

CRUISE REPORT

Cruise Number: MF-05-07
FOCI Number: FOCI 5MF05
Ship: Miller Freeman

Area of Operations: Southeast Bering Sea

Itinerary:

Departed Dutch Harbor, Alaska, at 1500 hours on Monday, May 9, 2005.
Arrived Dutch Harbor, Alaska, at 1200 hours on Friday, May 20, 2005.

Participating Organizations:

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Objectives of Cruise:

Eco-FOCI conducted an ichthyoplankton survey in the Bering Sea in the vicinity of Unimak Island, Alaska. Data on physical characteristics of the water column were also collected by Seacat profiler and CTD (at selected stations). Seven satellite tracked drifters were released in the Unimak Island vicinity to study depth-discrete current trajectories and to groundtruth an oceanographic model of water movements for use in studies of larval transport. MOCNESS tows and CUFES collections were conducted to ground-truth CUFES egg density data with egg densities derived from MOCNESS tows in the same locale

We also used the SIMRAD EK 500 Scientific Echosounder Monitoring system to collect ancillary data on adult fish aggregations during the entire cruise.

Summary of Operations:

Gear Used:	Tows
20cm Bongo (20BON)	91
60cm Bongo (60BON)	94
Seabird SeaCat CTD (CAT)	94
CTD without bottle samples	83
Egg Pump Sample Collector (CUFES)	44
Satellite Tracker Drifter (Drifter)	07
1m ² MOCNESS (MOC1)	22
Neuston (Neu)	74

Summary of Cruise:

Grid survey:

Departure from Dutch Harbor, AK occurred at 1500 hrs on May 09, 2005. At most stations, a neuston tow (505 μ m mesh) was conducted first, followed by a bongo tow. At selected stations (approximately half), neuston samples were contaminated by an unknown white, greasy substance. For the bongo tow, the 60BON was fitted with 505 μ m mesh on both sides. The sample from 60BON Net 2 was sorted for rough counts of Alaska plaice and walleye pollock larvae and then discarded. The 20BON array was fitted with 153 μ m mesh on both sides. The Seacat profiler was attached in line during all bongo tows. CTD casts were conducted at selected stations, and in Unimak Pass. 3 transects of CTD casts were occupied (AO7 to AO10, AX4 to AX10, BA7 to BG7) to examine flow along the 100 and 200 m isobaths.

NEPROMS groundtruthing:

Seven satellite tracked drifters were deployed to groundtruth an oceanographic model (NEPROMS model) of current trajectories in the vicinity of Unimak Island. Drifters were released at:

Sta. AU7, drifter 53302 drogued at 40m, 53320 drogued at 16m

Sta. AU4, drifter 53303 drogued at 40m, 53316 drogued at 16m

Sta. AR7, drifters 53290, 53300 each drogued at 40m, 53316 drogued at 16m

CUFES groundtruthing:

We tested the ship's Continuous Underway Fish Egg Sampler (CUFES). Testing included comparison of sampling with the CUFES and ground-truthing CUFES egg density data with MOCNESS tows in the same locale. Twenty-one CUFES samples were collected when the CUFES equipment broke. Upon repair, it was noted that the system had been plumbed incorrectly. All CUFES samples up to that point (CUF001-CUF021) were marked as "Fail." The system was repaired, re-configured correctly and CUFES samples CUF022- CUF044 were collected. It will be necessary to continue to groundtruth the CUFES on a future cruise.

Alaska plaice distribution study:

Rough counts for larval Alaska plaice (*Pleuronectes quadrituberculatus*) were taken from 60BON Net #2. MOCNESS tows were conducted at selected stations on the basis of *P. quadrituberculatus* presence in the rough counts. Prior to each MOCNESS tow, CTD casts were conducted.

Time lost: 8 hrs due to emergency evacuation of crew member

19 hrs due to early arrival for sick crew member

Acknowledgments:

The FOCI program extends their thanks to the officers and crew of NOAA Ship *Miller Freeman*. All crew members performed their duties professionally and the success of the cruise was dependent on their efforts. Special thanks to Mark Miller, for suggesting an order of operation that helped expedite the sampling process, Kaye Kinoshita for her efforts troubleshooting communication difficulties with the MOCNESS system, Steve Bus for quickly machining a new part for the MOCNESS, to Steve and Ryan Sorenson for their work to makes the CUFES operational, and Ryan and Adam Shahan for their hard work helping us collect the samples we needed. We appreciate the efforts of everyone to help us achieve our goals.

Specifics of operations:

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
10-May-05	4:57	1	1	UPA	CTD000	89	54 19.7 N	165 24.4 W	CTD	CTD	Unimak A. No signal.
10-May-05	5:13	1	2	UPA	NEU001	89	54 19.7 N	165 24.4 W	Neu	QTowF	Unimak A
10-May-05	5:39	1	3	UPA	BON001	89	54 20.2 N	165 23.9 W	20Bon	QTowF	Unimak A
10-May-05	5:39	1	3	UPA	BON001	89	54 20.2 N	165 23.9 W	60Bon	QTowF, RCountL	Unimak A
10-May-05	5:39	1	3	UPA	BON001	89	54 20.2 N	165 23.9 W	60Bon	QTowF, RCountL	Unimak A, flowmeter spinning in wind
10-May-05	5:39	1	3	UPA	BON001	89	54 20.2 N	165 23.9 W	CAT	CAT	Unimak A
10-May-05	6:29	1	4	UPA	CTD001	128	54 19.8 N	165 24.6 W	CTD	CTD, Fluor, PAR	Unimak A. Depth??
10-May-05	7:14	2	1	UPC	NEU002	172	54 22.3 N	165 17.2 W	Neu	QTowF	Unimak C.
10-May-05	7:40	2	2	UPC	CTD002	159	54 22.4 N	165 16.2 W	CTD	CTD, Fluor, PAR	Unimak C.
10-May-05	8:01	2	3	UPC	BON002	165	54 22.4 N	165 15.4 W	20Bon	QTowF	Unimak C
10-May-05	8:01	2	3	UPC	BON002	165	54 22.4 N	165 15.4 W	60Bon	QTowF, RCountL	Unimak C
10-May-05	8:01	2	3	UPC	BON002	165	54 22.4 N	165 15.4 W	CAT	CAT	Unimak C
10-May-05	8:46	3	1	UPE	NEU003	163	54 24.9 N	165 09.3 W	Neu	QTowF	Unimak E
10-May-05	9:06	3	2	UPE	CTD003	154	54 25.0 N	165 09.3 W	CTD	CTD	Unimak E
10-May-05	9:23	3	3	UPE	BON003	142	54 25.3 N	165 09.1 W	20Bon	QTowF	Unimak E
10-May-05	9:23	3	3	UPE	BON003	142	54 25.3 N	165 09.1 W	60Bon	QTowF, RCountL	Unimak E
10-May-05	9:23	3	3	UPE	BON003	142	54 25.3 N	165 09.1 W	CAT	CAT	Unimak E
10-May-05	10:04	4	1	UPG	NEU004	44	54 27.6 N	165 01.9 W	Neu	QTowF	Unimak G
10-May-05	10:25	4	2	UPG	CTD004	53	54 27.7 N	165 01.1 W	CTD	CTD, Fluor, PAR	Unimak G
10-May-05	10:39	4	3	UPG	BON004	50	54 27.6 N	165 00.7 W	20Bon	QTowF	Unimak G
10-May-05	10:39	4	3	UPG	BON004	50	54 27.6 N	165 00.7 W	60Bon	QTowF, RCountL	Unimak G
10-May-05	10:39	4	3	UPG	BON004	50	54 27.6 N	165 00.7 W	CAT	CAT	Unimak G
10-May-05	14:11	5	1	AU4	NEU005	45	54 56.3 N	164 31.3 W	Neu	QTowF	
10-May-05	14:34	5	2	AU4	CTD005	44	54 56.5 N	164 30.5 W	CTD	CTD, Fluor, PAR	
10-May-05	14:45	5	3	AU4	BON005	45	54 56.6 N	164 30.4 W	20Bon	QTowF	
10-May-05	14:45	5	3	AU4	BON005	45	54 56.6 N	164 30.4 W	60Bon	QTowF, RCountL	
10-May-05	14:45	5	3	AU4	BON005	45	54 56.6 N	164 30.4 W	CAT	CAT	
10-May-05	15:01	5	4	AU4		47	54 57.0 N	164 30.4 W	drifter	Deploy	Drifter 53316. 16m.
10-May-05	15:08	5	5	AU4		48	54 57.3 N	164 30.4 W	drifter	Deploy	Drifter 53303. 40m.
10-May-05	16:29	6	1	AU7	NEU006	103	55 09.9 N	164 42.9 W	Neu	QTowF	
10-May-05	16:54	6	2	AU7	CTD006	102	55 10.1 N	164 42.1 W	CTD	CTD, Fluor, PAR	
10-May-05	17:08	6	3	AU7	BON006	102	55 10.3 N	164 42.0 W	20Bon	QTowF	
10-May-05	17:08	6	3	AU7	BON006	102	55 10.3 N	164 42.0 W	60Bon	QTowF, RCountL	
10-May-05	17:08	6	3	AU7	BON006	102	55 10.3 N	164 42.0 W	CAT	CAT	
10-May-05	18:04	6	4	AU7	MOC001	103	55 09.8 N	164 43.0 W	MOC1	QTowF	
10-May-05	18:04	6	4	AU7	MOC001	103	55 09.8 N	164 43.0 W	MOC1	QTowF	Net 1 is drouge. No net resp or angle change for net 3, so tripped next net. Net 3 actually tripped, so no sample could be taken. Net 4 vol filtered questionable because contains net 3 vol filtered

