02253.011	Sediment	<200	500 ± 130	<13	303 ± 35	<1.2	<33	<14
BH19 (ES4) 0.00m - COMPOSITE	MAR02253.012	Sediment	<140	410 ± 120	<13	184 ± 29	<1.5	<21	<9.6
BH20 (ES4) 0.00m - COMPOSITE	MAR02253.013	Sediment	310 ± 150	800 ± 190	<18	395 ± 45	<1.8	<43	<19
BH21 (ES4) 0.00m - COMPOSITE	MAR02253.014	Sediment	<150	320 ± 110	<9.8	223 ± 23	<0.78	<25	<11
BH22 (ES4) 0.00m - COMPOSITE	MAR02253.015	Sediment	270 ± 130	590 ± 160	<13	290 ± 33	<1.3	<34	<14
BH25 (ES4) 0.00m - COMPOSITE	MAR02253.016	Sediment	290 ± 150	770 ± 180	<17	466 ± 50	<1.9	<25	<11
BH26 (ES4) 0.00m - COMPOSITE	MAR02253.017	Sediment	210 ± 120	430 ± 120	<15	239 ± 31	<1.4	<40	<17
BH27 (ES4) 0.00m - COMPOSITE	MAR02253.018	Sediment	210 ± 140	680 ± 170	<14	312 ± 34	<1.3	<25	<12
BH29 (ES4) 0.00m - COMPOSITE	MAR02253.019	Sediment	250 ± 120	560 ± 140	<15	347 ± 39	<1.3	<37	<14
BH30 (ES4) 0.00m - COMPOSITE	MAR02253.020	Sediment	370 ± 160	800 ± 180	<18	376 ± 44	<1.8	<27	<12

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02253
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI - Radiological T

		Units	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	UKAS	N	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Cs-134**	**Cs-137**	**Tl-208**	**Pb-210**	**Bi-212**	**Pb-212**	**Bi-214**
BH03 (ES4) 0.50m - COMPOSITE	MAR02253.001	Sediment	<1.6	7.7 ± 1.5	5.8 ± 1.4	<29	<19	15.4 ± 2.4	13.7 ± 3.0
BH05 (ES4) 0.00m - COMPOSITE	MAR02253.002	Sediment	<1.1	9.7 ± 1.3	6.6 ± 1.1	<19	24.3 ± 9.3	21.0 ± 2.5	16.0 ± 2.3
BH06 (ES4) 2.30m - COMPOSITE	MAR02253.003	Sediment	<1.5	15.2 ± 1.9	5.7 ± 1.2	<24	<17	21.7 ± 2.6	14.3 ± 2.5
BH10 (ES4) 0.00m - COMPOSITE	MAR02253.004	Sediment	<1.6	30.3 ± 3.0	4.5 ± 1.2	<18	<17	12.4 ± 1.8	13.0 ± 2.6
BH12 (ES4) 0.00m - COMPOSITE	MAR02253.005	Sediment	<1.3	14.4 ± 1.9	4.1 ± 1.1	<26	<16	9.3 ± 1.9	9.8 ± 2.4
BH13A (ES4) 0.00m - COMPOSITE	MAR02253.006	Sediment	<1.2	4.3 ± 1.1	7.4 ± 1.2	<20	28.6 ± 9.8	23.6 ± 2.6	17.3 ± 2.3
BH14 (ES4) 0.00m - COMPOSITE	MAR02253.007	Sediment	<1.2	11.4 ± 1.6	2.35 ± 0.84	<20	<14	7.9 ± 1.6	8.3 ± 1.9
BH15 (ES4) 0.00m - COMPOSITE	MAR02253.008	Sediment	<1.9	10.7 ± 1.7	8.9 ± 1.7	<20	<23	29.1 ± 3.1	19.9 ± 3.5
BH16 (ES4) 0.00m - COMPOSITE	MAR02253.009	Sediment	<1.6	10.4 ± 1.6	5.9 ± 1.2	<28	<18	16.3 ± 2.4	10.7 ± 2.5
BH17 (ES4) 0.00m - COMPOSITE	MAR02253.010	Sediment	<0.90	13.5 ± 1.5	2.51 ± 0.67	<16	<11	8.7 ± 1.4	7.2 ± 1.6
BH18 (ES4) 0.00m - COMPOSITE	MAR02253.011	Sediment	<1.3	8.2 ± 1.3	4.10 ± 0.97	<22	<15	12.3 ± 1.8	10.5 ± 2.1
BH19 (ES4) 0.00m - COMPOSITE	MAR02253.012	Sediment	<1.4	8.4 ± 1.4	<1.3	<16	<15	4.9 ± 1.3	<2.6
BH20 (ES4) 0.00m - COMPOSITE	MAR02253.013	Sediment	<1.8	9.1 ± 1.6	6.0 ± 1.4	<29	<21	16.3 ± 2.4	12.2 ± 2.9
BH21 (ES4) 0.00m - COMPOSITE	MAR02253.014	Sediment	<0.85	8.1 ± 1.1	2.19 ± 0.68	<15	<10	6.0 ± 1.2	5.0 ± 1.4
BH22 (ES4) 0.00m - COMPOSITE	MAR02253.015	Sediment	<1.3	9.1 ± 1.4	4.8 ± 1.0	<22	<15	15.5 ± 1.9	12.1 ± 2.3
BH25 (ES4) 0.00m - COMPOSITE	MAR02253.016	Sediment	<1.8	5.6 ± 1.4	5.8 ± 1.4	<19	<21	17.7 ± 2.2	16.9 ± 3.0
BH26 (ES4) 0.00m - COMPOSITE	MAR02253.017	Sediment	<1.5	7.3 ± 1.4	4.4 ± 1.2	<27	<18	13.4 ± 2.2	10.2 ± 2.4
BH27 (ES4) 0.00m - COMPOSITE	MAR02253.018	Sediment	<1.2	39.2 ± 3.6	4.9 ± 1.1	<19	<14	15.7 ± 2.1	12.9 ± 2.2
BH29 (ES4) 0.00m - COMPOSITE	MAR02253.019	Sediment	<1.4	7.2 ± 1.2	4.2 ± 1.0	<22	<15	15.1 ± 2.1	11.5 ± 2.4
BH30 (ES4) 0.00m - COMPOSITE	MAR02253.020	Sediment	<1.8	5.5 ± 1.3	7.5 ± 1.4	<19	<20	20.3 ± 2.5	17.3 ± 3.1

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02253
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI - Radiological T

		Units	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	N	UKAS	N	N	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Pb-214**	**Ra-224**	**Ra-226 ***	**Ac-228**	**Ra-228 ***	**Th-228 ***	**Pa-234m**
BH03 (ES4) 0.50m - COMPOSITE	MAR02253.001	Sediment	14.6 ± 2.6	<41	<28	20.7 ± 3.9	20.7 ± 3.9	<41	<180
BH05 (ES4) 0.00m - COMPOSITE	MAR02253.002	Sediment	16.4 ± 2.0	<27	<20	20.8 ± 3.1	20.8 ± 3.1	<27	<110
BH06 (ES4) 2.30m - COMPOSITE	MAR02253.003	Sediment	17.2 ± 2.2	<20	<21	21.0 ± 3.6	21.0 ± 3.6	<20	<150
BH10 (ES4) 0.00m - COMPOSITE	MAR02253.004	Sediment	12.8 ± 1.9	<18	<19	12.0 ± 3.4	12.0 ± 3.4	<18	<160
BH12 (ES4) 0.00m - COMPOSITE	MAR02253.005	Sediment	10.6 ± 2.4	<34	<25	15.1 ± 3.7	15.1 ± 3.7	<34	<150
BH13A (ES4) 0.00m - COMPOSITE	MAR02253.006	Sediment	19.4 ± 2.2	<28	<21	23.3 ± 3.3	23.3 ± 3.3	<28	<120
BH14 (ES4) 0.00m - COMPOSITE	MAR02253.007	Sediment	9.0 ± 1.7	<24	<18	<4.9	<4.9	<24	<120
BH15 (ES4) 0.00m - COMPOSITE	MAR02253.008	Sediment	22.1 ± 2.7	<22	<22	29.5 ± 4.7	29.5 ± 4.7	<22	<210
BH16 (ES4) 0.00m - COMPOSITE	MAR02253.009	Sediment	12.2 ± 2.2	<39	<26	19.0 ± 4.8	19.0 ± 4.8	<39	<180
BH17 (ES4) 0.00m - COMPOSITE	MAR02253.010	Sediment	8.4 ± 1.4	<20	<17	9.4 ± 2.2	9.4 ± 2.2	<20	<91
BH18 (ES4) 0.00m - COMPOSITE	MAR02253.011	Sediment	11.5 ± 1.9	<25	<18	12.1 ± 3.0	12.1 ± 3.0	<25	<130
BH19 (ES4) 0.00m - COMPOSITE	MAR02253.012	Sediment	6.1 ± 1.5	<20	<17	<5.7	<5.7	<20	<140
BH20 (ES4) 0.00m - COMPOSITE	MAR02253.013	Sediment	13.9 ± 2.4	<41	<29	17.1 ± 4.1	17.1 ± 4.1	<41	<190
BH21 (ES4) 0.00m - COMPOSITE	MAR02253.014	Sediment	6.3 ± 1.2	<20	<16	7.0 ± 2.5	7.0 ± 2.5	<20	<86
BH22 (ES4) 0.00m - COMPOSITE	MAR02253.015	Sediment	14.6 ± 1.9	<18	<18	15.0 ± 3.3	15.0 ± 3.3	<18	<130
BH25 (ES4) 0.00m - COMPOSITE	MAR02253.016	Sediment	17.4 ± 2.3	<20	<20	20.5 ± 3.9	20.5 ± 3.9	<20	<190
BH26 (ES4) 0.00m - COMPOSITE	MAR02253.017	Sediment	10.6 ± 2.4	<36	<25	13.9 ± 3.4	13.9 ± 3.4	<36	<170
BH27 (ES4) 0.00m - COMPOSITE	MAR02253.018	Sediment	13.8 ± 1.9	<17	<18	15.6 ± 2.9	15.6 ± 2.9	<17	<120
BH29 (ES4) 0.00m - COMPOSITE	MAR02253.019	Sediment	14.3 ± 2.0	<26	<19	13.5 ± 3.3	13.5 ± 3.3	<26	<140
BH30 (ES4) 0.00m - COMPOSITE	MAR02253.020	Sediment	19.7 ± 2.5	<28	<20	20.7 ± 4.1	20.7 ± 4.1	<28	<180

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02253
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI - Radiological T

		Units	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Th-234**	**U-235**	**Am-241**
BH03 (ES4) 0.50m - COMPOSITE	MAR02253.001	Sediment	<19	<5.8	<2.2
BH05 (ES4) 0.00m - COMPOSITE	MAR02253.002	Sediment	<19	<5.2	<1.8
BH06 (ES4) 2.30m - COMPOSITE	MAR02253.003	Sediment	<22	<5.3	<2.5
BH10 (ES4) 0.00m - COMPOSITE	MAR02253.004	Sediment	<19	<4.4	<2.0
BH12 (ES4) 0.00m - COMPOSITE	MAR02253.005	Sediment	<27	<5.6	<1.8
BH13A (ES4) 0.00m - COMPOSITE	MAR02253.006	Sediment	<20	<5.3	<2.0
BH14 (ES4) 0.00m - COMPOSITE	MAR02253.007	Sediment	<18	<4.4	<2.6
BH15 (ES4) 0.00m - COMPOSITE	MAR02253.008	Sediment	<22	<5.3	<1.6
BH16 (ES4) 0.00m - COMPOSITE	MAR02253.009	Sediment	<28	<6.1	<1.9
BH17 (ES4) 0.00m - COMPOSITE	MAR02253.010	Sediment	<16	<4.2	<1.5
BH18 (ES4) 0.00m - COMPOSITE	MAR02253.011	Sediment	<19	<4.7	<2.8
BH19 (ES4) 0.00m - COMPOSITE	MAR02253.012	Sediment	<16	<3.8	<1.5
BH20 (ES4) 0.00m - COMPOSITE	MAR02253.013	Sediment	<30	<6.4	<2.0
BH21 (ES4) 0.00m - COMPOSITE	MAR02253.014	Sediment	<15	<4.0	<1.8
BH22 (ES4) 0.00m - COMPOSITE	MAR02253.015	Sediment	<20	<4.7	<2.5
BH25 (ES4) 0.00m - COMPOSITE	MAR02253.016	Sediment	<20	<4.8	<1.9
BH26 (ES4) 0.00m - COMPOSITE	MAR02253.017	Sediment	<27	<5.8	<2.0
BH27 (ES4) 0.00m - COMPOSITE	MAR02253.018	Sediment	<19	<4.4	<1.9
BH29 (ES4) 0.00m - COMPOSITE	MAR02253.019	Sediment	<20	<4.9	<2.0
BH30 (ES4) 0.00m - COMPOSITE	MAR02253.020	Sediment	<20	<4.8	<1.9

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02253
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI - Radiological Testing

REPORT NOTES

Method Code	Sample ID	The following information should be taken into consideration when using the data contained within this report
SOCOTEC Didcot*	MAR02253.001-020	Analysis was conducted by an internal SOCOTEC laboratory. UKAS accredited analysis by this laboratory is under UKAS number 1252.
SOCOTEC Didcot*	MAR02253.001-020	Analyses and/or samples marked with an asterisk are not covered under UKAS schedule 1252.
SOCOTEC Didcot*	MAR02253.001-020	Results are presented as Bq/kg of dried and homogenised sample and are decay corrected to the sampling date.
SOCOTEC Didcot*	MAR02253.001-020	For results below the Limit of Detection, the LoD is rounded up to 2 significant figures. Results above the LoD are reported with expanded (2σ) uncertainties based on a total uncertainty budget. Uncertainties are rounded to 2 significant figures; results are rounded to the same precision.
SOCOTEC Didcot*	MAR02253.001-020	Detector calibrations are based upon homogeneous standard solutions. For quantification purposes the sample is assumed to be homogeneous.
SOCOTEC Didcot*	MAR02253.001-020	226Ra has only one gamma ray at 186 keV and the major gamma ray from 235U also occurs at 186 keV. 235U can be measured by the lower abundance gamma ray at 144 keV and if a positive result for 235U is reported, the 226Ra result will be unreliable and overestimated. However even if 235U is below the LoD there may still be a contribution to the 226Ra from 235U and the 226Ra result may be unreliable and overestimated. If an accurate result for 226Ra is required, this is better obtained by radiochemical analysis.
SOCOTEC Didcot*	MAR02253.001-020	228Ra and 228Th are derived from their daughter radionuclides (228Ac and 224Ra, respectively), assuming secular equilibrium.

