Case No:	2023-0275	Date of visit:	20/06/2023
Time spent on site:	4h	Main Inspector:	[redacted]
Site No:	FS0752	Site Name:	Taranaish
Business No:	FB0169	Business Name:	Bakkafrost Scotland

Case Types: 1 ECI 2 CNI 3 SLI 4 VMD 5 DIA 6

Water Temp (°C): 13.1 Thermometer No: T173 FHI 045 completed

Observations: Region: WI Water type: S CoGP MA W-1

Dead/weak/abnormally behaving fish present?	y	If yes, see additional information/clinical score sheet.
Clinical signs of disease observed?	y	If yes, see additional information/clinical score sheet.
Gross pathology observed?	y	If yes, see additional information/clinical score sheet.
Diagnostic samples taken?	y	

UNI/REG only - if unable to carry out intended visit detail reason below:

Additional Case Information:

Wrasse mortality peaks 2021 wk 34 609 (14.17%) black losses Wk 43 3550 (55.31%) post treatment/predator, wk 45 2868 (100%) post treatment.

Salmon mortality peaks 2021, wk 43 24,990 (3.70%), wk 44 31146 (4.79%) wk 45 92861 (14.99%) wk46 75434 (14.32%), wk 47 129 650 (28.73%) wk 48 75303 (23.42%), wk 49 66000 (26.87%) wk 50 22884 (12.99%), wk51 9125 (5.31%), wk 52 7168 (4.95%).
These mort peaks were part of the same event, AGD, PRV,SAV tenebaculum identified, morts mainly attributed to AGD and treatments. All mortality peaks had been reported to the FHI and a site inspection and diagnostic sampling conducted (case 2021 0553)

Lice numbers have been low this cycle.

PD detected in pen 5, on inspection a number of moribunds were observed, some lesions and also cataracts noted, five fish removed for diagnostic sampling.

Case No:	2023-0275	Site No:	FS0752
Date of Visit:	20/06/2023	Inspector(s):	[redacted]

Registration/Authorisation Details

1. Business/site details summary checked by site representative?	Y
2. Changes made to details?	Y

Site Details (include cleaner fish for all sections)

Total No facilities		16	Facilities stocked		13	No facilities inspected	16
Species	SAL	SAL					
Age group	2022 Q4	2023 Q1					
No Fish	94,784	389,307					
Mean Fish Wt	1.275 Kg	673g					
Next Fallow Date (Site)		June 2024	Next Input Date (Site)			December 2024	
Recent (last 4 wks) disease problems?			Y	Any escapes (since last visit)?			N
If yes, detail:	PD						

Movement Records

1. Movement records available for inspection?	y
2. Date of last inspection:	09/06/2021
3. Are records complete and correctly entered?	y
4. Are movement records available for dead fish and waste?	y
5. Are records complete and correctly entered?	y
6. Are health certificates for introductions (outwith GB) available?	n/a

Transport Records

1. Are any movements carried out by (or on behalf) of the business (not using a STB)?	n
If yes, is there a system in place for maintenance of transportation records?	

Mortality Records

1. Mortality records available for inspection?		Y
2. How are mortalities disposed of?	Other (detail)	
If other detail:	Whiteshore cockles	
3. Mortality records complete and correctly entered?		Y
4. Recent mortality (last 4 wks):	2119/site/last four week	
5. Evidence of recent increased/atypical mortalities?		N
If yes, facility nos/no mortality per facility/no stock per facility/reason:		
6. Any other peaks in mortality during period checked?		Y
If yes, detail:	see additional information	
7. Have increased (unexplained) mortalities been reported to vet or FHI?		N/A
If yes, detail action:		
8. Have 'mortality events' been reported to FHI? If no, enter details on mortality events sheet.		Y

Treatments and Medicines Records

1. Recent treatments (see comment)?	Y
If yes, detail:	Slice and Optomease
If other, detail:	
2. Medicines records available for inspection?	Y
3. Are records complete and correctly entered?	y
4. Are fish in a withdrawal period?	y
5. If yes, what treatment(s)?	Slice and Optomease
If other, detail:	
6. Are medicines stored appropriately?	y