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
10-May-05	18:34	6	5	AU7	CUF001	102	55 10.2 N	164 41.6 W	CUFES	QTowF	MOC top net fail. No comparison with CUFES. CUFES plumbed wrong.
10-May-05	18:44	6	6	AU7		102	55 10.3 N	164 41.3 W	drifter	Deploy	Drifter #53302. 40m.
10-May-05	18:47	6	7	AU7		102	55 10.4 N	164 41.1 W	drifter	Deploy	Drifter #53320. 16m.
10-May-05	20:10	7	1	AR07	NEU007	89	55 16.7 N	164 20.3 W	Neu	QTowF	
10-May-05	20:34	7	2	AR07	CTD007	96	55 17.0 N	164 19.6 W	CTD	CTD, Fluor, PAR	
10-May-05	20:49	7	3	AR07	BON007	96	55 17.2 N	164 19.7 W	20Bon	QTowF	
10-May-05	20:49	7	3	AR07	BON007	96	55 17.2 N	164 19.7 W	60Bon	QTowF, RCountL	
10-May-05	20:49	7	3	AR07	BON007	96	55 17.2 N	164 19.7 W	CAT	CAT	
10-May-05	22:24	7	4	AR7	MOC002	97	55 16.8 N	164 21.2 W	MOC1	QTowF	
10-May-05	22:56	7	5	AR07	CUF002	90	55 17.0 N	164 20.0 W	CUFES	Discard	CUFES plumbed wrong.
10-May-05	23:10	7	6	AR07		90	55 17.1 N	164 19.6 W	drifter	Deploy	Drifter # 53290. 40m drogue.
10-May-05	23:19	7	7	AR007		89	55 17.2 N	164 19.2 W	drifter	Deploy	Drifter #53300. 40m drogue.
10-May-05	23:32	7	8	AR007		90	55 16.9 N	164 19.0 W	drifter	Deploy	Drifter #53318. 16m drogue.
11-May-05	0:59	8	1	AR004	NEU008	37	55 04.1 N	164 07.2 W	Neu	QTowF	
11-May-05	1:18	8	2	AR004	BON008	37	55 04.3 N	164 06.1 W	20Bon	QTowF	
11-May-05	1:18	8	2	AR004	BON008	37	55 04.3 N	164 06.1 W	60Bon	QTowF, RCountL	
11-May-05	1:18	8	2	AR004	BON008	37	55 04.3 N	164 06.1 W	CAT	CAT	
11-May-05	2:41	9	1	AO004	NEU009	48	55 10.7 N	163 44.4 W	Neu	QTowF	
11-May-05	3:03	9	2	AO004	CTD008	48	55 10.7 N	163 44.1 W	CTD	CTD, Fluor, PAR	
11-May-05	3:11	9	3	AO004	BON009	48	55 10.7 N	163 44.1 W	20Bon	QTowF	
11-May-05	3:11	9	3	AO004	BON009	48	55 10.7 N	163 44.1 W	60Bon	QTowF, RCountL	
11-May-05	3:11	9	3	AO004	BON009	48	55 10.7 N	163 44.1 W	CAT	CAT	
11-May-05	4:36	10	1	AL004	NEU010	54	55 18.4 N	163 21.3 W	Neu	QTowF	
11-May-05	4:56	10	2	AL004	CTD009	52	55 18.3 N	163 20.2 W	CTD	CTD, Fluor, PAR	
11-May-05	5:04	10	3	AL004	BON010	53	55 18.3 N	163 19.8 W	20Bon	QTowF	
11-May-05	5:04	10	3	AL004	BON010	53	55 18.3 N	163 19.8 W	60Bon	FlatGene, QTowF, RCountL	
11-May-05	5:04	10	3	AL004	BON010	53	55 18.3 N	163 19.8 W	60Bon	FlatGene, QTowF, RCountL	Net one with large jelly so pickled net 2.
11-May-05	5:04	10	3	AL004	BON010	53	55 18.3 N	163 19.8 W	CAT	CAT	
11-May-05	5:51	10	4	AL004	MOC003	59	55 20.9 N	163 25.4 W	MOC1	QTowF	Moved a bit off station to find deeper
11-May-05	5:59	10	5	AL004	CUF003	59	55 20.9 N	163 24.7 W	CUFES	Discard	Moved off station a bit for deeper water. CUFES plumbed wrong.
11-May-05	7:45	11	1	AI4	NEU011	41	55 26.0 N	162 58.5 W	Neu	QTowF	
11-May-05	8:02	11	2	AI4	BON011	40	55 25.9 N	162 57.0 W	20Bon	QTowF	
11-May-05	8:02	11	2	AI4	BON011	40	55 25.9 N	162 57.0 W	60Bon	QTowF, RCountL	
11-May-05	8:02	11	2	AI4	BON011	40	55 25.9 N	162 57.0 W	CAT	CAT	
11-May-05	9:29	12	1	AF4	NEU012	35	55 32.7 N	162 35.4 W	Neu	QTowF	
11-May-05	9:49	12	2	AF4	BON012	33	55 32.9 N	162 33.7 W	20Bon	QTowF	
11-May-05	9:49	12	2	AF4	BON012	33	55 32.9 N	162 33.7 W	60Bon	QTowF, RCountL	

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
11-May-05	9:49	12	2	AF4	BON012	33	55 32.9 N	162 33.7 W	60Bon	QTowF, RCountL	Jelly in 60BON net 1 was discarded.
11-May-05	9:49	12	2	AF4	BON012	33	55 32.9 N	162 33.7 W	CAT	CAT	
11-May-05	11:29	13	1	AF7	NEU013	57	55 45.1 N	162 45.2 W	Neu	QTowF	
11-May-05	11:52	13	2	AF7	BON013	60	55 45.7 N	162 46.3 W	20Bon	QTowF	
11-May-05	11:52	13	2	AF7	BON013	60	55 45.7 N	162 46.3 W	60Bon	QTowF, RCountL, SPEuph	60BON net 2 saved for Steve Porter's euphausiid/pollock study.
11-May-05	11:52	13	2	AF7	BON013	60	55 45.7 N	162 46.3 W	CAT	CAT	
11-May-05	12:22	13	3	AF7	CTD010	62	55 45.8 N	162 46.7 W	CTD	CTD, Fluor, PAR	
11-May-05	13:00	13	4	AF7	MOC004	58	55 45.8 N	162 45.7 W	MOC1	Discard	Communication with U/W unit failed at depth. Brought back on deck, checked connections, and sent out again at 13:36.
11-May-05	15:07	14	1	AC7	NEU014	62	55 52.5 N	162 23.9 W	Neu	QTowF	
11-May-05	15:28	14	2	AC7	BON014	64	55 53.0 N	162 23.2 W	20Bon	QTowF	Revs off for 20BON net 1 so discarded net 1 and preserved net 2.
11-May-05	15:28	14	2	AC7	BON014	64	55 53.0 N	162 23.2 W	60Bon	QTowF, RCountL	
11-May-05	15:28	14	2	AC7	BON014	64	55 53.0 N	162 23.2 W	60Bon	QTowF, RCountL	Huge jelly in 60BON net 1.
11-May-05	15:28	14	2	AC7	BON014	64	55 53.0 N	162 23.2 W	CAT	CAT	
11-May-05	15:48	14	3	AC7	CTD011	65	55 53.2 N	162 23.2 W	CTD	CTD, Fluor, PAR	
11-May-05	17:58	15	1	Z7	NEU015	52	55 59.8 N	161 59.5 W	Neu	QTowF	
11-May-05	18:19	15	2	Z7	BON015	57	56 00.4 N	161 59.0 W	20Bon	QTowF	Flowmeter reading low for 20BON net 1 so discarded and used net 2.
11-May-05	18:19	15	2	Z7	BON015	57	56 00.4 N	161 59.0 W	60Bon	QTowF, RCountL	
11-May-05	18:19	15	2	Z7	BON015	57	56 00.4 N	161 59.0 W	CAT	CAT	
11-May-05	19:02	15	3	Z7	MOC005	56	56 01.0 N	161 56.7 W	MOC1	QTowF	Couldn't communicate with underwater unit below 15 m. Only collected one sample near surface.
11-May-05	19:03	15	4	Z7	CUF004	55	56 01.1 N	161 56.6 W	CUFES	Discard	CUFES plumbed wrong.
11-May-05	19:24	15	5	Z7	CTD012	55	56 01.2 N	161 56.3 W	CTD	CTD, Fluor, PAR	
11-May-05	20:40	16	1	W007	NEU016	52	56 06.7 N	161 37.0 W	Neu	QTowF	
11-May-05	20:58	16	2	W007	BON016	53	56 07.2 N	161 35.9 W	20Bon	QTowF	New flowmeter put on but revs still low. Use net 2 from now on.
11-May-05	20:58	16	2	W007	BON016	53	56 07.2 N	161 35.9 W	60Bon	QTowF, RCountL	
11-May-05	20:58	16	2	W007	BON016	53	56 07.2 N	161 35.9 W	CAT	CAT	
11-May-05	21:24	16	3	W007	MOC006	53	56 07.0 N	161 34.6 W	MOC1	QTowF	
11-May-05	21:37	16	4	W007	CUF005	53	56 07.2 N	161 35.7 W	CUFES	Discard	CUFES plumbed wrong.
11-May-05	21:51	16	5	W007	CTD013	53	56 07.4 N	161 35.3 W	CTD	CTD, Fluor, PAR	
11-May-05	23:18	17	1	T007	NEU017	47	56 13.9 N	161 13.4 W	Neu	QTowF	
11-May-05	23:37	17	2	T007	BON017	47	56 14.4 N	161 12.8 W	20Bon	QTowF	net one flowmeter questionable.
11-May-05	23:37	17	2	T007	BON017	47	56 14.4 N	161 12.8 W	60Bon	FlatGene, QTowF, RCountL	
11-May-05	23:37	17	2	T007	BON017	47	56 14.4 N	161 12.8 W	CAT	CAT	

