

Case No:	<input type="text" value="2021-0333"/>	Date of visit:	<input type="text" value="14/09/2021"/>			
Time spent on site:	<input type="text" value="6 hours"/>	Main Inspector:	<input type="text" value=""/>			
Site No:	<input type="text" value="FS0056"/>	Site Name:	<input type="text" value="Ardmair"/>			
Business No:	<input type="text" value="FB0447"/>	Business Name:	<input type="text" value="Wester Ross Fisheries Ltd"/>			
Case Types:	1 <input type="text" value="ECI"/>	2 <input type="text" value="CNI"/>	3 <input type="text" value="SLI"/>	4 <input type="text" value="VMD"/>	5 <input type="text" value="DIA"/>	6 <input type="text" value=""/>
Water Temp (°C):	<input type="text" value="13.4"/>	Thermometer No:	<input type="text" value="T148"/>	FHI 045 completed	<input type="text" value=""/>	
Observations:	Region:	HI	Water type:	S	CoGP MA	M-11
Dead/weak/abnormally behaving fish present?	<input type="text" value="Y"/>	If yes, see additional information/clinical score sheet.				
Clinical signs of disease observed?	<input type="text" value="Y"/>	If yes, see additional information/clinical score sheet.				
Gross pathology observed?	<input type="text" value="Y"/>	If yes, see additional information/clinical score sheet.				
Diagnostic samples taken?	<input type="text" value="Y"/>					

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

Additional Case Information:

Inspection and remote paperwork by [REDACTED], overseen by [REDACTED]. [REDACTED] sampled F1 & F2, [REDACTED] Sampled F3 - F5 under [REDACTED] supervision.

Mortalities removed by dead sock and ensiled at Ardmair shorebase before disposal by biogas or incineration. Ardmair is currently divided into two pen groups, A and B. At the time of inspection the site was experiencing approximately 600 mortalities per day. Pharmaq Analytiq diagnosed complex gill disease in week 35 with AGD present. Upon inspection fish behaviour was lethargic with numbers of moribund fish observed near the surface and around the corners of pens. Recent mortality has occurred at both pen groups, with group B more affected. Mortality per pen on group B on the day of inspection was approximately 70 per pen with population N23 (currently in pen 5) the worst effected. The smaller grade fish were significantly more affected than the large grade. The fish on pen group A were displaying similar clinical signs of disease, although was not as wide spread. H2O2 treatments 23 & 24, 30 & 31 August and 01 September. Samples taken for diagnostics were pooled, two fish from population S6 (currently in pen 6 on pen group A) and 3 fish from population N23 (currently pen 5 on pen group B). Wrasse are stocked on site and are working well, with no signs of elevated numbers of sea lice. On inspection of the site's FMS the date of review was not present, FHI have advised that this is to be updated.

Case No: 2021-0333

Site No: FS0056

Date of Visit: 14/09/2021

Inspector(s):

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	30	Facilities stocked	25	No facilities inspected	30
Species	SAL	Wrasse			
	2020 S0	Wild caught			
Age group					
No Fish	216,312	3,480			
Mean Fish Wt	1.6kg	120g			
Next Fallow Date (Site)	07/2022		Next Input Date (Site)	08/2022	
Recent (last 4 wks) disease problems?			Y	Any escapes (since last visit)?	N
If yes, detail:	Complex gill pathology with AGD present, the site sustained some elevated mortality following peroxide				

Movement Records

- 1. Movement records available for inspection? Y
- 2. Date of last inspection: 11/09/2019
- 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? Ensiled - on site
- If other detail:
- 3. Mortality records complete and correctly entered? Y
- 4. Recent mortality (last 4 wks): Wk 33 - 0.03%, Wk 34 - 0.58%, Wk 35 - 2.58%, Wk 36 - 1.05%
- 5. Evidence of recent increased/atypical mortalities? Y
- If yes, facility nos/no mortality per facility/no stock per facility/reason:
- Pen group B affected, cages 23,24,25 had highest mortality.
- 6. Any other peaks in mortality during period checked? N
- If yes, detail:
- 7. Have increased (unexplained) mortalities been reported to vet or FHI? Y
- If yes, detail action: Gill pathology with some liver pathology due to possible bloom/micro jellies
- 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:

H2O2,				
T.M.S.				

