FHI 059, Version 13		Issued by: FHI	Date of issue: 12/05/2020			
Case No: 2022-0091			Date of visit: 01/04/2022			
Time spent on site:	1.5 hrs	Main Inspe	ector:			
Site No: SS0354 Business No: SB0525	Site Name: Business Name:	Kyle of Tongue Oysters Kyle of Tongue Oysters Ltd	1			
Case Types: 1 MOV	2 3	4 5	6			
Water Temp (°C):	Thermometer No:		FHI 045 completed			
Observations:	Region: HI	Water type: S	CoGP MA:			
Dead/weak/abnormally behaving Clinical signs of disease observed Gross pathology observed? Diagnostic samples taken?	-	N If yes, see additional information/clinical score sheet. N If yes, see additional information/clinical score sheet. N If yes, see additional information/clinical score sheet. N				
UNI/REG only - if unable to carr	y out intended visit deta	ail reason below:				

#### **Additional Case Information:**

Accompanied Official Veterinarian (OV) to export of two consignments from site to France, advice was issued regarding what to inspect in the stock. OV inspected stock at lay-by off site where trailers were being loaded with Oysters.

Consignment number - MS/2022/0018 (343,750 oysters) & MS/2022/0019 (343,756 oysters)

Very few empty shells observed and no gaping shells, some bags had already been loaded to pallets and wrapped in plastic for transport. OV was content that there were no issues with the stock.

No records checked by FHI as these were checked by OV prior to export, site had provided the OV with mortalities and all requested information.

Case No:	2022 0004			Data at d	-:t- 01/04/20	222		
Case No.	2022-0091	J		Date of vi	sit: 01/04/20	022		
Site No:	SS0354	]		Inspect	or:			
Results Summary	Freq.				Date of Noti	fication		
		Database	e Insp	Phone	Insp	Writing	Insp	2 <sup>nd</sup>
	_							
	+							
	1							
		-						
Report Summary								
Case Type	Date	Insp	2 <sup>nd</sup> Insp					
MOV	31/08/2022	2						
	_							
	+							
-								
	Ī							





## FISH HEALTH INSPECTORATE VISIT REPORT

#### SUMMARY FOR INFORMATION OF SITE OPERATOR

Business No SB0525 Date of Visit 01/04/2022

SITE NO SS0354 SITE NAME Kyle of Tongue Oysters

CASE NO 20220091 INSPECTOR

## Inspection for export

The above site was visited and two consignments of *Ostrea edulis* growers for export to France were inspected. A health certificate was issued which must travel with the consignment to the destination.

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

Signed: Date: 31/08/22

Fish Health Inspector

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

FHI 059, Version 13		Issued by: FHI	Date of issue: 12/05/2020				
Case No: 2022-0110			Date of visit: 27/04/2022				
Time spent on site:	Hours	Main Inspe	ector:				
Site No: FS1057 Business No: FB0095	Site Name: Business Name:	Vee Taing Cooke Aquaculture Scotlar	nd Ltd				
Case Types: 1 ECI 2	2 CNI 3 SLI	4 VMD 5 DIA	6				
Water Temp (°C): 8.3	Thermometer No:	T309	FHI 045 completed				
Observations:	Region: SH	Water type: S	CoGP MA S-2				
Dead/weak/abnormally behaving Clinical signs of disease observed Gross pathology observed? Diagnostic samples taken?	•	Y If yes, see additional in	nformation/clinical score sheet. nformation/clinical score sheet. nformation/clinical score sheet.				
UNI/REG only - if unable to carry out intended visit detail reason below:							

#### **Additional Case Information:**

Remote inspection conducted by supervised by (20/04/2022)

Site inspection, VMD sampling and diagnostic sampling conducted by , supervised by (27/04/2022).

During site inspection fish were deeper in the water, displayed good shoaling behaviour and responding well to feed. Dead baskets are available on site, mortalities are removed using an ROV with basket. This was reported to be very effective and worked well across sites. The work boat with ROV was operating on neighbouring site at time of inspection.