Biosecurity Records

1. Biosecurity records available for inspection?	Y
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?	Y
3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any *increased* (*unexplained)* mortality at the site been included?	Y
4. Has the action that will be taken in the event that the presence or suspicion of the presence of a listed disease is detected been included and *how* and *when* that will be notified to Scottish Ministers?	Y
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)?	Y
6. Have the husbandry and biosecurity measures implemented between each epidemiological unit to minimise transmission of disease been covered (movement of staff, visitors, equipment, live or dead fish etc.)?	Y
7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?	Y
8. Have the biosecurity procedures been adequately implemented on site?	Y
If no, detail:	

Results of Surveillance

1. Has any animal health surveillance been carried out by, or on behalf of, the business?	Y
2. If yes, are results available for inspection?	Y
3. Any significant results?	Y
If yes, detail (if not detailed under recent disease problems).	PD recently confirmed
Records checked between:	9/6/2021 to 19/6/2023

Case no:	2023-0275	Site No:	FS0752	Date of visit/ Sampling:	20/06/2023	20/0							
Priority samples:	VI		BA		PA		MG		HI				
Time sampling starts/ends:	12:30:00	13:30:00	Inspector:		VMD No.	12							
Environmental conditions:	1	Indoors	2		3		4		5				
Summary samples	HIST	Y	BA	Y	MG	Y	VI		PA		Total Samples		

Add Fish/Pools - click

	Pool/Fish No	F1	F2	F3	F4	F5							
	Fish nos	1	2	3	4	5		6-8	9-10				
	Pool Group												
Stock Details	Species	SAL	SAL	SAL	SAL	SAL		SAL	SAL				
	Average weight	700g	700g	700g	700g	700g		700g	700g				
	Sex	N/A	N/A	N/A	N/A	N/A		N/A	N/A				
	Water Type	SW	SW	SW	SW	SW		SW	SW				
	Stock Origin	Geocrab	Geocrab	Geocrab	Geocrab	Geocrab		Applecross	Applecross				
	Facility No	5	5	5	5	5		16	15				

06/2023 Additional Sample Information:

5 Total Tests assigned 4

Case no: 2023-0275 Site No: FS0752 Method of killing: Anaesthetic

Date of visit: 20/06/2023 Inspector(s): [redacted] Sheet Relevant: Y

S for strong presence: **M** for medium presence: **W** for weak presence

Fish Number		1	2	3	4	5					
Time sampled after death (if > 45 minutes)											
External Signs											
Behaviour	Moribund	S	S	S	S	S					
	Lethargic	S	S	S	S	S					
	Hanging vertical										
	Spiralling										
	Flashing										
	Loss of equilibrium										
Body	Dark	M	m	m	m	m					
	Distended abdomen										
	Anorexic		S	S	S	S					
	Scale Oedema										
Opercula	Shortened										
	Flared										
Haemorrhaging	Throat										
	Ventrum	W	S		W	W					
	Base of fins										
	Elsewhere										
Eyes	Exophthalmic										
	Enophthalmic (sunken)										
	Cataract										
	Haemorrhagic										
Gills	Pale										
	Zoned										
	Necrotic										
Lesions	Flank		S	S	S	S					
	Elsewhere		S	S	S	S					
Vent	Inflamed		W			W					
	Trailing faeces										
Lice Load	Estimate numbers	0	0	0	0	0					
Internal Signs											
Ascites	Clear										
	Bloody										
Oedema	In tissues										
Heart	Pale/anaemic										
	Granulomas										
	Deformed										
Liver	Petechial haem										
	Gross haem										
	Tissue breakdown										
	Enlarged										
	Colour number(s)	5	5	5	5	5					
	Granulomas										
	Lesions										
Pyloric caeca	Petechial haem										
	Tubules mauve	S	S	S	S	S					
	Lack of fat	S	S	S	S	S					
Spleen	Enlarged	m	m	m	m	m					
	Granulomas										
Gut	No food present	S	S	S	S	S					
	Yellow pseudo-faeces										
	External haem										
	Internal haem										
Body wall	Haemorrhaging										
Swim bladder	Haemorrhaging										
	Fluid filled										
Kidney	Swollen										
	Grey										
	Granular	W	W	W	W	W					
	Liquefied										
General	Parasites present										
	Anaemia										