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)? T.M.S.

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). Complex gill disease identified, AGD present.

Significant, mixed becoming complex, acute and chronic gill pathology.

Records checked between: October 2019 - 10.09.21

Case no: Site No: Date of visit/
Sampling:

Priority samples: VI BA PA MG HI

Time sampling starts/ends: Inspector: VMD No.

Environmental conditions: 1 2 3 4 5

Summary samples HIST BA MG VI PA Total Samples

Add Fish/Pools - click

Pool/Fish No	F1	F2	F3	F4	F5	P1	P2						
Fish nos	1	2	3	4	5	1-2	3-5						
Pool Group	P1	P1	P2	P2	P2								
Species	SAL	SAL	SAL	SAL	SAL	SAL	SAL						
Average weight	1.6kg	1.6kg	1.6kg	1.6kg	1.6kg	1.6kg	1.6kg						
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 Details													
		Corry Farm	Corry Farm	Corry Farm	Corry Farm	Corry Farm	Corry Farm	Corry Farm					
Stock Origin													
Facility No	6	6	5	5	5	6	5						

09/2021 Additional Sample Information:
 sampled F1 & F2, Sampled F3 - F5 under supervision. Pool 1 for F1 & F2, Pool 2 for F3 - F5. Fish from Corry Farm, F1 & F2 from pen 6 Group A, F3 - F5 from pen 5 group B. SW SAL diagnostic and Gill samples taken individually for DNA PCR. RIM numbers : 2102024, 2102615, 2102730, 2102273, 2102164.
 VMD samples taken from diagnostic fish.

7 Total Tests assigned 3

Case no: 2021-0333

Site No: FS0056

Method of killing: Percussive

Date of visit: 14/09/2021

Inspector(s):

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)		60 min	60 min	60 min	70 min	75 min						
External Signs												
Behaviour	Moribund	M	M	S	S	S						
	Lethargic	M	M	S	S	S						
	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	W										
	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)	3	4	4	4	4						
	Granulomas											
	Lesions											
Pyloric caeca	Petechial haem											
	Tubules mauve	W										
	Lack of fat											
Spleen	Enlarged											
	Granulomas											
Gut	No food present											
	Yellow pseudo-faeces			S	S	S	S					
	External haem											
	Internal haem	W	W									
Body wall	Haemorrhaging											
Swim bladder	Haemorrhaging											
	Fluid filled											
Kidney	Swollen											
	Grey											
	Granular											
	Liquefied											
General	Parasites present											
	Anaemia											

Case no: 2021-0333

Date of visit: 14/09/2021

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General	Parasites present																			
	Anaemia																			

Additional comments:

F3 & F5 - spleen was lighter in colour

Case Number:	2021-0333	Site No:	FS0056	Insp:		
Date of Visit	14/09/2021	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	3
	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		1
	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				
	Processing own fish (re-cycling risk)	1				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				
	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		0
	Sites sharing staff and equipment	0	1	2		0
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 Rank					8	LOW

Case No: **2021-0333**

Site No: **FS0056**

Sea Lice Inspection (Seawater Sites Only)

- 1. Has the site experienced sea lice problems in the previous 4 years?
- 2. Is the CoGP Farm Management Area (or equivalent) fallowed synchronously on a single year class basis?
- 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?
- 4. Is there a signed documented farm management agreement or statement relevant to the site and CoGP Farm Management Area (or equivalent)?
- 5. Are sea lice count records available for inspection? (Legal SSI, CoGP Annex 6)
- 6. Do records adequately reflect the required standard specified in the SSI and the CoGP? (Legal SSI, CoGP Annex 6)
- 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)
- 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?
- If yes, have these been reported to the Fish Health Inspectorate? If no, FHI see comment.
- 9. Is *C. elongatus* infestation at a level which is considered to cause significant welfare problems? (CoGP 4.3.81, 5.3.50)
- 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)
- 11. Has any other action been taken (where applicable)?
- 12. Have therapeutic treatments or the actions taken had a significant impact upon the lice levels recorded?
- 13. Are treatments, where conducted, carried out in cooperation between participating farms?
- 14. Is there a harvesting strategy for the site, where fewer populations or part populations are held without treatment for sea lice?
- 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?
- 16. Do the sea lice levels observed on stocks reflect sea lice count data? If no please detail reasons.