DEVIATING SAMPLE STATEMENT

Deviation Code	Devation Definition	Sample ID	Deviation Details. The following information should be taken into consideration when using the data contained within this report
D1	Holding Time Exceeded	N/A	N/A
D2	Sample Contaminated through Damaged Packaging	N/A	N/A
D3	Sample Contaminated through Sampling	N/A	N/A
D4	Inappropriate Container/Packaging	N/A	N/A
D5	Damaged in Transit	N/A	N/A
D6	Insufficient Quantity of Sample	N/A	N/A
D7	Inappropriate Headspace	N/A	N/A
D8	Retained at Incorrect Temperature	N/A	N/A
D9	Lack of Date & Time of Sampling	N/A	N/A
D10	Insufficient Sample Details	N/A	N/A
D11	Sample integrity compromised or not suitable for analysis	N/A	N/A

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02253
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI - Radiological Testing

Method	Sample and Fraction Size	Method Summary
NORM	Air dried	High resolution gamma ray spectrometry
Gross Alpha/Beta	Air dried	Proportional Counting

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02270

Issue Version: 1

Customer: Causeway Geotech Ltd, 8 Drumahiskey Rd, Bendooragh, Balnamore, Ballymoney, BT53 7QL

Customer Reference: 23-1739 - Hunterston Marine Yard GI

Date Sampled: 28-Mar-04-Apr-24

Date Samples Received: 12-Apr-24

Test Report Date: 13-May-24

Condition of samples: Cold Satisfactory

Opinions and Interpretations expressed herein are outside the scope of our UKAS accreditaion
The results reported relate only to the sample tested
The results apply to the sample as received

<Redacted>

Authorised by: Jane Colbourne

Position: Customer Service Specialist

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	%	%	%	%	%	Mg/m3
		Method No	ASC/SOP/303	ASC/SOP/303	SUB_01*	SUB_01*	SUB_01*	SUB_03*
		Limit of Detection	0.2	0.2	N/A	N/A	N/A	N/A
		Accreditation	UKAS	UKAS	N	N	N	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Total Moisture @ 120°C**	**Total Solids**	**Gravel (>2mm)**	**Sand (63-2000 µm)**	**Silt (<63 µm)**	**Particle Density**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	16.1	83.9	0.00	87.03	12.97	2.67
BH01 (ES2) 4.00m	MAR02270.002	Sediment	15.5	84.5	2.00	37.77	60.22	2.74
BH01 (ES3) 7.90m	MAR02270.003	Sediment	8.76	91.2	10.79	34.59	54.61	2.67
BH02 (ES1) 0.40m	MAR02270.004	Sediment	17.2	82.8	0.00	89.72	10.28	2.66
BH02 (ES2) 5.40m	MAR02270.005	Sediment	15.9	84.1	0.00	74.46	25.54	2.67
BH02 (ES3) 10.80m	MAR02270.006	Sediment	20.4	79.6	0.40	81.74	17.85	2.69
BH04 (ES1) 0.00m	MAR02270.007	Sediment	15.9	84.1	0.00	91.64	8.36	2.66
BH04 (ES2) 6.10m	MAR02270.008	Sediment	18.7	81.3	6.59	88.76	4.64	2.67
BH04 (ES3) 12.20m	MAR02270.009	Sediment	12.1	87.9	17.55	30.72	51.73	2.73
BH21A (ES3) 5.60m	MAR02270.010	Sediment	21.8	78.2	2.51	89.77	7.72	2.65
BH23 (ES1) 0.40m	MAR02270.011	Sediment	23.4	76.6	0.00	94.85	5.15	2.66
BH23 (ES2) 4.00m	MAR02270.012	Sediment	19.5	80.5	0.00	28.62	71.38	2.75
BH23 (ES3) 7.90m	MAR02270.013	Sediment	12.9	87.1	1.27	55.81	42.92	2.68
BH24 (ES1) 0.00m	MAR02270.014	Sediment	24.9	75.1	0.28	95.50	4.22	2.65
BH24 (ES2) 4.70m	MAR02270.015	Sediment	19.6	80.4	0.24	16.25	83.51	2.71
BH24 (ES3) 9.40m	MAR02270.016	Sediment	8.93	91.1	17.70	19.10	63.20	2.74
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	21.4	78.6	0.21	92.15	7.64	2.67
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	16.5	83.5	0.18	83.67	16.15	2.67
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	21.5	78.5	2.37	12.81	84.82	2.74
		Reference Material (% Recovery)	N/A	N/A	N/A	N/A	N/A	N/A
		QC Blank	N/A	N/A	N/A	N/A	N/A	N/A

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	% M/M
		Method No	WSLM59*
		Limit of Detection	0.02
		Accreditation	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**TOC**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	0.33
BH01 (ES2) 4.00m	MAR02270.002	Sediment	0.11
BH01 (ES3) 7.90m	MAR02270.003	Sediment	0.11
BH02 (ES1) 0.40m	MAR02270.004	Sediment	0.14
BH02 (ES2) 5.40m	MAR02270.005	Sediment	0.16
BH02 (ES3) 10.80m	MAR02270.006	Sediment	0.06
BH04 (ES1) 0.00m	MAR02270.007	Sediment	0.10
BH04 (ES2) 6.10m	MAR02270.008	Sediment	0.04
BH04 (ES3) 12.20m	MAR02270.009	Sediment	0.11
BH21A (ES3) 5.60m	MAR02270.010	Sediment	0.09
BH23 (ES1) 0.40m	MAR02270.011	Sediment	0.07
BH23 (ES2) 4.00m	MAR02270.012	Sediment	0.11
BH23 (ES3) 7.90m	MAR02270.013	Sediment	0.10
BH24 (ES1) 0.00m	MAR02270.014	Sediment	0.12
BH24 (ES2) 4.70m	MAR02270.015	Sediment	0.11
BH24 (ES3) 9.40m	MAR02270.016	Sediment	0.13
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	0.16
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	0.14
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	0.12
		Reference Material (% Recovery)	100
		QC Blank	<0.02

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	mg/Kg (Dry Weight)							
		Method No	ICPMSS*							
		Limit of Detection	0.5	0.04	0.5	0.5	0.01	0.5	0.5	2
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Arsenic**	**Cadmium**	**Chromium**	**Copper**	**Mercury**	**Nickel**	**Lead**	**Zinc**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	2.6	<0.04	7.8	6.2	0.06	7.5	4.7	24.6
BH01 (ES2) 4.00m	MAR02270.002	Sediment	3.2	0.05	13.4	16.4	0.03	17.5	6.3	42.3
BH01 (ES3) 7.90m	MAR02270.003	Sediment	2.1	<0.04	16.1	14.8	0.03	15.7	5.5	34.0
BH02 (ES1) 0.40m	MAR02270.004	Sediment	2.0	<0.04	9.1	5.1	0.02	9.3	2.4	16.4
BH02 (ES2) 5.40m	MAR02270.005	Sediment	3.7	<0.04	12.1	6.3	0.02	12.6	4.7	24.2
BH02 (ES3) 10.80m	MAR02270.006	Sediment	2.0	<0.04	5.2	15.1	0.03	8.6	7.1	20.4
BH04 (ES1) 0.00m	MAR02270.007	Sediment	1.2	<0.04	6.3	2.6	0.06	5.2	2.7	15.2
BH04 (ES2) 6.10m	MAR02270.008	Sediment	1.2	0.06	7.4	7.8	0.06	10.6	2.7	30.4
BH04 (ES3) 12.20m	MAR02270.009	Sediment	2.9	0.05	12.7	10.6	0.04	14.6	4.5	56.9
BH21A (ES3) 5.60m	MAR02270.010	Sediment	2.0	<0.04	6.1	2.6	0.03	5.7	2.7	17.0
BH23 (ES1) 0.40m	MAR02270.011	Sediment	1.6	<0.04	5.2	10.2	0.03	5.1	1.6	16.0
BH23 (ES2) 4.00m	MAR02270.012	Sediment	3.7	0.05	17.0	21.0	0.03	21.5	6.6	52.6
BH23 (ES3) 7.90m	MAR02270.013	Sediment	3.8	<0.04	11.6	17.2	0.03	15.3	8.2	37.9
BH24 (ES1) 0.00m	MAR02270.014	Sediment	1.8	<0.04	7.7	10.1	0.08	6.3	5.2	21.4
BH24 (ES2) 4.70m	MAR02270.015	Sediment	4.5	0.10	18.3	22.4	0.06	23.5	7.3	56.2
BH24 (ES3) 9.40m	MAR02270.016	Sediment	4.0	0.23	18.9	21.6	0.05	22.9	6.7	52.0
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	1.8	<0.04	6.7	7.1	0.06	6.4	2.4	29.4
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	2.8	<0.04	10.4	6.7	0.03	9.4	2.7	20.5
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	5.6	0.10	21.3	25.2	0.07	27.6	8.0	62.6
Certified Reference Material SETOC 768 (% Recovery)			99	102	103	117	103	101	101	103
QC Blank			<0.5	<0.04	<0.5	<0.5	<0.01	<0.5	<0.5	<2

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	
		Method No	ASC/SOP/301	
		Limit of Detection	1	1
		Accreditation	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Dibutyltin (DBT)**	**Tributyltin (TBT)**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	<1	<1
BH01 (ES2) 4.00m	MAR02270.002	Sediment	<1	<1
BH01 (ES3) 7.90m	MAR02270.003	Sediment	<1	<1
BH02 (ES1) 0.40m	MAR02270.004	Sediment	<1	<1
BH02 (ES2) 5.40m	MAR02270.005	Sediment	<1	<1
BH02 (ES3) 10.80m	MAR02270.006	Sediment	<1	<1
BH04 (ES1) 0.00m	MAR02270.007	Sediment	<1	<1
BH04 (ES2) 6.10m	MAR02270.008	Sediment	<1	<1
BH04 (ES3) 12.20m	MAR02270.009	Sediment	<1	<1
BH21A (ES3) 5.60m	MAR02270.010	Sediment	<1	<1
BH23 (ES1) 0.40m	MAR02270.011	Sediment	<1	<1
BH23 (ES2) 4.00m	MAR02270.012	Sediment	<5	<5
BH23 (ES3) 7.90m	MAR02270.013	Sediment	<1	<1
BH24 (ES1) 0.00m	MAR02270.014	Sediment	<5	<5
BH24 (ES2) 4.70m	MAR02270.015	Sediment	<5	<5
BH24 (ES3) 9.40m	MAR02270.016	Sediment	<5	<5
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	<5	<5
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	<5	<5
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	<5	<5
Certified Reference Material BCR-646 (% Recovery)			123	105
QC Blank			<1	<1