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
12-May-05	0:22	17	3	T007	MOC007	47	56 14.8 N	161 12.1 W	MOC1	QTowF	net numbers in data file are off by one because net repsonse was not hit during deck test. (net 0=1, drogue, net 1=2, etc). High wire angles (up to 58)
12-May-05	0:22	17	3	T007	MOC007	47	56 14.8 N	161 12.1 W	MOC1	QTowF	net numbers in data file are off by one because net repsonse was not hit during deck test. (net 0=1, drogue, net 1=2, etc). High wire angles (up to 58).
12-May-05	0:22	17	3	T007	MOC007	47	56 14.8 N	161 12.1 W	MOC1	QTowF	net numbers in data file are off by one because net repsonse was not hit during deck test. (net 0=1, drogue, net 1=2, etc). High wire angles. Up to 58.
12-May-05	0:26	17	4	T007	CUF006	46	56 14.8 N	161 12.0 W	CUFES	Discard	CUFES plumbed wrong.
12-May-05	0:38	17	5	T007	CTD014	46	56 15.0 N	161 11.8 W	CTD	CTD, Fluor, PAR	
12-May-05	2:18	18	1	Q7	NEU018	46	56 21.1 N	160 49.0 W	Neu	QTowF	
12-May-05	2:08	18	2	Q7	CUF007	45	56 21.1 N	160 49.5 W	CUFES	Discard	CUFES plumbed wrong.
12-May-05	2:27	18	3	Q7	BON018	48	56 21.5 N	160 49.0 W	20Bon	QTowF	
12-May-05	2:27	18	3	Q7	BON018	48	56 21.5 N	160 49.0 W	20Bon	QTowF	net one flowmeter questionable.
12-May-05	2:27	18	3	Q7	BON018	48	56 21.5 N	160 49.0 W	60Bon	FlatGene, QTowF, RCountL	
12-May-05	2:27	18	3	Q7	BON018	48	56 21.5 N	160 49.0 W	60Bon	FlatGene, QTowF, RCountL	No RCountTL
12-May-05	2:27	18	3	Q7	BON018	48	56 21.5 N	160 49.0 W	CAT	CAT	
12-May-05	4:05	19	1	N7	NEU109	37	56 28.3 N	160 25.1 W	Neu	QTowF	
12-May-05	4:05	19	2	N7	CUF008	37	56 28.3 N	160 25.1 W	CUFES	Discard	CUFES plumbed wrong.
12-May-05	4:22	19	3	N7	BON019	36	56 28.6 N	160 24.5 W	20Bon	QTowF	net one flowmeter questionable.
12-May-05	4:22	19	3	N7	BON019	36	56 28.6 N	160 24.5 W	60Bon	FlatGene, QTowF	
12-May-05	4:22	19	3	N7	BON019	36	56 28.6 N	160 24.5 W	CAT	CAT	
12-May-05	5:58	20	1	K7	NEU020	38	56 35.7 N	160 01.2 W	Neu	QTowF	
12-May-05	6:16	20	2	K7	BON020	38	56 35.9 N	160 00.3 W	20Bon	QTowF	
12-May-05	6:16	20	2	K7	BON020	38	56 35.9 N	160 00.3 W	20Bon	QTowF	Flowmeter for 20BON net 1 reading too
12-May-05	6:16	20	2	K7	BON020	38	56 35.9 N	160 00.3 W	60Bon	QTowF, RCountL	
12-May-05	6:16	20	2	K7	BON020	38	56 35.9 N	160 00.3 W	CAT	CAT	
12-May-05	6:50	20	3	K7	MOC008	39	56 36.0 N	160 00.1 W	MOC1	QTowF	
12-May-05	6:54	20	4	K7	CUF009	38	56 36.1 N	159 59.9 W	CUFES	Discard	CUFES plumbed wrong.
12-May-05	7:14	20	5	K7	CTD015	39	56 36.1 N	159 59.7 W	CTD	CTD, Fluor, PAR	
12-May-05	8:33	21	1	H7	NEU021	34	56 42.6 N	159 37.8 W	Neu	QTowF	
12-May-05	8:52	21	2	H7	BON021	32	56 43.2 N	159 36.6 W	20Bon	QTowF	
12-May-05	8:52	21	2	H7	BON021	32	56 43.2 N	159 36.6 W	60Bon	QTowF, RCountL	
12-May-05	8:52	21	2	H7	BON021	32	56 43.2 N	159 36.6 W	CAT	CAT	
12-May-05	9:59	21	3	H7	CUF010	37	56 45.8 N	159 36.3 W	CUFES	Discard	Run continuously between stations 21 and 22 for a total of 53min 07sec. CUFES plumbed wrong.
12-May-05	11:06	22	1	E7	NEU022	27	56 50.4 N	159 14.1 W	Neu	QTowF	

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
12-May-05	11:27	22	2	E7	BON022	26	56 51.0 N	159 12.4 W	20Bon	QTowF	
12-May-05	11:27	22	2	E7	BON022	26	56 51.0 N	159 12.4 W	60Bon	QTowF, RCountL	
12-May-05	11:27	22	2	E7	BON022	26	56 51.0 N	159 12.4 W	CAT	CAT	
12-May-05	11:39	22	3	E7	CUF011	26	56 51.4 N	159 11.0 W	CUFES	Discard	Run continuously between stations 22 and 23 for a total of 90min 32sec. CUFES plumbed wrong.
12-May-05	13:21	23	1	B7	NEU023	25	56 58.3 N	158 53.1 W	Neu	QTowF	
12-May-05	13:37	23	2	B7	BON023	25	56 58.8 N	158 52.5 W	20Bon	QTowF	
12-May-05	13:37	23	2	B7	BON023	25	56 58.8 N	158 52.5 W	60Bon	QTowF, RCountL	
12-May-05	13:37	23	2	B7	BON023	25	56 58.8 N	158 52.5 W	CAT	CAT	
12-May-05	22:53	24	1	B10	NEU024	43	57 09.9 N	159 03.2 W	Neu	QTowF	
12-May-05	23:11	24	2	B10	BON024	43	57 10.4 N	159 02.3 W	20Bon	QTowF	
12-May-05	23:11	24	2	B10	BON024	43	57 10.4 N	159 02.3 W	60Bon	QTowF, RCountL	
12-May-05	23:11	24	2	B10	BON024	43	57 10.4 N	159 02.3 W	CAT	CAT	
12-May-05	23:37	24	3	B10	MOC009	43	57 10.2 N	159 02.5 W	MOC1	QTowF	
12-May-05	3:45	24	4	B10	CUF012	48	57 10.4 N	159 02.1 W	CUFES	Discard	sample time = 2:15. CUFES plumbed
12-May-05	23:47	24	5	B10	CTD016	43	57 27.5 N	159 01.8 W	CTD	CTD, Fluor, PAR	
13-May-05	0:05	24	6		CUF013	43	57 10.5 N	159 01.8 W	CUFES	QTowF	transit from B10-A10. CUFES plumbed
13-May-05	1:20	25	1	A10	NEU025	41	57 17.2 N	158 39.6 W	Neu	QTowF	
13-May-05	1:43	25	2	A10	BON025	41	57 17.7 N	158 37.7 W	20Bon	QTowF	
13-May-05	1:43	25	2	A10	BON025	41	57 17.7 N	158 37.7 W	60Bon	FlatGene, QTowF, RCountL	
13-May-05	1:43	25	2	A10	BON025	41	57 17.7 N	158 37.7 W	CAT	CAT	
13-May-05	1:53	25	3	A10	CUF014	43	57 17.7 N	158 37.7 W	CUFES	QTowF	Transit from A10 - a10. Tow time 79:48. CUFES plumbed wrong.
13-May-05	3:14	26	1	a10	NEU026	28	57 24.4 N	158 15.5 W	Neu	QTowF	
13-May-05	3:34	26	2	a10	BON026	28	57 24.7 N	158 14.6 W	20Bon	QTowF	
13-May-05	3:34	26	2	a10	BON026	28	57 24.7 N	158 14.6 W	60Bon	QTowF, RCountL	
13-May-05	3:34	26	2	a10	BON026	28	57 24.7 N	158 14.6 W	CAT	CAT	
13-May-05	5:05	26	3	a10	CUF015	39	57 38.2 N	158 29.1 W	CUFES	QTowF	Transit between a10 and a13. Tow time 84:00. CUFES plumbed wrong.
13-May-05	5:09	27	1	a13	NEU027	39	57 38.3 N	158 28.9 W	Neu	QTowF	
13-May-05	5:28	27	2	a13	BON027	39	57 38.0 N	158 28.0 W	20Bon	QTowF	
13-May-05	5:28	27	2	a13	BON027	39	57 38.0 N	158 28.0 W	60Bon	QTowF, RCountL	
13-May-05	5:28	27	2	a13	BON027	39	57 38.0 N	158 28.0 W	CAT	CAT	
13-May-05	5:57	27	3	a13	MOC010	39	57 38.0 N	158 28.0 W	MOC1	QTowF	
13-May-05	6:01	27	4	a13	CUF016	39	57 38.0 N	158 27.7 W	CUFES	QTowF	tow time 2:25. CUFES plumbed wrong.
13-May-05	6:13	27	5	a13	CTD017	39	57 37.9 N	158 27.7 W	CTD	CTD, Fluor, PAR	
13-May-05	6:18	27	6	a13	CUF017	39	57 37.8 N	158 27.9 W	CUFES	QTowF	Transit between a13. Tow time 71 min. CUFES plumbed wrong.
13-May-05	7:40	28	1	A13	NEU028	45	57 31.3 N	158 52.3 W	Neu	QTowF	