Containment Inspection

- 1. Has the site experienced equipment damage due to predators in the current or previous production cycles?
- 2. Are measures in place to mitigate against the predation experienced on site? (Detail below)
- secondary predator box nets
- If other, detail below:
- Predator exclusion nets
- 3. Have escape incidents or events been experienced on or in the vicinity of the site since the last FHI inspection?
- 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)

Case No: 2021-0333

Site No: FS0056

Date of Visit: 14/09/2021

Inspector: [REDACTED]

Point of Compliance

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

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?

3. Is the current FMAg/S available for inspection?

4. Does the FMAg/S identify the relevant farm management area?

5. Does the FMAg/S identify the fish farm site(s) to which it applies?

6. Does the FMAg/S identify the date of commencement of the agreement or statement?

7. Does the FMAg/S identify the date of review?

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?

9. Does the FMAg/S identify the vaccination requirements for stocks held in the area or farm?

10. Does the FMAg/S identify the species of fish which may be stocked into the area or farm?

11. Does the FMAg/S identify the maximum stocking density of any pen on any farm in the area or the individual farm?

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?

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?

14. Does the FMAg/S identify the availability and the use of medicines on farms covered by the agreement of statement?

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?

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?

17. Does the FMAg/S identify the arrangements for synchronous treatments on farms within the area?

Live Fish Movements

18. Does the FMAg/S identify the circumstances when live fish may be introduced or removed from the area or farm?

19. Does the FMAg/S identify the arrangements for the movement of live fish on and off sites in the area or individual farms?

Harvesting

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

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?

22. Does the FMAg/S identify whether one or more year classes may be stocked onto sites covered by the agreement or statement?

23. Does the FMAg/S identify whether broodstock or potential broodstock are to be kept on any site covered by the agreement or statement?

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?

Management and operation

25. Is the fish farm being managed and operated in accordance with the agreement or statement?

26. What is the version no/date of issue of the FMAg/S?

Site staff advised to update the FMS with a date for review.

Site No: FS0056
Case No: 2021-0333
Nature of non-compliance:
Action taken (FHI):
Non-compliance relevant to (delete): VirologyMolGen/Bacteriology/Histology/Parasitology



Case No: 2021-0333 Date of visit: 14/09/2021
 Site No: FS0056 Inspector: [REDACTED]

Results Summary	Freq.	Date of Notification						
		Database	Insp	Phone	Insp	Writing	Insp	2 nd Insp
AGD PCR	4/5	24/09/2021		22/09/2021		24/11/2021		
P.theridium, Salmon Pox PCR	5/5	24/09/2021		22/09/2021		24/11/2021		
IHN, ISA, IPN, VHS, SAV PCR	0/2	24/09/2021		22/09/2021		24/11/2021		
Unidentified Bacteria likely environmental	3/5	14/10/2021		12/10/2021		24/11/2021		
Histo - CGDH, EPIT, GPAT	5/5	14/10/2021		12/10/2021		24/11/2021		
Histo - AMGD, PMCH	3/5	14/10/2021		12/10/2021		24/11/2021		
QPCR - Candidatus Piscichlamydia salmonis	0/5	14/10/2021		12/10/2021		24/11/2021		
QPCR - Candidatus Syngnamydia salmonis	4/5	14/10/2021		12/10/2021		24/11/2021		
QPCR - Candidatus Branchiomonas cysticola	5/5	14/10/2021		12/10/2021		24/11/2021		
Histo - HPAT	1/5	14/10/2021		12/10/2021		24/11/2021		

Report Summary			
Case Type	Date	Insp	2 nd Insp
ECI, CNI, SLI, VMD	08/11/2021		
DIA	24/11/2021		

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	FB0447	DATE OF VISIT	14/09/2021
SITE No	FS0056	SITE NAME	Ardmair
CASE No	20210333	INSPECTOR	[REDACTED]

Section 1: Summary

The site was visited as part of the Scottish Government's routine risk based health surveillance. During the physical inspection, five fish were removed for diagnostic sampling.

Histopathology examination revealed mild multifactorial proliferative gill pathology, which included the presence of several amoebic cells suggestive of amoebic gill disease, confirmed by QPCR and epitheliocystis. Some fish also displayed evidence of some gill vascular disturbance. Mild multifocal hepatic necrosis, minor peritonitis and minor cardiac inflammation.

Due to the histopathological examination being suggestive of epitheliocystis, samples were screened for *Candidatus Branchiomonas cysticola*, *Candidatus Syngnamydia salmonis* and *Candidatus Piscichlamydia salmonis* by QPCR and tested positive for *Candidatus Branchiomonas cysticola* and *Candidatus Syngnamydia salmonis*.

Due to gill health issues observed on site, samples were screened for salmon gill poxvirus (SPGV) and *Paranucleospora theridion* (syn. *Desmozoon lepeophtherii*) by QPCR and tested positive for both pathogens.

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

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009. During the inspection, it was observed that a recent increase in mortality due to complex gill disease had been reported to the competent authority following veterinary involvement.

Clinical signs of disease included morbidity and lethargy present in all 5 fish sampled. Fish 1 had zonation in the gills. Internally, the tubules of the pyloric caeca and the hindgut of Fish 1 were inflamed. Fish 2 had an inflamed hindgut. Fish 3 – 5 had pseudo-faeces present in the gut.

Samples

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

Fish number	Pool number	Facility number	Species	Stage	Origin
F1 & F2	P1	6	Atlantic salmon	2020 S0 Grower 1.6 Kg	Corry Farm
F3 – F5	P2	5	Atlantic salmon	2020 S0 Grower 1.6 Kg	Corry Farm

Results

Bacteriology: Kidney and gill material from Fish 1 – 5 were inoculated onto appropriate media for the isolation of bacteria.

The predominant bacterium observed on plates taken from kidney material of fish 1-3 was not fully identified, however, it did not match the characteristics of a known fish pathogen and is likely to be of environmental origin.

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

Candidatus Branchiomonas cysticola

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	21.19	22.28	22.26	22.24	POSITIVE
F2	20.57	24.13	23.97	24.14	POSITIVE
F3	22.19	21.06	21.08	21.06	POSITIVE
F4	21.38	19.69	19.91	19.89	POSITIVE
F5	20.59	20.55	20.45	20.47	POSITIVE

Candidatus Synonymydia salmonis

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	-	-	-	-	NEGATIVE
F2	20.57	34.99	35.07	35.19	POSITIVE
F3	22.19	29.68	29.69	29.72	POSITIVE
F4	21.38	26.59	26.51	26.48	POSITIVE
F5	20.59	28.18	27.98	27.94	POSITIVE

The samples tested negative for *Candidatus* Piscichlamydia salmonis.

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

Salmon gill poxvirus (SGPV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	20.98	36.49	36.61	36.70	POSITIVE
F2	20.88	28.93	28.71	28.72	POSITIVE
F3	22.37	30.63	30.53	30.55	POSITIVE
F4	21.82	25.31	25.32	25.37	POSITIVE
F5	20.94	31.83	31.71	31.84	POSITIVE

The samples tested negative for infectious haematopoietic necrosis virus (IHNV), infectious pancreatic necrosis virus (IPNV), infectious salmon anaemia virus (ISAV), salmonid alphavirus (SAV) and viral haemorrhagic septicemia virus (VHSV).

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

Neoparamoeba perurans (AGD)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	-	-	-	-	NEGATIVE
F2	20.88	33.56	33.12	33.62	POSITIVE
F3	22.37	29.94	30.05	29.84	POSITIVE
F4	21.82	26.98	27.22	27.08	POSITIVE
F5	20.94	28.59	28.57	28.63	POSITIVE

Paranucleospora theridion

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	20.98	37.10	37.18	37.64	POSITIVE
F2	20.88	31.17	31.00	31.03	POSITIVE
F3	22.37	27.46	27.56	27.64	POSITIVE
F4	21.82	29.65	29.65	29.70	POSITIVE
F5	20.94	29.08	29.06	29.15	POSITIVE

Histology: Tissue samples of gill, skin and skeletal muscle, heart, pyloric caeca, pancreas, hind gut, liver, spleen and kidney were taken from Fish 1 – 5 and brain from Fish 2. The tissue samples were fixed in 10% neutral buffered formalin.

Histopathological examination revealed the following:

Gill: Mild multifocal interlamellar hyperplasia and lamellar fusion (F1-F5). Occasional spaces (lacunae), some filled with cell debris and amoebic cells, lamellar fusion, (F2-F5), displacement of chloride cells and some prominent goblet cells. Some lamellar thickness and vascular disturbance (F3-F5), F2 also displayed a pustule-like structure within the hyperplastic plaque. A few amoebic

cells resembling *Neoparamoeba perurans* (F3-F5) and high numbers of basophilic epithelial inclusions (likely epitheliocystis) (F1-F5). Some free blood among the gill filament and lamellar congestion noted (likely associated with percussive stunning method) and several aneurysmal dilations were observed. Fish 3 to 5 displayed autolysis artefacts which hindered the reading.

Skin & Muscle: Small focal area with inflammation and fibrosis of endomysium of skeletal red muscle fibres (F2, F5).

Heart: Mild multifocal inflammatory cell infiltration noted in the two chambers (F2). Some pericarditis (F2). No atrium in Section: F3, F4 & F5.

Gut and pyloric caeca: Small focal area of haemorrhage noted in adipose tissue (F4). Minor focal area of inflammatory cell infiltration of abdominal adipose tissue (potentially associated with vaccine administration). Some cell sloughing (F5) (potentially associated with post-mortem artefacts).

Pancreas: Within normal range.

Liver: Minor to mild multifocal hepatic necrosis (F3-F4), F4 also displayed some haemorrhage. Small focal area of inflammatory cell infiltration. Mild diffuse hepatocyte vacuolation (F1) and some sinusoidal hepatic congestion noted in F3.

Kidney: A small distinct area with granulomatous inflammation (F4).

Spleen: Small focal areas of absence of haematopoietic tissue (F1 & F2).

Brain: Within normal range (only F2).

Eye: Not sampled.

Signed:



Fish Health Inspector

Date: 24/11/2021

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/>

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	FB0447	DATE OF VISIT	14/09/2021
SITE No	FS0056	SITE NAME	Ardmair
CASE No	20210333	INSPECTOR	██████████

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 low. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted every third 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.

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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, containment and escapes.

The farm management agreement/statement was inspected and found to be inadequately maintained. Please see the attached annex detailing the points that must be addressed.

Please ensure that these points have been addressed by 08 December 2021. Records or documentation demonstrating that these points have been addressed should be sent to the Fish Health Inspectorate (contact details below). The site may be subject to further inspection or enforcement action should the appropriate action regarding the above points not be taken within the time period stipulated.

Please contact myself or the duty inspector should you require any assistance or clarification in implementing any requirement or recommendation detailed in this report.

Signed:



Date: 08/11/2021

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/>

Annex - The Aquaculture and Fisheries (Scotland) Act 2007

Section 4A of the Aquaculture and Fisheries (Scotland) Act 2007, as amended, introduces the requirement for a person carrying out the business of fish farming within a farm management area⁽¹⁾ to;

- (a) be party to a farm management agreement, or prepare and maintain a farm management statement, in relation to the fish farm, and
- (b) ensure that the fish farm is managed and operated in accordance with the agreement or statement.

To ensure compliance with the Aquaculture and Fisheries (Scotland) Act 2007, as amended, the following points must be addressed in the farm management agreement/statement:

- **The statement or agreement must identify the date of review (farm management agreements or statements must be reviewed at least every two years).**

⁽¹⁾ Farm management area means an area specified as such in the Code of Good Practice for Scottish Finfish Aquaculture