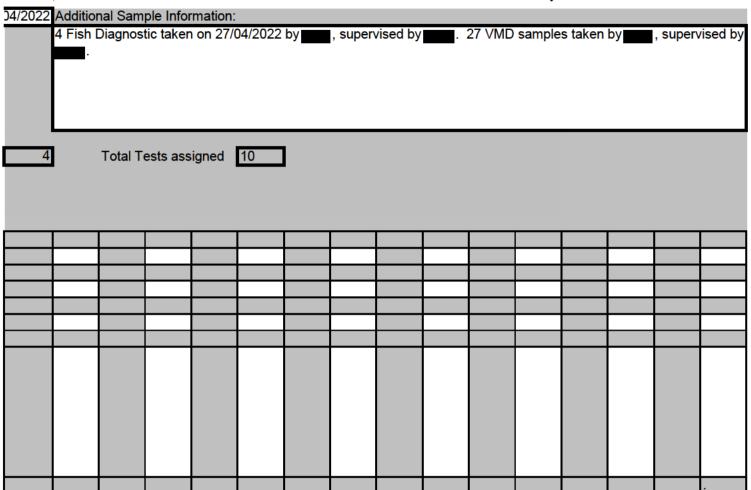
The general population of these cages appeared healthy. Approximately 30 moribund or lethargic fish were observed in cage 4 and approximately 20 moribund or lethargic fish were observed in cage 6 at time of inspection. These fish displayed varying degrees of eye damage and lesions to the flanks. One fish observed hanging vertically, however, unable to catch as closer to centre of cage. The site underwent a physical treatment for sea lice on 01/04/2022.

A routine health inspection was conducted on 05/04/22 by CAS health team, no significant results identified.

FHI 059, Version 13		_	Issu	ed by: FHI	_		Date of issue	e: 12/05/2020
Case No:	2022-0110		Site No:	FS1057				
Date of Visit:		27/04/2022			Inspector(s):			
Registration/Author								
1. Business/site deta	ails summary	checked by s	ite representa	ative?			Υ	
2. Changes made to	details?						N	
Site Details (includ	le cleaner fis	h for all sect	ions)			_		
Total No facilities		12	Facilities sto	cked	12	No facilitie	s inspected	12
Species	SAL							
Age group	2020 S0							
No Fish	318,188							
Mean Fish Wt	4.17 Kg							
Next Fallow Date (S		June 2022		Next Input Da	ite (Site)	August 20	22	
Recent (last 4 wks)	•	ems?			Any escapes			N
If yes, detail:							,	
Movement Records								
		r inconstion?						
1. Movement record		i inspection?					06/08/2019	'
2. Date of last inspe			,				06/06/2019	V
3. Are records comp		•						T
4. Are movement re				•				Y
5. Are records comp								Y
6. Are health certific	ates for introd	luctions (outv	vith GB) availa	able?				N/A
Transport Records	;							
1. Are any movemen	nts carried ou	t by (or on be	half) of the bu	usiness (not us	ing a STB)?			Y
If yes, is there a sys	tem in place f	or maintenan	ce of transpo	rtation records	?			Y
Mortality Records								
1. Mortality records	available for i	nspection?						Y
2. How are mortalitie		•			Whole fish -	TWMA (She	etland)	
If other detail:						,	,	
3. Mortality records	complete and	correctly ent	ered?					Y
				(0.21%), Wk1	4 - 1983 (0.62	%) Wk13 -	1524 (0 47%	) Wk 12 -
4. Recent mortality (	last 4 wks):		334 (0.1%)	(0.2.70),		.,,,		,, <u>_</u>
5. Evidence of recent increased/atypical mortalities?								
If yes, facility nos/no mortality per facility/no stock per facility/reason:								
in you, recently morning per recently no stock per recently/readon.								
6. Any other peaks in mortality during period checked?								
If yes, detail:								
7. Have increased (unexplained) mortalities been reported to vet or FHI?  N/A  If yes, detail action:								
•	ente' been re	ported to EUI	2 If no enter	details on mort	ality events of	neet		N/A
8. Have 'mortality ev	ents been te	ported to FIII	: If no, enter	details on more	lanty events Si	icci.		IN/A