* See Report Notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02270
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**ACENAPTH**	**ACENAPHY**	**ANTHRACN**	**BAA**	**BAP**	**BBF**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	<1	<1	<1	<1	<1	<1
BH01 (ES2) 4.00m	MAR02270.002	Sediment	<1	<1	<1	<1	<1	<1
BH01 (ES3) 7.90m	MAR02270.003	Sediment	<1	<1	<1	<1	<1	2.30
BH02 (ES1) 0.40m	MAR02270.004	Sediment	1.29	<1	1.49	2.92	3.29	2.82
BH02 (ES2) 5.40m	MAR02270.005	Sediment	<1	<1	1.43	3.18	4.76	5.00
BH02 (ES3) 10.80m	MAR02270.006	Sediment	<1	<1	<1	<1	<1	<1
BH04 (ES1) 0.00m	MAR02270.007	Sediment	<1	<1	1.53	4.62	5.50	4.72
BH04 (ES2) 6.10m	MAR02270.008	Sediment	<1	<1	<1	<1	<1	<1
BH04 (ES3) 12.20m	MAR02270.009	Sediment	<1	<1	<1	<1	<1	1.99
BH21A (ES3) 5.60m	MAR02270.010	Sediment	<1	<1	<1	<1	1.44	1.58
BH23 (ES1) 0.40m	MAR02270.011	Sediment	<1	<1	<1	<1	<1	1.24
BH23 (ES2) 4.00m	MAR02270.012	Sediment	<1	<1	<1	<1	<1	1.40
BH23 (ES3) 7.90m	MAR02270.013	Sediment	<1	<1	<1	<1	1.40	2.28
BH24 (ES1) 0.00m	MAR02270.014	Sediment	5.27	2.04	9.12	24.4	27.2	22.3
BH24 (ES2) 4.70m	MAR02270.015	Sediment	<1	<1	<1	1.85	2.38	4.30
Certified Reference Material NIST 1941b (% Recovery)			96	106	66	64	60	84
QC Blank			<1	<1	<1	<1	<1	<1

For full analyte name see method summaries
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*See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS	UKAS	UKAS	N	N	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**BEP**	**BENZGHIP**	**BKF***	**C1N**	**C1PHEN**	**C2N**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	<1	1.23	<1	6.11	3.40	3.86
BH01 (ES2) 4.00m	MAR02270.002	Sediment	<1	1.60	<1	1.92	1.81	1.97
BH01 (ES3) 7.90m	MAR02270.003	Sediment	1.68	2.40	1.10	2.31	2.32	2.10
BH02 (ES1) 0.40m	MAR02270.004	Sediment	3.42	4.87	2.38	7.56	14.5	12.1
BH02 (ES2) 5.40m	MAR02270.005	Sediment	5.46	9.29	2.18	15.0	20.4	21.1
BH02 (ES3) 10.80m	MAR02270.006	Sediment	<1	<1	<1	<1	<1	4.86
BH04 (ES1) 0.00m	MAR02270.007	Sediment	3.46	3.73	5.03	4.32	6.23	5.22
BH04 (ES2) 6.10m	MAR02270.008	Sediment	<1	<1	<1	1.68	<1	<1
BH04 (ES3) 12.20m	MAR02270.009	Sediment	1.87	2.77	<1	2.69	3.00	3.16
BH21A (ES3) 5.60m	MAR02270.010	Sediment	1.50	2.44	<1	6.14	5.18	6.98
BH23 (ES1) 0.40m	MAR02270.011	Sediment	1.13	1.40	<1	3.52	2.96	8.55
BH23 (ES2) 4.00m	MAR02270.012	Sediment	1.24	1.84	<1	2.97	2.68	4.25
BH23 (ES3) 7.90m	MAR02270.013	Sediment	2.23	3.57	1.01	5.07	4.64	6.82
BH24 (ES1) 0.00m	MAR02270.014	Sediment	16.8	18.1	25.2	13.1	19.7	18.9
BH24 (ES2) 4.70m	MAR02270.015	Sediment	3.75	6.36	2.34	9.68	8.20	11.7
Certified Reference Material NIST 1941b (% Recovery)			75	76	88	75	84	109
QC Blank			<1	<1	<1	<1	<1	<1

For full analyte name see method summaries

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*See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02270
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	N	UKAS	UKAS	UKAS	N*	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**C3N**	**CHRYSENE***	**DBENZAH**	**FLUORANT**	**FLUORENE**	**INDPYR**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	3.95	1.39	<1	1.86	<1	<1
BH01 (ES2) 4.00m	MAR02270.002	Sediment	2.15	<1	<1	<1	<1	<1
BH01 (ES3) 7.90m	MAR02270.003	Sediment	2.27	1.65	<1	2.24	<1	<1
BH02 (ES1) 0.40m	MAR02270.004	Sediment	15.3	3.66	<1	4.44	1.31	1.58
BH02 (ES2) 5.40m	MAR02270.005	Sediment	28.5	4.98	<1	4.39	2.61	2.30
BH02 (ES3) 10.80m	MAR02270.006	Sediment	<1	<1	<1	<1	<1	<1
BH04 (ES1) 0.00m	MAR02270.007	Sediment	5.80	5.52	<1	8.37	<1	2.93
BH04 (ES2) 6.10m	MAR02270.008	Sediment	<1	<1	<1	1.28	<1	<1
BH04 (ES3) 12.20m	MAR02270.009	Sediment	3.22	1.69	<1	2.30	<1	<1
BH21A (ES3) 5.60m	MAR02270.010	Sediment	6.86	1.42	<1	<1	<1	<1
BH23 (ES1) 0.40m	MAR02270.011	Sediment	3.64	<1	<1	1.65	<1	<1
BH23 (ES2) 4.00m	MAR02270.012	Sediment	3.31	<1	<1	1.30	<1	<1
BH23 (ES3) 7.90m	MAR02270.013	Sediment	5.74	2.10	<1	2.17	<1	<1
BH24 (ES1) 0.00m	MAR02270.014	Sediment	21.0	26.1	2.30	48.7	5.59	16.0
BH24 (ES2) 4.70m	MAR02270.015	Sediment	12.6	3.37	<1	3.88	1.76	1.73
Certified Reference Material NIST 1941b (% Recovery)			121	85	118	79	51	70
QC Blank			<1	<1	<1	<1	<1	<1

For full analyte name see method summaries
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*See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02270
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/306
		Limit of Detection	1	1	1	1	100
		Accreditation	UKAS	N	UKAS	UKAS	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**NAPTH**	**PERYLENE**	**PHENANT**	**PYRENE**	**THC**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	2.29	<1	3.66	2.05	5970
BH01 (ES2) 4.00m	MAR02270.002	Sediment	<1	<1	1.44	<1	1910
BH01 (ES3) 7.90m	MAR02270.003	Sediment	1.18	<1	2.52	1.84	1060
BH02 (ES1) 0.40m	MAR02270.004	Sediment	1.93	2.23	8.90	5.93	5240
BH02 (ES2) 5.40m	MAR02270.005	Sediment	3.05	5.51	11.0	6.23	7260
BH02 (ES3) 10.80m	MAR02270.006	Sediment	<1	<1	<1	<1	452
BH04 (ES1) 0.00m	MAR02270.007	Sediment	1.88	<1	6.10	8.24	3230
BH04 (ES2) 6.10m	MAR02270.008	Sediment	<1	<1	<1	1.35	2670
BH04 (ES3) 12.20m	MAR02270.009	Sediment	<1	1.63	1.93	2.70	2430
BH21A (ES3) 5.60m	MAR02270.010	Sediment	2.07	<1	2.49	1.65	1880
BH23 (ES1) 0.40m	MAR02270.011	Sediment	<1	<1	2.25	1.90	12000
BH23 (ES2) 4.00m	MAR02270.012	Sediment	<1	<1	2.36	1.52	8360
BH23 (ES3) 7.90m	MAR02270.013	Sediment	<1	1.32	3.54	2.71	4660
BH24 (ES1) 0.00m	MAR02270.014	Sediment	5.54	6.98	30.1	48.2	73900
BH24 (ES2) 4.70m	MAR02270.015	Sediment	1.95	2.18	6.25	4.34	5980
Certified Reference Material NIST 1941b (% Recovery)			60	58	78	68	93~
QC Blank			<1	<1	<1	<1	<100

For full analyte name see method summaries
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As the method uses surrogate standards to correct for losses, the RM results are reported as percentage trueness, not recovery.
*See report notes

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02270
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**ACENAPTH**	**ACENAPHY**	**ANTHRACN**	**BAA**	**BAP**	**BBF**
BH24 (ES3) 9.40m	MAR02270.016	Sediment	<1	<1	<1	<1	1.42	2.74
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	6.05	1.84	11.8	34.2	40.8	30.3
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	<1	<1	1.36	2.89	3.74	3.59
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	<1	<1	<1	1.51	2.21	3.63
Certified Reference Material NIST 1941b (% Recovery)			96	115	66	66	66	82
QC Blank			<1	<1	<1	<1	<1	<1

For full analyte name see method summaries
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*See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	UKAS	UKAS	UKAS	N	N	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**BEP**	**BENZGHIP**	**BKF***	**C1N**	**C1PHEN**	**C2N**
BH24 (ES3) 9.40m	MAR02270.016	Sediment	2.65	4.55	1.21	4.94	5.05	5.00
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	24.3	26.9	30.2	16.6	38.0	27.7
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	4.20	7.56	1.86	13.2	16.3	16.0
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	3.15	5.53	<1	8.42	7.28	8.26
Certified Reference Material NIST 1941b (% Recovery)			77	71	82	77	83	112
QC Blank			<1	<1	<1	<1	<1	<1

For full analyte name see method summaries

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*See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304
		Limit of Detection	1	1	1	1	1	1
		Accreditation	N	UKAS	UKAS	UKAS	N*	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**C3N**	**CHRYSENE***	**DBENZAH**	**FLUORANT**	**FLUORENE**	**INDPYR**
BH24 (ES3) 9.40m	MAR02270.016	Sediment	5.26	2.23	<1	2.91	<1	1.24
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	33.2	36.3	5.02	66.2	6.41	22.5
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	21.2	4.42	<1	3.62	2.04	1.94
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	9.48	2.72	<1	3.00	<1	1.45
Certified Reference Material NIST 1941b (% Recovery)			117	88	109	79	56	72
QC Blank			<1	<1	<1	<1	<1	<1

For full analyte name see method summaries

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As the method uses surrogate standards to correct for losses, the RM results are reported as percentage trueness, not recovery.

*See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02270
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/304	ASC/SOP/303/306
		Limit of Detection	1	1	1	1	100
		Accreditation	UKAS	N	UKAS	UKAS	N
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**NAPTH**	**PERYLENE**	**PHENANT**	**PYRENE**	**THC**
BH24 (ES3) 9.40m	MAR02270.016	Sediment	1.68	2.28	4.79	3.07	4740
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	9.33	9.92	43.8	66.6	687000
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	4.53	2.28	9.79	4.94	18300
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	1.96	2.04	5.60	3.61	29100
Certified Reference Material NIST 1941b (% Recovery)			59	59	77	69	101~
QC Blank			<1	<1	<1	<1	<100

For full analyte name see method summaries
~ Indicates result is for an In-house Reference Material as no Certified Reference Materials are avaliable.
As the method uses surrogate standards to correct for losses, the RM results are reported as percentage trueness, not recovery.
*See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB28**	**PCB52**	**PCB101**	**PCB118**	**PCB138**	**PCB153**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH01 (ES2) 4.00m	MAR02270.002	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH01 (ES3) 7.90m	MAR02270.003	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH02 (ES1) 0.40m	MAR02270.004	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH02 (ES2) 5.40m	MAR02270.005	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH02 (ES3) 10.80m	MAR02270.006	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			82	105	102	118	90	105
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB18**	**PCB105**	**PCB110**	**PCB128**	**PCB141**	**PCB149**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH01 (ES2) 4.00m	MAR02270.002	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH01 (ES3) 7.90m	MAR02270.003	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH02 (ES1) 0.40m	MAR02270.004	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH02 (ES2) 5.40m	MAR02270.005	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH02 (ES3) 10.80m	MAR02270.006	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			97	104	117	100	125~	100
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB151**	**PCB156**	**PCB158**	**PCB170**	**PCB180**	**PCB183**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH01 (ES2) 4.00m	MAR02270.002	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH01 (ES3) 7.90m	MAR02270.003	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH02 (ES1) 0.40m	MAR02270.004	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH02 (ES2) 5.40m	MAR02270.005	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH02 (ES3) 10.80m	MAR02270.006	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			117~	83	99	103	100	81
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB187**	**PCB194**	**PCB31**	**PCB44**	**PCB47**	**PCB49**	**PCB66**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH01 (ES2) 4.00m	MAR02270.002	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH01 (ES3) 7.90m	MAR02270.003	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH02 (ES1) 0.40m	MAR02270.004	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH02 (ES2) 5.40m	MAR02270.005	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH02 (ES3) 10.80m	MAR02270.006	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			102	97	102	99	108~	109	108
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02270
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.56	0.1	0.1	0.1	0.1	0.1	0.1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**ICES7**	**AHCH**	**BHCH**	**GHCH**	**DIELDRIN**	**HCB**	**DDE**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH01 (ES2) 4.00m	MAR02270.002	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH01 (ES3) 7.90m	MAR02270.003	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH02 (ES1) 0.40m	MAR02270.004	Sediment	<0.56	<0.1	<0.1	<0.1	0.12	<0.1	<0.1
BH02 (ES2) 5.40m	MAR02270.005	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH02 (ES3) 10.80m	MAR02270.006	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Certified Reference Material NIST 1941b (% Recovery)			100	97~	96~	99~	112~	136	109
QC Blank			<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

For full analyte name see method summaries
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Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.1	0.1
		Accreditation	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**DDT**	**DDD**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	<0.1	<0.1
BH01 (ES2) 4.00m	MAR02270.002	Sediment	<0.1	<0.1
BH01 (ES3) 7.90m	MAR02270.003	Sediment	<0.1	<0.1
BH02 (ES1) 0.40m	MAR02270.004	Sediment	<0.1	<0.1
BH02 (ES2) 5.40m	MAR02270.005	Sediment	<0.1	<0.1
BH02 (ES3) 10.80m	MAR02270.006	Sediment	<0.1	<0.1
Certified Reference Material NIST 1941b (% Recovery)			139	100
QC Blank			<0.1	<0.1

