marinescotland

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Pre-disposal Sampling Results Form

Version 2 - June 2017

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

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

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

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

01224 295579
ms.marinelicensing@gov.scot

Applicant Information

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

Sample Details & Physical Properties

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

Sample information:

Sample ID	Dredge area	Latitude	Longitude	Type of sample	Sample depth (m)	Total solids (%)	Gravel (%)	Sand (%)	Silt (%)	TOC (%)	Specific gravity	Asbestos
7342	KESS111	-5°29.16.N	55°48.23.44'W	Core	0	76.7	9.68	26.58	63.65	0.37	1.3	No
7343	KESS111	-5°29.16.N	55°48.23.44'W	Core	0.5	73.3	0	0.5	99.53	0.39	1.2	No
7344	KESS111	-5°29.16.N	55°48.23.44'W	Core	1	72.7	0	0.94	99.1	0.37	1.3	No
7330	KESS112	-5°29.45.N	55°48.22.87'W	Core	0	69.3	47.56	21.97	30.55	0.94	1.4	No
7331	KESS112	-5°29.45.N	55°48.22.87'W	Core	0.5	68.8	0	40	60.04	0.96	1.4	No
7303	KESS113	-5°29.2.77'N	55°48.23.40'W	Core	0	52.9	0	54.82	45.22	2.56	1.1	No
7304	KESS113	-5°29.2.77'N	55°48.23.40'W	Core	0.5	52	0	35.13	64.87	2.52	1.2	No
7305	KESS113	-5°29.2.77'N	55°48.23.40'W	Core	1	57.7	0	42.19	57.83	2.13	1.2	No
7293	KESS114	-5°29.4.44'N	55°48.24.51'W	Core	0	69.5	34.65	24.53	40.82	1.22	1.3	No
7294	KESS114	-5°29.4.44'N	55°48.24.51'W	Core	0.5	66.8	14.35	47.74	37.95	1.61	1.4	No
7295	KESS114	-5°29.4.44'N	55°48.24.51'W	Core	1	76.3	0	69.67	30.33	< 0.30	1.4	No
7321	KESS115	-5°29.1.74'N	55°48.25.30'W	Core	0	65.1	25.06	21.14	53.94	1.06	1.3	No
7322	KESS115	-5°29.1.74'N	55°48.25.30'W	Core	0.5	75	12.21	27.87	60.1	0.31	1.4	No
7323	KESS115	-5°29.1.74'N	55°48.25.30'W	Core	1	79.5	0	34.45	65.57	0.31	1.5	No
7315	KESS116	-5°29.1.25'N	55°48.24.34'W	Core	0	77.9	68.26	12.3	19.45	0.69	1.4	No
7316	KESS116	-5°29.1.25'N	55°48.24.34'W	Core	0.5	72.5	0	0	100	0.38	1.3	No

Trace Metals & Organotins

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

Sample information:

Sample ID	Dredge area	Type of sample	Sample depth (m)	mg/kg dry weight									
				Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Copper (Cu)	Mercury (Hg)	Nickel (Ni)	Lead (Pb)	Zinc (Zn)	Dibutyltin (DBT)	Tributyltin (TBT)
7342	KESS111	Core	0	14.6	0.1	102	23.9	0.05	46.7	19.9	93	0.005	0.002
7343	KESS111	Core	0.5	21.4	0.1	128	29.4	0.06	62.7	24.2	117	0.005	0.002
7344	KESS111	Core	1	16.8	0.1	119	26.3	0.05	57.6	21.1	103	0.005	0.002
7330	KESS112	Core	0	15.6	0.1	42	21.7	0.05	17.5	32.1	66.6	0.0074	0.0576
7331	KESS112	Core	0.5	16.3	0.1	75.4	9.3	0.05	29.5	14.6	66.3	0.005	0.002
7303	KESS113	Core	0	24.9	0.1	117	14.8	0.05	46	19.3	95.9	0.005	0.002
7304	KESS113	Core	0.5	24.5	0.1	131	15	0.06	52.4	19.1	93.7	0.005	0.002
7305	KESS113	Core	1	25.2	0.1	123	14.3	0.06	48.8	20.2	102	0.005	0.002
7293	KESS114	Core	0	14.2	0.1	42.6	81.4	0.08	16.8	15.2	66.8	0.0098	0.0098
7294	KESS114	Core	0.5	19.7	0.1	73.4	13.5	0.05	29.1	16.7	69.5	0.005	0.002
7295	KESS114	Core	1	11.2	0.1	69.3	16.5	0.06	29.6	15.7	63.2	0.005	0.002
7321	KESS115	Core	0	16.4	0.1	51.7	10.4	0.06	19.8	17.1	62.6	0.005	0.037
7322	KESS115	Core	0.5	8.9	0.1	74	17.4	0.06	32.6	16.4	69.2	0.005	0.002
7323	KESS115	Core	1	9.7	0.1	69.3	17.1	0.05	30.3	16.5	65.3	0.005	0.002
7315	KESS116	Core	0	13.2	0.1	43.6	12.9	0.27	19	17.8	57.8	0.005	0.002
7316	KESS116	Core	0.5	13.1	0.1	111	28.3	0.06	54.4	21.4	104	0.005	0.002
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Polyaromatic Hydrocarbons (PAH)