Treatments and Medicines Records	V					
1. Recent treatments (see comment)?	1					
If yes, detail: 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)?						
If other, detail:						
6. Are medicines stored appropriately?	Y					
Biosecurity Records						
Biosecurity records available for inspection?	Y					
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?	Y					
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?						
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 <i>how</i> and <i>when</i> 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	Y					
health status, certification if required)?						
Tioditi otatao, ootai ou in roquitou).						
6. Have the husbandry and biosecurity measures implemented between each epidemiological unit to minimise	Y					
transmission of disease been covered (movement of staff, visitors, equipment, live or dead fish etc.)?						
7. Is documentation available regarding the measures in place to maintain the physical containment of	Y					
aquaculture animals held on site?						
8. Have the biosecurity procedures been adequately implemented on site?  I add the biosecurity procedures been adequately implemented on site?	Y					
If no, detail:	•					
ii iio, detaii.						
Results of Surveillance						
Has any animal health surveillance been carried out by, or on behalf of, the business?	V					
2. If yes, are results available for inspection?	N					
3. Any significant results?	IN					
If yes, detail (if not detailed under recent disease problems).						
Records checked between: 06/08/2019 - 27/04/2022						
Records checked between.						

	0	0000 0	110	O:4- N		E04053	,	130	lo		07/04/0000	07/
	Case no:	2022-0	110	Site No:		FS1057			Date of vi		27/04/2022	27/
	Priority samples:	VI		ВА		РА		MG	Sampling	н	_	
	Time sampling starts/ends:		00:00		0:00	l .	Inspect	or:		VM	ID No.	27
	Environmental conditions:	1	Indoors	2		3		4	_	5		
	Summary samples	HIST	Y	ВА	Y	MG	Y	VI	Y	РА	Total S	amples
A	dd Fish/Pools - click											
	Pool/Fish No	F1	F2		F4	_						
	Fish nos	1	2	3	4	5	6	7				
	Pool Group											
	Species	SAL										
	Average weight	4.1700		4.1700								
	Sex	N/A										
	Water Type	SW										
ck Details	Stock Origin	Balta Isle										
oto	Facility No	4	4		4		5	8				
U,		•	•	•	•	_	Ü	•				



FHI 059, Version 13 Issued by: FHI Date of issue: 12/05/2020

Case no:	2022-0110	Site No:		FS1057 Method of killing: Percussive			sive				
Date of visit:	27/04/2022	l	Inspec	tor(s):				s	heet Re	elevant:	Y
	ce: M for medium presence: W for v	veak pres									
Fish Number		1	2	3	4						
Time sampled afte External Signs	er death (if > 45 minutes)										
Behaviour September 1	Moribund	w	W	W	W						
	Lethargic										
	Hanging vertical										
	Spiralling										
	Flashing										
	Loss of equilibrium										
Body	Dark										
	Distended abdomen										
	Anorexic										
	Scale Oedema										
Opercula	Shortened										
Ugamorrha siss	Flared										
Haemorrhaging	Throat Ventrum										
	Base of fins										
	Elsewhere										
Eyes	Exophthalmic										
	Enophthalmic (sunken)										
	Cataract										
	Haemorrhagic										
Gills	Pale										
	Zoned										
	Necrotic										
Lesions	Flank	M	W	W	W						
	Elsewhere										
Vent	Inflamed										
	Trailing faeces										
Lice Load	Estimate numbers										
Internal Signs											
Ascites	Clear										
Hoches	Bloody										
Oedema	In tissues										
Heart	Pale/anaemic										
	Granulomas										
	Deformed										
Liver	Petechial haem										
	Gross haem										
	Tissue breakdown										
	Enlarged		<b>—</b>	,							
	Colour number(s)	4	4	4	4						
	Granulomas Lesions										
Pyloric caeca	Petechial haem										
,,,,,,,,,	Tubules mauve										
	Lack of fat										
Spleen	Enlarged				M						
	Granulomas										
Gut	No food present										
	Yellow pseudo-faeces										
	External haem										
	Internal haem										
Body wall	Haemorrhaging										
Swim bladder	Haemorrhaging										
Kida ar	Fluid filled										
Kidney	Swollen										
	Grey Granular										
	Liquefied										
General	Parasites present										
Control	Anaemia										

Case no: 2022-0110

Date of visit: 27/04/2022

S for strong presen Fish Number	ce: M for medium presence: W for	N I					
	er death (if > 45 minutes)						
External Signs	er death (ii > 45 illillidtes)						
Behaviour	Moribund						
Deliavioui	Lethargic						
	Hanging vertical						
	Spiralling						
	Flashing						
	Loss of equilibrium						
Dody	Dark						
Body	Distended abdomen						
	Anorexic						
Operaula	Scale Oedema						
Opercula	Shortened						
	Flared						
Haemorrhaging	Throat Ventrum						
	Base of fins						
F	Elsewhere						
Eyes	Exophthalmic						
	Enophthalmic (sunken)						
	Cataract						
0.11	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						
	p a saviillu						