For full analyte name see method summaries

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB28**	**PCB52**	**PCB101**	**PCB118**	**PCB138**	**PCB153**
BH04 (ES1) 0.00m	MAR02270.007	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH04 (ES2) 6.10m	MAR02270.008*	Sediment	0.48	0.57	0.84	1.05	0.75	0.82
BH04 (ES3) 12.20m	MAR02270.009	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			75	95	100	121	98	94
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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*See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB18**	**PCB105**	**PCB110**	**PCB128**	**PCB141**	**PCB149**
BH04 (ES1) 0.00m	MAR02270.007	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH04 (ES2) 6.10m	MAR02270.008*	Sediment	0.21	0.90	0.96	0.63	0.68	1.01
BH04 (ES3) 12.20m	MAR02270.009	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			88	89	119	90	109~	92
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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*See report notes

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Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB151**	**PCB156**	**PCB158**	**PCB170**	**PCB180**	**PCB183**
BH04 (ES1) 0.00m	MAR02270.007	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH04 (ES2) 6.10m	MAR02270.008*	Sediment	0.89	0.89	0.86	0.86	0.77	0.73
BH04 (ES3) 12.20m	MAR02270.009	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			116~	100	84	93	98	92
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB187**	**PCB194**	**PCB31**	**PCB44**	**PCB47**	**PCB49**	**PCB66**
BH04 (ES1) 0.00m	MAR02270.007	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH04 (ES2) 6.10m	MAR02270.008*	Sediment	0.68	0.68	0.45	0.76	0.61	0.59	0.99
BH04 (ES3) 12.20m	MAR02270.009	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			104	90	98	102	113~	102	100
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.56	0.1	0.1	0.1	0.1	0.1	0.1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**ICES7**	**AHCH**	**BHCH**	**GHCH**	**DIELDRIN**	**HCB**	**DDE**
BH04 (ES1) 0.00m	MAR02270.007	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH04 (ES2) 6.10m	MAR02270.008*	Sediment	5.27	0.23	0.57	0.20	1.49	0.13	0.61
BH04 (ES3) 12.20m	MAR02270.009	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Certified Reference Material NIST 1941b (% Recovery)			115	108~	83~	82~	121~	130	96
QC Blank			<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

For full analyte name see method summaries

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*See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.1	0.1
		Accreditation	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**DDT**	**DDD**
BH04 (ES1) 0.00m	MAR02270.007	Sediment	<0.1	<0.1
BH04 (ES2) 6.10m	MAR02270.008*	Sediment	0.97	1.09
BH04 (ES3) 12.20m	MAR02270.009	Sediment	<0.1	<0.1
Certified Reference Material NIST 1941b (% Recovery)			149	101
QC Blank			<0.1	<0.1

For full analyte name see method summaries

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*See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB28**	**PCB52**	**PCB101**	**PCB118**	**PCB138**	**PCB153**
BH21A (ES3) 5.60m	MAR02270.010	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH23 (ES1) 0.40m	MAR02270.011	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH23 (ES2) 4.00m	MAR02270.012	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH23 (ES3) 7.90m	MAR02270.013	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH24 (ES1) 0.00m	MAR02270.014	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH24 (ES2) 4.70m	MAR02270.015	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH24 (ES3) 9.40m	MAR02270.016	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			83	99	99	104	106	95
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

~ Indicates result is for an In-house Reference Material as no Certified Reference Materials are avaliable.

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB18**	**PCB105**	**PCB110**	**PCB128**	**PCB141**	**PCB149**
BH21A (ES3) 5.60m	MAR02270.010	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH23 (ES1) 0.40m	MAR02270.011	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH23 (ES2) 4.00m	MAR02270.012	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH23 (ES3) 7.90m	MAR02270.013	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH24 (ES1) 0.00m	MAR02270.014	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH24 (ES2) 4.70m	MAR02270.015	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH24 (ES3) 9.40m	MAR02270.016	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			91	98	104	108	127~	100
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

~ Indicates result is for an In-house Reference Material as no Certified Reference Materials are avaliable.

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB151**	**PCB156**	**PCB158**	**PCB170**	**PCB180**	**PCB183**
BH21A (ES3) 5.60m	MAR02270.010	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH23 (ES1) 0.40m	MAR02270.011	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH23 (ES2) 4.00m	MAR02270.012	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH23 (ES3) 7.90m	MAR02270.013	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH24 (ES1) 0.00m	MAR02270.014	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH24 (ES2) 4.70m	MAR02270.015	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH24 (ES3) 9.40m	MAR02270.016	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			122~	100	83	97	98	77
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.08	0.08	0.08	0.08	0.08	0.08	0.08
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PCB187**	**PCB194**	**PCB31**	**PCB44**	**PCB47**	**PCB49**	**PCB66**
BH21A (ES3) 5.60m	MAR02270.010	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH23 (ES1) 0.40m	MAR02270.011	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH23 (ES2) 4.00m	MAR02270.012	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH23 (ES3) 7.90m	MAR02270.013	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH24 (ES1) 0.00m	MAR02270.014	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH24 (ES2) 4.70m	MAR02270.015	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
BH24 (ES3) 9.40m	MAR02270.016	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Certified Reference Material NIST 1941b (% Recovery)			102	100	105	101	107~	104	98
QC Blank			<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

For full analyte name see method summaries

~ Indicates result is for an In-house Reference Material as no Certified Reference Materials are avaliable.

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02270
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.56	0.1	0.1	0.1	0.1	0.1	0.1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**ICES7**	**AHCH**	**BHCH**	**GHCH**	**DIELDRIN**	**HCB**	**DDE**
BH21A (ES3) 5.60m	MAR02270.010	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH23 (ES1) 0.40m	MAR02270.011	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH23 (ES2) 4.00m	MAR02270.012	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH23 (ES3) 7.90m	MAR02270.013	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH24 (ES1) 0.00m	MAR02270.014	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH24 (ES2) 4.70m	MAR02270.015	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
BH24 (ES3) 9.40m	MAR02270.016	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Certified Reference Material NIST 1941b (% Recovery)			98	106~	66~	68~	135~	154	109
QC Blank			<0.56	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

For full analyte name see method summaries
~ Indicates result is for an In-house Reference Material as no Certified Reference Materials are avaliable.

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/302	ASC/SOP/302
		Limit of Detection	0.1	0.1
		Accreditation	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**DDT**	**DDD**
BH21A (ES3) 5.60m	MAR02270.010	Sediment	<0.1	<0.1
BH23 (ES1) 0.40m	MAR02270.011	Sediment	0.20	<0.1
BH23 (ES2) 4.00m	MAR02270.012	Sediment	<0.1	<0.1
BH23 (ES3) 7.90m	MAR02270.013	Sediment	<0.1	<0.1
BH24 (ES1) 0.00m	MAR02270.014	Sediment	<0.1	<0.1
BH24 (ES2) 4.70m	MAR02270.015	Sediment	<0.1	<0.1
BH24 (ES3) 9.40m	MAR02270.016	Sediment	<0.1	<0.1
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	0.17	<0.1
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	0.37	<0.1
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	0.48	<0.1
Certified Reference Material NIST 1941b (% Recovery)			116	79
QC Blank			<0.1	<0.1

For full analyte name see method summaries

~ Indicates result is for an In-house Reference Material as no Certified Reference Materials are avaliable.

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02270
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308
		Limit of Detection	0.05	0.05	0.05	0.05	0.05	0.05
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PBDE 17**	**PBDE 28**	**PBDE 47**	**PBDE 66**	**PBDE 100**	**PBDE 99**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH01 (ES2) 4.00m	MAR02270.002	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH01 (ES3) 7.90m	MAR02270.003	Sediment	<0.05	<0.05	0.06	<0.05	<0.05	<0.05
BH02 (ES1) 0.40m	MAR02270.004	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH02 (ES2) 5.40m	MAR02270.005	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH02 (ES3) 10.80m	MAR02270.006	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH04 (ES1) 0.00m	MAR02270.007	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH04 (ES2) 6.10m	MAR02270.008	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH04 (ES3) 12.20m	MAR02270.009	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH21A (ES3) 5.60m	MAR02270.010	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH23 (ES1) 0.40m	MAR02270.011	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH23 (ES2) 4.00m	MAR02270.012	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH23 (ES3) 7.90m	MAR02270.013	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH24 (ES1) 0.00m	MAR02270.014	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH24 (ES2) 4.70m	MAR02270.015	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BH24 (ES3) 9.40m	MAR02270.016	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Certified Reference Material Quasimeme SED56 (% Recovery)			115~	99	100	85~	108	87
QC Blank			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

* See Report Notes

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02270
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

		Units	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)	µg/Kg (Dry Weight)
		Method No	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308	ASC/SOP/308
		Limit of Detection	0.05	0.05	0.05	0.05	0.05	0.1
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**PBDE 85**	**PBDE 154**	**PBDE 153**	**PBDE 138**	**PBDE 183**	**PBDE 209**
BH01 (ES1) 0.40m	MAR02270.001	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
BH01 (ES2) 4.00m	MAR02270.002	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
BH01 (ES3) 7.90m	MAR02270.003	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	0.36
BH02 (ES1) 0.40m	MAR02270.004	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
BH02 (ES2) 5.40m	MAR02270.005	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
BH02 (ES3) 10.80m	MAR02270.006	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
BH04 (ES1) 0.00m	MAR02270.007	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
BH04 (ES2) 6.10m	MAR02270.008	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
BH04 (ES3) 12.20m	MAR02270.009	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
BH21A (ES3) 5.60m	MAR02270.010	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
BH23 (ES1) 0.40m	MAR02270.011	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
BH23 (ES2) 4.00m	MAR02270.012	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
BH23 (ES3) 7.90m	MAR02270.013	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
BH24 (ES1) 0.00m	MAR02270.014	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
BH24 (ES2) 4.70m	MAR02270.015	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
BH24 (ES3) 9.40m	MAR02270.016	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
GBS2-BH-SPT-11 (ES1) 0.90m	MAR02270.017	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
GBS2-BH-SPT-11 (ES2) 5.80m	MAR02270.018	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
GBS2-BH-SPT-11 (ES3) 11.60m	MAR02270.019	Sediment	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2
Certified Reference Material Quasimeme SED56 (% Recovery)			84~	79~	79~	83~	98	71
QC Blank			<0.05	<0.05	<0.05	<0.05	<0.05	<0.2*

* See Report Notes

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02270
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

REPORT NOTES

Method Code	Sample ID	The following information should be taken into consideration when using the data contained within this report
WSLM59*	MAR02270.001-019	Analysis was conducted by an internal SOCOTEC laboratory. UKAS accredited analysis by this laboratory is under UKAS number 1252.
ICPMSS*	MAR02270.001-019	Analysis was conducted by an internal SOCOTEC laboratory. UKAS accredited analysis by this laboratory is under UKAS number 1252.
SUB_01*	MAR02270.001-019	Analysis was conducted by an approved subcontracted laboratory.
SUB_02*	MAR02270.001-019	Analysis was conducted by an approved subcontracted laboratory.
ASC/SOP/301	MAR002270.012, 014-019	The matrix of this sample has been found to interfere with the result for this test. The sample has therefore been diluted, but in doing so, the detection limit for this test has been elevated.
ASC/SOP/302	MAR02270.008	The Primary process control data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with one or more target analytes falling outside acceptable limits. The remaining data gives the Laboratory confidence that the test has performed satisfactorily and that the validity of the data may not have been significantly affected.However in line with our QMS policy we have removed accreditation, where applicable, from the affected analytes (PCB118, 110, 156, 158, 170, 180, 194) . These circumstances should be taken into consideration when utilising the data.
ASC/SOP/303/304	MAR02270.001-019	The Primary process control data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with one or more target analytes falling outside acceptable limits. The remaining data gives the Laboratory confidence that the test has performed satisfactorily and that the validity of the data may not have been significantly affected.However in line with our QMS policy we have removed accreditation, where applicable, from the affected analytes (Fluorene) . These circumstances should be taken into consideration when utilising the data.
ASC/SOP/303/304	MAR02270.001-019	Benzo[k]fluoranthene is known to coelute with Benzo[j]fluoranthene and these peaks can not be resolved. It is believed Benzo[j]fluoranthene is present in these samples therefore it is suggested that the Benzo[k]fluoranthene results should be taken as a Benzo[k]fluoranthene (inc. Benzo[j]fluoranthene). Benzo[j]fluoranthene is not UKAS accredited. This should be taken into consideration when utilising the data.
ASC/SOP/303/304	MAR02270.001-019	Chrysene is known to coelute with Triphenylene and these peaks can not be resolved. It is believed Triphenylene is present in these samples therefore it is suggested that the Chrysene results should be taken as a Chrysene (inc. Triphenylene).This should be taken into consideration when utilising the data.
ASC/SOP/308	MAR02270.001-019	The Primary process control blank data associated with this Test has not wholly met the requirements of the Laboratory Quality Management System QMS with BDE209 falling above acceptable reporting limits. The remaining data gives the Laboratory confidence that the test has performed satisfactorily and that the validity of the data may not have been significantly affected.However in line with our QMS policy the report limit for this compound has been raised and samples have been blank subtracted.