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
13-May-05	7:57	28	2	A13	BON028	43	57 31.0 N	158 51.3 W	20Bon	QTowF	
13-May-05	7:57	28	2	A13	BON028	43	57 31.0 N	158 51.3 W	60Bon	QTowF, RCountL	
13-May-05	7:57	28	2	A13	BON028	43	57 31.0 N	158 51.3 W	CAT	CAT	
13-May-05	8:06	28	3	A13	CUF018	43	57 30.9 N	158 51.0 W	CUFES	QTowF	Transit between A13 & B13. Tow time 90 min. CUFES plumbed wrong.
13-May-05	9:41	29	1	B13	NEU029	47	57 24.3 N	159 16.1 W	Neu	QTowF	
13-May-05	10:00	29	2	B13	BON029	49	57 24.1 N	159 14.6 W	20Bon	QTowF	
13-May-05	10:00	29	2	B13	BON029	49	57 24.1 N	159 14.6 W	60Bon	QTowF, RCountL	
13-May-05	10:00	29	2	B13	BON029	49	57 24.1 N	159 14.6 W	60Bon	QTowF, RCountL	1/10 subsample. 2 Alaska plaice larvae in subsample. Estimate 20 AK plaice for rough count.
13-May-05	10:00	29	2	B13	BON029	49	57 24.1 N	159 14.6 W	CAT	CAT	
13-May-05	10:20	29	3	B13	CTD018	49	57 24.1 N	159 14.5 W	CTD	CTD, Fluor, PAR	
13-May-05	10:50	29	4	B13	MOC011	49	57 24.3 N	159 15.4 W	MOC1	QTowF	
13-May-05	10:53	29	5	B13	CUF019	49	57 24.3 N	159 15.0 W	CUFES	QTowF	WITH MOC011. Tow time 4:34. CUFES plumbed wrong.
13-May-05	11:04	29	6	B13	CUF020	49	57 24.2 N	159 14.8 W	CUFES	QTowF	Transit between B13 and E13. Tow time 94 min. CUFES plumbed wrong.
13-May-05	12:42	30	1	E13	NEU030	58	57 17.0 N	159 39.4 W	Neu	QTowF	
13-May-05	13:01	30	2	E13	BON030	58	57 16.8 N	159 38.3 W	20Bon	QTowF	
13-May-05	13:01	30	2	E13	BON030	58	57 16.8 N	159 38.3 W	60Bon	QTowF, RCountL	
13-May-05	13:01	30	2	E13	BON030	58	57 16.8 N	159 38.3 W	CAT	CAT	
13-May-05	13:14	30	3	E13	CUF021	58	57 17.2 N	159 37.6 W	CUFES	QTowF	Transit between stations E13 and E10. Tow time 88 min. CUFES plumbed
13-May-05	14:45	31	1	E10	NEU031	53	57 04.1 N	159 26.9 W	Neu	QTowF	
13-May-05	15:02	31	2	E10	BON031	53	57 03.7 N	159 25.8 W	20Bon	QTowF	
13-May-05	15:02	31	2	E10	BON031	53	57 03.7 N	159 25.8 W	60Bon	QTowF, RCountL	
13-May-05	15:02	31	2	E10	BON031	53	57 03.7 N	159 25.8 W	60Bon	QTowF, RCountL	60BON net 2 caught 2 pollock & 2 p. quad & 2 p. quad eggs.
13-May-05	15:02	31	2	E10	BON031	53	57 03.7 N	159 25.8 W	CAT	CAT	
13-May-05	16:47	32	1	H10	NEU032	58	56 56.1 N	159 51.5 W	Neu	QTowF	
13-May-05	17:08	32	2	H10	BON032	56	56 55.4 N	159 50.3 W	20Bon	QTowF	
13-May-05	17:08	32	2	H10	BON032	56	56 55.4 N	159 50.3 W	60Bon	QTowF, RCountL	60BON net 1 flowmeter too low probably due to clogging from dense algae. So used for rough count only. Net 1 subsampled 1/10 & expanded to 80
13-May-05	17:08	32	2	H10	BON032	56	56 55.4 N	159 50.3 W	60Bon	QTowF, RCountL	60BON net 2 flowmeter also too low probably due to clogging from dense algae. But it was better than net 1's flowmeter so we used net 2 for qtow.
13-May-05	17:08	32	2	H10	BON032	56	56 55.4 N	159 50.3 W	CAT	CAT	
13-May-05	17:40	32	3	H10	MOC012	58	56 56.0 N	159 49.8 W	MOC1	QTowF	Net 1 drogue.

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
13-May-05	18:02	32	4	H10	CTD019	56	56 55.7 N	159 49.1 W	CTD	CTD, Fluor, PAR	
13-May-05	19:35	33	1	H13	NEU033	58	57 09.2 N	160 03.4 W	Neu	QTowF	
13-May-05	19:54	33	2	H13	BON033	61	57 09.6 N	160 02.4 W	20Bon	QTowF	
13-May-05	19:54	33	2	H13	BON033	61	57 09.6 N	160 02.4 W	60Bon	QTowF, RCountL	
13-May-05	19:54	33	2	H13	BON033	61	57 09.6 N	160 02.4 W	CAT	CAT	Salinity profile bad for first 10m but was fine on upcast.
13-May-05	21:57	34	1	K16	NEU034	63	57 14.9 N	160 41.0 W	Neu	QTowF	
13-May-05	22:18	34	2	K16	BON034	60	57 15.4 N	160 40.0 W	20Bon	QTowF	
13-May-05	22:18	34	2	K16	BON034	60	57 15.4 N	160 40.0 W	60Bon	QTowF, RCountL	
13-May-05	22:18	34	2	K16	BON034	60	57 15.4 N	160 40.0 W	CAT	CAT	
13-May-05	23:55	35	1	K13	NEU035	66	57 01.8 N	160 27.4 W	Neu	QTowF	
14-May-05	0:15	35	2	K13	BON035	66	57 02.4 N	160 27.0 W	20Bon	QTowF	
14-May-05	0:15	35	2	K13	BON035	66	57 02.4 N	160 27.0 W	60Bon	QTowF, RCountL	
14-May-05	0:15	35	2	K13	BON035	66	57 02.4 N	160 27.0 W	CAT	CAT	salinity spiky on way down but good on upcast.
14-May-05	0:46	35	3	K13	MOC013	66	57 01.9 N	160 26.9 W	MOC1	QTowF	
15-May-05	1:08	35	4	K13	CTD020	66	57 02.4 N	160 26.7 W	CTD	CTD, Fluor, PAR	
14-May-05	2:42	36	1	K10	NEU36	59	56 48.4 N	160 13.0 W	Neu	QTowF	
14-May-05	2:58	36	2	K10	BON036	59	56 49.0 N	160 13.7 W	20Bon	QTowF	
14-May-05	2:58	36	2	K10	BON036	59	56 49.0 N	160 13.7 W	60Bon	FlatGene, QTowF, RCountL	
14-May-05	2:58	36	2	K10	BON036	59	56 49.0 N	160 13.7 W	CAT	CAT	Salinity spiky on downcast but okay on upcast.
14-May-05	4:25	37	1	N10	NEU037	67	56 41.3 N	160 36.7 W	Neu	QTowF	
14-May-05	4:44	37	2	N10	BON037	67	56 41.9 N	160 37.4 W	20Bon	QTowF	
14-May-05	4:44	37	2	N10	BON037	67	56 41.9 N	160 37.4 W	60Bon	QTowF, RCountL	
14-May-05	4:44	37	2	N10	BON037	67	56 41.9 N	160 37.4 W	CAT	CAT	seacat salinity downcast noisy; upcast
14-May-05	5:14	37	3	N10	MOC014	68	56 42.0 N	160 38.3 W	MOC1	QTowF	
14-May-05	5:14	37	3	N10	MOC014	68	56 42.0 N	160 38.3 W	MOC1	QTowF	one large jelly removed
14-May-05	5:14	37	3	N10	MOC014	68	56 42.0 N	160 38.3 W	MOC1	QTowF	one large jelly removed.
14-May-05	5:35	37	4	N10	CTD021	69	56 42.3 N	160 38.8 W	CTD	CTD, Fluor, PAR	
14-May-05	6:59	38	1	N13	NEU038	65	56 54.3 N	160 49.8 W	Neu	QTowF	
14-May-05	7:17	38	2	N13	BON038	69	56 54.9 N	160 50.6 W	20Bon	QTowF	
14-May-05	7:17	38	2	N13	BON038	69	56 54.9 N	160 50.6 W	60Bon	QTowF, RCountL	
14-May-05	7:17	38	2	N13	BON038	69	56 54.9 N	160 50.6 W	CAT	CAT	
14-May-05	8:52	39	1	N16	NEU039	67	57 07.5 N	161 03.2 W	Neu	QTowF	
14-May-05	9:14	39	2	N16	BON039	69	57 07.3 N	161 03.3 W	20Bon	QTowF	
14-May-05	9:14	39	2	N16	BON039	69	57 07.3 N	161 03.3 W	60Bon	QTowF, RCountL	
14-May-05	9:14	39	2	N16	BON039	69	57 07.3 N	161 03.3 W	CAT	CAT	
14-May-05	10:48	40	1	Q16	NEU040	74	57 00.3 N	161 27.0 W	Neu	QTowF	
14-May-05	11:07	40	2	Q16	BON040	74	57 01.0 N	161 26.7 W	20Bon	QTowF	