FHI 059, Version 13		Issued by: FHI			Date of	of issue	: 12/05/2020
Case Number:	2022-0110		Site No:	FS1057		Insp:	
Date of Visit	27/04/2022		No of m	ovements/s	supp./dest.		Score
Live fish movements			0	1-5	6-10	>10	
Movements on (from out	Frequency of m	novements on from equivalent MS	0	5	10	14	0
with GB) of susceptible species		novements on from equivalent zone or acluding third country	0	9	18	26	0
•	Number of sup		0			14	0
Movements off	Frequency of m	novements off	I 0	3	6	10	0
Movements on	Number of dest		0		6	10	0
Exposure via water		Site contacts	0	1-5	6-10		
Water contacts with other farms (holding species	disinfection or l	,	0				0
susceptible to same diseases)	farms upstream	or in a coastal zone with category I or within 1 tidal excursion	1	2	4		2
	farms upstream	or in a coastal zone with category III or within 1 tidal excursion	1	3	6		
		or in a coastal zone with category V n 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		1
On farm processing within the rules of the directive	No on farm pro	•	0				0
	Processing own	n fish (re-cycling risk)	1				1
	Processing fish	from MS of equivalent status	2				
	Processing fish equivalent statu	from zone or compartment of	4				
		from Category III farm	8	1			
	Processing fish	from Category ∨ farm	10				
Disposal of fish and fish by-	Site's own wast	e only processed.	0	1			0
products	Common proce	sses with other farms	3	1			3
	Collection point	for waste from other farms	5				
Use of unpasteurised feeds	No feeding of u	npasteurised feed	0	ĺ			0
	Feeding unpas	teurised feed	5				
Biosecurity		Number of sites	1	2 or 3	≥4		
Contacts with other sites	Sites operating	from single shorebase	0	1	2		2
	Sites sharing st	aff and equipment	0	1	2		1
Disinfection of equipment between sites, use of	Yes		0				0
footbaths etc	No		1				
CoGP/Regulator							
Practices in accordance with regulator or industry	Yes		0				0
code of practice	No		3				
Platform access to cages	Yes		0	1			0
	No		2				
					Total Rank		10 LOW

FHI 059, Version 13	Issued by: FHI	Date of issue: 12/05/2020
Case No: 2022-0110	Site No:	S1057
Sea Lice Inspection (Seawater Sites Only)  1. Has the site experienced sea lice problems in the common of the comm	alent) fallowed synchronously on a single year ad in-feed and bath sea lice medications (includ as access to suitable biological and/or mechan	ling deltamethrin,
4. Is there a signed documented farm management Management Area (or equivalent)?		and CoGP Farm
5. Are sea lice count records available for inspecti 6. Do records adequately reflect the required stand		al SSI, CoGP Annex 6)
7. Are sea lice ( <i>L. salmonis</i> ) record levels below the records are inspected? (CoGP Annex 6)	he suggested criteria for treatment in the CoGF	o during the period that
3. Have average adult female sea lice ( <i>L. salmonis</i> 2 or above (from w/b 10/6/19) during the period the		ve (prior to w/b 10/6/19) or Y
f yes, have these been reported to the Fish Health 9. Is <i>C. elongatus</i> infestation at a level which is co	•	Y S? (CoGP 4.3.81, 5.3.50)
10. Have therapeutic treatments been administere suggested criteria for treatment or where <i>C. elong</i>	natus is considered to have welfare implications	
11. Has any other action been taken (where applicated). Have therapeutic treatments or the actions taken 13. Are treatments, where conducted, carried out in 14. Is there a harvesting strategy for the site, where a lice?	en had a significant impact upon the lice levels in cooperation between participating farms?	Y
15. Is there a site specific written lice managemen scenarios during the escalation of a sea lice infest		ons to deal with recognised Y
16. Do the sea lice levels observed on stocks refle	ect sea lice count data? If no please detail reas	ons. Y
Containment Inspection  1. Has the site experienced equipment damage du  2. Are measures in place to mitigate against the poseal Pro Nets,  If other, detail below:	· · · · · · · · · · · · · · · · · · ·	nction cycles?
3. Have escape incidents or events been experient few proceed with questions 4 – 9. If No skip to questions 4 – 9. If No skip to questions 4. Have these been reported to Scottish Ministers 5. Have these been reported to local DSFB forthword for the second local DSFB for the sec	question 10 ? rith (where they exist)? (CoGP – 4.4.37, 5.4.17	)
7. Were methods (if any) used to recover escapee	es? If yes give detail	
3. If gill nets were deployed was this action agreed Ministers? (Legal, CoGP – 4.4.38, 5.4.18)  3. What action was taken to prevent and minimise be considered under satisfactory measures of the site inspected as satisfactory with regard	the risk of further escapes? (Not covered in co	ode but could
10. Is the site inspected as satisfactory with regard	us to containment? If no, please detail reason(s	Υ

FHI 059, Version 13	Issued by: FHI	Date of issue: 12/05/2020
Case No: 2022-0110	Site No: FS1057	
Date of Visit: 27/04/2022	Inspector:	
Point of Compliance	within a farma managament area?	· ·
1. Is the farm under inspection located of N, no further questions require complete.	•	Y
<ul><li>2. Has a current farm management agree</li><li>3. Is the current FMAg/S available for in</li><li>4. Does the FMAg/S identify the relevant</li><li>5. Does the FMAg/S identify the fish farm</li></ul>	nt farm management area? m site(s) to which it applies? commencement of the agreement or statem	ed? Y Y Y Y
farm?  9. Does the FMAg/S identify the vaccination of the FMAg/S identify the specification. Does the FMAg/S identify the maximindividual farm?	um health standards for the stocks to be intro- ation requirements for stocks held in the area es of fish which may be stocked into the area mum stocking density of any pen on any farm gements for the storage and disposal of any	a or farm? A or farm? Y Y In in the area or the
Arrangements for The Management of 13. Does the FMAg/S identify arrangement	of Sea Lice ents for the sharing of data on sea lice numl	bers and treatments?
14. Does the FMAg/S identify the availa of statement?	bility and the use of medicines on farms cov	ered by the agreement Y
15. Does the FMAg/S identify any requilice on farms in the area or individual fa	rements for the sensitivity testing of available rms?	
16. Does the FMAg/S identify the circumused on farms in the area or individual f	nstances under which biological controls and farms?	d cleaner fish are to be
	gements for synchronous treatments on farm	ns within the area?
area or farm?	nstances when live fish may be introduced o	
or individual farms?	generica for the movement of live list off and	a on sites in the area

FHI 059, Version 13	Issued by: FHI	Date of issue: 12/05/2020
Harvesting 20. Does the FMAg/S identify acceptable	e harvest practices on farms in the area or indi	ividual farms?
date when a farm or area may be restood 22. Does the FMAg/S identify whether of agreement or statement?	ne or more year classes may be stocked onto roodstock or potential broodstock are to be ke	sites covered by the
Point of Compliance for Farm Manage 24. Does the farm management agreem parties to the agreement?	ement Agreements Only nent include arrangements for persons to become	me, or cease to be, N/A
Management and operation 25. Is the fish farm being managed and 26. What is the version no/date of issue	operated in accordance with the agreement or of the FMAg/S?  03/03/2020	statement? Y

Site No: FS1057

Case No: 2022-0110

Nature of non-compliance:

Action taken (FHI):

Non-compliance relevant to (delete): VirologyMolGen/Bacteriology/Histology/Parasitology