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

Definitions:

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

Sample information:

		Type of	Sample depth												µg/kg											
Sample ID	Dredge area	sample	(m)	ACENAPTH	ACENAPHY	ANTHRACN	BAA	BAP	BBF	BEP	BENZGHIP	BKF	C1N	C1PHEN	C2N	C3N	CHRYSENE	DBENZAH	FLUORANT	FLUORENE	INDPYR	NAPTH	PERYLENE	PHENANT	PYRENE	THC
7342	KESS111	Core	0	0.90	1.41	2.20	3.73	5.71	7.52		10.30	1.67					4.59	1.42	6.03	3.95	2.58	5.78		16.10	8.15	3300
7343	KESS111	Core	0.5	0.90	1.41	1.80	4.17	7.07	12.10		15.40	1.93					6.24	2.11	9.41	5.68	3.66	8.45		23.10	11.30	3400
7344	KESS111	Core	1	0.90	1.41	0.95	3.63	4.76	10.30		12.70	3.40					4.68	1.73	7.39	4.45	3.51	6.26		19.20	9.74	2900
7330	KESS112	Core	0	0.90	1.41	0.95	2.28	2.52	7.55		6.74	2.42					3.41	1.34	3.84	3.03	3.29	4.83		14	5.84	
7331	KESS112	Core	0.5	0.90	1.41	0.95	1.73	1.64	5.6		5.36	1.35					3.04	0.76	3.3	2.7	2.4	4.72		12.4	4.92	
7303	KESS113	Core	0	0.90	1.41	0.95	2.51	4.21	11.3		9.16	2.36					4.13	1.81	5.97	3.36	5.09	5.98		16.6	6.01	3700
7304	KESS113	Core	0.5	0.90	1.41	0.95	2.14	2.74	9.66		7.49	1.57					4.23	0.76	4.93	3.8	3.86	6.41		17	6.02	3800
7305	KESS113	Core	1	0.90	1.41	0.95	2.51	3.71	9.88		8.76	2.51					4.37	1.96	5.24	3.79	4.3	4.12		17.7	6.73	3600
7293	KESS114	Core	0	0.90	1.41	1.98	10.1	26.4	49.9		25.9	17.7					8.42	7.25	17.2	1.72	23.8	2.53		8.28	52.3	16500
7294	KESS114	Core	0.5	3.25	1.41	3.68	8.45	7.93	16.2		8.22	3.48					8.4	2.39	19.4	4.57	5.3	6.46		22.2	17.3	2900
7295	KESS114	Core	1	0.90	1.41	0.95	1.93	2.85	5.59		6.59	0.73					2.82	0.85	4.53	2.45	1.82	3.66		11.4	5.18	2900
7321	KESS115	Core	0	3.51	1.41	5.84	25.5	29.7	45		25.3	20.6					22.3	8.05	40.6	4.09	25	3.07		25.7	35.3	4500
7322	KESS115	Core	0.5	0.90	1.41	1.37	5.67	8.01	13.9		10.3	3.94					5.51	2.44	11.2	2.22	6.97	2.97		11.5	12	3500
7323	KESS115	Core	1	0.90	1.41	0.95	2.35	2.81	6.34		8.46	2.5					3.28	1.15	4.74	3.09	2.08	4.77		13.4	6.58	3300
7315	KESS116	Core	0	33.4	1.41	41.6	112	108	120		47.8	53.9					90.8	22.7	244	27.3	49.1	5.32		158	178	511693.33
7316	KESS116	Core	0.5	0.90	1.41	1.37	4.6	6.04	13.7		17.6	4.45					6.13	2.34	8.85	5.28	4.07	7.05		22.7	11.7	118.19
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Organohalogens