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
14-May-05	11:07	40	2	Q16	BON040	74	57 01.0 N	161 26.7 W	60Bon	QTowF, RCountL, SPEuph	
14-May-05	11:07	40	2	Q16	BON040	74	57 01.0 N	161 26.7 W	CAT	CAT	
14-May-05	11:41	40	3	Q16	MOC015	74	57 00.6 N	161 27.3 W	MOC1	QTowF	Angles a little low, reaching 33.
14-May-05	12:03	40	4	Q16	CTD022	74	57 01.0 N	161 26.6 W	CTD	CTD, Fluor, PAR	
14-May-05	12:23	40	5	Q16	BON041	74	57 01.1 N	161 26.2 W	60Bon	SPEuph	Live tow for Steve Porter's Euphausiid
14-May-05	12:23	40	5	Q16	BON041	74	57 01.1 N	161 26.2 W	CAT	CAT	
14-May-05	13:54	41	1	Q13	NEU041	67	56 47.4 N	161 14.8 W	Neu	QTowF	
14-May-05	14:12	41	2	Q13	BON042	65	56 48.2 N	161 13.8 W	20Bon	QTowF	
14-May-05	14:12	41	2	Q13	BON042	65	56 48.2 N	161 13.8 W	60Bon	QTowF, RCountL	
14-May-05	14:12	41	2	Q13	BON042	65	56 48.2 N	161 13.8 W	CAT	CAT	
14-May-05	13:54	42	1	Q10	NEU042	67	56 47.4 N	161 14.8 W	Neu	QTowF	
14-May-05	14:12	42	2	Q10	BON043	65	56 48.2 N	161 13.8 W	20Bon	QTowF	
14-May-05	14:12	42	2	Q10	BON043	65	56 48.2 N	161 13.8 W	60Bon	QTowF, RCountL	
14-May-05	14:12	42	2	Q10	BON043	65	56 48.2 N	161 13.8 W	60Bon	QTowF, RCountL	Jellyfish in net 1 of 60BON. 1 P. quad in 20% sample.
14-May-05	14:12	42	2	Q10	BON043	65	56 48.2 N	161 13.8 W	CAT	CAT	
14-May-05	16:41	42	3	Q10	MOC016	71	56 35.3 N	161 00.5 W	MOC1	QTowF	
14-May-05	16:41	42	3	Q10	MOC016	71	56 35.3 N	161 00.5 W	MOC1	QTowF	Removed 1 large jelly from net 3.
14-May-05	17:10	42	4	Q10	CTD023	71	56 35.5 N	161 00.1 W	CTD	CTD, Fluor, PAR	
14-May-05	18:43	43	1	T10	NEU043	70	56 28.0 N	161 23.6 W	Neu	QTowF	
14-May-05	19:03	43	2	T10	BON044	69	56 27.9 N	161 24.9 W	20Bon	QTowF	
14-May-05	19:03	43	2	T10	BON044	69	56 27.9 N	161 24.9 W	60Bon	QTowF, RCountL	
14-May-05	19:03	43	2	T10	BON044	69	56 27.9 N	161 24.9 W	60Bon	QTowF, RCountL	Gorgeous sunny day and saw orcas. Too bad you missed it.
14-May-05	19:03	43	2	T10	BON044	69	56 27.9 N	161 24.9 W	CAT	CAT	
14-May-05	20:30	44	1	T13	NEU044	90	56 40.1 N	161 37.4 W	Neu	QTowF	
14-May-05	20:50	44	2	T13	BON045	84	56 40.8 N	161 38.1 W	20Bon	QTowF	
14-May-05	20:50	44	2	T13	BON045	84	56 40.8 N	161 38.1 W	60Bon	QTowF, RCountL	
14-May-05	20:50	44	2	T13	BON045	84	56 40.8 N	161 38.1 W	60Bon	QTowF, RCountL	jellyfish tentacles wrapped around
14-May-05	20:50	44	2	T13	BON045	84	56 40.8 N	161 38.1 W	CAT	CAT	
14-May-05	21:33	44	3	T13	MOC017	86	56 40.4 N	161 38.1 W	MOC1	QTowF	
14-May-05	22:00	44	4	T13	CTD024	81	56 41.1 N	161 38.1 W	CTD	CTD, Fluor, PAR	
14-May-05	23:26	45	1	T16	NEU045	81	56 53.3 N	161 49.9 W	Neu	QTowF	
14-May-05	23:46	45	2	T16	BON046	72	56 53.8 N	161 50.9 W	20Bon	QTowF	
14-May-05	23:46	45	2	T16	BON046	72	56 53.8 N	161 50.9 W	60Bon	QTowF, RCountL	Larger jellyfish in net 1; preserved net 2 instead.
14-May-05	23:46	45	2	T16	BON046	72	56 53.8 N	161 50.9 W	CAT	CAT	
15-May-05	0:08	45	3	T16	CUF022	69	56 53.8 N	161 52.3 W	CUFES	QTowF	Transit T16 - W16.
15-May-05	1:33	46	1	W16	NEU046	70	56 46.5 N	162 14.3 W	Neu	QTowF	
15-May-05	1:41	46	2	W16	BON047	72	56 46.6 N	162 14.6 W	20Bon	QTowF	

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
15-May-05	1:41	46	2	W16	BON047	72	56 46.6 N	162 14.6 W	60Bon	QTowF, RCountL	
15-May-05	1:41	46	2	W16	BON047	72	56 46.6 N	162 14.6 W	CAT	CAT	
15-May-05	2:15	46	3	W16	MOC018	73	56 46.7 N	162 14.5 W	MOC1	QTowF	
15-May-05	2:15	46	3	W16	MOC018	73	56 46.7 N	162 14.5 W	MOC1	QTowF	Removed 1 lrg jelly from net 3.
15-May-05	2:24	46	4	W16	CUF023	72	56 46.9 N	162 14.4 W	CUFES	QTowF	
15-May-05	2:36	46	5	W16	CTD025	73	56 47.0 N	162 14.6 W	CTD	CTD, Fluor, PAR	
15-May-05	2:42	46	6	W16	CUF024	73	56 47.0 N	162 14.6 W	CUFES	QTowF	Transit between W16-W13. Tow time is 86 min 53 sec.
15-May-05	4:01	47	1	W13	NEU047	72	56 34.3 N	162 02.0 W	Neu	QTowF	
15-May-05	4:23	47	2	W13	BON048	71	56 33.7 N	162 02.2 W	20Bon	QTowF	Tow time slightly long.
15-May-05	4:23	47	2	W13	BON048	71	56 33.7 N	162 02.2 W	60Bon	QTowF, RCountL	Tow time slightly long.
15-May-05	4:23	47	2	W13	BON048	71	56 33.7 N	162 02.2 W	CAT	CAT	
15-May-05	4:34	47	3	W13	CUF025	72	56 33.7 N	162 03.0 W	CUFES	QTowF	Transit from W13 - W10.
15-May-05	4:34	48	1	W10	NEU048	81	56 19.9 N	161 47.5 W	Neu	QTowF	
15-May-05	6:27	48	2	W10	BON049	83	56 20.2 N	161 48.8 W	20Bon	QTowF	
15-May-05	6:27	48	2	W10	BON049	83	56 20.2 N	161 48.8 W	60Bon	QTowF, RCountL	
15-May-05	6:27	48	2	W10	BON049	83	56 20.2 N	161 48.8 W	60Bon	QTowF, RCountL	Large jelly removed.
15-May-05	6:27	48	2	W10	BON049	83	56 20.2 N	161 48.8 W	CAT	CAT	
15-May-05	7:10	48	3	W10	CTD026	82	56 20.5 N	161 49.0 W	CTD	CTD, Fluor, PAR	
15-May-05	6:49	48	4	W10	CUF026	76	56 20.4 N	161 49.0 W	CUFES	QTowF	Transit from W10 to W7. Didn't go all the way to W7.
15-May-05	8:54	49	1	W7	MOC019	54	56 07.7 N	161 35.9 W	MOC1	QTowF	
15-May-05	9:01	49	2	W7	CUF027	53	56 07.5 N	161 35.7 W	CUFES	QTowF	Run time 3:18.
15-May-05	9:15	49	3	W7	CTD027	53	56 07.3 N	161 35.4 W	CTD	CTD, Fluor, PAR	
15-May-05	9:24	49	4	W7	CUF028	52	56 07.2 N	161 35.3 W	CUFES	QTowF	Transit between W7 & Z7. Tow time 93 minutes.
15-May-05	11:06	50	1	Z7	MOC020	55	56 00.3 N	161 58.0 W	MOC1	QTowF	
15-May-05	11:12	50	2	Z7	CUF029	56	56 00.3 N	161 58.2 W	CUFES	QTowF	With MOC020. Tow time 3 min 13 sec.
15-May-05	11:30	50	3	Z7	CTD028	57	56 00.4 N	161 58.2 W	CTD	CTD, Fluor, PAR	
15-May-05	11:46	50	4	Z7	BON050	55	56 00.3 N	161 57.8 W	60Bon	SPEuph	Bongo to collect euphausids for Steve
15-May-05	11:46	50	4	Z7	BON050	55	56 00.3 N	161 57.8 W	CAT	CAT	
15-May-05	11:54	50	5	Z7	CUF030	55	56 00.3 N	161 57.8 W	CUFES	QTowF	Transit from Z7 to Z10. Tow time 77 min.
15-May-05	13:20	51	1	Z10	NEU049	77	56 12.8 N	162 11.1 W	Neu	QTowF	Flowmeter revolutions exceptionally high.
15-May-05	13:37	51	2	Z10	BON051	78	56 13.1 N	162 11.8 W	20Bon	QTowF	
15-May-05	13:37	51	2	Z10	BON051	78	56 13.1 N	162 11.8 W	60Bon	QTowF, RCountL	
15-May-05	13:37	51	2	Z10	BON051	78	56 13.1 N	162 11.8 W	CAT	CAT	
15-May-05	13:49	51	3	Z10	CUF031	78	56 13.6 N	162 12.3 W	CUFES	QTowF	Transit between Z10 and Z13. Run time of 80 min.
15-May-05	15:12	52	1	Z13	NEU050	75	56 25.7 N	162 24.2 W	Neu	QTowF	
15-May-05	15:29	52	2	Z13	BON052	75	56 26.2 N	162 24.8 W	20Bon	QTowF	