Database   Insp   Phone   Insp   Writing   Insp   2 <sup>nd</sup> Insp   PMCV   4/4	Case No:	2022-0110			Date of visit:	27/04/202	2		
Database   Insp   Phone   Insp   Writing   Insp   2 <sup>nd</sup>   2 <sup>n</sup>	Site No:	FS1057	]		Inspector:				
MG PMCV 4/4 11/05/2022 11/05/2022 02/09/2022	Results Summary	Freq.	Date of Notification						
MG PMCV 4/4 11/05/2022 11/05/2022 02/09/2022 PMCH 2/4 11/05/2022 11/05/2022 02/09/2022 02/09/2022 11/05/2022 02/09/2022 0			Database	Insp	Phone	Insp			2 <sup>nd</sup> Insp
HPAT 3/4 11/05/2022 02/09/2022 SPAT 3/4 11/05/2022 11/05/2022 02/09/2022 CMPS 3/4 11/05/2022 11/05/2022 02/09/2022 VVIS 1/4 19/05/2022 19/05/2022 02/09/2022 VSPE 4/4 19/05/2022 19/05/2022 02/09/2022 INN QPCR 0/4 04/07/2022 02/09/2022 ISA QPCR 0/4 04/07/2022 02/09/2022 SAV QPCR 0/4 04/07/2022 02/09/2022 VHS QPCR 0/4 04/07/2022	MG PMCV	4/4	11/05/2022		11/05/2022		02/09/2022	2	
SPAT 3/4 11/05/2022 02/09/202 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/	PMCH	2/4	11/05/2022		11/05/2022		02/09/2022	2	
CMPS 3/4 11/05/2022 11/05/2022 02/09/2022  V/IS 11/4 19/05/2022 19/05/2022 02/09/2022  V/SPE 4/4 19/05/2022 19/05/2022 02/09/2022  HN QPCR 0/4 04/07/2022 02/09/2022 02/09/2022  PN QPCR 1/4 04/07/2022 02/09/2022 02/09/2022  SA QPCR 0/4 04/07/2022 02/09/2022 02/09/2022  SA QPCR 0/4 04/07/2022 02/09/2022 02/09/2022  SAV QPCR 0/4 04/07/2022 02/09/2022 02/09/2022  VHS QPCR 0/4 04/07/2022 02/09/2022 02/09/2022  VHS QPCR 0/4 04/07/2022 02/09/2022 02/09/2022  VHS QPCR 0/4 04/07/2022  VHS QPCR 0/4 04/07/2022  VHS QPCR 0/4 04/07/2022  VHS QPCR 0/4 04/07/2022	HPAT	3/4	11/05/2022		11/05/2022		02/09/2022	2	
VVIS	SPAT	3/4	11/05/2022		11/05/2022		02/09/2022	2	
VSPE 4/4 19/05/2022 19/05/2022 02/09/2022 02	CMPS	3/4	11/05/2022		11/05/2022		02/09/2022	2	
IHN QPCR	VVIS	1/4	19/05/2022		19/05/2022		02/09/2022	2	
PN QPCR 1/4 04/07/2022 02/09/202 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022 02/09/2022	VSPE	4/4	19/05/2022		19/05/2022		02/09/2022	2	
SAQPCR 0/4 04/07/2022 02/09/2022	IHN QPCR		04/07/2022		02/09/2022		02/09/2022	2	
SAQPCR 0/4 04/07/2022 02/09/2022	IPN QPCR	1/4			02/09/2022		02/09/2022	2	
SAV QPCR	ISA QPCR	0/4	04/07/2022		02/09/2022				
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# FISH HEALTH INSPECTORATE VISIT REPORT

#### SUMMARY FOR INFORMATION OF SITE OPERATOR

 BUSINESS No
 FB0095
 DATE OF VISIT
 27/04/2022

 SITE No
 FS1057
 SITE NAME
 Vee Taing

 CASE No
 20220110
 Inspectors

## **Section 1: Summary**

During a routine inspection, approximately 50 moribund and lethargic fish were observed in cages 4 and 6. These fish displayed varying degrees of eye damage and lesions to the flanks. Four fish from cage 4 were removed for diagnostic sampling.

Histopathology examination revealed pathology consistent with cardiomyopathy syndrome (CMS). Mild *peritonitis* and *splenitis* were also observed. Samples confirmed piscine myocarditis virus (PMCV) (4/4) by qPCR.

Moritella viscosa was identified on plates taken from lesion material of fish 3, the level and purity would suggest this bacterium would be the primary cause of this lesion and as a known fish pathogen could potentially have an impact on overall fish health. Vibrio sp. was identified on plates taken from kidney material of fish 1-4, lesion material of fish 1-3 and gill material of fish 1-4. The level and purity would suggest this bacterium would be significant to fish health.

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 inspection, approximately 50 moribund and lethargic fish were observed between cages 4 and 6. These fish displayed varying degrees of eye damage and lesions to the flanks. 4 fish from cage 4 were removed for diagnostic sampling. At the time of visit the site was stocked with 318,188 Atlantic salmon at a mean fish weight of 4.17 kg. There had been no reports of elevated mortality during the current production cycle.