DEVIATING SAMPLE STATEMENT

Deviation Code	Deviation Definition	Sample ID	Deviation Details. The following information should be taken into consideration when using the data contained within this report
D1	Holding Time Exceeded	N/A	N/A
D2	Sample Contaminated through Damaged Packaging	N/A	N/A
D3	Sample Contaminated through Sampling	N/A	N/A
D4	Inappropriate Container/Packaging	N/A	N/A
D5	Damaged in Transit	N/A	N/A
D6	Insufficient Quantity of Sample	N/A	N/A
D7	Inappropriate Headspace	N/A	N/A
D8	Retained at Incorrect Temperature	N/A	N/A
D9	Lack of Date & Time of Sampling	N/A	N/A
D10	Insufficient Sample Details	N/A	N/A
D11	Sample integrity compromised or not suitable for analysis	N/A	N/A

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02270
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

Method	Sample and Fraction Size	Method Summary
Total Solids	Wet Sediment	Calculation (100%-Moisture Content).Moisture content determined by drying a portion of the sample at 120°C to constant weight.
Particle Size Analysis	Wet Sediment	Wet and dry sieving followed by laser diffraction analysis.
Total Organic Carbon (TOC)	Air dried and ground	Carbonate removal and sulphurous acid/combustion at 1600°C/NDIR.
Metals	Air dried and seived to <63µm	Aqua-regia extraction followed by ICP analysis.
Organotins	Wet Sediment	Solvent extraction and derivatisation followed by GC-MS analysis.
Polyaromatic Hydrocarbons (PAH)	Wet Sediment	Solvent extraction and clean up followed by GC-MS analysis.
Total Hydrocarbon Content (THC)	Wet Sediment	Solvent extraction and clean up followed by GC-FID analysis.
Polychlorinated Biphenyls (PCBs)	Air dried and seived to <2mm	Solvent extraction and clean up followed by GC-MS-MS analysis.
Organochlorine Pesticides (OCPs)	Air dried and seived to <2mm	Solvent extraction and clean up followed by GC-MS-MS analysis.
Brominated Flame Retardants (PBDEs)	Air dried and seived to <2mm	Solvent extraction and clean up followed by GC-MS-MS analysis.

Analyte Definitions

Analyte Abbreviation	Full Analyte name	Analyte Abbreviation	Full Analyte name	Analyte Abbreviation	Full Analyte name
ACENAPTH	Acenaphthene	C2N	C2-naphthalenes	THC	Total Hydrocarbon Content
ACENAPHY	Acenaphthylene	C3N	C3-naphthalenes	AHCH	alpha-Hexachlorcyclohexane
ANTHRACN	Anthracene	CHRYSENE	Chrysene	BHCH	beta-Hexachlorcyclohexane
BAA	Benzo[a]anthracene	DBENZAH	Dibenzo[ah]anthracene	GHCH	gamma-Hexachlorcyclohexane
BAP	Benzo[a]pyrene	FLUORANT	Fluoranthene	DIELDRIN	Dieldrin
BBF	Benzo[b]fluoranthene	FLUORENE	Fluorene	HCB	Hexachlorobenzene
BEP	Benzo[e]pyrene	INDPYR	Indeno[1,2,3-cd]pyrene	DDD	p,p'-Dichlorodiphenyldichloroethane
BENZGHIP	Benzo[ghi]perylene	NAPTH	Naphthalene	DDE	p,p'-Dichlorodiphenyldichloroethylene
BKF	Benzo[k]fluoranthene	PERYLENE	Perylene	DDT	p,p'-Dichlorodiphenyltrichloroethane
C1N	C1-naphthalenes	PHENANT	Phenanthrene		
C1PHEN	C1-phenanthrene	PYRENE	Pyrene		

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02253

Issue Version: 1

Customer: Causeway Geotech Ltd, 8 Drumahiskey Rd, Bendooragh, Balnamore, Ballymoney, BT53 7QL

Customer Reference: 23-1739 - Hunterston Marine Yard GI - Radiological Testing

Date Sampled: 07-18-Mar-24

Date Samples Received: 03-Apr-24

Test Report Date: 03-May-24

Condition of samples: Cold Satisfactory

Opinions and Interpretations expressed herein are outside the scope of our UKAS accreditaion
The results reported relate only to the sample tested
The results apply to the sample as received

<Redacted>

Authorised by: Jane Colbourne

Position: Customer Service Specialist

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02253
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI - Radiological Testing

		Units	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Gross Alpha as Pu-242**	**Gross Beta as Cs-137**	**Be-7**	**K-40**	**Co-60**	**I-125**	**I-129**
BH03 (ES4) 0.50m - COMPOSITE	MAR02253.001	Sediment	400 ± 160	890 ± 200	<16	418 ± 44	<1.7	<43	<19
BH05 (ES4) 0.00m - COMPOSITE	MAR02253.002	Sediment	340 ± 130	690 ± 170	<13	419 ± 39	<1.1	<31	<13
BH06 (ES4) 2.30m - COMPOSITE	MAR02253.003	Sediment	360 ± 140	730 ± 170	<16	437 ± 47	<1.5	<37	<15
BH10 (ES4) 0.00m - COMPOSITE	MAR02253.004	Sediment	210 ± 120	590 ± 150	<16	327 ± 38	<1.7	<25	<11
BH12 (ES4) 0.00m - COMPOSITE	MAR02253.005	Sediment	<200	660 ± 160	<16	295 ± 34	<1.4	<40	<18
BH13A (ES4) 0.00m - COMPOSITE	MAR02253.006	Sediment	310 ± 130	870 ± 200	<14	527 ± 47	<1.1	<33	<13
BH14 (ES4) 0.00m - COMPOSITE	MAR02253.007	Sediment	<160	420 ± 130	<12	247 ± 30	<1.2	<33	<14
BH15 (ES4) 0.00m - COMPOSITE	MAR02253.008	Sediment	550 ± 180	1010 ± 230	<17	546 ± 59	<2.0	<26	<12
BH16 (ES4) 0.00m - COMPOSITE	MAR02253.009	Sediment	<210	620 ± 150	<16	317 ± 35	<1.5	<42	<18
BH17 (ES4) 0.00m - COMPOSITE	MAR02253.010	Sediment	<170	440 ± 120	<9.8	297 ± 31	<0.86	<26	<11
BH18 (ES4) 0.00m - COMPOSITE	MAR02253.011	Sediment	<200	500 ± 130	<13	303 ± 35	<1.2	<33	<14
BH19 (ES4) 0.00m - COMPOSITE	MAR02253.012	Sediment	<140	410 ± 120	<13	184 ± 29	<1.5	<21	<9.6
BH20 (ES4) 0.00m - COMPOSITE	MAR02253.013	Sediment	310 ± 150	800 ± 190	<18	395 ± 45	<1.8	<43	<19
BH21 (ES4) 0.00m - COMPOSITE	MAR02253.014	Sediment	<150	320 ± 110	<9.8	223 ± 23	<0.78	<25	<11
BH22 (ES4) 0.00m - COMPOSITE	MAR02253.015	Sediment	270 ± 130	590 ± 160	<13	290 ± 33	<1.3	<34	<14
BH25 (ES4) 0.00m - COMPOSITE	MAR02253.016	Sediment	290 ± 150	770 ± 180	<17	466 ± 50	<1.9	<25	<11
BH26 (ES4) 0.00m - COMPOSITE	MAR02253.017	Sediment	210 ± 120	430 ± 120	<15	239 ± 31	<1.4	<40	<17
BH27 (ES4) 0.00m - COMPOSITE	MAR02253.018	Sediment	210 ± 140	680 ± 170	<14	312 ± 34	<1.3	<25	<12
BH29 (ES4) 0.00m - COMPOSITE	MAR02253.019	Sediment	250 ± 120	560 ± 140	<15	347 ± 39	<1.3	<37	<14
BH30 (ES4) 0.00m - COMPOSITE	MAR02253.020	Sediment	370 ± 160	800 ± 180	<18	376 ± 44	<1.8	<27	<12

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02253
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI - Radiological T

		Units	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	UKAS	N	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Cs-134**	**Cs-137**	**Tl-208**	**Pb-210**	**Bi-212**	**Pb-212**	**Bi-214**
BH03 (ES4) 0.50m - COMPOSITE	MAR02253.001	Sediment	<1.6	7.7 ± 1.5	5.8 ± 1.4	<29	<19	15.4 ± 2.4	13.7 ± 3.0
BH05 (ES4) 0.00m - COMPOSITE	MAR02253.002	Sediment	<1.1	9.7 ± 1.3	6.6 ± 1.1	<19	24.3 ± 9.3	21.0 ± 2.5	16.0 ± 2.3
BH06 (ES4) 2.30m - COMPOSITE	MAR02253.003	Sediment	<1.5	15.2 ± 1.9	5.7 ± 1.2	<24	<17	21.7 ± 2.6	14.3 ± 2.5
BH10 (ES4) 0.00m - COMPOSITE	MAR02253.004	Sediment	<1.6	30.3 ± 3.0	4.5 ± 1.2	<18	<17	12.4 ± 1.8	13.0 ± 2.6
BH12 (ES4) 0.00m - COMPOSITE	MAR02253.005	Sediment	<1.3	14.4 ± 1.9	4.1 ± 1.1	<26	<16	9.3 ± 1.9	9.8 ± 2.4
BH13A (ES4) 0.00m - COMPOSITE	MAR02253.006	Sediment	<1.2	4.3 ± 1.1	7.4 ± 1.2	<20	28.6 ± 9.8	23.6 ± 2.6	17.3 ± 2.3
BH14 (ES4) 0.00m - COMPOSITE	MAR02253.007	Sediment	<1.2	11.4 ± 1.6	2.35 ± 0.84	<20	<14	7.9 ± 1.6	8.3 ± 1.9
BH15 (ES4) 0.00m - COMPOSITE	MAR02253.008	Sediment	<1.9	10.7 ± 1.7	8.9 ± 1.7	<20	<23	29.1 ± 3.1	19.9 ± 3.5
BH16 (ES4) 0.00m - COMPOSITE	MAR02253.009	Sediment	<1.6	10.4 ± 1.6	5.9 ± 1.2	<28	<18	16.3 ± 2.4	10.7 ± 2.5
BH17 (ES4) 0.00m - COMPOSITE	MAR02253.010	Sediment	<0.90	13.5 ± 1.5	2.51 ± 0.67	<16	<11	8.7 ± 1.4	7.2 ± 1.6
BH18 (ES4) 0.00m - COMPOSITE	MAR02253.011	Sediment	<1.3	8.2 ± 1.3	4.10 ± 0.97	<22	<15	12.3 ± 1.8	10.5 ± 2.1
BH19 (ES4) 0.00m - COMPOSITE	MAR02253.012	Sediment	<1.4	8.4 ± 1.4	<1.3	<16	<15	4.9 ± 1.3	<2.6
BH20 (ES4) 0.00m - COMPOSITE	MAR02253.013	Sediment	<1.8	9.1 ± 1.6	6.0 ± 1.4	<29	<21	16.3 ± 2.4	12.2 ± 2.9
BH21 (ES4) 0.00m - COMPOSITE	MAR02253.014	Sediment	<0.85	8.1 ± 1.1	2.19 ± 0.68	<15	<10	6.0 ± 1.2	5.0 ± 1.4
BH22 (ES4) 0.00m - COMPOSITE	MAR02253.015	Sediment	<1.3	9.1 ± 1.4	4.8 ± 1.0	<22	<15	15.5 ± 1.9	12.1 ± 2.3
BH25 (ES4) 0.00m - COMPOSITE	MAR02253.016	Sediment	<1.8	5.6 ± 1.4	5.8 ± 1.4	<19	<21	17.7 ± 2.2	16.9 ± 3.0
BH26 (ES4) 0.00m - COMPOSITE	MAR02253.017	Sediment	<1.5	7.3 ± 1.4	4.4 ± 1.2	<27	<18	13.4 ± 2.2	10.2 ± 2.4
BH27 (ES4) 0.00m - COMPOSITE	MAR02253.018	Sediment	<1.2	39.2 ± 3.6	4.9 ± 1.1	<19	<14	15.7 ± 2.1	12.9 ± 2.2
BH29 (ES4) 0.00m - COMPOSITE	MAR02253.019	Sediment	<1.4	7.2 ± 1.2	4.2 ± 1.0	<22	<15	15.1 ± 2.1	11.5 ± 2.4
BH30 (ES4) 0.00m - COMPOSITE	MAR02253.020	Sediment	<1.8	5.5 ± 1.3	7.5 ± 1.4	<19	<20	20.3 ± 2.5	17.3 ± 3.1

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02253
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI - Radiological T

		Units	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	N	UKAS	N	N	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Pb-214**	**Ra-224**	**Ra-226 ***	**Ac-228**	**Ra-228 ***	**Th-228 ***	**Pa-234m**
BH03 (ES4) 0.50m - COMPOSITE	MAR02253.001	Sediment	14.6 ± 2.6	<41	<28	20.7 ± 3.9	20.7 ± 3.9	<41	<180
BH05 (ES4) 0.00m - COMPOSITE	MAR02253.002	Sediment	16.4 ± 2.0	<27	<20	20.8 ± 3.1	20.8 ± 3.1	<27	<110
BH06 (ES4) 2.30m - COMPOSITE	MAR02253.003	Sediment	17.2 ± 2.2	<20	<21	21.0 ± 3.6	21.0 ± 3.6	<20	<150
BH10 (ES4) 0.00m - COMPOSITE	MAR02253.004	Sediment	12.8 ± 1.9	<18	<19	12.0 ± 3.4	12.0 ± 3.4	<18	<160
BH12 (ES4) 0.00m - COMPOSITE	MAR02253.005	Sediment	10.6 ± 2.4	<34	<25	15.1 ± 3.7	15.1 ± 3.7	<34	<150
BH13A (ES4) 0.00m - COMPOSITE	MAR02253.006	Sediment	19.4 ± 2.2	<28	<21	23.3 ± 3.3	23.3 ± 3.3	<28	<120
BH14 (ES4) 0.00m - COMPOSITE	MAR02253.007	Sediment	9.0 ± 1.7	<24	<18	<4.9	<4.9	<24	<120
BH15 (ES4) 0.00m - COMPOSITE	MAR02253.008	Sediment	22.1 ± 2.7	<22	<22	29.5 ± 4.7	29.5 ± 4.7	<22	<210
BH16 (ES4) 0.00m - COMPOSITE	MAR02253.009	Sediment	12.2 ± 2.2	<39	<26	19.0 ± 4.8	19.0 ± 4.8	<39	<180
BH17 (ES4) 0.00m - COMPOSITE	MAR02253.010	Sediment	8.4 ± 1.4	<20	<17	9.4 ± 2.2	9.4 ± 2.2	<20	<91
BH18 (ES4) 0.00m - COMPOSITE	MAR02253.011	Sediment	11.5 ± 1.9	<25	<18	12.1 ± 3.0	12.1 ± 3.0	<25	<130
BH19 (ES4) 0.00m - COMPOSITE	MAR02253.012	Sediment	6.1 ± 1.5	<20	<17	<5.7	<5.7	<20	<140
BH20 (ES4) 0.00m - COMPOSITE	MAR02253.013	Sediment	13.9 ± 2.4	<41	<29	17.1 ± 4.1	17.1 ± 4.1	<41	<190
BH21 (ES4) 0.00m - COMPOSITE	MAR02253.014	Sediment	6.3 ± 1.2	<20	<16	7.0 ± 2.5	7.0 ± 2.5	<20	<86
BH22 (ES4) 0.00m - COMPOSITE	MAR02253.015	Sediment	14.6 ± 1.9	<18	<18	15.0 ± 3.3	15.0 ± 3.3	<18	<130
BH25 (ES4) 0.00m - COMPOSITE	MAR02253.016	Sediment	17.4 ± 2.3	<20	<20	20.5 ± 3.9	20.5 ± 3.9	<20	<190
BH26 (ES4) 0.00m - COMPOSITE	MAR02253.017	Sediment	10.6 ± 2.4	<36	<25	13.9 ± 3.4	13.9 ± 3.4	<36	<170
BH27 (ES4) 0.00m - COMPOSITE	MAR02253.018	Sediment	13.8 ± 1.9	<17	<18	15.6 ± 2.9	15.6 ± 2.9	<17	<120
BH29 (ES4) 0.00m - COMPOSITE	MAR02253.019	Sediment	14.3 ± 2.0	<26	<19	13.5 ± 3.3	13.5 ± 3.3	<26	<140
BH30 (ES4) 0.00m - COMPOSITE	MAR02253.020	Sediment	19.7 ± 2.5	<28	<20	20.7 ± 4.1	20.7 ± 4.1	<28	<180

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02253
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI - Radiological T

		Units	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Th-234**	**U-235**	**Am-241**
BH03 (ES4) 0.50m - COMPOSITE	MAR02253.001	Sediment	<19	<5.8	<2.2
BH05 (ES4) 0.00m - COMPOSITE	MAR02253.002	Sediment	<19	<5.2	<1.8
BH06 (ES4) 2.30m - COMPOSITE	MAR02253.003	Sediment	<22	<5.3	<2.5
BH10 (ES4) 0.00m - COMPOSITE	MAR02253.004	Sediment	<19	<4.4	<2.0
BH12 (ES4) 0.00m - COMPOSITE	MAR02253.005	Sediment	<27	<5.6	<1.8
BH13A (ES4) 0.00m - COMPOSITE	MAR02253.006	Sediment	<20	<5.3	<2.0
BH14 (ES4) 0.00m - COMPOSITE	MAR02253.007	Sediment	<18	<4.4	<2.6
BH15 (ES4) 0.00m - COMPOSITE	MAR02253.008	Sediment	<22	<5.3	<1.6
BH16 (ES4) 0.00m - COMPOSITE	MAR02253.009	Sediment	<28	<6.1	<1.9
BH17 (ES4) 0.00m - COMPOSITE	MAR02253.010	Sediment	<16	<4.2	<1.5
BH18 (ES4) 0.00m - COMPOSITE	MAR02253.011	Sediment	<19	<4.7	<2.8
BH19 (ES4) 0.00m - COMPOSITE	MAR02253.012	Sediment	<16	<3.8	<1.5
BH20 (ES4) 0.00m - COMPOSITE	MAR02253.013	Sediment	<30	<6.4	<2.0
BH21 (ES4) 0.00m - COMPOSITE	MAR02253.014	Sediment	<15	<4.0	<1.8
BH22 (ES4) 0.00m - COMPOSITE	MAR02253.015	Sediment	<20	<4.7	<2.5
BH25 (ES4) 0.00m - COMPOSITE	MAR02253.016	Sediment	<20	<4.8	<1.9
BH26 (ES4) 0.00m - COMPOSITE	MAR02253.017	Sediment	<27	<5.8	<2.0
BH27 (ES4) 0.00m - COMPOSITE	MAR02253.018	Sediment	<19	<4.4	<1.9
BH29 (ES4) 0.00m - COMPOSITE	MAR02253.019	Sediment	<20	<4.9	<2.0
BH30 (ES4) 0.00m - COMPOSITE	MAR02253.020	Sediment	<20	<4.8	<1.9

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02253
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI - Radiological Testing

REPORT NOTES

Method Code	Sample ID	The following information should be taken into consideration when using the data contained within this report
SOCOTEC Didcot*	MAR02253.001-020	Analysis was conducted by an internal SOCOTEC laboratory. UKAS accredited analysis by this laboratory is under UKAS number 1252.
SOCOTEC Didcot*	MAR02253.001-020	Analyses and/or samples marked with an asterisk are not covered under UKAS schedule 1252.
SOCOTEC Didcot*	MAR02253.001-020	Results are presented as Bq/kg of dried and homogenised sample and are decay corrected to the sampling date.
SOCOTEC Didcot*	MAR02253.001-020	For results below the Limit of Detection, the LoD is rounded up to 2 significant figures. Results above the LoD are reported with expanded (2σ) uncertainties based on a total uncertainty budget. Uncertainties are rounded to 2 significant figures; results are rounded to the same precision.
SOCOTEC Didcot*	MAR02253.001-020	Detector calibrations are based upon homogeneous standard solutions. For quantification purposes the sample is assumed to be homogeneous.
SOCOTEC Didcot*	MAR02253.001-020	226Ra has only one gamma ray at 186 keV and the major gamma ray from 235U also occurs at 186 keV. 235U can be measured by the lower abundance gamma ray at 144 keV and if a positive result for 235U is reported, the 226Ra result will be unreliable and overestimated. However even if 235U is below the LoD there may still be a contribution to the 226Ra from 235U and the 226Ra result may be unreliable and overestimated. If an accurate result for 226Ra is required, this is better obtained by radiochemical analysis.
SOCOTEC Didcot*	MAR02253.001-020	228Ra and 228Th are derived from their daughter radionuclides (228Ac and 224Ra, respectively), assuming secular equilibrium.

DEVIATING SAMPLE STATEMENT

Deviation Code	Devation Definition	Sample ID	Deviation Details. The following information should be taken into consideration when using the data contained within this report
D1	Holding Time Exceeded	N/A	N/A
D2	Sample Contaminated through Damaged Packaging	N/A	N/A
D3	Sample Contaminated through Sampling	N/A	N/A
D4	Inappropriate Container/Packaging	N/A	N/A
D5	Damaged in Transit	N/A	N/A
D6	Insufficient Quantity of Sample	N/A	N/A
D7	Inappropriate Headspace	N/A	N/A
D8	Retained at Incorrect Temperature	N/A	N/A
D9	Lack of Date & Time of Sampling	N/A	N/A
D10	Insufficient Sample Details	N/A	N/A
D11	Sample integrity compromised or not suitable for analysis	N/A	N/A

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02253
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI - Radiological Testing

Method	Sample and Fraction Size	Method Summary
NORM	Air dried	High resolution gamma ray spectrometry
Gross Alpha/Beta	Air dried	Proportional Counting

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02274

Issue Version: 1

Customer: Causeway Geotech Ltd, 8 Drumahiskey Rd, Bendooragh, Balnamore, Ballymoney, BT53 7QL

Customer Reference: 23-1739 - Hunterston Marine Yard GI

Date Sampled: 28-Mar-04-Apr-24

Date Samples Received: 17-Apr-24

Test Report Date: 08-May-24

Condition of samples: Cold Satisfactory

Opinions and Interpretations expressed herein are outside the scope of our UKAS accreditaion
The results reported relate only to the sample tested
The results apply to the sample as received

<Redacted>

Authorised by: Jane Colbourne

Position: Customer Service Specialist

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02274
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Gross Alpha as Pu-242**	**Gross Beta as Cs-137**	**Be-7**	**K-40**	**Co-60**	**I-125**	**I-129**
BH01 (ES4) 0.40m - COMPOSITE	MAR02274.001	Sediment	630 ± 180	710 ± 170	<15	361 ± 35	<1.7	<26	<14
BH02 (ES4) 0.40m - COMPOSITE	MAR02274.002	Sediment	360 ± 150	480 ± 130	<7.9	283 ± 25	<0.88	<14	<7.7
BH04 (ES4) 0.00m - COMPOSITE	MAR02274.003	Sediment	330 ± 140	680 ± 160	<9.5	351 ± 33	<1.3	<16	<8.7
BH23 (ES4) 0.00m - COMPOSITE	MAR02274.004	Sediment	390 ± 160	600 ± 150	<9.7	308 ± 31	<1.3	<18	<9.0
BH24 (ES4) 0.00m - COMPOSITE	MAR02274.005	Sediment	500 ± 160	1160 ± 250	<16	656 ± 60	<2.3	<17	<9.3
GBS2-BH-SPT-11 (ES4) 0.90m - COMPOSITE	MAR02274.006	Sediment	450 ± 160	870 ± 190	<8.8	467 ± 37	<0.98	<15	<8.5

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02274
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	UKAS	N	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Cs-134**	**Cs-137**	**Tl-208**	**Pb-210**	**Bi-212**	**Pb-212**	**Bi-214**
BH01 (ES4) 0.40m - COMPOSITE	MAR02274.001	Sediment	<1.7	<1.6	5.8 ± 1.3	<35	<20	16.4 ± 2.2	29.7 ± 3.3
BH02 (ES4) 0.40m - COMPOSITE	MAR02274.002	Sediment	<0.93	2.34 ± 0.67	4.25 ± 0.77	<19	<12	13.1 ± 1.8	14.2 ± 1.9
BH04 (ES4) 0.00m - COMPOSITE	MAR02274.003	Sediment	<1.3	2.56 ± 0.82	4.18 ± 0.92	<24	<14	12.0 ± 1.6	16.2 ± 2.6
BH23 (ES4) 0.00m - COMPOSITE	MAR02274.004	Sediment	<1.2	<0.99	4.73 ± 0.99	<24	<14	14.1 ± 1.7	13.2 ± 2.3
BH24 (ES4) 0.00m - COMPOSITE	MAR02274.005	Sediment	<2.0	<1.7	10.8 ± 1.8	<22	49 ± 18	29.0 ± 2.9	19.2 ± 3.7
GBS2-BH-SPT-11 (ES4) 0.90m - COMPOSITE	MAR02274.006	Sediment	<1.1	1.91 ± 0.68	5.74 ± 0.88	<20	<13	17.7 ± 2.0	14.4 ± 1.9

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02274
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	N	UKAS	N	N	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Pb-214**	**Ra-224**	**Ra-226 ***	**Ac-228**	**Ra-228 ***	**Th-228 ***	**Pa-234m**
BH01 (ES4) 0.40m - COMPOSITE	MAR02274.001	Sediment	34.9 ± 3.2	<42	<28	16.7 ± 4.0	16.7 ± 4.0	<42	<190
BH02 (ES4) 0.40m - COMPOSITE	MAR02274.002	Sediment	15.4 ± 1.7	<22	<17	13.1 ± 2.3	13.1 ± 2.3	<22	<98
BH04 (ES4) 0.00m - COMPOSITE	MAR02274.003	Sediment	18.0 ± 1.8	<17	<17	14.2 ± 3.0	14.2 ± 3.0	<17	<120
BH23 (ES4) 0.00m - COMPOSITE	MAR02274.004	Sediment	13.5 ± 1.6	<17	<17	14.8 ± 3.0	14.8 ± 3.0	<17	<140
BH24 (ES4) 0.00m - COMPOSITE	MAR02274.005	Sediment	23.2 ± 2.6	<22	<23	31.0 ± 5.0	31.0 ± 5.0	<22	<220
GBS2-BH-SPT-11 (ES4) 0.90m - COMPOSITE	MAR02274.006	Sediment	15.8 ± 1.7	<25	<18	18.9 ± 2.7	18.9 ± 2.7	<25	<110

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02274
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Th-234**	**U-235**	**Am-241**
BH01 (ES4) 0.40m - COMPOSITE	MAR02274.001	Sediment	<40	<6.3	<3.6
BH02 (ES4) 0.40m - COMPOSITE	MAR02274.002	Sediment	<21	<4.1	<2.1
BH04 (ES4) 0.00m - COMPOSITE	MAR02274.003	Sediment	<25	<4.3	<2.4
BH23 (ES4) 0.00m - COMPOSITE	MAR02274.004	Sediment	<24	<4.3	<2.3
BH24 (ES4) 0.00m - COMPOSITE	MAR02274.005	Sediment	<26	<5.3	<2.4
GBS2-BH-SPT-11 (ES4) 0.90m - COMPOSITE	MAR02274.006	Sediment	<23	<4.6	<2.2

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02274
Issue Version 1
Customer Reference 23-1739 - Hunterston Marine Yard GI

REPORT NOTES

Method Code	Sample ID	The following information should be taken into consideration when using the data contained within this report
SOCOTEC Didcot*	MAR02274.001-006	Analysis was conducted by an internal SOCOTEC laboratory. UKAS accredited analysis by this laboratory is under UKAS number 1252.
SOCOTEC Didcot*	MAR02274.001-006	Analyses and/or samples marked with an asterisk are not covered under UKAS schedule 1252.
SOCOTEC Didcot*	MAR02274.001-006	Results are presented as Bq/kg of dried and homogenised sample and are decay corrected to the sampling date.
SOCOTEC Didcot*	MAR02274.001-006	For results below the Limit of Detection, the LoD is rounded up to 2 significant figures. Results above the LoD are reported with expanded (2σ) uncertainties based on a total uncertainty budget. Uncertainties are rounded to 2 significant figures; results are rounded to the same precision.
SOCOTEC Didcot*	MAR02274.001-006	The gross alpha and beta activity are relative activities and the reported result might depend on the time between sampling, preparation and analysis due to decay and ingrowth processes and semi-secular equilibrium of natural and/or artificial radio-nuclides present in the sample.
SOCOTEC Didcot*	MAR02274.001-006	Detector calibrations are based upon homogeneous standard solutions. For quantification purposes the sample is assumed to be homogeneous.
SOCOTEC Didcot*	MAR02274.001-006	226Ra has only one gamma ray at 186 keV and the major gamma ray from 235U also occurs at 186 keV. 235U can be measured by the lower abundance gamma ray at 144 keV and if a positive result for 235U is reported, the 226Ra result will be unreliable and overestimated. However even if 235U is below the LoD there may still be a contribution to the 226Ra from 235U and the 226Ra result may be unreliable and overestimated. If an accurate result for 226Ra is required, this is better obtained by radiochemical analysis.
SOCOTEC Didcot*	MAR02274.001-006	228Ra and 228Th are derived from their daughter radionuclides (228Ac and 224Ra, respectively), assuming secular equilibrium.

DEVIATING SAMPLE STATEMENT

Deviation Code	Devation Definition	Sample ID	Deviation Details. The following information should be taken into consideration when using the data contained within this report
D1	Holding Time Exceeded	N/A	N/A
D2	Sample Contaminated through Damaged Packaging	N/A	N/A
D3	Sample Contaminated through Sampling	N/A	N/A
D4	Inappropriate Container/Packaging	N/A	N/A
D5	Damaged in Transit	N/A	N/A
D6	Insufficient Quantity of Sample	N/A	N/A
D7	Inappropriate Headspace	N/A	N/A
D8	Retained at Incorrect Temperature	N/A	N/A
D9	Lack of Date & Time of Sampling	N/A	N/A
D10	Insufficient Sample Details	N/A	N/A
D11	Sample integrity compromised or not suitable for analysis	N/A	N/A

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02274
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

Method	Sample and Fraction Size	Method Summary
NORM	Air dried	High resolution gamma ray spectrometry
Gross Alpha/Beta	Air dried	Proportional Counting

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID MAR02275

Issue Version: 1

Customer: Causeway Geotech Ltd, 8 Drumahiskey Rd, Bendooragh, Balnamore, Ballymoney, BT53 7QL

Customer Reference: 23-1739 - Hunterston Marine Yard GI

Date Sampled: 13-Apr-24

Date Samples Received: 17-Apr-24

Test Report Date: 08-May-24

Condition of samples: Cold Satisfactory

Opinions and Interpretations expressed herein are outside the scope of our UKAS accreditaion
The results reported relate only to the sample tested
The results apply to the sample as received

<Redacted>

Authorised by: Jane Colbourne

Position: Customer Service Specialist

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Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02275
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Gross Alpha as Pu-242**	**Gross Beta as Cs-137**	**Be-7**	**K-40**	**Co-60**	**I-125**	**I-129**
GBS2-BH-SPT-12 (ES4) 1.00m - COMPOSITE	MAR02275.001	Sediment	370 ± 140	920 ± 210	<9.7	496 ± 49	<1.5	<18	<12

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02275
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	UKAS	N	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Cs-134**	**Cs-137**	**Tl-208**	**Pb-210**	**Bi-212**	**Pb-212**	**Bi-214**
GBS2-BH-SPT-12 (ES4) 1.00m - COMPOSITE	MAR02275.001	Sediment	<1.5	3.17 ± 0.98	6.9 ± 1.2	<28	<17	21.5 ± 2.2	16.3 ± 2.9

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02275
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	N	UKAS	N	N	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Pb-214**	**Ra-224**	**Ra-226 ***	**Ac-228**	**Ra-228 ***	**Th-228 ***	**Pa-234m**
GBS2-BH-SPT-12 (ES4) 1.00m - COMPOSITE	MAR02275.001	Sediment	18.4 ± 2.1	<20	<21	20.4 ± 3.5	20.4 ± 3.5	<20	<160

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Specialist Chemistry, Etwall House, Bretby Business Park, Ashby Road, Bretby, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02275
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

		Units	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Th-234**	**U-235**	**Am-241**
GBS2-BH-SPT-12 (ES4) 1.00m - COMPOSITE	MAR02275.001	Sediment	<28	<5.3	<2.8

* See report notes

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02275
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

REPORT NOTES

Method Code	Sample ID	The following information should be taken into consideration when using the data contained within this report
SOCOTEC Didcot*	MAR02275.001	Analysis was conducted by an internal SOCOTEC laboratory. UKAS accredited analysis by this laboratory is under UKAS number 1252.
SOCOTEC Didcot*	MAR02275.001	Analyses and/or samples marked with an asterisk are not covered under UKAS schedule 1252.
SOCOTEC Didcot*	MAR02275.001	Results are presented as Bq/kg of dried and homogenised sample and are decay corrected to the sampling date.
SOCOTEC Didcot*	MAR02275.001	For results below the Limit of Detection, the LoD is rounded up to 2 significant figures. Results above the LoD are reported with expanded (2σ) uncertainties based on a total uncertainty budget. Uncertainties are rounded to 2 significant figures; results are rounded to the same precision.
SOCOTEC Didcot*	MAR02275.001	The gross alpha and beta activity are relative activities and the reported result might depend on the time between sampling, preparation and analysis due to decay and ingrowth processes and semi-secular equilibrium of natural and/or artificial radio-nuclides present in the sample.
SOCOTEC Didcot*	MAR02275.001	Detector calibrations are based upon homogeneous standard solutions. For quantification purposes the sample is assumed to be homogeneous.
SOCOTEC Didcot*	MAR02275.001	226Ra has only one gamma ray at 186 keV and the major gamma ray from 235U also occurs at 186 keV. 235U can be measured by the lower abundance gamma ray at 144 keV and if a positive result for 235U is reported, the 226Ra result will be unreliable and overestimated. However even if 235U is below the LoD there may still be a contribution to the 226Ra from 235U and the 226Ra result may be unreliable and overestimated. If an accurate result for 226Ra is required, this is better obtained by radiochemical analysis.
SOCOTEC Didcot*	MAR02275.001	228Ra and 228Th are derived from their daughter radionuclides (228Ac and 224Ra, respectively), assuming secular equilibrium.

DEVIATING SAMPLE STATEMENT

Deviation Code	Devation Definition	Sample ID	Deviation Details. The following information should be taken into consideration when using the data contained within this report
D1	Holding Time Exceeded	N/A	N/A
D2	Sample Contaminated through Damaged Packaging	N/A	N/A
D3	Sample Contaminated through Sampling	N/A	N/A
D4	Inappropriate Container/Packaging	N/A	N/A
D5	Damaged in Transit	N/A	N/A
D6	Insufficient Quantity of Sample	N/A	N/A
D7	Inappropriate Headspace	N/A	N/A
D8	Retained at Incorrect Temperature	N/A	N/A
D9	Lack of Date & Time of Sampling	N/A	N/A
D10	Insufficient Sample Details	N/A	N/A
D11	Sample integrity compromised or not suitable for analysis	N/A	N/A

Certificate of Analysis

Issuing Laboratory SOCOTEC, Marine Department, Advanced Chemistry and Research, Etwall House, Bretby Business Park, Ashby Road, Burton-upon-Trent DE15 0YZ

Test Report ID	MAR02275
Issue Version	1
Customer Reference	23-1739 - Hunterston Marine Yard GI

Method	Sample and Fraction Size	Method Summary
NORM	Air dried	High resolution gamma ray spectrometry
Gross Alpha/Beta	Air dried	Proportional Counting

D SEPA CORRESPONDENCE

Waste Management Licence Pre-application. Use of dredging spoil for infill at Hunterston, Ayrshire

Requestor	Donny Morrison	Team	Waste and Industry Permitting
Date	27/03/2024	Author	Alan Hern
Reviewer	Not required	Authoriser	Not required

Introduction

Donny Morrison of the Waste and Industry Team requested that a proposal to use waste dredging spoil to infill a dry dock and create a development platform at the site was considered. The site is the Hunterston Development and at this stage the review is for the testing requirements to develop the site investigation.

The dredging spoil will be tested for the marine dredging licence suite. As stated by the applicant, this suite is quite broad and covers the likely contaminants of concern. It is assumed that the testing will include representative samples of the dredged depths to be re-used.

The dredging spoil is likely to become a waste material and will therefore, need to be tested and assessed to confirm if it should be considered non-hazardous or hazardous waste. This may affect the proposal for re-use. The chemical composition of the spoil is used to assign hazardous substances and assess the hazardous properties as described in the WM3 technical guidance. The WM3 Waste Classification guidance requires a sampling plan that meets the requirements stated in Appendix D, or relevant European/British standards as listed in WM3.

Dredging spoil is typically coded using the mirror entries from Chapter 17 of the European Waste Catalogue “Construction and demolition wastes (including excavated soil from contaminated sites)” subchapter 5 “soil (including excavated soil from contaminated sites), stones and dredging spoil”.

- 17 05 05* dredging spoil containing hazardous substances (mirror hazardous entry)
- 17 05 06 dredging spoil other than those mentioned in 17 05 05 (mirror non-hazardous entry)

We would recommend the following metals in addition to those in the marine licensing suite:

- Antinomy
- Barium
- Beryllium
- Chromium VI
- Molybdenum
- Selenium

From a waste classification point of view, chromium VI is useful the analysis confirms that many of the worst case compounds for assessing hazardous properties can be safely disregarded for example chromates of lead, nickel and zinc.

The hydrocarbon contamination for risk assessment requires the analysis to split the hydrocarbons into aliphatic and aromatic hydrocarbons (for example, TPHCWG not total). For waste classification, the data can be either total petroleum hydrocarbons or TPHCWG. The ranges are slightly different and many laboratories can report these ranges in such a way that the same test can be used for both purposes. Otherwise, the applicant at their discretion may use the risk assessment range for waste

classification. This runs the slight risk of overstating the hydrocarbon concentrations for waste classification.

- For risk assessment this should cover the carbon range >C_5 up to C_{44}
- For waste classification, this should cover the carbon range C_6 up to C_{40}

Beyond this we consider, that testing for benzene, toluene, ethylbenzene and xylene (BTEXs) and volatile organic compounds (VOC) semi volatile organic compounds (SVOC) in at least some samples should be considered.

For leachable components, the proposals are acceptable for metals, TPH, VOC and SVOC although we would add PAHs from the marine suite.

E RADIONUCLIDE ASSESSMENT

		Units	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	N	N	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Co-60**	**I-125**	**I-129**	**Cs-134**	**Cs-137**	**Ra-224**	**Ra-226 ***	**Th-228 ***	**U-235**	**Am-241**
BH03 (ES4) 0.50m - COMPOSITE	MAR02253.001	Sediment	1.70	43	19	1.6	7.7	41	28	41	5.8	2.2
BH05 (ES4) 0.00m - COMPOSITE	MAR02253.002	Sediment	1.100	31	13	1.1	9.7	27.00000	20.00000	27.00000	5.20000	1.80000
BH06 (ES4) 2.30m - COMPOSITE	MAR02253.003	Sediment	1.500	37	15	1.5	15.2	20.00000	21.00000	20.00000	5.30000	2.50000
BH10 (ES4) 0.00m - COMPOSITE	MAR02253.004	Sediment	1.700	25	11	1.6	30.3	18.00000	19.00000	18.00000	4.40000	2.00000
BH12 (ES4) 0.00m - COMPOSITE	MAR02253.005	Sediment	1.400	40	18	1.3	14.4	34.00000	25.00000	34.00000	5.60000	1.80000
BH13A (ES4) 0.00m - COMPOSITE	MAR02253.006	Sediment	1.100	33	13	1.2	4.3	28.00000	21.00000	28.00000	5.30000	2.00000
BH14 (ES4) 0.00m - COMPOSITE	MAR02253.007	Sediment	1.200	22	14	1.2	11.4	24.00000	18.00000	24.00000	4.40000	2.60000
BH15 (ES4) 0.00m - COMPOSITE	MAR02253.008	Sediment	2.000	26	12	1.9	10.7	22	22	22	5.3	1.6
BH16 (ES4) 0.00m - COMPOSITE	MAR02253.009	Sediment	1.500	42	18	1.6	10.4	39.00000	26.00000	39.00000	6.10000	1.90000
BH17 (ES4) 0.00m - COMPOSITE	MAR02253.010	Sediment	0.860	26	11	0.9	13.5	20.00000	17.00000	20.00000	4.20000	1.50000
BH18 (ES4) 0.00m - COMPOSITE	MAR02253.011	Sediment	1.200	33	14	1.3	8.2	25.00000	18.00000	25.00000	4.70000	2.80000
BH19 (ES4) 0.00m - COMPOSITE	MAR02253.012	Sediment	1.500	21	9.6	1.4	8.4	20.00000	17.00000	20.00000	3.80000	1.50000
BH20 (ES4) 0.00m - COMPOSITE	MAR02253.013	Sediment	1.800	43	19	1.8	9.1	41	29	41	6.4	2
BH21 (ES4) 0.00m - COMPOSITE	MAR02253.014	Sediment	0.780	25	11	0.85	8.1	20.00000	16.00000	20.00000	4.00000	1.80000
BH22 (ES4) 0.00m - COMPOSITE	MAR02253.015	Sediment	1.300	34	14	1.3	9.1	18.00000	18.00000	18.00000	4.70000	2.50000
BH25 (ES4) 0.00m - COMPOSITE	MAR02253.016	Sediment	1.900	25	11	1.8	5.6	20.00000	20.00000	20.00000	4.80000	1.90000
BH26 (ES4) 0.00m - COMPOSITE	MAR02253.017	Sediment	1.400	40	17	1.5	7.3	36.00000	25.00000	36.00000	5.80000	2.00000
BH27 (ES4) 0.00m - COMPOSITE	MAR02253.018	Sediment	1.300	25	12	1.2	39.2	17.00000	18.00000	17.00000	4.40000	1.90000
BH29 (ES4) 0.00m - COMPOSITE	MAR02253.019	Sediment	1.300	37	14	1.4	7.2	26.00000	19.00000	26.00000	4.90000	2.00000
BH30 (ES4) 0.00m - COMPOSITE	MAR02253.020	Sediment	1.800	27	12	1.8	5.5	28.00000	20.00000	28.00000	4.80000	1.90000
BH01 (ES4) 0.40m - COMPOSITE	MAR02274.001	Sediment	1.700	26	14	1.7	1.6	42.00000	28.00000	42.00000	6.30000	3.60000
BH02 (ES4) 0.40m - COMPOSITE	MAR02274.002	Sediment	0.880	14	7.7	0.93	2.34	22.00000	17.00000	22.00000	4.10000	2.10000
BH04 (ES4) 0.00m - COMPOSITE	MAR02274.003	Sediment	1.300	16	8.7	1.3	2.56	17.00000	17.00000	17.00000	4.30000	2.40000
BH23 (ES4) 0.00m - COMPOSITE	MAR02274.004	Sediment	1.300	18	9	1.2	0.99	17.00000	17.00000	17.00000	4.30000	2.30000
BH24 (ES4) 0.00m - COMPOSITE	MAR02274.005	Sediment	2.300	17	9.3	2	1.7	22.00000	23.00000	22.00000	5.30000	2.40000
GBS2-BH-SPT-11 (ES4) 0.90m - COMPOSITE	MAR02274.006	Sediment	0.980	15	8.5	1.1	1.91	25.00000	18.00000	25.00000	4.60000	2.20000
GBS2-BH-SPT-12 (ES4) 1.00m - COMPOSITE	MAR02275.001	Sediment	1.500	18	12	1.5	3.17	20.00000	21.00000	20.00000	5.30000	2.80000
			1.41851851	28.11111111	12.84444444	1.406666667	9.243333333	25.51851852	20.66666667	25.51851852	4.966666667	2.148148148
		50% of Value as < LoD	0.709259259	14.05555556	6.422222222	0.703333333	9.243333333	12.75925926	10.33333333	12.75925926	2.483333333	1.074074074
* See report notes		Crew Conversion Rate	0.062000000	0.00015	0.0011	0.028	0.0081	0.045	0.06	0.047	0.025	0.0023
		Crew uSV	0.043974074	0.002108333	0.007064444	0.019693333	0.074871000	0.574166667	0.620000000	0.599685185	0.062083333	0.002470370
		Public Conversion Rate	0.00068	0.000026	0.00014	0.00039	0.00028	0.00047	0.026	0.0023	0.003	0.000022
		Public uSv	0.000482296	0.000365444	0.000899111	0.0002743	0.002588133	0.005996852	0.268666667	0.029346296	0.00745	2.36296E-05

		TOTAL	2.006116741
		MASS CONVERSION	24
			7.58622551

INDIVIDUAL DOSE

2.006116741

7.586225511

		Units	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg	Bq/kg
		Method No	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*	SOCOTEC Didcot*
		Accreditation	UKAS	UKAS	UKAS	UKAS	UKAS	UKAS	N	N	UKAS	UKAS
Client Reference:	**SOCOTEC Ref:**	**Matrix**	**Co-60**	**I-125**	**I-129**	**Cs-134**	**Cs-137**	**Ra-224**	**Ra-226 ***	**Th-228 ***	**U-235**	**Am-241**
BH03 (ES4) 0.50m - COMPOSITE	MAR02253.001	Sediment	1.70	43	19	1.6	7.7	41	28	41	5.8	2.2
BH05 (ES4) 0.00m - COMPOSITE	MAR02253.002	Sediment	1.100	31	13	1.1	9.7	27.00000	20.00000	27.00000	5.20000	1.80000
BH06 (ES4) 2.30m - COMPOSITE	MAR02253.003	Sediment	1.500	37	15	1.5	15.2	20.00000	21.00000	20.00000	5.30000	2.50000
BH10 (ES4) 0.00m - COMPOSITE	MAR02253.004	Sediment	1.700	25	11	1.6	30.3	18.00000	19.00000	18.00000	4.40000	2.00000
BH12 (ES4) 0.00m - COMPOSITE	MAR02253.005	Sediment	1.400	40	18	1.3	14.4	34.00000	25.00000	34.00000	5.60000	1.80000
BH13A (ES4) 0.00m - COMPOSITE	MAR02253.006	Sediment	1.100	33	13	1.2	4.3	28.00000	21.00000	28.00000	5.30000	2.00000
BH14 (ES4) 0.00m - COMPOSITE	MAR02253.007	Sediment	1.200	22	14	1.2	11.4	24.00000	18.00000	24.00000	4.40000	2.60000
BH15 (ES4) 0.00m - COMPOSITE	MAR02253.008	Sediment	2.000	26	12	1.9	10.7	22	22	22	5.3	1.6
BH16 (ES4) 0.00m - COMPOSITE	MAR02253.009	Sediment	1.500	42	18	1.6	10.4	39.00000	26.00000	39.00000	6.10000	1.90000
BH17 (ES4) 0.00m - COMPOSITE	MAR02253.010	Sediment	0.860	26	11	0.9	13.5	20.00000	17.00000	20.00000	4.20000	1.50000
BH18 (ES4) 0.00m - COMPOSITE	MAR02253.011	Sediment	1.200	33	14	1.3	8.2	25.00000	18.00000	25.00000	4.70000	2.80000
BH19 (ES4) 0.00m - COMPOSITE	MAR02253.012	Sediment	1.500	21	9.6	1.4	8.4	20.00000	17.00000	20.00000	3.80000	1.50000
BH20 (ES4) 0.00m - COMPOSITE	MAR02253.013	Sediment	1.800	43	19	1.8	9.1	41	29	41	6.4	2
BH21 (ES4) 0.00m - COMPOSITE	MAR02253.014	Sediment	0.780	25	11	0.85	8.1	20.00000	16.00000	20.00000	4.00000	1.80000
BH22 (ES4) 0.00m - COMPOSITE	MAR02253.015	Sediment	1.300	34	14	1.3	9.1	18.00000	18.00000	18.00000	4.70000	2.50000
BH25 (ES4) 0.00m - COMPOSITE	MAR02253.016	Sediment	1.900	25	11	1.8	5.6	20.00000	20.00000	20.00000	4.80000	1.90000
BH26 (ES4) 0.00m - COMPOSITE	MAR02253.017	Sediment	1.400	40	17	1.5	7.3	36.00000	25.00000	36.00000	5.80000	2.00000
BH27 (ES4) 0.00m - COMPOSITE	MAR02253.018	Sediment	1.300	25	12	1.2	39.2	17.00000	18.00000	17.00000	4.40000	1.90000
BH29 (ES4) 0.00m - COMPOSITE	MAR02253.019	Sediment	1.300	37	14	1.4	7.2	26.00000	19.00000	26.00000	4.90000	2.00000
BH30 (ES4) 0.00m - COMPOSITE	MAR02253.020	Sediment	1.800	27	12	1.8	5.5	28.00000	20.00000	28.00000	4.80000	1.90000
BH01 (ES4) 0.40m - COMPOSITE	MAR02274.001	Sediment	1.700	26	14	1.7	1.6	42.00000	28.00000	42.00000	6.30000	3.60000
BH02 (ES4) 0.40m - COMPOSITE	MAR02274.002	Sediment	0.880	14	7.7	0.93	2.34	22.00000	17.00000	22.00000	4.10000	2.10000
BH04 (ES4) 0.00m - COMPOSITE	MAR02274.003	Sediment	1.300	16	8.7	1.3	2.56	17.00000	17.00000	17.00000	4.30000	2.40000
BH23 (ES4) 0.00m - COMPOSITE	MAR02274.004	Sediment	1.300	18	9	1.2	0.99	17.00000	17.00000	17.00000	4.30000	2.30000
BH24 (ES4) 0.00m - COMPOSITE	MAR02274.005	Sediment	2.300	17	9.3	2	1.7	22.00000	23.00000	22.00000	5.30000	2.40000
GBS2-BH-SPT-11 (ES4) 0.90m - COMPOSITE	MAR02274.006	Sediment	0.980	15	8.5	1.1	1.91	25.00000	18.00000	25.00000	4.60000	2.20000
GBS2-BH-SPT-12 (ES4) 1.00m - COMPOSITE	MAR02275.001	Sediment	1.500	18	12	1.5	3.17	20.00000	21.00000	20.00000	5.30000	2.80000

		1.418518519	28.11111111	12.84444444	1.406666667	9.243333333	25.51851852	20.66666667	25.51851852	4.966666667	2.148148148				
	50% if Value as <LoD	0.709259259	14.055555556	6.422222222	0.703333333	11.765000000	12.759259259	10.333333333	12.759259259	2.483333333	1.074074074				
* See report notes	Crew Conversion Rate	0.000006200	0.000000015	0.00000011	0.0000028	0.00000081	0.0000045	0.000006	0.0000047	0.0000025	0.00000023		TOTAL	MASS CONVERSION	**Total Crew and Public (man SV/a)**
	Crew man SV/a	0.000004397	0.000000211	0.000000706	0.000001969	0.000009530	0.000057417	0.000062000	0.000059969	0.000006208	0.000000247		0.000202654		**0.315170131**
	Public Conversion Rate	0.0000025	0.0000008	0.0000071	0.0000044	0.0000031	0.0000076	0.0012	0.000034	0.000038	0.00000029				
	Public man SV/a	1.77315E-06	1.12444E-05	4.55978E-05	3.09467E-06	3.64715E-05	9.69704E-05	0.0124	0.000433815	9.43667E-05	3.11481E-07		0.013123645	24	0.31496748