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INSTITUTE

Study plan 10/2022

To: FSANI,10A-C Clarendon Road, Belfast

Official Control Services for Shellfish Chemical Contaminants 2022

Results included overleaf.

Abnormalities or departures from standard conditions: None.

Remarks: None.

Sample condition: Acceptable.

Method used: PAHs (SOP 147), Heavy Metals (SOP 163)

Date of issue of report: 31/05/2022

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Table 1: Sample information.

Lab Number	Site name/Production Area	Site Identification Ref (SIR)	Species collected	Sample Date
202201173	Middlebank	B1 AFFNI 55	Mussels	28/02/2022
202201509	Killough	K1 AFFNI 18	Oysters	08/03/2022
202201221	Shingle Bay	L3 AFFNI 88	Oysters	01/03/2022
202201285	Fair Green	C11 AFFNI 84	Oysters	03/03/2022
202201284	Ballyedmond	C7 AFFNI 73	Oysters	03/03/2022
202201286	Narrow Water	NW – Wild Fishery	Mussels	03/03/2022
202201966	Paddy's Point	S7 AFFNI 76	Oysters	22/03/2022

Three individual samples per site were collected and combined to make a composite sample for all analyses.

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Table 2: PAH results in µg/kg on a fresh (wet) weight basis

Lab Number	EFSA 4	Naphthalene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	7H-Benzo (c) Fluorene	Benzo (a) Anthracene	Cyclopenta (c,d) Pyrene	Chrysene	5 Methyl Chrysene	Benzo (b) Fluoranthene	Benzo (k) Fluoranthene	Benzo (j) Fluoranthene	Benzo (a) Pyrene	Indeno (123,cd) Pyrene	Dibenzo (a,h) Anthracene	Benzo (ghi) Perylene	Dibenzo (a,l) Pyrene	Dibenzo (a,e) Pyrene	Dibenzo (a,i) Pyrene	Dibenzo (a,h) Pyrene
202201173	17.8	1.3	4.3	0.70	7.0	7.1	<0.50	3.0	<0.50	5.1	<0.50	7.1	4.6	3.0	2.6	1.9	<0.50	3.0	<0.50	<0.50	<0.50	<0.50
202201509	27.8	1.1	8.7	0.83	16.9	11.5	<0.50	3.7	<0.50	9.0	<0.50	13.4	4.8	4.3	1.8	1.3	<0.50	1.4	<0.50	<0.50	<0.50	<0.50
202201221	17.8	1.3	6.4	<0.50	14.0	10.1	<0.50	2.6	<0.50	7.0	<0.50	6.0	2.3	1.8	2.2	1.1	<0.50	1.3	<0.50	<0.50	<0.50	<0.50
202201285	12.1	1.5	4.7	<0.50	6.9	4.4	<0.50	1.7	<0.50	3.8	<0.50	5.2	2.5	2.2	1.4	1.2	<0.50	1.1	<0.50	<0.50	<0.50	<0.50
202201284	29.7	1.1	12.7	0.90	24.5	18.5	<0.50	4.0	<0.50	11.5	<0.50	12.9	6.0	4.3	1.4	1.1	<0.50	1.8	<0.50	<0.50	<0.50	<0.50

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Table 2 continued: PAH results in µg/kg on a fresh (wet) weight basis

Lab number	EFSA 4	Naphthalene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	7H-Benzo (c) Fluorene	Benzo (a) Anthracene	Cyclopenta (c,d) Pyrene	Chrysene	5 Methyl Chrysene	Benzo (b) Fluoranthene	Benzo (k) Fluoranthene	Benzo (j) Fluoranthene	Benzo (a) Pyrene	Indeno (123,cd) Pyrene	Dibenzo (a,h) Anthracene	Benzo (ghi) Perylene	Dibenzo (a,l) Pyrene	Dibenzo (a,e) Pyrene	Dibenzo (a,i) Pyrene	Dibenzo (a,h) Pyrene
202201286	24.4	0.73	8.0	0.97	18.5	19.1	<0.50	5.8	<0.50	8.7	<0.50	7.5	3.6	3.3	2.4	2.2	<0.50	2.8	<0.50	<0.50	<0.50	<0.50
202201966	20.9	1.3	8.1	<0.50	17.0	8.7	<0.50	2.4	<0.50	8.2	<0.50	8.6	5.1	3.9	1.6	1.4	<0.50	1.5	<0.50	<0.50	<0.50	<0.50
LOD (µg/kg)	-	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
LOQ (µg/kg)	-	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
HORRAT$_r$	-	1.34	0.48	1.00	0.32	0.32	0.85	0.56	0.57	0.26	0.37	0.30	0.40	0.36	1.09	1.19	0.38	0.55	0.67	1.08	1.27	0.97
Uncertainty	-	0.20	0.17	0.19	0.17	0.17	0.38	0.14	0.26	0.20	0.17	0.14	0.18	0.16	0.19	0.29	0.17	0.18	0.30	0.49	0.58	0.44

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Table 3: Metal results for Lead, Cadmium and Mercury, expressed as mg/kg on a fresh (wet) weight basis

Lab Number	Lead	Cadmium	Mercury
202201173	0.84	<0.20	<0.10
202201509	<0.30	0.23	<0.10
202201221	0.42	0.42	<0.10
202201285	<0.30	0.43	<0.10
202201284	<0.30	0.26	<0.10
202201286	0.52	<0.20	<0.10
202201966	<0.30	<0.20	<0.10
LOD (mg/kg)	**0.15**	**0.10**	**0.05**
LOQ (mg/kg)	**0.30**	**0.20**	**0.10**
HORRATr	**0.27**	**0.16**	**0.17**
Uncertainty	**0.09**	**0.07**	**0.09**