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
15-May-05	15:29	52	2	Z13	BON052	75	56 26.2 N	162 24.8 W	60Bon	QTowF, RCountL	
15-May-05	15:29	52	2	Z13	BON052	75	56 26.2 N	162 24.8 W	60Bon	QTowF, RCountL	Marked in MOA as second BON051.
15-May-05	15:29	52	2	Z13	BON052	75	56 26.2 N	162 24.8 W	CAT	CAT	
15-May-05	15:47	52	3	Z13	CUF032	75	56 26.3 N	162 25.3 W	CUFES	QTowF	Transit between 52 and 53 (Z13 and AC13). Run time of 79 min.
15-May-05	17:09	53	1	AC13	NEU051	80	56 18.7 N	162 47.5 W	Neu	QTowF	
15-May-05	17:28	53	2	AC13	BON053	80	56 19.1 N	162 48.6 W	20Bon	QTowF	
15-May-05	17:28	53	2	AC13	BON053	80	56 19.1 N	162 48.6 W	60Bon	QTowF, RCountL	
15-May-05	17:28	53	2	AC13	BON053	80	56 19.1 N	162 48.6 W	CAT	CAT	
15-May-05	17:42	53	3	AC13	CUF033	79	56 19.1 N	162 49.3 W	CUFES	QTowF	Transit between 53 (AC13) and 54(AC10). Run time 1:25:22.
15-May-05	19:09	54	1	AC10	NEU052	80	56 05.4 N	162 35.0 W	Neu	QTowF	
15-May-05	19:28	54	2	AC10	BON054	80	56 05.4 N	162 36.1 W	20Bon	QTowF	Marked as second BON053 in MOAA.
15-May-05	19:28	54	2	AC10	BON054	80	56 05.4 N	162 36.1 W	60Bon	QTowF, RCountL	Marked as second BON053 in MOAA.
15-May-05	19:28	54	2	AC10	BON054	80	56 05.4 N	162 36.1 W	60Bon	QTowF, RCountL	Marked as second BON053 in MOAA.
15-May-05	19:28	54	2	AC10	BON054	80	56 05.4 N	162 36.1 W	CAT	CAT	Marked as second BON053 in MOAA.
15-May-05	19:42	54	3	AC10	CUF034	79	56 05.8 N	162 36.9 W	CUFES	QTowF	Transit between 54 (A10) and 55 (AC7). Tow time 90:49.
15-May-05	21:30	55	1	AC7	MOC021	60	55 52.5 N	162 22.8 W	MOC1	QTowF	
15-May-05	21:37	55	2	AC7	CUF035	61	55 52.6 N	162 23.0 W	CUFES	QTowF	Tow time 2:40.
15-May-05	21:58	55	3	AC7	CUF036	63	55 52.7 N	162 23.4 W	CUFES	QTowF	Tow through MOC021 track. Tow time 8
15-May-05	21:50	55	4	AC7	CTD029	62	55 52.7 N	162 23.3 W	CTD	CTD, Fluor, PAR	
15-May-05	22:10	55	5	AC7	CUF037	53	55 51.7 N	162 23.3 W	CUFES	QTowF	Transit from AC7 to AF10.
16-May-05	0:12	56	1	AF10	NEU053	85	55 58.4 N	162 57.9 W	Neu	QTowF	
16-May-05	0:32	56	2	AF10	BON055	86	55 58.9 N	162 59.1 W	20Bon	QTowF	
16-May-05	0:32	56	2	AF10	BON055	86	55 58.9 N	162 59.1 W	60Bon	QTowF, RCountL	
16-May-05	0:32	56	2	AF10	BON055	86	55 58.9 N	162 59.1 W	CAT	CAT	
16-May-05	0:48	56	3	AF10	CUF038	86	55 59.5 N	163 00.0 W	CUFES	QTowF	Transit from AF10 - AF13.
16-May-05	2:00	57	1	AF13	NEU054	85	56 11.3 N	163 11.1 W	Neu	QTowF	
16-May-05	2:19	57	2	AF13	BON056	85	56 11.8 N	163 11.9 W	20Bon	QTowF	
16-May-05	2:19	57	2	AF13	BON056	85	56 11.8 N	163 11.9 W	60Bon	QTowF, RCountL	
16-May-05	2:19	57	2	AF13	BON056	85	56 11.8 N	163 11.9 W	CAT	CAT	
16-May-05	3:46	58	1	AI13	NEU055	89	56 04.8 N	163 34.4 W	Neu	QTowF	
16-May-05	4:01	58	2	AI13	CUF039	89	56 05.3 N	163 35.2 W	CUFES	QTowF	Run with bongo.
16-May-05	4:03	58	3	AI13	BON057	89	56 05.3 N	163 35.3 W	20Bon	QTowF	
16-May-05	4:03	58	3	AI13	BON057	89	56 05.3 N	163 35.3 W	60Bon	QTowF, RCountL	
16-May-05	4:03	58	3	AI13	BON057	89	56 05.3 N	163 35.3 W	CAT	CAT	
16-May-05	5:54	59	1	AI10	NEU056	90	55 51.3 N	163 21.9 W	Neu	QTowF	
16-May-05	6:12	59	2	AI10	CUF040	90	55 52.0 N	163 22.2 W	CUFES	QTowF	Run with bongo.
16-May-05	6:14	59	3	AI10	BON058	90	55 52.2 N	163 22.3 W	20Bon	QTowF	

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
16-May-05	6:14	59	3	AI10	BON058	90	55 52.2 N	163 22.3 W	60Bon	QTowF, RCountL	
16-May-05	6:14	59	3	AI10	BON058	90	55 52.2 N	163 22.3 W	CAT	CAT	
16-May-05	7:55	60	1	AI7	NEU057	67	55 38.0 N	163 11.1 W	Neu	QTowF	
16-May-05	8:12	60	2	AI7	CUF041	68	55 38.5 N	163 10.1 W	CUFES	QTowF	Sampled during Bongo tow. Tow time of
16-May-05	8:16	60	3	AI7	BON059	67	55 38.6 N	163 10.0 W	20Bon	QTowF	
16-May-05	8:16	60	3	AI7	BON059	67	55 38.6 N	163 10.0 W	60Bon	QTowF, RCountL	
16-May-05	8:16	60	3	AI7	BON059	67	55 38.6 N	163 10.0 W	CAT	CAT	
16-May-05	9:59	61	1	AL7	NEU058	76	55 31.0 N	163 34.3 W	Neu	QTowF	
16-May-05	10:16	61	2	AL7	CUF042	75	55 31.4 N	163 33.9 W	CUFES	QTowF	Run with bongo. Tow time of 7 min 56
16-May-05	10:20	61	3	AL7	BON060	75	55 31.5 N	163 33.2 W	20Bon	QTowF	
16-May-05	10:20	61	3	AL7	BON060	75	55 31.5 N	163 33.2 W	60Bon	QTowF, RCountL	
16-May-05	10:20	61	3	AL7	BON060	75	55 31.5 N	163 33.2 W	CAT	CAT	
16-May-05	12:01	62	1	AL10	NEU059	95	55 44.4 N	163 46.3 W	Neu	QTowF	
16-May-05	12:18	62	2	AL10	CUF043	95	55 44.9 N	163 45.4 W	CUFES	QTowF	Run with bongo. Tow time 6 min 50 sec.
16-May-05	12:20	62	3	AL10	BON061	95	55 44.9 N	163 45.4 W	20Bon	QTowF	
16-May-05	12:20	62	3	AL10	BON061	95	55 44.9 N	163 45.4 W	60Bon	QTowF, RCountL	
16-May-05	12:20	62	3	AL10	BON061	95	55 44.9 N	163 45.4 W	CAT	CAT	
16-May-05	12:43	62	4	AL10	BON062	94	55 45.6 N	163 45.5 W	60Bon	SPEuph	Collected euphausids for Steve Porter.
16-May-05	12:43	62	4	AL10	BON062	94	55 45.6 N	163 45.5 W	CAT	CAT, SPEuph	Collected euphausids for Steve Porter.
16-May-05	14:11	63	1	AL13	NEU060	93	55 57.3 N	163 58.9 W	Neu	QTowF	
16-May-05	14:31	63	2	AL13	BON063	92	55 58.0 N	163 58.5 W	20Bon	QTowF	
16-May-05	14:31	63	2	AL13	BON063	92	55 58.0 N	163 58.5 W	60Bon	QTowF, RCountL	
16-May-05	14:31	63	2	AL13	BON063	92	55 58.0 N	163 58.5 W	CAT	CAT	
16-May-05	16:07	64	1	AO13	NEU-61	95	55 50.4 N	164 21.9 W	Neu	QTowF	
16-May-05	16:25	64	2	AO13	BON064	95	55 51.1 N	164 21.8 W	20Bon	QTowF	
16-May-05	16:25	64	2	AO13	BON064	95	55 51.1 N	164 21.8 W	60Bon	QTowF, RCountL	
16-May-05	16:25	64	2	AO13	BON064	95	55 51.1 N	164 21.8 W	CAT	CAT	
16-May-05	18:13	65	1	AO10	NEU062	95	55 36.9 N	164 09.4 W	Neu	QTowF	
16-May-05	18:31	65	2	AO10	BON065	95	55 37.5 N	164 09.3 W	20Bon	QTowF	
16-May-05	18:31	65	2	AO10	BON065	95	55 37.5 N	164 09.3 W	60Bon	QTowF, RCountL	
16-May-05	18:31	65	2	AO10	BON065	95	55 37.5 N	164 09.3 W	CAT	CAT	
16-May-05	20:15	66	1	AO7	NEU063	89	55 23.4 N	163 57.1 W	Neu	QTowF	
16-May-05	20:34	66	2	AO7	BON066	89	55 24.1 N	163 56.5 W	20Bon	QTowF	
16-May-05	20:34	66	2	AO7	BON066	89	55 24.1 N	163 56.5 W	60Bon	QTowF, RCountL	
16-May-05	20:34	66	2	AO7	BON066	89	55 24.1 N	163 56.5 W	CAT	CAT	
16-May-05	22:45	67	1	AR10	NEU064	101	55 29.5 N	164 32.4 W	Neu	QTowF	
16-May-05	23:03	67	2	AR10	BON067	101	55 30.2 N	164 44.7 W	20Bon	QTowF	
16-May-05	23:03	67	2	AR10	BON067	101	55 30.2 N	164 44.7 W	60Bon	QTowF, RCountL	
16-May-05	23:03	67	2	AR10	BON067	101	55 30.2 N	164 44.7 W	CAT	CAT	