Case no: 2023-0275

Date of visit: 20/06/2023

S for strong presence: **M** for medium presence: **W** for w

Fish Number											
Time sampled after death (if > 45 minutes)											
External Signs											
Behaviour	**Moribund**										
	Lethargic										
	Hanging vertical										
	Spiralling										
	Flashing										
	Loss of equilibrium										
Body	**Dark**										
	Distended abdomen										
	Anorexic										
	Scale Oedema										
Opercula	**Shortened**										
	Flared										
Haemorrhaging	**Throat**										
	Ventrum										
	Base of fins										
	Elsewhere										
Eyes	**Exophthalmic**										
	Enophthalmic (sunken)										
	Cataract										
	Haemorrhagic										
Gills	**Pale**										
	Zoned										
	Necrotic										
Lesions	**Flank**										
	Elsewhere										
Vent	**Inflamed**										
	Trailing faeces										
Lice Load	**Estimate numbers**										
Internal Signs											
Ascites	**Clear**										
	Bloody										
Oedema	**In tissues**										
Heart	**Pale/anaemic**										
	Granulomas										
	Deformed										
Liver	**Petechial haem**										
	Gross haem										
	Tissue breakdown										
	Enlarged										
	Colour number(s)										
	Granulomas										
	Lesions										
Pyloric caeca	**Petechial haem**										
	Tubules mauve										
	Lack of fat										
Spleen	**Enlarged**										
	Granulomas										
Gut	**No food present**										
	Yellow pseudo-faeces										
	External haem										
	Internal haem										
Body wall	**Haemorrhaging**										
Swim bladder	**Haemorrhaging**										
	Fluid filled										
Kidney	**Swollen**										
	Grey										
	Granular										
	Liquefied										
General	**Parasites present**										
	Anaemia										

Additional comments:

Case Number:	2023-0275		Site No:	FS0752	Insp:	
Date of Visit	20/06/2023					

		No of movements/supp./dest.				Score
Live fish movements		**0**	**1-5**	**6-10**	**>10**	
Movements on (from out with GB) of susceptible species	Frequency of movements on from equivalent MS	0	5	10	14	0
	Frequency of movements on from equivalent zone or compartment including third country	0	9	18	26	0
	Number of suppliers	0	5	10	14	0
Movements off	Frequency of movements off	0	3	6	10	10
	Number of destinations	0	3	6	10	3

Exposure via water	**Site contacts**	**0**	**1-5**	**6-10**		
Water contacts with other farms (holding species susceptible to same diseases)	Farm is protected (secure water supply through disinfection or borehole)	0				
	Farm is on-line or in a coastal zone with category I farms upstream or within 1 tidal excursion	1	2	4		2
	Farm is on-line or in a coastal zone with category III farms upstream or within 1 tidal excursion	1	3	6		
	Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion	1	4	8		

Management practices		None	Secure	Unsecure		
Water contacts with processors	Any processing plant discharging into adjacent waters	0	1	2		0

On farm processing within the rules of the directive	No on farm processing	0				0
	Processing own fish (re-cycling risk)	1				
	Processing fish from MS of equivalent status	2				
	Processing fish from zone or compartment of equivalent status	4				
	Processing fish from Category III farm	8				
	Processing fish from Category V farm	10				
Disposal of fish and fish by-products	Site's own waste only processed.	0				0
	Common processes with other farms	3				3
	Collection point for waste from other farms	5				
Use of unpasteurised feeds	No feeding of unpasteurised feed	0				0
	Feeding unpasteurised feed	5				

Biosecurity	**Number of sites**	**1**	**2 or 3**	**≥ 4**		
Contacts with other sites	Sites operating from single shorebase	0	1	2		1
	Sites sharing staff and equipment	0	1	2		
Disinfection of equipment between sites, use of footbaths etc	Yes	0				0
	No	1				
CoGP/Regulator						
Practices in accordance with regulator or industry code of practice	Yes	0				0
	No	3				
Platform access to cages	Yes	0				0
	No	2				

Total	**19**
Rank	**MEDIUM**

Case No: 2023-0275 Site No: FS0752

Sea Lice Inspection (Seawater Sites Only)

1. Has the site experienced sea lice problems in the previous 4 years?	Y
2. Is the CoGP Farm Management Area (or equivalent) fallowed synchronously on a single year class basis?	Y
3. Does the site have access to a range of licenced in-feed and bath sea lice medications (including deltamethrin, azamethiphos and emamectin benzoate) as well as access to suitable biological and/or mechanical control measures, and can these be deployed in a reasonable period of time?	Y
4. Is there a signed documented farm management agreement or statement relevant to the site and CoGP Farm Management Area (or equivalent)?	Y
5. Are sea lice count records available for inspection? (Legal SSI, CoGP Annex 6)	Y
6. Do records adequately reflect the required standard specified in the SSI and the CoGP? (Legal SSI, CoGP Annex 6)	Y
7. Are sea lice (*L. salmonis*) record levels below the suggested criteria for treatment in the CoGP during the period that records are inspected? (CoGP Annex 6)	N
8. Have average adult female sea lice (*L. salmonis*) numbers per fish been at a level of 3 or above (prior to w/b 10/6/19) or 2 or above (from w/b 10/6/19) during the period that records are inspected?	Y
If yes, have these been reported to the Fish Health Inspectorate? If no, FHI see comment.	Y
9. Is *C. elongatus* infestation at a level which is considered to cause significant welfare problems? (CoGP 4.3.81, 5.3.50)	N
10. Have therapeutic treatments been administered or other actions taken when *L. salmonis levels* have exceeded the suggested criteria for treatment or where *C. elongatus* is considered to have welfare implications? (CoGP 4.3.82, 5.3.51)	Y
11. Has any other action been taken (where applicable)?	N/A
12. Have therapeutic treatments or the actions taken had a significant impact upon the lice levels recorded?	Y
13. Are treatments, where conducted, carried out in cooperation between participating farms?	Y
14. Is there a harvesting strategy for the site, where fewer populations or part populations are held without treatment for sea lice?	y
15. Is there a site specific written lice management procedure with waypoints describing set actions to deal with recognised scenarios during the escalation of a sea lice infestation?	y
16. Do the sea lice levels observed on stocks reflect sea lice count data? If no please detail reasons.	Y

Containment Inspection

1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
seal pro nets, highly tensioned nets, seal blinds, top nets, site cleanliness, bird nets stitched to jump net	
If other, detail below:	
3. Have escape incidents or events been experienced on or in the vicinity of the site since the last FHI inspection?	N
If Yes proceed with questions 4 – 9. If No skip to question 10	
4. Have these been reported to Scottish Ministers?	
5. Have these been reported to local DSFB forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)	
6. Have these been reported to the SSPO and local fisheries trusts forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)	
7. Were methods (if any) used to recover escapees? If yes give detail	
8. If gill nets were deployed was this action agreed with local wild fish interests and was permission given by Scottish Ministers? (Legal, CoGP – 4.4.38, 5.4.18)	
9. What action was taken to prevent and minimise the risk of further escapes? (Not covered in code but could be considered under satisfactory measures of the Act)	
10. Is the site inspected as satisfactory with regards to containment? If no, please detail reason(s)	Y

Case No: 2023-0275 Site No: FS0752

Date of Visit: 20/06/2023 Inspector: [redacted]

Point of Compliance

1. Is the farm under inspection located within a farm management area?	Y

If N, no further questions require completion.

Points of Compliance for Both Farm Management Agreements and Statements

2. Has a current farm management agreement or statement (FMAg/S) been prepared?	Y
3. Is the current FMAg/S available for inspection?	Y
4. Does the FMAg/S identify the relevant farm management area?	Y
5. Does the FMAg/S identify the fish farm site(s) to which it applies?	Y
6. Does the FMAg/S identify the date of commencement of the agreement or statement?	Y
7. Does the FMAg/S identify the date of review?	Y

Arrangements for Fish Health Management

8. Does the FMAg/S identify the minimum health standards for the stocks to be introduced to the area or farm?	Y
9. Does the FMAg/S identify the vaccination requirements for stocks held in the area or farm?	Y
10. Does the FMAg/S identify the species of fish which may be stocked into the area or farm?	Y
11. Does the FMAg/S identify the maximum stocking density of any pen on any farm in the area or the individual farm?	Y
12. Does the FMAg/S identify the arrangements for the storage and disposal of any dead fish from any fish farm in the area or the individual farm?	Y

Arrangements for The Management of Sea Lice

13. Does the FMAg/S identify arrangements for the sharing of data on sea lice numbers and treatments?	Y
14. Does the FMAg/S identify the availability and the use of medicines on farms covered by the agreement of statement?	Y
15. Does the FMAg/S identify any requirements for the sensitivity testing of available treatments for sea lice on farms in the area or individual farms?	Y
16. Does the FMAg/S identify the circumstances under which biological controls and cleaner fish are to be used on farms in the area or individual farms?	Y
17. Does the FMAg/S identify the arrangements for synchronous treatments on farms within the area?	Y

Live Fish Movements

18. Does the FMAg/S identify the circumstances when live fish may be introduced or removed from the area or farm?	Y
19. Does the FMAg/S identify the arrangements for the movement of live fish on and off sites in the area or individual farms?	Y

Harvesting

20. Does the FMAg/S identify acceptable harvest practices on farms in the area or individual farms?	Y

Fallowing

21. Does the FMAg/S identify the dates by which the area or individual farm will be fallow and the earliest date when a farm or area may be restocked?	Y
22. Does the FMAg/S identify whether one or more year classes may be stocked onto sites covered by the agreement or statement?	Y
23. Does the FMAg/S identify whether broodstock or potential broodstock are to be kept on any site covered by the agreement or statement?	Y

Point of Compliance for Farm Management Agreements Only

24. Does the farm management agreement include arrangements for persons to become, or cease to be, parties to the agreement?	N/A

Management and operation

25. Is the fish farm being managed and operated in accordance with the agreement or statement?	Y
26. What is the version no/date of issue of the FMAg/S?	13/11/2022

Case No: 2023-0275 Date of visit: 20/06/2023

Site No: FS0752 Inspector:

Results Summary	Freq.	Date of Notification						
		Database	Insp	Phone	Insp	Writing	Insp	2nd Insp
IPNV QPCR	2/5	28/06/2023		28/06/2023		27/07/2023		
SAV QPCR	5/5	28/06/2023		28/06/2023		27/07/2023		
ISAV QPCR	0/5	28/06/2023		28/06/2023		27/07/2023		
PMCV QPCR	0/5	28/06/2023		28/06/2023		27/07/2023		
VHS QPCR	0/5	28/06/2023		28/06/2023		27/07/2023		
IHNQ QPCR	0/5	28/06/2023		28/06/2023		27/07/2023		
Vibrio species (culture) - VSPE	5/5	04/07/2023		04/07/2023		27/07/2023		
Aeromonas spp - AERO	3/4	04/07/2023		04/07/2023		27/07/2023		
Piscine reovirus (HSMI) (PCR) - PRVP	1/5	05/07/2023		05/07/2023		27/07/2023		
AMGD	4/5	18/07/2023		18/07/2023		27/07/2023		
CGDH	4/5	18/07/2023		18/07/2023		27/07/2023		
EPIT	3/5	18/07/2023		18/07/2023		27/07/2023		
GPAT	3/5	18/07/2023		18/07/2023		27/07/2023		
HPAT	5/5	18/07/2023		18/07/2023		27/07/2023		
MPAT	5/5	18/07/2023		18/07/2023		27/07/2023		
SKIN	3/5	18/07/2023		18/07/2023		27/07/2023		
SALH	3/5	18/07/2023		18/07/2023		27/07/2023		

Report Summary			
Case Type	Date	Insp	2nd Insp
ECI,CNI,SLI,VMD	04/07/2023		
DIA	27/07/2023		

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS NO	FB0169	**DATE OF VISIT**	20/06/2023
SITE NO	FS0752	**SITE NAME**	Taranaish
CASE NO	20230275	**INSPECTOR**	[redacted]

Section 1: Summary

During a routine site inspection, a number of moribund Atlantic salmon with clinical signs of disease were observed in one pen, five were removed for further examination and subsequent diagnostic sampling.

Histopathological examination revealed features consistent with chronic pancreas disease (PD), this was confirmed by QPCR . Pathology associated with very mild hyperplasic branchitis, ameboid gill diseases and epitheliocystis were also observed.

Aeromonas sp. was identified, the level of growth would suggest this bacterium may have been the primary source of the lesions in two fish. *Vibrio* spp. was also identified. The level and purity of growth overall would not suggest these bacteria would be implicated as the primary source of morbidity.

Samples also tested positive for infectious pancreatic necrosis virus (IPNV) and piscine reovirus (PRV) .

Please contact myself or the duty inspector should you require any further information, have any queries regarding this report or if any problems develop.

Section 2: Case Detail

Observations

During a routine site inspection a number of moribund Atlantic salmon with clinical signs of disease, including lesions and cataracts were observed in pen 5. Five were removed for further examination and subsequent diagnostic sampling.

At the time of the inspection the site was stocked with 94,784 2022 Q4 salmon at an average weight of 1.275kg and 389,307 2023 Q1 salmon at an average weight of 673g. Pen 5 had recently tested positive for PD.

All five fish sampled were moribund and lethargic with darkened bodies, F2-F5 appeared anorexic with haemorrhaging present on the ventrum of F1 - F3 and F5. Skin lesions were noted on F2 - F5 and F2 and F5 also had inflamed vents.

Internally, the pyloric caeca of all fish lacked fat with mauve tubules and splenomegaly evident, no food was present in the guts and the kidneys were granular.

Samples

Samples were collected from five fish according to the table below:

Fish number	Facility number	Species	Stage	Origin
1-5	5	Atlantic salmon	700g 2023 Q1	Geocrab

Results

Bacteriology: Kidney and gill material from F1 - F5 and lesion material from F2 - F5 was inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated:

- *Vibrio* sp. (kidney F1 – F5; lesion F2 - F5 and; gill F1, F2 and F5)
- *Aeromonas* sp. (kidney F3 and F4; and lesion F2, F3 and F5)

Virology: Tissue samples were tested for segments of nucleic acid indicative of the presence of the pathogens specified below using real-time PCR (qPCR).

Infectious pancreatic necrosis virus (IPNV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1		-	-	-	Negative
F2	-	-	-	-	Negative
F3	-	-	-	-	Negative
F4	13.83	37	36.1	35.98	POSITIVE
F5	15.09	36.26	37.04	37.25	POSITIVE

Salmonid alphavirus (SAV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	14.96	19.98	20.27	20.31	POSITIVE
F2	15.38	25.15	25.15	25.09	POSITIVE
F3	14.43	28.98	29.01	28.9	POSITIVE
F4	13.83	26.5	26.43	26.65	POSITIVE
F5	15.09	26.98	26.98	27.01	POSITIVE

Sequencing analysis identified SAV type II.

Piscine reovirus (PRV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	16.86	27.83	27.72	27.78	POSITIVE
F2	17.73	37.06	>40	>40	POSITIVE
F3	-	-	-	-	Negative
F4	-	-	-	-	Negative
F5	-	-	-	-	Negative

UKAS accredited testing laboratory No. 1964
Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB
Tel – 0131 244 3498 Fax – 0131 244 0944 Email – ms.fishhealth@gov.scot
Website - www.gov.scot/Topics/marine/science

The samples tested negative for infectious haematopoietic necrosis virus (IHNV), infectious salmon anaemia virus (ISAV), viral haemorrhagic septicemia virus (VHSV) and piscine myocarditis virus (PMCV).

Histology: Tissue samples of gill, skin and skeletal muscle, heart, pyloric caeca, pancreas, hind gut, liver, spleen and kidney were taken from F1 - F5. The tissue samples were fixed in 10% neutral buffered formalin.

Histopathological examination revealed the following:

Gill: Lamellar hyperplasia, mild, multifocal (F2, F5), some lamellar necrosis (F2, F3), F4 displayed lamellar adhesions, mild, multifocal. Several basophilic epithelial inclusions (likely epitheliocystis) (F2-F5) and presence of several amoeboid cells resembling *Neoparamoeba perurans* (F2). Some clubbing and cell debris with Gram-negative bacteria associated.

Skin & Muscle: Skeletal red muscle myositis, marked, diffuse and skeletal white muscle myositis (F1-F5). Bacterial dermatitis, mild to marked, Gram-negative bacteria (F2-F5).

Heart: Myocarditis, mild to moderate, multifocal (F2, F4). Some thrombi nests (F1), epicarditis (F1-F3, F5).

Gut and pyloric caeca: Reduction to absence of adipose tissue observed in all fish, peritonitis, mild, multifocal (F4). Some cell sloughing (potentially associated with post-mortem artefact) observed in all fish.

Pancreas: Absence to minimal presence of acinar tissue (F1-F5).

Liver: Mild, diffuse, hepatocellular vacuolation (macrovesicles) (F1-F5). Some apoptotic cells observed on F4.

Kidney: Interstitial cell (haemopoietic) necrosis, mild, multifocal (F2, F3), some increase of melanomacrophage aggregates (F4), few renal tubules displaying dilation (F5).

Spleen: Some cuffing (F1-F5), slightly congested (F5).

Signed: [redacted] Date: 27/7/2023

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Scottish Government website at Fish Health Inspectorate Service Charter - gov.scot (www.gov.scot)

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS NO	FB0169	**DATE OF VISIT**	20/06/2023
SITE NO	FS0752	**SITE NAME**	Taranaish
CASE NO	20230275	**INSPECTOR**	[redacted]

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

All epidemiological units were inspected. Samples were taken for diagnostic purposes. A separate report will be issued detailing the results of these tests.

Records

The surveillance frequency category of the site was assessed as medium. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted every second year. The category of the site will be reassessed on a routine basis and updated as required.

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated. The following records were also inspected to ensure that the conditions of authorisation for your Aquaculture Production Business (APB) are being met:

Aquaculture animal and aquaculture animal product movement records were inspected and appeared to be adequately maintained.

Mortality records were inspected and found to be adequately maintained.

Mortality levels had exceeded the reporting criteria since the last inspection and had been reported to the Fish Health Inspectorate as required.

Reports detailing the results of animal health surveillance carried out by or on behalf of the business and/or Marine Scotland were available for inspection.

The biosecurity measures plan for the site was inspected and found to be adequately maintained and implemented.

Inspection under the Animals and Animal Products (Examination for Residues and Maximum Residue Limits) (England and Scotland) Regulations 2015

Medicine records were inspected and found to be adequately maintained.

Samples were taken to be analysed for veterinary residues.

Inspection under the Aquaculture and Fisheries (Scotland) Act 2007

The site was also inspected in accordance with the Aquaculture and Fisheries (Scotland) Act 2007, as amended, with respect to section 3 regarding parasites (sea lice), section 4A regarding fish farm management agreements and statements and section 5 regarding containment and escapes.

On this occasion the site was found to be satisfactory with regards to parasites, fish farm management agreements and statements, containment and escapes.

Please contact myself or the duty inspector should you require any further information or have any queries regarding this report.

Signed: [redacted] Date: 4/7/2023

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at https://www.gov.scot/publications/fish-health-inspectorate-service-charter/

UKAS accredited testing laboratory No. 1964
Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB
Tel – 0131 244 3498 Email – ms.fishhealth@gov.scot
Website - https://www.gov.scot/policies/fish-health-inspectorate/

F1

F1

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F3

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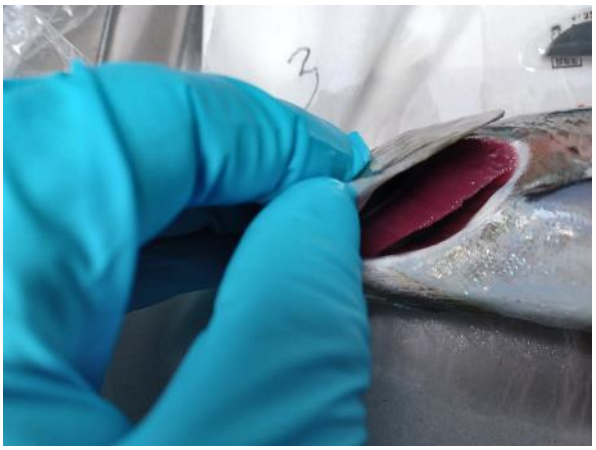

F3

F4

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F4

F5

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