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

Definitions:

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

Sample information:

				µg/kg																																													
Sample ID	Dredge area	Type of sample	Sample depth (m)	PCB28	PCB52	PCB101	PCB118	PCB138	PCB153	PCB18	PCB105	PCB110	PCB128	PCB141	PCB149	PCB151	PCB156	PCB158	PCB170	PCB180	PCB183	PCB187	PCB194	PCB31	PCB44	PCB47	PCB49	PCB66	ICES7	AHCH	BHCH	GHCH	DIELDRIN	HCB	DDE	DDT	TDE	BDE100	BDE138	BDE153	BDE154	BDE17	BDE183	BDE209	BDE28	BDE47	BDE66	BDE85	BDE99
7342	KESS111	Core	0	< 0.08	0.0800	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.0800	< 0.08		< 0.45	<2000	< 0.38	<0.21	<0.84	<0.75	<0.31	<0.58	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
7343	KESS111	Core	0.5	< 0.08	0.0800	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.0800	< 0.08																					
7344	KESS111	Core	1	< 0.08	0.0800	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.0800	< 0.08																					
7330	KESS112	Core	0	< 0.08	0.0800	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.0800	< 0.08																					
7331	KESS112	Core	0.5	< 0.08	0.0800	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.0800	< 0.08		< 0.45	<2000	< 0.38	<0.21	<0.84	<0.75	<0.31	<0.58												
7303	KESS113	Core	0	< 0.08	0.0800	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.0800	< 0.08		< 0.45	<2000	< 0.38	<0.21	<0.84	<0.75	<0.31	<0.58	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
7304	KESS113	Core	0.5	< 0.08	0.0800	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.0800	< 0.08																					
7305	KESS113	Core	1	< 0.08	0.0800	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.0800	< 0.08																					
7293	KESS114	Core	0	< 0.08	0.0800	0.15	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.13	< 0.08	0.16	< 0.08																					
7294	KESS114	Core	0.5	< 0.08	0.0800	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.0800	< 0.08		< 0.45	<2000	< 0.38	< 0.84	<0.84	<0.75	<0.31	<0.58	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
7295	KESS114	Core	1	< 0.08	0.0800	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.0800	< 0.08																					
7321	KESS115	Core	0	< 0.08	0.0800	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.0800	< 0.08		< 0.45	<2000	< 0.38	< 0.84	<0.84	<0.75	<0.31	<0.58	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.07	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
7322	KESS115	Core	0.5	< 0.08	0.0800	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.0800	< 0.08																					
7323	KESS115	Core	1	< 0.08	0.0800	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.0800	< 0.08		< 0.45	<2000	< 0.38	< 0.84	<0.84	<0.75	<0.31	<0.58												
7315	KESS116	Core	0	< 0.08	0.2000	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.1000	< 0.08																					
7316	KESS116	Core	0.5	< 0.08	0.0800	0.0800	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	0.0800	< 0.08	0.0800	< 0.08		< 0.45	<2000	< 0.38	< 0.84	<0.84	<0.75	<0.31	<0.58												
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PR Details

Total amount to be dredged (wet tonnes)	75000

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

Average for the total dredge area:

Sample ID	Unit of measurement	
Total Solids	%	69.125
Gravel	%	13.23563
Sand	%	28.73938
Silt	%	58.05938
Arsenic (As)	mg/kg	16.60625
Cadmium (Cd)		0.1
Chromium (Cr)		85.76875
Copper (Cu)		22.0125
Mercury (Hg)		0.07
Nickel (Ni)		37.05
Lead (Pb)		19.20625
Zinc (Zn)		80.99375
Dibutyltin (DBT)		0.00545
Tributyltin (TBT)		0.00815
Acenapth	µg/kg	3.24
Acenapthylene		1.41
Anthracn		4.22
BAA		12.08
BAP		14.01
BBF		21.53
BEP		
Benzghip		14.13
BKF		7.78
C1N		
C1PHEN		
C2N		
C3N		
Chrysene		11.40
Debenzah		3.69
Flurant		24.79
Fluorene		5.09
Indypr		9.18
napth		5.15
perylene		
phenant		25.58
pyrene		23.57
THC		40436.54
PCB28		0.08
PCB52		0.0875
PCB101		0.085833
PCB118		0.08
PCB138		0.08
PCB153		0.08
PCB18		0.08
PCB105		0.08
PCB110		0.08
PCB128		0.08
PCB141		0.08
PCB149		0.08
PCB151		0.08
PCB156		0.08
PCB158		0.08
PCB170		0.08
PCB180		0.08
PCB183		0.08
PCB187		0.08
PCB194		0.08
PCB31		0.08
PCB44		0.083125
PCB47		0.08
PCB49		0.08625
PCB66		0.08
ICES7		0.08
AHCH		0.45
BHCH		<2000
GHCH		0.38
DIELDRIN		0.21
HCB		0.84
DDE		0.75
DDT		0.31
TDE		0.58
BDE100		0.01
BDE138		0.01
BDE153		0.01
BDE154		0.01
BDE17		0.01
BDE183		0.01
BDE209		0.03
BDE28		0.01
BDE47		0.01
BDE66		0.01
BDE85		0.01
BDE99		0.01

Comments: Where values are <LOD, they are used as =LOD in average calculations. The exceedances of BHCH and Zn of >AL2 are anomalous

Laboratory Details

Explanatory Notes:
Please complete a separate worksheet for each laboratory (e.g. complete 'Laboratory_1' worksheet for 1 laboratory and complete 'Laboratory_2' worksheet for a second laboratory). If there are more than 3 laboratories then please contact MS-LOT.

Laboratory 1 Details:

Laboratory name:	RPS Environmental Management Ltd, 13 St Martins Way, Bedford, Bedfordshire, MK42 0LF (UKAS
Year:	2023

LabRefMat	**Q1**	Does the laboratory carrying out the analyses undertake the analysis of blank samples and laboratory reference materials with each batch of samples of waste and other material dumped in the maritime area that is analysed by that laboratory?	Yes
CompAnal	**Q2**	Does the laboratory carrying out the analyses undertake periodic comparative analysis of laboratory reference materials and certified reference materials?	Yes
QAQC	**Q3**	Does the laboratory carrying out the analyses undertake the compilation of quality control charts based upon the data resulting from the analyses of the laboratory reference materials and certified reference materials, and the use of those quality control charts to monitor analytical performance in relation to all samples of dumped wastes or other materials?	Yes
InterlabCaleb	**Q4**	Does the laboratory carrying out the analyses undertake periodic participation in interlaboratory comparison exercises, including, where possible, international comparison exercises?	Yes
InternatCaleb	**Q5**	Does the laboratory carrying out the analyses undertake periodic participation in national and, where possible, international laboratory proficiency schemes?	Yes
SpikedSamples	**Q6**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory analyse samples of substances which are provided by the organisers of the scheme?	Yes
BlindSamples	**Q7**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the composition of those samples is not disclosed in advance?	Yes
Ranking	**Q8**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the results of the scheme for each participating laboratory are made available to all participating laboratories?	Yes
FracAnal	**Q9**	Enter the size fraction that is analysed i.e. Whole or less than 63µm etc.	.001953 - 32mm
GranMeth	**Q10**	PSA method	Wet and dry sieving followed by laser diffraction analysis.
OCMeth	**Q11**	Organic Carbon method	Combustion and infrared analysis following carbonate removal with hydrochloric acid.
MetExtrType	**Q12**	Method of extraction used for metal analysis	N/A
MethOfDetMetals	**Q13**	Method of detection used for metal analysis	N/A
PAHExtrType	**Q14**	Method of extraction used for poly aromatic hydrocarbon analysis	GCMS analysis following extraction of the wet sediment with DCM:acetone by ASE 350 extraction. Extract cleaned-up with silica and activated copper.
MethOfDetPAH	**Q15**	Method of detection used for poly aromatic hydrocarbons analysis	GCMS analysis following extraction of the wet sediment with DCM:acetone by ASE 350 extraction. Extract cleaned-up with silica and activated copper.
OHExtrType	**Q16**	Method of extraction used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	GCMS analysis following extraction of the wet sediment with DCM:acetone by ASE 350 extraction. Extract cleaned-up with silica and activated copper.
MethOfDetOH	**Q17**	Method of detection used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	GCMS analysis following extraction of the wet sediment with DCM:acetone by ASE 350 extraction. Extract cleaned-up with silica and activated copper.
OTExtrType	**Q18**	Method of extraction used for organotin analysis	N/A
MethOfDetOT	**Q19**	Method of detection used for organotin analysis	N/A