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
17-May-05	1:30	68	1	AO13	MOC022	95	55 50.1 N	164 21.8 W	MOC1	QTowF	
17-May-05	1:42	68	2	AO13	CUF044	95	55 50.4 N	164 21.7 W	CUFES	QTowF	
17-May-05	1:54	68	3	AO13	CTD030	95	55 50.5 N	164 21.6 W	CTD	CTD, Fluor, PAR	
17-May-05	3:22	69	1	AR13	NEU065	97	55 42.7 N	164 44.6 W	Neu	QTowF	
17-May-05	3:47	69	2	AR13	BON068	94	55 43.4 N	164 45.2 W	20Bon	QTowF	
17-May-05	3:47	69	2	AR13	BON068	94	55 43.4 N	164 45.2 W	60Bon	QTowF, RCountL	
17-May-05	3:47	69	2	AR13	BON068	94	55 43.4 N	164 45.2 W	CAT	CAT	
17-May-05	5:23	70	1	AU13	NEU066	109	55 35.9 N	165 08.1 W	Neu	QTowF	
17-May-05	5:41	70	2	AU13	BON069	107	55 36.5 N	165 08.2 W	20Bon	QTowF	
17-May-05	5:41	70	2	AU13	BON069	107	55 36.5 N	165 08.2 W	60Bon	QTowF, RCountL	
17-May-05	5:41	70	2	AU13	BON069	107	55 36.5 N	165 08.2 W	CAT	CAT	
17-May-05	7:25	71	1	AU10	NEU067	107	55 22.6 N	164 55.2 W	Neu	QTowF	
17-May-05	7:44	71	2	AU10	BON070	107	55 23.2 N	164 54.5 W	20Bon	QTowF	
17-May-05	7:44	71	2	AU10	BON070	107	55 23.2 N	164 54.5 W	60Bon	QTowF, RCountL	
17-May-05	7:44	71	2	AU10	BON070	107	55 23.2 N	164 54.5 W	CAT	CAT	
17-May-05	10:43	72	1	AO10	CTD031	95	55 37.4 N	164 08.7 W	CTD	CTD, Fluor, PAR	
17-May-05	11:14	73	1	AOB	CTD032	95	55 35.3 N	164 06.7 W	CTD	CTD, Fluor, PAR	
17-May-05	11:43	74	1	AOC	CTD033	95	55 33.0 N	164 04.6 W	CTD	CTD, Fluor, PAR	
17-May-05	12:10	75	1	AOD	CTD034	96	55 30.9 N	164 02.3 W	CTD	CTD, Fluor, PAR	
17-May-05	12:38	76	1	AOE	CTD035	94	55 28.7 N	164 00.2 W	CTD	CTD, Fluor, PAR	
17-May-05	13:05	77	1	AOF	CTD036	93	55 26.5 N	163 58.1 W	CTD	CTD, Fluor, PAR	
17-May-05	13:33	78	1	AO7	CTD037	90	55 24.2 N	163 56.1 W	CTD	CTD, Fluor, PAR	
17-May-05	13:59	79	1	AOH	CTD038	77	55 22.1 N	163 53.9 W	CTD	CTD, Fluor, PAR	
17-May-05	14:28	80	1	AOI	CTD039	68	55 19.8 N	163 52.0 W	CTD	CTD, Fluor, PAR	
17-May-05	14:54	81	1	AOJ	CTD040	63	55 17.7 N	163 49.8 W	CTD	CTD, Fluor, PAR	
17-May-05	15:22	82	1	AOK	CTD041	59	55 15.5 N	163 47.7 W	CTD	CTD, Fluor, PAR	
17-May-05	15:51	83	1	AOL	CTD042	54	55 13.4 N	163 45.6 W	CTD	CTD, Fluor, PAR	
17-May-05	16:20	84	1	AO4	CTD043	46	55 11.3 N	163 43.7 W	CTD	CTD, Fluor, PAR	
17-May-05	20:53	85	1	AX4	NEU068	75	54 48.7 N	164 52.8 W	Neu	QTowF	
17-May-05	21:11	85	2	AXA	BON071	72	54 49.4 N	164 53.0 W	20Bon	QTowF	
17-May-05	21:11	85	2	AXA	BON071	72	54 49.4 N	164 53.0 W	60Bon	QTowF, RCountL	
17-May-05	21:11	85	2	AXA	BON071	72	54 49.4 N	164 53.0 W	CAT	CAT	
17-May-05	21:31	85	3	AXA	CTD044	75	54 49.7 N	164 53.0 W	CTD	CTD, Fluor, PAR	
17-May-05	22:26	86	1	AXB	CTD045	80	54 51.8 N	164 55.0 W	CTD	CTD, Fluor, PAR	
17-May-05	22:55	87	1	AXC	CTD046	83	54 54.0 N	164 57.2 W	CTD	CTD, Fluor, PAR	
17-May-05	23:27	88	1	AXD	CTD047	92	54 56.3 N	164 59.4 W	CTD	CTD, Fluor, PAR	
17-May-05	23:59	89	1	AXE	CTD048	102	54 58.4 N	165 01.4 W	CTD	CTD, Fluor, PAR	
18-May-05	0:31	90	1	AXF	CTD049	108	55 00.5 N	165 03.7 W	CTD	CTD, Fluor, PAR	
18-May-05	1:06	91	1	AX7	CTD050	109	55 02.8 N	165 05.4 W	CTD	CTD, Fluor, PAR	

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
18-May-05	1:19	91	2	AX7	BON072	109	55 02.9 N	165 05.6 W	20Bon	QTowF	
18-May-05	1:19	91	2	AX7	BON072	109	55 02.9 N	165 05.6 W	60Bon	QTowF, RCountL	
18-May-05	1:19	91	2	AX7	BON072	109	55 02.9 N	165 05.6 W	CAT	CAT	
18-May-05	1:32	91	3	AX7	NEU069	112	55 02.9 N	165 05.6 W	Neu	QTowF	
18-May-05	2:03	92	1	AXH	CTD051	113	55 05.0 N	165 07.4 W	CTD	CTD, Fluor, PAR	
18-May-05	2:36	93	1	AXI	CTD052	113	55 07.2 N	165 09.7 W	CTD	CTD, Fluor, PAR	
18-May-05	3:03	94	1	AXJ	CTD053	111	55 09.4 N	165 11.8 W	CTD	CTD, Fluor, PAR	
18-May-05	3:39	95	1	AXK	CTD054	113	55 11.6 N	165 13.9 W	CTD	CTD, Fluor, PAR	
18-May-05	4:12	96	1	AXL	CTD055	113	55 13.7 N	165 16.0 W	CTD	CTD, Fluor, PAR	
18-May-05	4:35	97	1	AX10	NEU070	113	55 15.1 N	165 17.9 W	Neu	QTowF	
18-May-05	4:55	97	2	AX10	BON073	114	57 55.1 N	165 18.3 W	20Bon	QTowF	
18-May-05	4:55	97	2	AX10	BON073	114	57 55.1 N	165 18.3 W	60Bon	QTowF, RCountL	
18-May-05	4:55	97	2	AX10	BON073	114	57 55.1 N	165 18.3 W	CAT	CAT	
18-May-05	5:20	97	3	AX10	CTD056	114	55 15.8 N	165 18.8 W	CTD	CTD, Fluor, PAR	
18-May-05	7:12	98	1	AX13	NEU071	114	55 28.6 N	165 30.5 W	Neu	QTowF	
18-May-05	7:31	98	2	AX13	BON074	115	55 29.1 N	165 31.2 W	20Bon	QTowF	
18-May-05	7:31	98	2	AX13	BON074	115	55 29.1 N	165 31.2 W	60Bon	QTowF, RCountL	
18-May-05	7:31	98	2	AX13	BON074	115	55 29.1 N	165 31.2 W	CAT	CAT	
18-May-05	9:06	99	1	BA13	NEU072	122	55 21.2 N	165 52.6 W	Neu	QTowF	
18-May-05	9:27	99	2	BA13	BON075	122	55 21.9 N	165 53.2 W	20Bon	QTowF	
18-May-05	9:27	99	2	BA13	BON075	122	55 21.9 N	165 53.2 W	60Bon	QTowF, RCountL	
18-May-05	9:27	99	2	BA13	BON075	122	55 21.9 N	165 53.2 W	CAT	CAT	
18-May-05	9:51	99	3	BA13	CTD057	122	55 22.3 N	165 53.4 W	CTD	CTD, Fluor, PAR	
18-May-05	10:28	100	1	BADB	CTD058	123	55 21.0 N	165 57.0 W	CTD	CTD, Fluor, PAR	
18-May-05	11:02	101	1	BADC	CTD059	125	55 19.7 N	166 00.8 W	CTD	CTD, Fluor, PAR	
18-May-05	11:38	102	1	BADD	CTD060	127	55 18.5 N	166 04.8 W	CTD	CTD, Fluor, PAR	
18-May-05	12:12	103	1	BADE	CTD061	129	55 17.4 N	166 08.8 W	CTD	CTD, Fluor, PAR	
18-May-05	12:47	104	1	BADF	CTD062	131	55 16.2 N	166 12.5 W	CTD	CTD, Fluor, PAR	
18-May-05	13:13	105	1	BD13	NEU073	133	55 14.3 N	166 15.6 W	Neu	QTowF	
18-May-05	13:34	105	2	BD13	BON076	133	55 14.8 N	166 16.7 W	20Bon	QTowF	
18-May-05	13:34	105	2	BD13	BON076	133	55 14.8 N	166 16.7 W	60Bon	QTowF, RCountL	
18-May-05	13:34	105	2	BD13	BON076	133	55 14.8 N	166 16.7 W	CAT	CAT	
18-May-05	13:57	105	3	BD13	CTD063	133	55 15.1 N	166 16.8 W	CTD	CTD, Fluor, PAR	
18-May-05	14:31	106	1	BADH	CTD064	136	55 13.7 N	166 20.4 W	CTD	CTD, Fluor, PAR	
18-May-05	15:05	107	1	BADI	CTD065	137	55 12.5 N	166 24.2 W	CTD	CTD, Fluor, PAR	
18-May-05	15:37	108	1	BADJ	CTD066	139	55 11.3 N	166 28.0 W	CTD	CTD, Fluor, PAR	
18-May-05	16:14	109	1	BADK	CTD067	140	55 10.0 N	166 31.7 W	CTD	CTD, Fluor, PAR	
18-May-05	16:49	110	1	BADL	CTD068	143	55 08.9 N	166 35.5 W	CTD	CTD, Fluor, PAR	
18-May-05	17:20	111	1	BG13	NEU074	144	55 07.3 N	166 39.0 W	Neu	QTowF	