All fish removed for diagnostic sampling were observed to be moribund and lethargic. From external examination, all fish displayed lesions to the flanks, damaged tails and pectoral fins and erosion of the snouts. Internally, all fish exhibited pale colouration to the liver and little stomach content. F4 had an enlarged spleen.

Samples were collected from F1 – F4 fish according to the table below:

Fish number	Facility number	, I SUBCIDE I STAND		Origin	
F1	4	Atlantic Salmon	2020 S0	Balta Isle	
F2	4	Atlantic Salmon	2020 S0	Balta Isle	
F3	4	Atlantic Salmon	2020 S0	Balta Isle	
F4	4	Atlantic Salmon	2020 S0	Balta Isle	

#### Results

**Bacteriology:** Kidney, gill, and lesion material from 4 fish inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated:

Moritella viscosa: F3 (Lesion) Vibrio sp.: F1 - 4 (Kidney) Vibrio sp.: F1 - 4 (Gill) Vibrio sp.: F1 - 3 (Lesion)

From the tests conducted, we do not have evidence of resistance to amoxycillin, oxytetracycline, sulphamethoxazole/trimethoprim or florfenicol.

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

Infectious pancreatic necrosis virus (IPNV):

Fish Number	Endogenous control Cp value	C	p Values	Reported Result (PCR)	
F1	-	-	-	-	NEGATIVE
F2	-	-	-	-	NEGATIVE
F3	18.33	35.44	35.1	34.89	POSITIVE
F4	-	-	-	-	NEGATIVE

Piscine myocarditis virus (PMCV):

Fish Number	Endogenous control Cp value		Cp Values	Reported Result (PCR)	
F1	17.2	16.74	16.75	16.73	POSITIVE
F2	18.83	23.15	23.18	23.18	POSITIVE
F3	19.16	19.26	19.3	19.25	POSITIVE
F4	19.61	20.04	20.1	20.2	POSITIVE

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

**Histology:** Tissue samples of gill, skin and skeletal muscle, heart, pyloric caeca, pan creas, hind gut, liver, spleen and kidney were taken from F 1 - 4. The tissue samples were fixed in 10% neutral buffered formalin.

Histopathological examination revealed the following:

<u>Gill:</u> Very mild interlamellar hyperplasia (F2). One aneury small dilation/telangiectasia noted in one individual (F1). F3 & F4 difficult to read due to post-mortem artefact and small area of gill.

Skin & Muscle: Within the normal range.

<u>Heart:</u> F4 displayed marked myocardial mononuclear cell infiltration (endocarditis) and marked myocardial degeneration and necrosis in the ventricle chamber and in lesser extension observed in F1 and F3. F3 also displayed moderate endocarditis in the atrium chamber. F2 exhibit an area restricted to few fibres with degeneration and mononuclear cell infiltration. F3 displayed mild pericarditis.

<u>Gut and pyloric caeca:</u> Some to moderate fibrous adhesions (likely associated with vaccine administration) (F1 & F3). F4 displayed some cell sloughing potentially associated with post-mortem artefact).

Pancreas: Within normal range.

<u>Liver</u>: Mild multifocal hepatic necrosis (F4), some diffuse hepatocellular vacuolation (macrovisicules) (F2).

<u>Kidney:</u> Within normal range. F4: Some post-mortem artefact.

<u>Spleen:</u> Several foci of sparse haematopoietic tissue (F3) and small area of infiltration of mononuclear cells (F3). Slight congested (F1, F4)

Signed:

Fish Health Inspector

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

Date: 02/09/2022

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# FISH HEALTH INSPECTORATE VISIT REPORT

#### SUMMARY FOR INFORMATION OF SITE OPERATOR

Business No FB0095 Date of Visit 27/04/2022 Site No FS1057 Site Name Vee Taing

Case No 20220110 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.

Records in relation to aquaculture animals transported by the business were in spected and found to be adequately maintained.

Mortality records were inspected and found to be adequately maintained.

No mortality levels exceeding the reporting criteria have been recorded since the last inspection.

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 and containment and escapes.

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: 16/08/22

Fish Health Inspector

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



Fish 1



Fish 1



Fish 1



Fish 1



Fish 2 and Fish 3



Fish 4