		LOD/LOQ	Precision (%)	Recovery (%)
mg/kg	Hg			
	As			
	Cd			
	Cu			
	Pb			
	Zn			
	Cr			
	Ni			
	TBT			
	DBT			
µg/kg	PCB28	0.08		113.6%
	PCB31	0.08		n/a
	PCB44	0.08		n/a
	PCB47	0.08		n/a
	PCB49	0.08		n/a
	PCB52	0.08		120.3%
	PCB66	0.08		n/a
	PCB101	0.08		128.0%
	PCB105	0.08		120.9%
	PCB110	0.08		n/a
	PCB118	0.08		124.5%
	PCB128	0.08		115.7%
	PCB138+163	0.08		123.4%
	PCB141	0.08		n/a
	PCB149	0.08		106.2%
	PCB151	0.08		n/a
	PCB153	0.08		122.3%
	PCB156	0.08		151.7%
	PCB158	0.08		n/a
	PCB170	0.08		124.5%
	PCB180	0.08		145.9%
	PCB183	0.08		n/a
	PCB187	0.08		n/a
	PCB194	0.08		n/a
	DDE	0.75		n/a
	DDT	0.31		n/a
	DDD	0.58		n/a
	Dieldrin	0.21		n/a
	Lindane	0.38		n/a
	HCB	0.84		n/a
	BDE17	0.01		n/a
	BDE28	0.01		n/a
	BDE47	0.01		n/a
	BDE66	0.01		n/a
	BDE85	0.01		n/a
	BDE99	0.01		n/a
	BDE100	0.01		n/a
	BDE138	0.01		n/a
	BDE153	0.01		n/a
	BDE154	0.01		n/a
	BDE183	0.01		n/a
	BDE209	0.01		n/a
	ACENAPTH	1.7		97.2%
	ACENAPHY	2		77.2%
	ANTHRACN	2.5		88.7%
	BAA	1.6		80.7%
	BAP	0.9		108.9%
	BBF	1.6		116.1%
	BENZGHIP	1.4		108.4%
	BEP			
	BKF	2		93.1%
	C1N			
	C1PHEN			
	C2N			
	C3N			
	CHRYSENE	1.7		97.1%
	DBENZAH	1.6		n/a
	FLUORENE	1.7		65.7%
	FLUORANT	2.5		97.2%
	INDPYR			
	NAPTH	2.2		78.6%
	PERYLENE	3		n/a
	PHENANT	4		79.7%
	PYRENE	2.8		90.6%
	THC	1000		n/a

Laboratory Details

Explanatory Notes:
Please complete a separate worksheet for each laboratory (e.g. complete 'Laboratory_1' worksheet for 1 laboratory and complete 'Laboratory_2' worksheet for a second laboratory). If there are more than 3 laboratories then please contact MS-LOT.

Laboratory 2 Details:

Laboratory name:	RPS Manchester (metals only), UKAS Accreditation Laboratory No. 0605
Year:	2023

LabRefMat	**Q1**	Does the laboratory carrying out the analyses undertake the analysis of blank samples and laboratory reference materials with each batch of samples of waste and other material dumped in the maritime area that is analysed by that laboratory?	Yes
CompAnal	**Q2**	Does the laboratory carrying out the analyses undertake periodic comparative analysis of laboratory reference materials and certified reference materials?	Yes
QAQC	**Q3**	Does the laboratory carrying out the analyses undertake the compilation of quality control charts based upon the data resulting from the analyses of the laboratory reference materials and certified reference materials, and the use of those quality control charts to monitor analytical performance in relation to all samples of dumped wastes or other materials?	Yes
InterlabCaleb	**Q4**	Does the laboratory carrying out the analyses undertake periodic participation in interlaboratory comparison exercises, including, where possible, international comparison exercises?	Yes
InternatCaleb	**Q5**	Does the laboratory carrying out the analyses undertake periodic participation in national and, where possible, international laboratory proficiency schemes?	Yes
SpikedSamples	**Q6**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory analyse samples of substances which are provided by the organisers of the scheme?	Yes
BlindSamples	**Q7**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the composition of those samples is not disclosed in advance?	Yes
Ranking	**Q8**	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the results of the scheme for each participating laboratory are made available to all participating laboratories?	Yes
FracAnal	**Q9**	Enter the size fraction that is analysed i.e. Whole or less than 63µm etc.	.001953 - 32mm
GranMeth	**Q10**	PSA method	N/A
OCMeth	**Q11**	Organic Carbon method	N/A
MetExtrType	**Q12**	Method of extraction used for metal analysis	ICP-MS analysis following microwave assisted digestion in hydrofluoric acid of the dried (<30°C) and ground sediment.
MethOfDetMetals	**Q13**	Method of detection used for metal analysis	ICP-MS analysis following microwave assisted digestion in hydrofluoric acid of the dried (<30°C) and ground sediment.
PAHExtrType	**Q14**	Method of extraction used for poly aromatic hydrocarbon analysis	N/A
MethOfDetPAH	**Q15**	Method of detection used for poly aromatic hydrocarbons analysis	N/A
OHExtrType	**Q16**	Method of extraction used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	N/A
MethOfDetOH	**Q17**	Method of detection used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	N/A
OTExtrType	**Q18**	Method of extraction used for organotin analysis	GCMS analysis following the extraction of the wet sediment and subsequent derivatisation.
MethOfDetOT	**Q19**	Method of detection used for organotin analysis	GCMS analysis following the extraction of the wet sediment and subsequent derivatisation.

		LOD/LOQ	Precision (%)	Recovery (%)
mg/kg	Hg	0.01		89.4%
	As	0.5		94.9%
	Cd	0.1		96.0%
	Cu	0.5		85.0%
	Pb	0.5		88.9%
	Zn	2		89.4%
	Cr	0.5		85.2%
	Ni	0.5		88.9%
	TBT	0.005		108.9%
	DBT	0.002		86.3%
µg/kg	PCB28			
	PCB31			
	PCB44			
	PCB47			
	PCB49			
	PCB52			
	PCB66			
	PCB101			
	PCB105			
	PCB110			
	PCB118			
	PCB128			
	PCB138+163			
	PCB141			
	PCB149			
	PCB151			
	PCB153			
	PCB156			
	PCB158			
	PCB170			
	PCB180			
	PCB183			
	PCB187			
	PCB194			
	DDE			
	DDT			
	DDD			
	Dieldrin			
	Lindane			
	HCB			
	BDE17			
	BDE28			
	BDE47			
	BDE66			
	BDE85			
	BDE99			
	BDE100			
	BDE138			
	BDE153			
	BDE154			
	BDE183			
	BDE209			
	ACENAPTH			
	ACENAPHY			
	ANTHRACN			
	BAA			
	BAP			
	BBF			
	BENZGHIP			
	BEP			
	BKF			
	C1N			
	C1PHEN			
	C2N			
	C3N			
	CHRYSENE			
	DBENZAH			
	FLUORENE			
	FLUORANT			
	INDPYR			
	NAPTH			
	PERYLENE			
	PHENANT			
	PYRENE			
	THC			

Laboratory Details

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

Laboratory 3 Details:

Laboratory name:	N/A
Year:	

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

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

Grab Yes
Core No

Note: Used as a working sheet