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
18-May-05	17:43	111	2	BG13	BON077	144	55 07.8 N	166 40.2 W	20Bon	QTowF	
18-May-05	17:43	111	2	BG13	BON077	144	55 07.8 N	166 40.2 W	60Bon	QTowF, RCountL	
18-May-05	17:43	111	2	BG13	BON077	144	55 07.8 N	166 40.2 W	CAT	CAT	
18-May-05	18:22	111	3	BG13	CTD069	144	55 07.9 N	166 40.8 W	CTD	CTD, Fluor, PAR	
18-May-05	20:07	112	1	BG10	BON078	153	54 53.8 N	166 26.3 W	20Bon	QTowF	
18-May-05	20:07	112	1	BG10	BON078	153	54 53.8 N	166 26.3 W	60Bon	QTowF, RCountL	
18-May-05	20:07	112	1	BG10	BON078	153	54 53.8 N	166 26.3 W	CAT	CAT	
18-May-05	21:56	113	1	BD10	BON079	138	55 01.2 N	166 03.6 W	20Bon	QTowF	
18-May-05	21:56	113	1	BD10	BON079	138	55 01.2 N	166 03.6 W	60Bon	QTowF, RCountL	
18-May-05	21:56	113	1	BD10	BON079	138	55 01.2 N	166 03.6 W	CAT	CAT	
18-May-05	23:49	114	1	BA10	BON080	123	55 08.5 N	165 41.0 W	20Bon	QTowF	
18-May-05	23:49	114	1	BA10	BON080	123	55 08.5 N	165 41.0 W	60Bon	QTowF, RCountL	
18-May-05	23:49	114	1	BA10	BON080	123	55 08.5 N	165 41.0 W	CAT	CAT	
19-May-05	1:34	115	1	BA7	BON081	119	54 55.4 N	165 28.4 W	20Bon	QTowF	
19-May-05	1:34	115	1	BA7	BON081	119	54 55.4 N	165 28.4 W	60Bon	QTowF, RCountL	
19-May-05	1:34	115	1	BA7	BON081	119	54 55.4 N	165 28.4 W	CAT	CAT	
19-May-05	2:02	115	2	BA7	CTD070	125	54 55.5 N	165 28.8 W	CTD	CTD, Fluor, PAR	
19-May-05	2:36	116	1	BDFB	CTD071	131	54 54.4 N	165 32.4 W	CTD	CTD, Fluor, PAR	
19-May-05	3:06	117	1	BDFC	CTD072	137	54 53.3 N	165 36.3 W	CTD	CTD, Fluor, PAR	
19-May-05	3:38	118	1	BDFD	CTD073	142	54 52.1 N	165 40.1 W	CTD	CTD, Fluor, PAR	
19-May-05	4:12	119	1	BDFE	CTD074	141	54 50.9 N	165 44.1 W	CTD	CTD, Fluor, PAR	
19-May-05	4:46	120	1	BDFE	CTD075	156	54 49.8 N	165 47.9 W	CTD	CTD, Fluor, PAR	
19-May-05	5:20	121	1	BD7	BON082	167	54 48.4 N	165 51.5 W	20Bon	QTowF	
19-May-05	5:20	121	1	BD7	BON082	167	54 48.4 N	165 51.5 W	60Bon	QTowF, RCountL	
19-May-05	5:20	121	1	BD7	BON082	167	54 48.4 N	165 51.5 W	CAT	CAT	
19-May-05	5:50	121	2	BD7	CTD076	165	54 48.7 N	165 52.2 W	CTD	CTD, Fluor, PAR	
19-May-05	6:26	122	1	BDGH	CTD077	179	54 47.4 N	165 55.5 W	CTD	CTD, Fluor, PAR	
19-May-05	7:04	123	1	BDGI	CTD078	198	54 46.3 N	165 59.4 W	CTD	CTD, Fluor, PAR	
19-May-05	7:45	124	1	BDGJ	CTD079	223	54 45.1 N	166 03.2 W	CTD	CTD, Fluor, PAR	
19-May-05	8:24	125	1	BDGK	CTD080	247	54 43.7 N	166 07.1 W	CTD	CTD, Fluor, PAR	
19-May-05	9:04	126	1	BDGL	CTD081	270	54 42.5 N	166 11.0 W	CTD	CTD, Fluor, PAR	
19-May-05	9:45	127	1	BG7	BON083	289	54 41.4 N	166 14.5 W	20Bon	QTowF	
19-May-05	9:45	127	1	BG7	BON083	289	54 41.4 N	166 14.5 W	60Bon	QTowF, RCountL	
19-May-05	9:45	127	1	BG7	BON083	289	54 41.4 N	166 14.5 W	CAT	CAT	
19-May-05	10:31	127	2	BG7	CTD082	289	54 41.4 N	166 14.5 W	CTD	CTD, Fluor, PAR	
19-May-05	14:01	128	1	BA4	BON084	136	54 42.3 N	165 16.3 W	20Bon	QTowF	
19-May-05	14:01	128	1	BA4	BON084	136	54 42.3 N	165 16.3 W	60Bon	QTowF, RCountL	
19-May-05	14:01	128	1	BA4	BON084	136	54 42.3 N	165 16.3 W	CAT	CAT	
19-May-05	15:54	129	1	BD4	BON085	343	54 35.4 N	165 39.2 W	20Bon	QTowF	

Cruise Summary For FOCI Cruise 5MF05 (MF0507)

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid	Alternat Station	Depth (m)	Latitude	Longitude	Gear	SamplesCollected	HaulComments
19-May-05	15:54	129	1	BD4	BON085	343	54 35.4 N	165 39.2 W	60Bon	QTowF, RCountL	
19-May-05	15:54	129	1	BD4	BON085	343	54 35.4 N	165 39.2 W	CAT	CAT	
19-May-05	18:02	130	1	BG4	BON086	539	54 28.2 N	166 02.3 W	20Bon	QTowF	
19-May-05	18:02	130	1	BG4	BON086	539	54 28.2 N	166 02.3 W	60Bon	QTowF, RCountL	
19-May-05	18:02	130	1	BG4	BON086	539	54 28.2 N	166 02.3 W	CAT	CAT	
19-May-05	20:14	131	1	BJ4	BON087	739	54 20.1 N	166 25.1 W	20Bon	QTowF	
19-May-05	20:14	131	1	BJ4	BON087	739	54 20.1 N	166 25.1 W	60Bon	QTowF, RCountL	
19-May-05	20:14	131	1	BJ4	BON087	739	54 20.1 N	166 25.1 W	CAT	CAT	
19-May-05	22:23	132	1	BJ7	BON088	425	54 33.8 N	166 37.2 W	20Bon	QTowF	
19-May-05	22:23	132	1	BJ7	BON088	425	54 33.8 N	166 37.2 W	60Bon	QTowF, RCountL	
19-May-05	22:23	132	1	BJ7	BON088	425	54 33.8 N	166 37.2 W	CAT	CAT	
20-May-05	0:21	133	1	BJ10	BON089	293	54 47.0 N	166 49.8 W	20Bon	QTowF	
20-May-05	0:21	133	1	BJ10	BON089	293	54 47.0 N	166 49.8 W	60Bon	QTowF, RCountL	
20-May-05	0:21	133	1	BJ10	BON089	293	54 47.0 N	166 49.8 W	CAT	CAT	
20-May-05	2:15	134	1	BJ13	BON090	156	55 00.5 N	167 01.4 W	20Bon	QTowF	
20-May-05	2:15	134	1	BJ13	BON090	156	55 00.5 N	167 01.4 W	60Bon	QTowF, RCountL	
20-May-05	2:15	134	1	BJ13	BON090	156	55 00.5 N	167 01.4 W	CAT	CAT	
20-May-05	4:04	135	1	BJ16	BON091	145	55 13.7 N	167 13.5 W	20Bon	QTowF	
20-May-05	4:04	135	1	BJ16	BON091	145	55 13.7 N	167 13.5 W	60Bon	QTowF, RCountL	
20-May-05	4:04	135	1	BJ16	BON091	145	55 13.7 N	167 13.5 W	CAT	CAT	
20-May-05	6:01	136	1	BG16	BON092	138	55 21.1 N	166 50.7 W	20Bon	QTowF	
20-May-05	6:01	136	1	BG16	BON092	138	55 21.1 N	166 50.7 W	60Bon	QTowF, RCountL	
20-May-05	6:01	136	1	BG16	BON092	138	55 21.1 N	166 50.7 W	CAT	CAT	
20-May-05	7:56	137	1	BD16	BON093	132	55 27.8 N	166 27.9 W	20Bon	QTowF	
20-May-05	7:56	137	1	BD16	BON093	132	55 27.8 N	166 27.9 W	60Bon	QTowF, RCountL	
20-May-05	7:56	137	1	BD16	BON093	132	55 27.8 N	166 27.9 W	CAT	CAT	
20-May-05	9:48	138	1	BA16	BON094	123	55 35.3 N	166 04.5 W	20Bon	QTowF	
20-May-05	9:48	138	1	BA16	BON094	123	55 35.3 N	166 04.5 W	60Bon	QTowF, RCountL	
20-May-05	9:48	138	1	BA16	BON094	123	55 35.3 N	166 04.5 W	CAT	CAT	

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Map of Grid Survey Area:

