

## CRUISE REPORT

Cruise Number: MF-02-10  
FOCI Number: FOCI  
Ship: 5MF02

**Area of Operations:** Gulf of Alaska, Kodiak Island vicinity

**Itinerary:** Departed Kodiak, AK, Sunday, Sept 8, 2002  
Arrived Kodiak, AK, Monday, Sept 23, 2002

**Participating Organizations:** NOAA/Alaska Fisheries Science Center (AFSC)

### Chief Scientist:

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### Objectives of Cruise:

We conducted an ichthyoplankton survey in the waters contiguous to Kodiak Island, Alaska. This work was needed to describe larval fish assemblages on the shelf and slope in late summer/early fall and to study the transport and early life history of larval forage fishes (ex: capelin). Zooplankton data and data on physical characteristics of the water column were also be collected.

### Summary of Operations:

<u>Operation</u>	<u>Tows</u>
20cm Bongo	121
60cm Bongo	123
CaIVET	29
Seabird SeaCAT CTD	150
CTD with bottle samples	56
MANTA neuston	19
MARMAP neuston	19
1 m <sup>2</sup> Mocness	29
Neuston	93

**Samples Collected:**

Chlorophyll samples	168
Nutrient samples	161
Microzooplankton samples	234
Sebastes for A. Kendall	1
Bathymasterid larvae for A. Matarese	2
Capelin Rough Count	2741
Quantitative tows preserved in formalin	539

**Summary of Cruise:**

**Diel Study:** Departure from Kodiak, AK occurred at 1500 hrs on September 8, 2002. At the first station (57° 40.72' N, 152° 20.4' W), CTD casts and MOCNESS tows were conducted alternately at 3-hr intervals for 24 hrs. CTD casts with Niskin bottles were conducted to collect microzooplankton samples followed by MOCNESS sampling. A problem was noted with the SCS system after the first tow. The data were not being recorded by the MOA. This problem was remedied and all casts and tows afterward were logged.

Following completion of the 24-hr sampling period, the MANTA and MARMAP neuston gears were each used to test their deployment and retrieval.

At Station 72, we conducted a neuston and bongo tow, then we resumed a 24-hour sampling protocol. We conducted CTD casts and MOCNESS towing alternately at 3-hr intervals for 24 hrs. CTD casts with Niskin bottles were conducted to collect microzooplankton samples followed by MOCNESS sampling.

At the conclusion of the survey we re-occupied station 1 where we conducted CTD casts and MOCNESS towing alternately at 3-hr intervals for 24 hrs.

**Grid Survey:** Beginning at station 2, we began grid sampling activities. At each grid station the Sameoto neuston gear was deployed, followed by bongo towing (20 and 60 cm nets). Sampling was similar for all other grid stations, with a few alterations at selected stations: 1) the addition of MANTA and MARMAP sampling for neustonic species conducted at Stations 5, 6, 13, 14, 16, 23, 27, 66, 70, 83, 86, 88, 89, 99, 108, 110, 112, and 123, and 2) no sampling of any neuston gear at Stations 33, 34, 35, 36, 37 due to inclement weather.

**Canyon Transport:** Selected stations were sampled to examine flows in Barnabus and Chiniak canyons. At Stations 42-45, 47-52, 55-63, 65, 74-7, and 79-82, a CTD cast with Niskin bottles was conducted to collect nutrient and chlorophyll information. This was followed by a CalVET tow to collect microzooplankton. A bongo tow (20 and 60 cm) was conducted last.

Upon completion of all operations, we returned to Kodiak, AK on September 23 at 0800 hrs.

Days lost to equipment failure – 1.0 (loss of engine control on bridge, broken anemometer, loss of CTD hydraulics)

Days lost due to weather – 0.2 (high winds precluded sampling with neuston gear at 5 stations)

**Specifics of operations:**

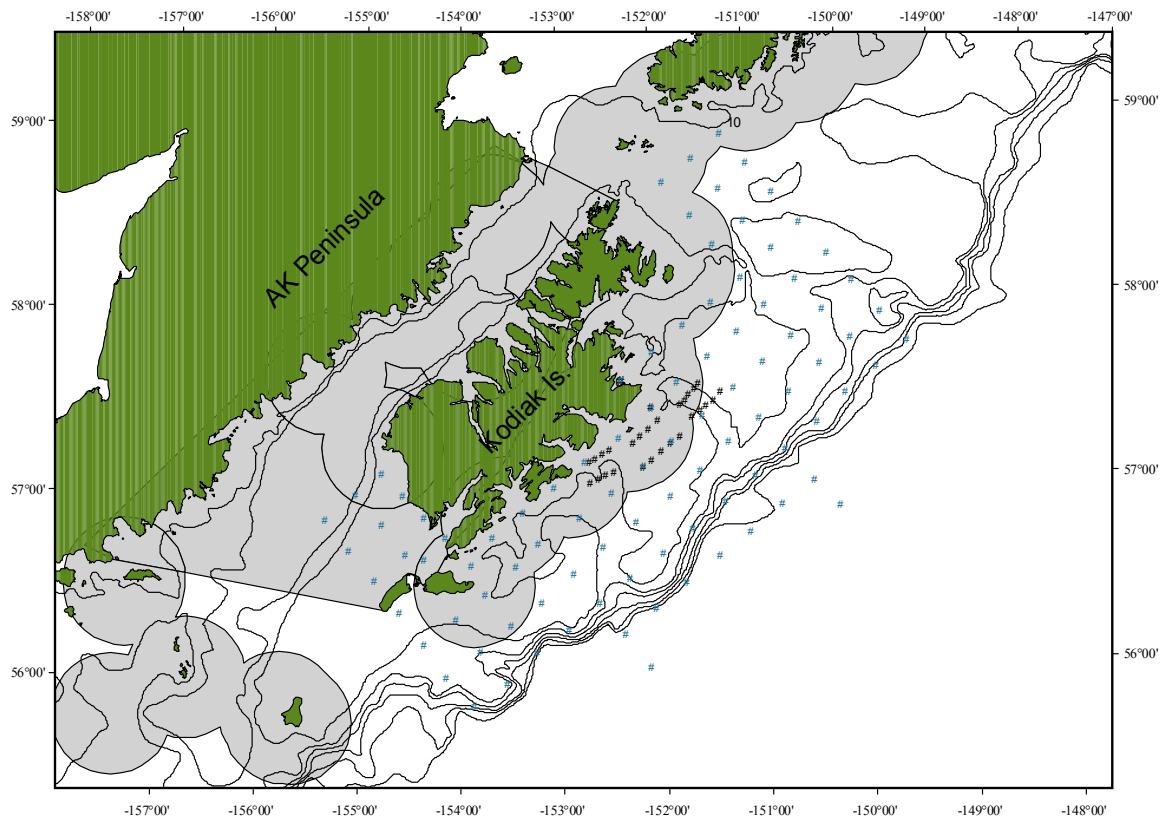
Please see Table 1.

**Acknowledgments:**

The scientific party would like to acknowledge the efforts and support of the officers and crew of the *Miller Freeman*. All personnel performed their duties professionally and the success of the cruise was dependent, in large part, on their hard work.

**Attachments:**

Figure 1. Survey area



**Table 1. Cruise Summary For FOCI Cruise 5MF02 (MF0210)**

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
09-Sep-02	3:37	1	1		CTD001	124	57 40.72 N	152 20.37 W	CTDB	CTD, MZ	Vol of 100 m bottle was 5.0 L. All others were 10 L.	
09-Sep-02	4:22	1	2		MOC001	117	57 40.72 N	152 20.37 W	MOC1	QTowF	Net 6 = 5 Aqueora sp weighing 1.23kg and 1 unidentified jelly weighing 7g. Net 1 = 40m bottle did not trip. Volume of 100m bottle was 5 liters all others 10 liters. 2 jellyfish discarded = 862g both Aqueora in net 6. 3 jellyfish discarded = 1514g all Aqueora in net 5.	
09-Sep-02	4:22	1	2		MOC001	117	57 40.72 N	152 20.37 W	MOC1	QTowF		
09-Sep-02	6:53	1	3		CTD002	116	57 40.47 N	152 20.59 W	CTDB	CTD, MZ	2 jellyfish discarded = 862g both Aqueora in net 6. 3 jellyfish discarded = 1514g all Aqueora in net 5.	
09-Sep-02	7:51	1	4		MOC002	124	57 40.72 N	152 20.37 W	MOC1	QTowF		
09-Sep-02	7:51	1	4		MOC002	124	57 40.72 N	152 20.37 W	MOC1	QTowF	Discarded jellyfish = 1 C. malanaster at 376g and 5 Aqueora at 918g from net 6.	
09-Sep-02	10:58	1	5		MOC003	126	57 40.68 N	152 20.40 W	MOC1	QTowF		
09-Sep-02	11:50	1	6		CTD003	122	57 40.53 N	152 20.63 W	CTDB	CTD, MZ	Net 6 discarded 1 Aqueora at 34g.	
09-Sep-02	12:56	1	7		CTD004	110	57 40.39 N	152 20.51 W	CTDB	CTD, MZ		
09-Sep-02	13:52	1	8		MOC004	124	57 40.64 N	152 20.46 W	MOC1	QTowF		
09-Sep-02	15:54	1	9		CTD005	115	57 40.44 N	152 20.60 W	CTDB	CTD, MZ		
09-Sep-02	16:54	1	10		MOC005	128	57 40.90 N	152 20.10 W	MOC1	QTowF		
09-Sep-02	18:54	1	11		CTD006	110	57 40.42 N	152 20.53 W	CTDB	CTD, MZ	Net 5 did not signal trip but angle went up indicating net did trip. Had to manually reset program and estimate volume filtered for net 5 using average of nets 3: 4: and 6. MZ vol 10L.	
09-Sep-02	19:36	1	12		MOC006	118	57 40.49 N	152 20.70 W	MOC1	QTowF		
09-Sep-02	21:53	1	13		CTD007	120	57 40.51 N	152 20.64 W	CTDB	CTD, MZ	Net 5 had 3 jellyfish @ 966g, 2 Aqueora, 1 Chrysaora. All discarded MZ vol 10L.	
09-Sep-02	22:26	1	14		MOC007	128	57 40.51 N	152 20.64 W	MOC1	QTowF		
10-Sep-02	0:57	1	15		CTD008	125	57 40.62 N	152 20.69 W	CTDB	CTD, MZ	discarded 1 Aqueora at 198g in Net 4 and 1 Aqueora at 226g in Net 2 MZ vol 10L.	
10-Sep-02	1:34	1	16		MOC008	123	57 40.52 N	152 20.67 W	MOC1	QTowF		
10-Sep-02	3:01	1	17			108	57 40.36 N	152 20.50 W	Neu	QTowF	Net 6 did not signal trip but did trip. Estimated vol. filt. from avg. of previous 3 Sameoto flow meter out of water for some of tow. Bull kelp bulb and stem rinsed and removed.	
10-Sep-02	3:28	1	18			118	57 40.43 N	152 20.72 W	MANTA	QTowF	Lots of kelp. Rinsed well and discarded. 1 Aqueora at 178g. Manta	
10-Sep-02	3:54	1	19			100	57 40.26 N	152 20.57 W	MARMAP	QTowF	Took 15 seconds to bring in. 3 Aqueora discarded. Total weight at 226 g.	
22-Sep-02	6:53	1	20		CTD048	111	57 40.39 N	152 20.58 W	CTDB	CTD, MZ		
22-Sep-02	7:30	1	21		MOC022	120	57 40.32 N	152 20.87 W	MOC1	QTowF		
22-Sep-02	10:16	1	22		CTD049	107	57 40.31 N	152 20.58 W	CTDB	CTD, MZ		
22-Sep-02	10:31	1	23		MOC023	132	57 40.47 N	152 20.66 W	MOC1	QTowF		
22-Sep-02	12:52	1	24		CTD050	119	57 40.50 N	152 20.52 W	CTDB	CTD, MZ		

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Alternat Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
22-Sep-02	13:29	1	25		MOC024	125	57 40.45 N	152 20.34 W	MOC1	QTowF	
22-Sep-02	15:52	1	26		CTD051	118	57 40.46 N	152 20.68 W	CTDB	CTD, MZ	
22-Sep-02	16:29	1	27		MOC025	122	57 40.32 N	152 20.86 W	MOC1	QTowF	
22-Sep-02	18:51	1	28		CTD052	118	57 40.46 N	152 20.80 W	CTDB	CTD, MZ	
22-Sep-02	19:30	1	29		MOC026	120	57 40.50 N	152 20.64 W	MOC1	QTowF	Net 5 had 2 Chrysaora at 4472g. Small bit of sample from net 5 lost i.e. less than 10ml. Net 6 volume filtered estimated.
22-Sep-02	21:51	1	30		CTD053	120	57 40.45 N	152 21.01 W	CTDB	CTD, MZ	
22-Sep-02	22:23	1	31		MOC027	125	57 40.60 N	152 20.89 W	MOC1	QTowF	
23-Sep-02	0:53	1	32		CTD054	123	57 40.57 N	152 20.47 W	CTDB	CTD, MZ	
23-Sep-02	1:30	1	33		MOC028	107	57 40.77 N	152 20.81 W	MOC1	QTowF	
23-Sep-02	3:52	1	34		CTD055	125	57 40.64 N	152 20.67 W	CTDB	CTD, MZ	
23-Sep-02	4:29	1	35		MOC029	118	57 40.48 N	152 20.66 W	MOC1	QTowF	
10-Sep-02	5:21	2	1			103	57 47.17 N	152 02.60 W	Neu	QTowF	Twilight. Sameoto.
10-Sep-02	5:50	2	2		BON001	94	57 47.13 N	152 03.26 W	20Bon	QTowF	stop watch stopped briefly.
10-Sep-02	5:50	2	2		BON001	94	57 47.13 N	152 03.26 W	20Bon	QTowF	Stopwatch stopped briefly.
10-Sep-02	5:50	2	2		BON001	94	57 47.13 N	152 03.26 W	60Bon	QTowF, RCNTCAPE	Stopwatch stopped briefly.
10-Sep-02	5:50	2	2		BON001	94	57 47.13 N	152 03.26 W	CAT	CAT	Stopwatch stopped briefly.
10-Sep-02	7:17	3	1			77	57 55.72 N	151 42.85 W	Neu	QTowF	Sameoto
10-Sep-02	7:41	3	2		BON002	78	57 55.91 N	151 42.97 W	20Bon	QTowF	
10-Sep-02	7:41	3	2		BON002	78	57 55.91 N	151 42.97 W	60Bon	QTowF, RCNTCAPE	
10-Sep-02	7:41	3	2		BON002	78	57 55.91 N	151 42.97 W	CAT	CAT	
10-Sep-02	9:06	4	1			117	58 03.23 N	151 42.98 W	Neu	QTowF	sameoto
10-Sep-02	9:42	4	2		BON003	118	58 03.28 N	151 25.38 W	20Bon	QTowF	
10-Sep-02	9:42	4	2		BON003	118	58 03.28 N	151 25.38 W	20Bon	QTowF	
10-Sep-02	9:42	4	2		BON003	118	58 03.28 N	151 25.38 W	60Bon	QTowF, RCNTCAPE	Rough count 60Bon net 2 was extrapolated from subsample.
10-Sep-02	9:42	4	2		BON003	118	58 03.28 N	151 25.38 W	CAT	CAT	Rough count 60Bon net 2 was extrapolated from subsample.
10-Sep-02	11:19	5	1			158	58 11.19 N	151 06.24 W	Neu	QTowF	sameoto
10-Sep-02	11:40	5	2			158	58 11.20 N	151 06.25 W	MANTA	Discard	Wind pick up as gear was readied. Gear flipped upside down. Tow Aborted.
10-Sep-02	12:06	5	3		BON004	161	58 10.97 N	151 06.57 W	20Bon	QTowF	
10-Sep-02	12:06	5	3		BON004	161	58 10.97 N	151 06.57 W	60Bon	QTowF, RCNTCAPE	
10-Sep-02	12:06	5	3		BON004	161	58 10.97 N	151 06.57 W	CAT	CAT	
10-Sep-02	14:15	6	1			123	58 22.11 N	151 22.43 W	Neu	QTowF	sameoto
10-Sep-02	14:36	6	2			123	58 22.37 N	151 22.47 W	MARMAP	QTowF	marmap
10-Sep-02	14:59	6	3			123	58 22.23 N	151 22.80 W	20Bon	QTowF	
10-Sep-02	14:59	6	3			123	58 22.23 N	151 22.80 W	60Bon	QTowF, RCNTCAPE	

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
10-Sep-02	14:59	6	3			123	58 22.23 N	151 22.80 W	CAT	CAT	
10-Sep-02	17:10	7	1			175	58 31.84 N	151 35.67 W	Neu	QTowF	sameoto
10-Sep-02	17:38	7	2		BON006	174	58 32.10 N	151 35.66 W	20Bon	QTowF	
10-Sep-02	17:38	7	2		BON006	174	58 32.10 N	151 35.66 W	60Bon	QTowF	rough count capelin = 0
10-Sep-02	17:38	7	2		BON006	174	58 32.10 N	151 35.66 W	CAT	CAT	
10-Sep-02	19:47	8	1			110	58 42.78 N	151 52.90 W	Neu	QTowF	Sameoto
10-Sep-02	20:09	8	2		BON007	113	58 42.58 N	151 53.82 W	20Bon	QTowF	
10-Sep-02	20:09	8	2		BON007	113	58 42.58 N	151 53.82 W	60Bon	AMBathy, QTowF, RCNTCAPE	
10-Sep-02	20:09	8	2		BON007	113	58 42.58 N	151 53.82 W	CAT	CAT	
10-Sep-02	21:42	9	1			125	58 50.44 N	151 34.58 W	Neu	QTowF	Sameoto.
10-Sep-02	22:14	9	2		BON008	115	58 50.24 N	151 35.65 W	20Bon	QTowF	Wire angle was erratic due to foul weather. Stayed at 60m for a long time on way down and then at 50m again on way up.
10-Sep-02	22:14	9	2		BON008	115	58 50.24 N	151 35.65 W	60Bon	QTowF, RCNTCAPE	Wire angle was erratic due to foul weather. Stayed at 60m for a long time on way down and then at 50m again on way up.
10-Sep-02	22:14	9	2		BON008	115	58 50.24 N	151 35.65 W	CAT	CAT	Wire angle was erratic due to foul weather. Stayed at 60m for a long time on way down and then at 50m again on way up.
11-Sep-02	0:09	10	1			157	58 58.07 N	151 15.65 W	Neu	QTowF	Sameoto
11-Sep-02	0:38	10	2			152	58 57.83 N	151 15.78 W	20Bon	QTowF	
11-Sep-02	0:38	10	2			152	58 57.83 N	151 15.78 W	60Bon	AKSEB, QTowF, RCNTCAPE	
11-Sep-02	0:38	10	2			152	58 57.83 N	151 15.78 W	CAT	CAT	
11-Sep-02	2:04	11	1			146	58 48.11 N	150 59.21 W	Neu	QTowF	Sameoto
11-Sep-02	2:25	11	2		BON010	144	58 48.27 N	150 59.98 W	20Bon	QTowF	20bon NET 1 FAILED due to net wrapping around wire; preserved 20BON net 2
11-Sep-02	2:25	11	2		BON010	144	58 48.27 N	150 59.98 W	20Bon	QTowF	20bon NET 1 FAILED due to net wrapping around wire; preserved 20BON net 2.
11-Sep-02	2:25	11	2		BON010	144	58 48.27 N	150 59.98 W	60Bon	QTowF	20bon NET 1 FAILED due to net wrapping around wire; preserved 20BON net 2. Rough count capelin = 0
11-Sep-02	2:25	11	2		BON010	144	58 48.27 N	150 59.98 W	60Bon	QTowF	20bon NET 1 FAILED due to net wrapping around wire; preserved 20BON net 2. Rough count capelin = 0.
11-Sep-02	2:25	11	2		BON010	144	58 48.27 N	150 59.98 W	CAT	CAT	20bon NET 1 FAILED due to net wrapping around wire; preserved 20BON net 2
11-Sep-02	3:43	12	1			187	58 40.07 N	151 17.45 W	Neu	QTowF	Sameoto
11-Sep-02	4:04	12	2		BON011	186	58 40.27 N	151 18.42 W	20Bon	QTowF	
11-Sep-02	4:04	12	2		BON011	186	58 40.27 N	151 18.42 W	60Bon	QTowF	rough count capelin = 0
11-Sep-02	4:04	12	2		BON011	186	58 40.27 N	151 18.42 W	60Bon	QTowF	Rough count capelin = 0.
11-Sep-02	4:04	12	2		BON011	186	58 40.27 N	151 18.42 W	CAT	CAT	
11-Sep-02	5:29	13	1			75	58 29.23 N	151 02.23 W	Neu	QTowF	Sameoto

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
11-Sep-02	5:47	13	2		BON012	74	58 29.55 N	151 02.98 W	20Bon	QTowF	
11-Sep-02	5:47	13	2		BON012	74	58 29.55 N	151 02.98 W	60Bon	QTowF, RCNTCAPE	
11-Sep-02	5:47	13	2		BON012	74	58 29.55 N	151 02.98 W	CAT	CAT	
11-Sep-02	6:19	13	3			75	58 29.32 N	151 02.30 W	MANTA	Discard	manta - failed due to backwards flowmeter
11-Sep-02	6:47	13	4			74	58 29.53 N	151 02.71 W	MANTA	QTowF	manta. Re-do from failed tow.
11-Sep-02	7:07	13	5			74	58 29.62 N	151 02.92 W	MARMAP	QTowF	marmap neuston - no weights. Hopped around in the air a bit
11-Sep-02	7:34	13	6			74	58 29.45 N	151 02.79 W	MARMAP	QTowF	marmap neuston - put weights on frame
11-Sep-02	9:01	14	1			203	58 38.58 N	150 44.36 W	Neu	QTowF	Sameoto
11-Sep-02	9:24	14	2			206	58 38.94 N	150 45.45 W	MANTA	QTowF	manta
11-Sep-02	9:51	14	3			203	58 38.57 N	150 44.34 W	MARMAP	QTowF	marmap - added ball weights
11-Sep-02	10:34	14	4		BON013	206	58 38.52 N	150 45.37 W	20Bon	QTowF	removed adult fish for ID from 60BON Net
11-Sep-02	10:34	14	4		BON013	206	58 38.52 N	150 45.37 W	60Bon	QTowF, RCNTCAPE	removed adult fish for ID from 60BON Net
11-Sep-02	10:34	14	4		BON013	206	58 38.52 N	150 45.37 W	CAT	CAT	removed adult fish for ID from 60BON Net
11-Sep-02	12:16	15	1			80	58 27.93 N	150 28.05 W	Neu	QTowF	sameoto
11-Sep-02	12:40	15	2		BON014	80	58 27.96 N	150 28.08 W	20Bon	QTowF	
11-Sep-02	12:40	15	2		BON014	80	58 27.96 N	150 28.08 W	60Bon	QTowF, RCNTCAPE	
11-Sep-02	12:40	15	2		BON014	80	58 27.96 N	150 28.08 W	CAT	CAT	
11-Sep-02	14:07	16	1			53	58 17.82 N	150 11.99 W	Neu	Discard	Sameoto flipped over when deploying - FAIL
11-Sep-02	14:24	16	2			53	58 17.81 N	150 12.67 W	Neu	QTowF	sameoto
11-Sep-02	14:36	16	3			55	58 17.70 N	150 11.75 W	MANTA	QTowF	manta
11-Sep-02	14:55	16	4			53	58 17.68 N	150 53.90 W	MARMAP	QTowF	marmap
11-Sep-02	15:17	16	5		BON015	53	58 17.52 N	150 11.97 W	20Bon	QTowF	
11-Sep-02	15:17	16	5		BON015	53	58 17.52 N	150 11.97 W	60Bon	QTowF, RCNTCAPE	
11-Sep-02	15:17	16	5		BON015	53	58 17.52 N	150 11.97 W	CAT	CAT	
11-Sep-02	16:29	17	1			220	58 08.84 N	149 56.22 W	Neu	QTowF	1Aquorea at 176 g removed. Sameoto
11-Sep-02	16:58	17	2		BON016	219	58 08.07 N	149 56.76 W	20Bon	QTowF	
11-Sep-02	16:58	17	2		BON016	219	58 08.07 N	149 56.76 W	60Bon	QTowF, RCNTCAPE	
11-Sep-02	16:58	17	2		BON016	219	58 08.07 N	149 56.76 W	CAT	CAT	
11-Sep-02	18:20	18	1			118	57 57.78 N	149 40.58 W	Neu	QTowF	sameoto
11-Sep-02	18:50	18	2		BON017	118	57 57.71 N	149 40.57 W	20Bon	QTowF	Rough count capelin = 0
11-Sep-02	18:50	18	2		BON017	118	57 57.71 N	149 40.57 W	60Bon	QTowF	rough count capelin = 0
11-Sep-02	18:50	18	2		BON017	118	57 57.71 N	149 40.57 W	CAT	CAT	Rough count capelin = 0
11-Sep-02	20:16	19	1			819	57 48.00 N	149 25.23 W	Neu	QTowF	sameoto
11-Sep-02	20:38	19	2		BON018	648	57 47.27 N	149 26.65 W	20Bon	QTowF	rough count for capelin = 0
11-Sep-02	20:38	19	2		BON018	648	57 47.27 N	149 26.65 W	60Bon	QTowF	rough count for capelin = 0
11-Sep-02	20:38	19	2		BON018	648	57 47.27 N	149 26.65 W	CAT	CAT	rough count for capelin = 0
11-Sep-02	21:55	20	1			776	57 39.97 N	149 45.42 W	Neu	QTowF	sameoto

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Alternat Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
11-Sep-02	22:16	20	2			749	57 40.00 N	149 45.92 W	60Bon	Discard	could not keep bongo from going under ship. Bongo went up on the way down.
11-Sep-02	22:44	20	3			749	57 40.09 N	149 45.96 W	60Bon	Discard	Tow aborted because ship lost engine control. Wire angle went to 0. CURSED
12-Sep-02	0:07	20	4		BON021	768	57 39.69 N	149 45.22 W	20Bon	QTowF	rough count capelin = 0
12-Sep-02	0:07	20	4		BON021	768	57 39.69 N	149 45.22 W	60Bon	QTowF	rough count capelin = 0
12-Sep-02	0:07	20	4		BON021	768	57 39.69 N	149 45.22 W	CAT	CAT	rough count capelin = 0
12-Sep-02	1:42	21	1			245	57 50.07 N	150 00.12 W	Neu	QTowF	sameoto
12-Sep-02	2:09	21	2			237	57 49.81 N	150 00.79 W	20Bon	QTowF	rough count for capelin = 0
12-Sep-02	2:09	21	2			237	57 49.81 N	150 00.79 W	60Bon	QTowF	rough count for capelin = 0
12-Sep-02	2:09	21	2			237	57 49.81 N	150 00.79 W	CAT	CAT	rough count for capelin = 0
12-Sep-02	3:35	22	1			186	57 59.65 N	150 16.09 W	Neu	QTowF	sameoto
12-Sep-02	3:57	22	2			186	57 59.77 N	150 16.29 W	20Bon	QTowF	
12-Sep-02	3:57	22	2			186	57 59.77 N	150 16.29 W	60Bon	QTowF, RCNTCAPE	
12-Sep-02	3:57	22	2			186	57 59.77 N	150 16.29 W	CAT	CAT	
12-Sep-02	5:26	23	1			112	58 09.99 N	150 32.14 W	Neu	QTowF	sameoto
12-Sep-02	6:05	23	2			116	58 09.75 N	150 32.25 W	20Bon	QTowF	
12-Sep-02	6:05	23	2			116	58 09.75 N	150 32.25 W	60Bon	QTowF, RCNTCAPE	
12-Sep-02	6:05	23	2			116	58 09.75 N	150 32.25 W	CAT	CAT	
12-Sep-02	6:37	23	3			112	58 09.97 N	150 32.60 W	MANTA	QTowF	manta
12-Sep-02	6:55	23	4			111	58 10.14 N	150 32.06 W	MARMAP	QTowF	Marmap with weights
12-Sep-02	8:27	24	1			63	58 20.23 N	150 45.85 W	Neu	QTowF	sameoto
12-Sep-02	8:52	24	2			64	58 20.06 N	150 46.08 W	20Bon	QTowF	Tow time approximated. Will need to get exact time from Seacat record Upcast was
12-Sep-02	8:52	24	2			64	58 20.06 N	150 46.08 W	60Bon	QTowF, RCNTCAPE	Tow time approximated. Will need to get exact time from Seacat record Upcast was
12-Sep-02	8:52	24	2			64	58 20.06 N	150 46.08 W	CAT	CAT	
12-Sep-02	10:32	25	1			139	58 02.13 N	150 51.91 W	Neu	QTowF	sameoto
12-Sep-02	10:55	25	2		BON026	133	58 01.27 N	150 51.68 W	20Bon	QTowF	
12-Sep-02	10:55	25	2		BON026	133	58 01.27 N	150 51.68 W	60Bon	QTowF, RCNTCAPE	
12-Sep-02	10:55	25	2		BON026	133	58 01.27 N	150 51.68 W	CAT	CAT	
12-Sep-02	12:25	26	1			88	87 51.35 N	150 35.70 W	Neu	QTowF	sameoto
12-Sep-02	12:50	26	2		BON027	89	57 51.24 N	150 35.85 W	20Bon	QTowF	
12-Sep-02	12:50	26	2		BON027	89	57 51.24 N	150 35.85 W	60Bon	QTowF, RCNTCAPE	
12-Sep-02	12:50	26	2		BON027	89	57 51.24 N	150 35.85 W	CAT	CAT	
12-Sep-02	14:10	27	1			118	57 42.10 N	150 19.69 W	Neu	QTowF	sameoto
12-Sep-02	14:32	27	2		BON028	118	57 42.04 N	150 19.61 W	20Bon	QTowF	
12-Sep-02	14:32	27	2		BON028	118	57 42.04 N	150 19.61 W	60Bon	QTowF, RCNTCAPE	
12-Sep-02	14:32	27	2		BON028	118	57 42.04 N	150 19.61 W	CAT	CAT	
12-Sep-02	15:20	27	3			118	57 42.12 N	150 19.66 W	MANTA	QTowF	manta



## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
12-Sep-02	15:30	27	4			118	57 41.98 N	150 20.29 W	MARMAP	QTowF	marmap
12-Sep-02	16:51	28	1			470	57 31.58 N	150 04.24 W	Neu	QTowF	sameoto
12-Sep-02	17:22	28	2		BON029	461	57 31.93 N	150 04.55 W	20Bon	QTowF	
12-Sep-02	17:22	28	2		BON029	461	57 31.93 N	150 04.55 W	60Bon	QTowF, RCNTCAPE	
12-Sep-02	17:22	28	2		BON029	461	57 31.93 N	150 04.55 W	CAT	CAT	
12-Sep-02	19:08	29	1			447	57 22.99 N	150 23.15 W	Neu	QTowF	sameoto
12-Sep-02	19:39	29	2			449	57 22.96 N	150 23.18 W	20Bon	QTowF	rough count capelin = 0
12-Sep-02	19:39	29	2			449	57 22.96 N	150 23.18 W	60Bon	QTowF	rough count capelin = 0
12-Sep-02	19:39	29	2			449	57 22.96 N	150 23.18 W	CAT	CAT	rough count capelin = 0
12-Sep-02	21:16	30	1			98	57 33.27 N	150 39.44 W	Neu	QTowF	sameoto
12-Sep-02	21:39	30	2			99	57 33.27 N	150 40.01 W	20Bon	QTowF	
12-Sep-02	21:39	30	2			99	57 33.27 N	150 40.01 W	60Bon	QTowF, RCNTCAPE	
12-Sep-02	21:39	30	2			99	57 33.27 N	150 40.01 W	CAT	CAT	
12-Sep-02	23:03	31	1			79	57 43.59 N	150 54.43 W	Neu	QTowF	sameoto
12-Sep-02	23:20	31	2			80	57 43.46 N	150 54.64 W	20Bon	QTowF	
12-Sep-02	23:20	31	2			80	57 43.46 N	150 54.64 W	60Bon	QTowF, RCNTCAPE	
12-Sep-02	23:20	31	2			80	57 43.46 N	150 54.64 W	CAT	CAT	
13-Sep-02	0:40	32	1			70	57 53.35 N	151 09.23 W	Neu	QTowF	sameoto
13-Sep-02	0:54	32	2			70	57 52.88 N	151 09.13 W	20Bon	QTowF	
13-Sep-02	0:54	32	2			70	57 52.88 N	151 09.13 W	60Bon	QTowF, RCNTCAPE	
13-Sep-02	0:54	32	2			70	57 52.88 N	151 09.13 W	CAT	CAT	
13-Sep-02	2:44	33	1		BON034	60	57 45.86 N	151 27.37 W	20Bon	QTowF	20 bon net 1 = a Aqueora at 66 g
13-Sep-02	2:44	33	1		BON034	60	57 45.86 N	151 27.37 W	60Bon	QTowF, RCNTCAPE	20 bon net 1 = a Aqueora at 66 g
13-Sep-02	2:44	33	1		BON034	60	57 45.86 N	151 27.37 W	CAT	CAT	20 bon net 1 = a Aqueora at 66 g
13-Sep-02	4:36	34	1		BON035	67	57 35.28 N	151 13.44 W	20Bon	QTowF	
13-Sep-02	4:36	34	1		BON035	67	57 35.28 N	151 13.44 W	60Bon	QTowF, RCNTCAPE	
13-Sep-02	4:36	34	1		BON035	67	57 35.28 N	151 13.44 W	CAT	CAT	
13-Sep-02	6:16	35	1		BON036	95	57 24.88 N	150 58.27 W	20Bon	QTowF	
13-Sep-02	6:16	35	1		BON036	95	57 24.88 N	150 58.27 W	60Bon	QTowF, RCNTCAPE	
13-Sep-02	6:16	35	1		BON036	95	57 24.88 N	150 58.27 W	CAT	CAT	
13-Sep-02	6:20	36	1		BON037	535	57 15.04 N	150 43.63 W	20Bon	QTowF	
13-Sep-02	6:20	36	1		BON037	535	57 15.04 N	150 43.63 W	60Bon	QTowS	Rough count capelin = 0.
13-Sep-02	6:20	36	1		BON037	535	57 15.04 N	150 43.63 W	CAT	CAT	
13-Sep-02	10:53	37	1			1400	57 03.78 N	150 26.47 W	20Bon	QTowF	EK-500 and EQ-50 are beyond the depth
13-Sep-02	10:53	37	1			1400	57 03.78 N	150 26.47 W	60Bon	QTowF	EK-500 and EQ-50 are beyond the depth
13-Sep-02	10:53	37	1			1400	57 03.78 N	150 26.47 W	CAT	CAT	range. Rough count capelin = 0.
13-Sep-02	10:53	37	1			1400	57 03.78 N	150 26.47 W	CAT	CAT	Bottom depth is approximated from chart.
13-Sep-02	12:50	38	1		BON039	1400	56 54.49 N	150 11.48 W	20Bon	QTowF	EK-500 and EQ-50 are beyond the depth
											depth estimated. Rough count capelin = 0

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
13-Sep-02	12:50	38	1		BON039	1400	56 54.49 N	150 11.48 W	60Bon	QTowF		depth estimated.
13-Sep-02	12:50	38	1		BON039	1400	56 54.49 N	150 11.48 W	60Bon	QTowF		depth estimated. Rough count capelin = 0
13-Sep-02	12:50	38	1		BON039	1400	56 54.49 N	150 11.48 W	CAT	CAT		depth estimated. Rough count capelin = 0
13-Sep-02	13:34	38	2			1400	56 54.95 N	150 12.43 W	Neu	QTowF		Sameoto. Bottom depth estimated. No
13-Sep-02	15:27	39	1			1400	56 56.45 N	150 46.68 W	Neu	QTowF		Sameoto. Bottom depth estimated. No
13-Sep-02	15:59	39	2			1400	56 56.24 N	150 46.94 W	20Bon	QTowF		Depth estimated. No Ek-500 reading
13-Sep-02	15:59	39	2			1400	56 56.24 N	150 46.94 W	60Bon	QTowF		Depth estimated. No Ek-500 reading
13-Sep-02	15:59	39	2			1400	56 56.24 N	150 46.94 W	60Bon	QTowF		Depth estimated. No Ek-500 reading.
13-Sep-02	15:59	39	2			1400	56 56.24 N	150 46.94 W	CAT	CAT		Rough count capelin = 0.
13-Sep-02	18:25	40	1			721	57 05.97 N	151 01.77 W	Neu	QTowF		Depth estimated. No Ek-500 reading
13-Sep-02	19:02	40	2		BON041	682	57 05.56 N	151 02.13 W	20Bon	QTowF		sameoto
13-Sep-02	19:02	40	2		BON041	682	57 05.56 N	151 02.13 W	20Bon	QTowF		not sure if bottom depth is correct
13-Sep-02	19:02	40	2		BON041	682	57 05.56 N	151 02.13 W	60Bon	QTowF		not sure if bottom depth is correct;
13-Sep-02	19:02	40	2		BON041	682	57 05.56 N	151 02.13 W	60Bon	QTowF		flowmeter total looks high in comparison with
13-Sep-02	19:02	40	2		BON041	682	57 05.56 N	151 02.13 W	60Bon	QTowF		not sure if bottom depth is correct;
13-Sep-02	19:02	40	2		BON041	682	57 05.56 N	151 02.13 W	60Bon	QTowF		RCNTCAPE = 0
13-Sep-02	19:02	40	2		BON041	682	57 05.56 N	151 02.13 W	CAT	CAT		not sure if bottom depth is correct
13-Sep-02	20:48	41	1			146	57 17.89 N	151 16.72 W	Neu	Discard		Sameoto sinking and hydroplaning - NOT
13-Sep-02	20:59	41	2			152	57 17.52 N	151 17.33 W	Neu	QTowF		sampling correctly
13-Sep-02	21:23	41	3		BON042	150	57 17.72 N	151 17.52 W	20Bon	QTowF		sameoto
13-Sep-02	21:23	41	3		BON042	150	57 17.72 N	151 17.52 W	60Bon	QTowF		
13-Sep-02	21:23	41	3		BON042	150	57 17.72 N	151 17.52 W	60Bon	QTowF		RCNTCAPE = 3
13-Sep-02	21:23	41	3		BON042	150	57 17.72 N	151 17.52 W	CAT	CAT		
13-Sep-02	23:10	42	1		CTD009	73	57 33.99 N	151 21.32 W	CTDB	Chlor, CTD, Nut		
13-Sep-02	23:42	42	2		CAL001	74	57 34.17 N	151 21.89 W	CalVET	MZ		Nets 1 and 2 combined into 1 jar
13-Sep-02	23:42	42	2		CAL001	74	57 34.17 N	151 21.89 W	CalVET	MZ		NETS 1 AND 2 COMBINED INTO SAME
13-Sep-02	23:42	42	2		CAL001	74	57 34.17 N	151 21.89 W	CAT	CAT		
14-Sep-02	0:12	42	3			74	57 34.12 N	151 21.33 W	20Bon	QTowF		
14-Sep-02	0:12	42	3			74	57 34.12 N	151 21.33 W	60Bon	QTowF		
14-Sep-02	0:12	42	3			74	57 34.12 N	151 21.33 W	CAT	CAT		
14-Sep-02	0:54	43	1		CTD010	81	57 31.46 N	151 25.92 W	CTDB	Chlor, CTD, Nut		
14-Sep-02	1:09	43	2			82	57 31.46 N	151 26.30 W	CalVET	MZ		nets 1 and 2 preserved in same jar.
14-Sep-02	1:09	43	2			82	57 31.46 N	151 26.30 W	CAT	CAT		
14-Sep-02	1:25	43	3			81	57 31.34 N	151 26.20 W	20Bon	QTowF		
14-Sep-02	1:25	43	3			81	57 31.34 N	151 26.20 W	60Bon	QTowF		
14-Sep-02	1:25	43	3			81	57 31.34 N	151 26.20 W	CAT	CAT		
14-Sep-02	2:07	44	1		CTD011	156	57 29.63 N	151 30.45 W	CTDB	Chlor, CTD, Nut		
14-Sep-02	2:22	44	2			159	57 29.72 N	151 30.52 W	CalVET	MZ		nets 1 and 2 preserved in 1 jar.

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Alternat Station	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
14-Sep-02	2:22	44		2		159	57 29.72 N	151 30.52 W	CAT	CAT	
14-Sep-02	2:35	44		3	BON045	158	57 29.68 N	151 30.22 W	20Bon	QTowF	
14-Sep-02	2:35	44		3	BON045	158	57 29.68 N	151 30.22 W	60Bon	QTowF	
14-Sep-02	2:35	44		3	BON045	158	57 29.68 N	151 30.22 W	CAT	CAT	
14-Sep-02	3:33	45		1	CTD012	138	57 27.95 N	151 34.05 W	CTDB	Chlor, CTD, Nut	
14-Sep-02	4:02	45		2	CAL004	130	57 27.81 N	151 34.18 W	CalVET	MZ	Nets 1 and 2 preserved into the same jar.
14-Sep-02	4:02	45		2	CAL004	130	57 27.81 N	151 34.18 W	CAT	CAT	
14-Sep-02	4:06	45		3	BON046	124	57 27.61 N	151 34.05 W	20Bon	QTowF	
14-Sep-02	4:06	45		3	BON046	124	57 27.61 N	151 34.05 W	60Bon	QTowF	
14-Sep-02	4:06	45		3	BON046	124	57 27.61 N	151 34.05 W	CAT	CAT	
14-Sep-02	4:44	46		1		116	57 26.28 N	151 32.91 W	Neu	QTowF	sameoto
14-Sep-02	4:55	46		2	BON047	130	57 26.70 N	151 32.62 W	20Bon	QTowF	
14-Sep-02	4:55	46		2	BON047	130	57 26.70 N	151 32.62 W	60Bon	QTowF, RCNTCAPE	
14-Sep-02	4:55	46		2	BON047	130	57 26.70 N	151 32.62 W	CAT	CAT	
14-Sep-02	5:39	47		1	CTD013	66	57 26.02 N	151 39.06 W	CTDB	Chlor, CTD, Nut	
14-Sep-02	5:54	47		2	CAL005	67	57 25.91 N	151 38.73 W	CalVET	MZ	nets 1 and 2 preserved into 1 jar
14-Sep-02	5:54	47		2	CAL005	67	57 25.91 N	151 38.73 W	CAT	CAT	
14-Sep-02	6:07	47		3	BON048	68	57 25.77 N	151 38.18 W	20Bon	QTowF	
14-Sep-02	6:07	47		3	BON048	68	57 25.77 N	151 38.18 W	60Bon	QTowF	
14-Sep-02	6:07	47		3	BON048	68	57 25.77 N	151 38.18 W	CAT	CAT	
14-Sep-02	7:01	48		1	CTD014	92	57 30.09 N	151 45.86 W	CTDB	Chlor, CTD, Nut	
14-Sep-02	7:17	48		2	CAL006	89	57 29.79 N	151 45.71 W	CalVET	MZ	nets 1 and 2 preserved into 1 jar
14-Sep-02	7:17	48		2	CAL006	89	57 29.79 N	151 45.71 W	CAT	CAT	
14-Sep-02	7:34	48		3	BON049	92	57 29.99 N	151 45.62 W	20Bon	QTowF	
14-Sep-02	7:34	48		3	BON049	92	57 29.99 N	151 45.62 W	60Bon	QTowF	
14-Sep-02	7:34	48		3	BON049	92	57 29.99 N	151 45.62 W	CAT	CAT	
14-Sep-02	8:26	49		1	CTD015	148	57 31.59 N	151 43.37 W	CTDB	Chlor, CTD, Nut	
14-Sep-02	8:54	49		2	CAL007	155	57 31.80 N	151 43.12 W	CalVET	MZ	Nets 1 and 2 preserved into 1 jar
14-Sep-02	8:54	49		2	CAL007	155	57 31.80 N	151 43.12 W	CAT	CAT	
14-Sep-02	9:16	49		3	BON050	155	57 31.76 N	151 42.57 W	20Bon	QTowF	
14-Sep-02	9:16	49		3	BON050	155	57 31.76 N	151 42.57 W	60Bon	QTowF	
14-Sep-02	9:16	49		3	BON050	155	57 31.76 N	151 42.57 W	CAT	CAT	
14-Sep-02	10:18	50		1	CTD016	127	57 33.53 N	151 41.04 W	CTDB	Chlor, CTD, Nut	
14-Sep-02	10:44	50		2	CAL008	128	57 33.73 N	151 41.35 W	CalVET	MZ	nets 1 and 2 preserved into 1 jar
14-Sep-02	10:44	50		2	CAL008	128	57 33.73 N	151 41.35 W	CAT	CAT	
14-Sep-02	11:03	50		3	BON051	126	57 33.74 N	151 40.74 W	20Bon	QTowF	
14-Sep-02	11:03	50		3	BON051	126	57 33.74 N	151 40.74 W	60Bon	QTowF	
14-Sep-02	11:03	50		3	BON051	126	57 33.74 N	151 40.74 W	CAT	CAT	
14-Sep-02	11:53	51		1	CTD017	97	57 35.47 N	151 37.41 W	CTDB	Chlor, CTD, Nut	

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
14-Sep-02	12:12	51	2			94	57 35.59 N	151 37.15 W	CalVET	MZ	nets 1 and 2 combined into 1 jar
14-Sep-02	12:12	51	2			94	57 35.59 N	151 37.15 W	CAT	CAT	
14-Sep-02	12:31	51	3			98	57 35.45 N	151 37.67 W	20Bon	QTowF	
14-Sep-02	12:31	51	3			98	57 35.45 N	151 37.67 W	60Bon	QTowF	
14-Sep-02	12:31	51	3			98	57 35.45 N	151 37.67 W	CAT	CAT	
14-Sep-02	13:24	52	1		CTD018	70	57 36.75 N	151 34.79 W	CTDB	Chlor, CTD, Nut	
14-Sep-02	13:24	52	2			69	57 36.75 N	151 34.78 W	CalVET	MZ	
14-Sep-02	13:24	52	2			69	57 36.75 N	151 34.78 W	CalVET	MZ	nets 1 and 2 combined into same jar.
14-Sep-02	13:24	52	2			69	57 36.75 N	151 34.78 W	CAT	CAT	
14-Sep-02	13:46	52	3			70	57 36.84 N	151 35.08 W	20Bon	QTowF	
14-Sep-02	13:46	52	3			70	57 36.84 N	151 35.08 W	60Bon	QTowF	
14-Sep-02	13:46	52	3			70	57 36.84 N	151 35.08 W	CAT	CAT	
14-Sep-02	15:41	53	1			111	57 37.76 N	151 47.66 W	Neu	QTowF	sameoto
14-Sep-02	16:08	53	2			110	57 37.87 N	151 47.68 W	20Bon	QTowF	
14-Sep-02	16:08	53	2			110	57 37.87 N	151 47.68 W	60Bon	QTowF, RCNTCAPE	
14-Sep-02	16:08	53	2			110	57 37.87 N	151 47.68 W	CAT	CAT	
14-Sep-02	17:50	54	1			45	57 29.28 N	152 03.54 W	Neu	QTowF	sameoto
14-Sep-02	18:02	54	2		BON055	49	57 29.65 N	152 03.93 W	20Bon	QTowF	
14-Sep-02	18:02	54	2		BON055	49	57 29.65 N	152 03.93 W	60Bon	QTowS, RCNTCAPE	
14-Sep-02	18:02	54	2		BON055	49	57 29.65 N	152 03.93 W	CAT	CAT	
14-Sep-02	18:02	55	1		CTD019	74	57 29.65 N	152 03.97 W	CTDB	Chlor, CTD, Nut	
14-Sep-02	19:07	55	2			72	57 26.73 N	151 55.24 W	CalVET	MZ	nets 1 and 2 preserved in same jar. Stopwatch stopped late, time adjusted
14-Sep-02	19:07	55	2			72	57 26.73 N	151 55.24 W	CAT	CAT	
14-Sep-02	19:35	55	3		BON056	74	57 26.74 N	151 54.95 W	20Bon	QTowF	
14-Sep-02	19:35	55	3		BON056	74	57 26.74 N	151 54.95 W	60Bon	QTowF	
14-Sep-02	19:35	55	3		BON056	74	57 26.74 N	151 54.95 W	CAT	CAT	
14-Sep-02	20:17	56	1		CTD020	75	57 25.52 N	151 59.95 W	CTDB	Chlor, CTD	no nutrients at this station
14-Sep-02	20:29	56	2		CAL012	75	57 25.58 N	151 59.74 W	CalVET	MZ	nets 1 and 2 combined into same jar. Net 2 flowmeter reading very low.
14-Sep-02	20:29	56	2		CAL012	75	57 25.58 N	151 59.74 W	CAT	CAT	
14-Sep-02	20:48	56	3			76	57 25.34 N	151 59.89 W	20Bon	QTowF	
14-Sep-02	20:48	56	3			76	57 25.34 N	151 59.89 W	60Bon	QTowF	
14-Sep-02	20:48	56	3			76	57 25.34 N	151 59.89 W	CAT	CAT	
14-Sep-02	21:32	57	1		CTD021	82	57 22.32 N	152 05.68 W	CTDB	Chlor, CTD, Nut	
14-Sep-02	21:42	57	2			83	57 22.33 N	152 05.49 W	CalVET	MZ	Nets 1 and 2 preserved in same jar.
14-Sep-02	21:42	57	2			83	57 22.33 N	152 05.49 W	CAT	CAT	
14-Sep-02	21:49	57	3		BON058	83	57 22.46 N	152 05.34 W	20Bon	QTowF	
14-Sep-02	21:49	57	3		BON058	83	57 22.46 N	152 05.34 W	60Bon	QTowF	

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
14-Sep-02	21:49	57	3		BON058	83	57 22.46 N	152 05.34 W	CAT	CAT	
14-Sep-02	22:35	58	1		CTD022	75	57 20.11 N	152 10.95 W	CTDB	Chlor, CTD	no nutrients at this station
14-Sep-02	22:46	58	2		CAL014	75	57 20.19 N	152 10.79 W	CalVET	MZ	Nets 1 and 2 preserved into 1 jar
14-Sep-02	22:46	58	2		CAL014	75	57 20.19 N	152 10.79 W	CAT	CAT	
14-Sep-02	22:53	58	3		BON059	74	57 20.35 N	152 10.78 W	20Bon	QTowF	
14-Sep-02	22:53	58	3		BON059	74	57 20.35 N	152 10.78 W	60Bon	QTowF	
14-Sep-02	22:53	58	3		BON059	74	57 20.35 N	152 10.78 W	CAT	CAT	
14-Sep-02	23:40	59	1		CTD023	72	57 17.84 N	152 15.75 W	CTDB	Chlor, CTD, Nut	
14-Sep-02	23:52	59	2			72	57 18.03 N	152 16.45 W	CalVET	MZ	Nets 1 and 2 preserved in the same jar.
14-Sep-02	23:52	59	2			72	57 18.03 N	152 16.45 W	CAT	CAT	
15-Sep-02	0:01	59	3		BON060	70	57 18.22 N	152 15.77 W	20Bon	QTowF	
15-Sep-02	0:01	59	3		BON060	70	57 18.22 N	152 15.77 W	60Bon	QTowF	
15-Sep-02	0:01	59	3		BON060	70	57 18.22 N	152 15.77 W	CAT	CAT	
15-Sep-02	1:11	60	1		CTD024	84	57 10.26 N	152 09.68 W	CTDB	Chlor, CTD	no nutrients at this station
15-Sep-02	1:33	60	2		CAL016	83	57 09.98 N	152 09.90 W	CalVET	Discard	Nets 1 and 2 preserved into the same jar. Wire angle was 30 degrees on return. Failed
15-Sep-02	1:33	60	2		CAL016	83	57 09.98 N	152 09.90 W	CAT	CAT	
15-Sep-02	1:43	60	3			83	57 10.04 N	152 10.10 W	CalVET	MZ	Nets 1 and 2 preserved in the same jar.
15-Sep-02	1:43	60	3			83	57 10.04 N	152 10.10 W	CAT	CAT	
15-Sep-02	1:50	60	4		BON061	83	57 10.08 N	150 10.44 W	20Bon	QTowF	
15-Sep-02	1:50	60	4		BON061	83	57 10.08 N	150 10.44 W	60Bon	QTowF	
15-Sep-02	1:50	60	4		BON061	83	57 10.08 N	150 10.44 W	CAT	CAT	
15-Sep-02	2:36	61	1		CTD025	82	57 12.43 N	152 04.40 W	CTDB	Chlor, CTD, Nut	
15-Sep-02	2:59	61	2			83	57 12.64 N	152 04.83 W	CalVET	MZ	Nets 1 and 2 preserved in the same jar.
15-Sep-02	2:59	61	2			83	57 12.64 N	152 04.83 W	CAT	CAT	
15-Sep-02	3:07	61	3		BON062	83	57 12.71 N	152 05.12 W	20Bon	QTowF	
15-Sep-02	3:07	61	3		BON062	83	57 12.71 N	152 05.12 W	60Bon	QTowF	
15-Sep-02	3:07	61	3		BON062	83	57 12.71 N	152 05.12 W	CAT	CAT	
15-Sep-02	3:53	62	1		CTD026	77	57 15.10 N	151 58.42 W	CTDB	Chlor, CTD	no nutrients at this station.
15-Sep-02	4:06	62	2		CAL019	76	57 15.14 N	151 58.27 W	CalVET	MZ	Nets 1 and 2 preserved in the same jar.
15-Sep-02	4:06	62	2		CAL019	76	57 15.14 N	151 58.27 W	CAT	CAT	
15-Sep-02	4:14	62	3		BON063	77	57 15.15 N	151 58.66 W	20Bon	QTowF	Sa,ples thick. Double dose of formalin in each 60BON jar
15-Sep-02	4:14	62	3		BON063	77	57 15.15 N	151 58.66 W	60Bon	QTowF	Samples thick. Double dose (10%) of formalin in each 60BON jar.
15-Sep-02	4:14	62	3		BON063	77	57 15.15 N	151 58.66 W	60Bon	QTowF	Samples thick. Double dose of formalin in each 60BON jar
15-Sep-02	4:14	62	3		BON063	77	57 15.15 N	151 58.66 W	CAT	CAT	Sa,ples thick. Double dose of formalin in each 60BON jar
15-Sep-02	4:54	63	1		CTD027	71	57 17.39 N	151 52.80 W	CTDB	Chlor, CTD, Nut	

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
15-Sep-02	5:13	63	2		CAL020	70	57 17.47 N	151 52.17 W	CalVET	MZ		nets 1 and 2 preserved in the same jar.
15-Sep-02	5:13	63	2		CAL020	70	57 17.47 N	151 52.17 W	CAT	CAT		
15-Sep-02	5:20	63	3		BON064	70	57 17.46 N	151 52.95 W	20Bon	QTowF		
15-Sep-02	5:20	63	3		BON064	70	57 17.46 N	151 52.95 W	60Bon	QTowF		
15-Sep-02	5:20	63	3		BON064	70	57 17.46 N	151 52.95 W	CAT	CAT		
15-Sep-02	5:46	64	1			70	57 17.77 N	151 51.26 W	Neu	QTowF		sameoto
15-Sep-02	6:01	64	2			69	57 18.18 N	151 51.64 W	20Bon	QTowF		
15-Sep-02	6:01	64	2			69	57 18.18 N	151 51.64 W	60Bon	QTowF, RCNTCAPE		
15-Sep-02	6:01	64	2			69	57 18.18 N	151 51.64 W	CAT	CAT		
15-Sep-02	6:38	65	1		CTD028	74	57 19.87 N	151 46.42 W	CTDB	Chlor, CTD		no nutrients at this station
15-Sep-02	6:51	65	2		CAL021	67	57 19.87 N	151 46.60 W	CalVET	MZ		Nets 1 and 2 preserved in the same jar. Wire angle was 25 degrees for part of tow.
15-Sep-02	6:51	65	2		CAL021	67	57 19.87 N	151 46.60 W	CAT	CAT		
15-Sep-02	7:02	65	3		BON066	67	57 19.82 N	151 47.07 W	20Bon	QTowF		
15-Sep-02	7:02	65	3		BON066	67	57 19.82 N	151 47.07 W	60Bon	QTowF		
15-Sep-02	7:02	65	3		BON066	67	57 19.82 N	151 47.07 W	CAT	CAT		
15-Sep-02	8:25	66	1			95	57 08.07 N	151 36.18 W	Neu	QTowF		sameoto
15-Sep-02	8:58	66	2			85	57 08.77 N	151 35.77 W	MANTA	QTowF		manta
15-Sep-02	9:25	66	3			101	57 07.99 N	151 35.30 W	MARMAP	QTowF		marmap neuston
15-Sep-02	9:54	66	4		BON067	97	57 08.19 N	151 35.19 W	20Bon	QTowF		
15-Sep-02	9:54	66	4		BON067	97	57 08.19 N	151 35.19 W	60Bon	QTowF, RCNTCAPE		
15-Sep-02	9:54	66	4		BON067	97	57 08.19 N	151 35.19 W	CAT	CAT		
15-Sep-02	11:21	67	1			889	56 57.65 N	151 20.28 W	Neu	QTowF		sameoto
15-Sep-02	11:55	67	2			882	56 52.42 N	151 21.78 W	20Bon	QTowF		
15-Sep-02	11:55	67	2			882	56 52.42 N	151 21.78 W	60Bon	QTowF		
15-Sep-02	11:55	67	2			882	56 52.42 N	151 21.78 W	60Bon	QTowF		EK- 500 shows 887m. Rough count capelin =
15-Sep-02	11:55	67	2			882	56 52.42 N	151 21.78 W	CAT	CAT		
15-Sep-02	13:39	68	1			991	56 47.96 N	151 06.49 W	Neu	Discard		sameoto - wave conditions and ship speed kept gear under water. Tow aborted.
15-Sep-02	13:42	68	2			991	56 48.12 N	151 07.24 W	Neu	QTowF		sameoto
15-Sep-02	14:30	68	3		BON069	992	56 47.83 N	151 07.41 W	20Bon	QTowF		Net 2 20 Bon net twisted around safety wire. Flowmeter revs are low for that net
15-Sep-02	14:30	68	3		BON069	992	56 47.83 N	151 07.41 W	60Bon	QTowF, RCNTCAPE		Net 2 20 Bon net twisted around safety wire. Flowmeter revs are low for that net
15-Sep-02	14:30	68	3		BON069	992	56 47.83 N	151 07.41 W	CAT	CAT		Net 2 20 Bon net twisted around safety wire. Flowmeter revs are low for that net
15-Sep-02	16:00	69	1			1016	56 40.55 N	151 25.54 W	Neu	QTowF		Sameoto
15-Sep-02	16:34	69	2		BON070	1086	56 41.00 N	151 25.84 W	20Bon	QTowF		
15-Sep-02	16:34	69	2		BON070	1086	56 41.00 N	151 25.84 W	60Bon	QTowF		
15-Sep-02	16:34	69	2		BON070	1086	56 41.00 N	151 25.84 W	60Bon	QTowF		Rough count capelin = 0.

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
15-Sep-02	16:34	69	2		BON070	1086	56 41.00 N	151 25.84 W	CAT	CAT	
15-Sep-02	18:02	70	1			312	56 49.54 N	151 40.30 W	Neu	QTowF	sameoto
15-Sep-02	18:27	70	2			305	56 49.39 N	151 40.62 W	MANTA	QTowF	manta
15-Sep-02	18:49	70	3			313	56 49.47 N	151 40.38 W	MARMAP	QTowF	marmap neuston
15-Sep-02	19:17	70	4		BON071	307	56 49.55 N	151 40.59 W	20Bon	QTowF	rough count capelin = 0
15-Sep-02	19:17	70	4		BON071	307	56 49.55 N	151 40.59 W	60Bon	QTowF	rough count capelin = 0
15-Sep-02	19:17	70	4		BON071	307	56 49.55 N	151 40.59 W	CAT	CAT	rough count capelin = 0
15-Sep-02	20:39	71	1			83	56 59.97 N	151 53.05 W	Neu	QTowF	sameoto
15-Sep-02	20:56	71	2		BON072	85	57 00.24 N	152 08.77 W	20Bon	QTowF	
15-Sep-02	20:56	71	2		BON072	85	57 00.24 N	152 08.77 W	60Bon	QTowF	
15-Sep-02	20:56	71	2		BON072	85	57 00.24 N	152 08.77 W	60Bon	QTowF	rough count capelin = 0
15-Sep-02	20:56	71	2		BON072	85	57 00.24 N	152 08.77 W	CAT	CAT	
15-Sep-02	22:17	72	1			85	57 10.44 N	152 09.29 W	Neu	QTowF	sameoto
15-Sep-02	22:38	72	2			83	57 10.53 N	152 08.83 W	20Bon	QTowF	
15-Sep-02	22:38	72	2			83	57 10.53 N	152 08.83 W	60Bon	QTowF, RCNTCAPE	
15-Sep-02	22:38	72	2			83	57 10.53 N	152 08.83 W	CAT	CAT	
16-Sep-02	0:48	72	3		CTD029	84	57 10.58 N	152 08.75 W	CTDB	CTD, MZ	60m bottle was not totally closed when sieving. Lost some sample. 0m bottle was
16-Sep-02	1:23	72	4		MOC009	83	57 10.80 N	152 08.54 W	MOC1	QTowF	Lost communication during net 6 tow. Nets 6, 7, and 8 are Fail. Kept tows 2 - 5 and will re-do nets 6-8 on haul 5. Vol. filtered on net 5 was high.
16-Sep-02	2:28	72	5		MOC010	83	57 10.69 N	152 08.85 W	MOC1	QTowF	Net 3 = 1 Aqueora at 164g. This tow is a re-do from haul 4. Net 2 went too deep. Should have been 30m
16-Sep-02	3:52	72	6		CTD030	84	57 10.48 N	152 09.16 W	CTDB	CTD, MZ	
16-Sep-02	4:24	72	7		MOC011	83	57 10.42 N	152 08.79 W	MOC1	QTowF	6.34 kg chrysaora in net 8. Lost sample. Nets 5 and 6 did not signal closed but got increase so nets did trip. Nets 5 and 6 vol filtered estimated from avg of nets 3, 4, 7,
16-Sep-02	4:24	72	7		MOC011	83	57 10.42 N	152 08.79 W	MOC1	QTowF	6.34 kg Chryseora in net 8. Lost sample. Nets 5 and 6 did not signal closed but got increase in net angle so hets did trip. Nets 5 and 6 vol filtered estimated from avg of
16-Sep-02	4:24	72	7		MOC011	83	57 10.42 N	152 08.79 W	MOC1	QTowF	6.34 kg Chryseora in net 8. Lost sample. Nets 5 and 6 did not signal closed but got increase in net angle so nets did trip. Nets 5 and 6 vol filtered estimated from avg of
16-Sep-02	6:52	72	8		CTD031	84	57 10.60 N	152 09.27 W	CTDB	CTD, MZ	
16-Sep-02	7:31	72	9		MOC012	83	57 10.71 N	152 08.82 W	MOC1	QTowF	
16-Sep-02	9:52	72	10		CTD032	83	57 10.60 N	152 09.09 W	CTDB	CTD, MZ	
16-Sep-02	10:43	72	11		MOC013	82	57 10.51 N	152 09.29 W	MOC1	QTowF	Net 8 = 1 Aqueora at 58g. Net 7 = 1 Aqueora at 128g. Net 6 = 1 Aqueora at 292

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
16-Sep-02	12:56	72	12		CTD033	82	57 10.46 N	152 09.17 W	CTDB	Discard	bottles leaked. FAIL.
16-Sep-02	13:15	72	13		CTD034	81	57 10.33 N	152 09.13 W	CTDB	CTD, MZ	
16-Sep-02	13:32	72	14		MOC014	82	57 10.47 N	152 09.19 W	MOC1	QTowF	Net 8 Aqueora at 204g. Nets 2 and 6 cod ends blew out. Redid these tows in haul 15. redo for depths 76-63 and 33-23
16-Sep-02	15:08	72	15		MOC015	82	57 10.46 N	152 09.39 W	MOC1	QTowF	
16-Sep-02	15:49	72	16		CTD035	82	57 10.64 N	152 09.08 W	CTDB	CTD, MZ	
16-Sep-02	16:35	72	17		MOC016	83	57 10.63 N	152 09.28 W	MOC1	QTowF	Split net 8, net 6 into 2 jars
16-Sep-02	18:51	72	18		CTD036	83	57 10.79 N	152 09.14 W	CTDB	CTD, MZ	
16-Sep-02	19:32	72	19		MOC017	84	57 10.78 N	152 08.99 W	MOC1	QTowF	
16-Sep-02	21:51	72	20		CTD037	84	57 10.91 N	152 08.99 W	CTDB	CTD, MZ	
16-Sep-02	22:26	72	21		MOC018	84	57 10.76 N	152 08.46 W	MOC1	QTowF	Subsurface current between 50 and 30m. Vol filt on Net 2 underestimated due to no net signal and manual reset.
17-Sep-02	0:51	72	22		CTD038	83	57 10.56 N	152 08.99 W	CTDB	CTD, MZ	
17-Sep-02	1:33	72	23		MOC019	84	57 11.06 N	152 08.39 W	MOC1	QTowF	
17-Sep-02	3:54	72	24		CTD039	84	57 10.64 N	152 09.12 W	CTDB	CTD, MZ	
17-Sep-02	4:20	72	25		MOC020	84	57 10.66 N	152 09.01 W	MOC1	Discard	FAIL. Brought nets in too fast. Will re-do.
17-Sep-02	5:12	72	26		MOC021	84	57 10.49 N	152 09.13 W	MOC1	QTowF	
17-Sep-02	6:48	73	1			61	57 19.56 N	152 23.44 W	Neu	QTowF	sameoto
17-Sep-02	7:09	73	2		BON074	61	57 19.66 N	152 23.62 W	20Bon	QTowF	
17-Sep-02	7:09	73	2		BON074	61	57 19.66 N	152 23.62 W	60Bon	QTowF, RCNTCAPE	
17-Sep-02	7:09	73	2		BON074	61	57 19.66 N	152 23.62 W	CAT	CAT	
17-Sep-02	7:58	74	1		CTD040	83	57 15.70 N	152 29.68 W	CTDB	Chlor, CTD, Nut	
17-Sep-02	8:25	74	2		CAL022	83	57 15.73 N	152 29.62 W	CalVET	MZ	Nets 1 and 2 in the same jar.
17-Sep-02	8:25	74	2		CAL022	83	57 15.73 N	152 29.62 W	CAT	CAT	Nets 1 and 2 in the same jar.
17-Sep-02	8:45	74	3		BON075	82	57 15.37 N	152 29.33 W	20Bon	QTowF	flowmeter questionable for 20 bon net1.
17-Sep-02	8:45	74	3		BON075	82	57 15.37 N	152 29.33 W	60Bon	QTowF	flowmeter questionable for 20 bon net1.
17-Sep-02	8:45	74	3		BON075	82	57 15.37 N	152 29.33 W	CAT	CAT	flowmeter questionable for 20 bon net1.
17-Sep-02	9:25	75	1		CTD041	91	57 14.51 N	132 34.12 W	CTDB	Chlor, CTD, Nut	
17-Sep-02	9:55	75	2		CAL023	95	57 14.52 N	152 34.09 W	CalVET	MZ	
17-Sep-02	9:55	75	2		CAL023	95	57 14.52 N	152 34.09 W	CAT	CAT	
17-Sep-02	10:14	75	3		BON076	91	57 14.39 N	152 34.19 W	20Bon	QTowF	
17-Sep-02	10:14	75	3		BON076	91	57 14.39 N	152 34.19 W	60Bon	QTowF	
17-Sep-02	10:14	75	3		BON076	91	57 14.39 N	152 34.19 W	CAT	CAT	
17-Sep-02	10:51	76	1		CTD042	76	57 13.11 N	152 38.69 W	CTDB	Chlor, CTD, Nut	
17-Sep-02	11:13	76	2		CAL024	75	57 13.30 N	152 38.73 W	CalVET	MZ	Nets 1 and 2 preserved in the same jar
17-Sep-02	11:13	76	2		CAL024	75	57 13.30 N	152 38.73 W	CAT	CAT	Nets 1 and 2 preserved in the same jar
17-Sep-02	11:27	76	3		BON077	75	57 13.16 N	152 38.60 W	20Bon	QTowF	
17-Sep-02	11:27	76	3		BON077	75	57 13.16 N	152 38.60 W	60Bon	QTowF	
17-Sep-02	11:27	76	3		BON077	75	57 13.16 N	152 38.60 W	CAT	CAT	



## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Depth	Latitude	Longitude	Gear	Samples Collected	Haul Comments
17-Sep-02	12:00	77	1		CTD043	115		57 12.07 N	152 42.39 W	CTDB	Chlor, CTD, Nut	
17-Sep-02	12:21	77	2		CAL025	129		57 12.05 N	152 42.59 W	CalVET	MZ	nets 1 and 2 preserved together
17-Sep-02	12:21	77	2		CAL025	129		57 12.05 N	152 42.59 W	CAT	CAT	nets 1 and 2 preserved together
17-Sep-02	12:39	77	3		BON078	136		57 11.77 N	152 42.74 W	20Bon	QTowF	
17-Sep-02	12:39	77	3		BON078	136		57 11.77 N	152 42.74 W	60Bon	MZ	
17-Sep-02	12:39	77	3		BON078	136		57 11.77 N	152 42.74 W	CAT	CAT	
17-Sep-02	13:14	78	1			132		57 12.43 N	152 45.78 W	Neu	QTowF	sameoto
17-Sep-02	13:42	78	2		BON079	138		57 12.06 N	152 44.65 W	20Bon	QTowF	
17-Sep-02	13:42	78	2		BON079	138		57 12.06 N	152 44.65 W	60Bon	QTowF, RCNTCAPE	
17-Sep-02	13:42	78	2		BON079	138		57 12.06 N	152 44.65 W	CAT	CAT	
17-Sep-02	14:44	79	1		CTD044	158		57 05.25 N	152 41.88 W	CTDB	Chlor, Nut	
17-Sep-02	15:05	79	2		CAL026	161		57 05.20 N	152 41.15 W	CalVET	MZ	Nets 1 and 2 preserved together in 1 jar
17-Sep-02	15:05	79	2		CAL026	161		57 05.20 N	152 41.15 W	CAT	CAT	
17-Sep-02	15:23	79	3		BON080	159		57 05.04 N	152 41.57 W	20Bon	QTowF	
17-Sep-02	15:23	79	3		BON080	159		57 05.04 N	152 41.57 W	60Bon	QTowF	
17-Sep-02	15:23	79	3		BON080	159		57 05.04 N	152 41.57 W	CAT	CAT	
17-Sep-02	16:39	80	1		CTD045	96		57 06.48 N	152 36.90 W	CTDB	Chlor, CTD, Nut	
17-Sep-02	17:03	80	2		CAL027	114		57 06.22 N	152 37.10 W	CalVET	MZ	Nets 1 and 2 preserved together
17-Sep-02	17:03	80	2		CAL027	114		57 06.22 N	152 37.10 W	CAT	CAT	Nets 1 and 2 preserved together
17-Sep-02	18:03	81	1		CTD046	125		57 07.58 N	152 32.22 W	CTDB	Chlor, Nut	
17-Sep-02	18:31	81	2		CAL028	125		57 07.43 N	152 32.47 W	CalVET	MZ	Nets 1 and 2 preserved together in 1 jar
17-Sep-02	18:31	81	2		CAL028	125		57 07.43 N	152 32.47 W	CAT	CAT	Nets 1 and 2 preserved together in 1 jar
17-Sep-02	18:46	81	3		BON082	125		57 07.11 N	152 32.64 W	20Bon	QTowF	
17-Sep-02	18:46	81	3		BON082	125		57 07.11 N	152 32.64 W	60Bon	QTowF	
17-Sep-02	18:46	81	3		BON082	125		57 07.11 N	152 32.64 W	CAT	CAT	
17-Sep-02	20:24	82	1		CAL029	154		57 08.67 N	152 27.54 W	CalVET	MZ	Nets 1 and 2 preserved together in 1 jar
17-Sep-02	20:24	82	1		CAL029	154		57 08.67 N	152 27.54 W	CAT	CAT	Nets 1 and 2 preserved together in 1 jar
17-Sep-02	20:12	82	2		BON083	153		57 08.45 N	152 27.52 W	20Bon	QTowF	
17-Sep-02	20:12	82	2		BON083	153		57 08.45 N	152 27.52 W	60Bon	QTowF	
17-Sep-02	20:12	82	2		BON083	153		57 08.45 N	152 27.52 W	CAT	CAT	
17-Sep-02	22:26	82	3		CTD047A	154		57 08.06 N	152 27.40 W	CTDB	Discard	30 meter bottle blew out - fail
17-Sep-02	22:50	82	4		CTD047B	151		57 08.82 N	152 27.66 W	CTDB	Chlor, CTD, Nut	
17-Sep-02	23:46	83	1			144		57 02.05 N	152 29.84 W	Neu	QTowF	
18-Sep-02	0:11	83	2		BON084	143		57 01.82 N	152 29.91 W	20Bon	QTowF	Rough count capelin = 0
18-Sep-02	0:11	83	2		BON084	143		57 01.82 N	152 29.91 W	60Bon	QTowF	Rough count capelin = 0
18-Sep-02	0:11	83	2		BON084	143		57 01.82 N	152 29.91 W	CAT	CAT	Rough count capelin = 0
18-Sep-02	0:36	83	3			143		57 02.06 N	152 29.28 W	MANTA	QTowF	Manta - deployed on starboard side with Seacat attached to wire
18-Sep-02	0:53	83	4			144		57 01.78 N	152 29.48 W	MARMAP	QTowF	Marmap - weighted with 10 lbs (two 5 lb

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
18-Sep-02	2:19	84	1			91	56 52.09 N	152 15.03 W	Neu	QTowF	Sameoto
18-Sep-02	2:45	84	2		BON085	93	56 51.95 N	152 13.87 W	20Bon	QTowF	
18-Sep-02	2:45	84	2		BON085	93	56 51.95 N	152 13.87 W	60Bon	QTowF, RCNTCAPE	
18-Sep-02	2:45	84	2		BON085	93	56 51.95 N	152 13.87 W	CAT	CAT	
18-Sep-02	4:02	85	1			45	56 42.14 N	151 59.12 W	Neu	QTowF	Sameoto
18-Sep-02	4:21	85	2		BON086	49	56 41.87 N	151 59.06 W	20Bon	QTowF	Net I for 60BON had very large jelly in it. Counted capelin in net 1 and preserved net
18-Sep-02	4:21	85	2		BON086	49	56 41.87 N	151 59.06 W	60Bon	QTowF, RCNTCAPE	Net I had very large jelly in it. Counted capelin in net 1 and preserved net 2.
18-Sep-02	4:21	85	2		BON086	49	56 41.87 N	151 59.06 W	CAT	CAT	Net I for 60BON had very large jelly in it. Counted capelin in net 1 and preserved net
18-Sep-02	5:45	86	1			1830	56 32.24 N	151 45.32 W	Neu	QTowF	Sameoto
18-Sep-02	6:08	86	2			1830	56 32.15 N	151 45.53 W	MANTA	QTowF	Manta - starboard deployment with Seacat
18-Sep-02	6:28	86	3			1830	56 32.05 N	151 44.98 W	MARMAP	QTowF	Marmap
18-Sep-02	6:49	86	4		BON087	1830	56 31.88 N	151 45.22 W	20Bon	QTowF	Bottom too deep fro EK-500 depth reading. Got bottom depth from bridge nautical chart - approx 1000 fathoms x 1.8 - 1830 m.
18-Sep-02	6:49	86	4		BON087	1830	56 31.88 N	151 45.22 W	60Bon	QTowF, RCNTCAPE	Bottom too deep fro EK-500 depth reading. Got bottom depth from bridge nautical chart - approx 1000 fathoms x 1.8 - 1830 m.
18-Sep-02	6:49	86	4		BON087	1830	56 31.88 N	151 45.22 W	CAT	CAT	Bottom too deep fro EK-500 depth reading. Got bottom depth from bridge nautical chart - approx 1000 fathoms x 1.8 - 1830 m.
18-Sep-02	8:28	87	1			1400	56 23.77 N	152 04.18 W	Neu	QTowF	Too deep for an Ek-500 depth reading. Sameoto.
18-Sep-02	9:02	87	2		BON088	1400	56 23.53 N	152 03.62 W	20Bon	QTowF	Too deep for Ek-500 reading.
18-Sep-02	9:02	87	2		BON088	1400	56 23.53 N	152 03.62 W	60Bon	QTowF	Too deep for Ek-500 reading.
18-Sep-02	9:02	87	2		BON088	1400	56 23.53 N	152 03.62 W	60Bon	QTowF	Too deep for Ek-500 reading. Rough count capelin = 0.
18-Sep-02	9:02	87	2		BON088	1400	56 23.53 N	152 03.62 W	CAT	CAT	Too deep for Ek-500 reading.
18-Sep-02	10:36	88	1			98	56 33.75 N	152 18.26 W	Neu	QTowF	sameoto
18-Sep-02	11:03	88	2			95	56 33.86 N	152 18.13 W	MANTA	QTowF	manta
18-Sep-02	11:25	88	3			92	56 33.96 N	152 18.21 W	MARMAP	QTowF	marmap
18-Sep-02	11:49	88	4		BON089	101	56 33.67 N	152 19.09 W	20Bon	QTowF	rough count capelin = 0
18-Sep-02	11:49	88	4		BON089	101	56 33.67 N	152 19.09 W	60Bon	QTowF	rough count capelin = 0
18-Sep-02	11:49	88	4		BON089	101	56 33.67 N	152 19.09 W	CAT	CAT	rough count capelin = 0
18-Sep-02	13:28	89	1			135	56 44.12 N	152 34.37 W	Neu	QTowF	sameoto
18-Sep-02	13:53	89	2			135	56 44.12 N	152 34.37 W	MANTA	QTowF	manta
18-Sep-02	14:28	89	3			133	56 44.14 N	152 34.50 W	MARMAP	QTowF	marmap
18-Sep-02	14:44	89	4		BON090	129	56 43.88 N	152 34.85 W	20Bon	QTowF	
18-Sep-02	14:44	89	4		BON090	129	56 43.88 N	152 34.85 W	60Bon	QTowF, RCNTCAPE	
18-Sep-02	14:44	89	4		BON090	129	56 43.88 N	152 34.85 W	CAT	CAT	

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
18-Sep-02	16:09	90	1			109	56 53.71 N	152 47.63 W	Neu	QTowF	sameoto
18-Sep-02	16:31	90	2		BON091	109	56 54.21 N	152 48.26 W	20Bon	QTowF	
18-Sep-02	16:31	90	2		BON091	109	56 54.21 N	152 48.26 W	60Bon	QTowF, RCNTCAPE	
18-Sep-02	16:31	90	2		BON091	109	56 54.21 N	152 48.26 W	CAT	CAT	
18-Sep-02	17:45	91	1			47	57 03.37 N	153 03.22 W	Neu	QTowF	sameoto
18-Sep-02	18:09	91	2		BON092	45	57 03.57 N	153 03.52 W	20Bon	QTowF	
18-Sep-02	18:09	91	2		BON092	45	57 03.57 N	153 03.52 W	60Bon	QTowF, RCNTCAPE	
18-Sep-02	18:09	91	2		BON092	45	57 03.57 N	153 03.52 W	CAT	CAT	
18-Sep-02	19:22	92	1			56	56 55.71 N	153 21.95 W	Neu	QTowF	sameoto
18-Sep-02	19:55	92	2		BON093	58	56 55.76 N	153 22.30 W	20Bon	QTowF	
18-Sep-02	19:55	92	2		BON093	58	56 55.76 N	153 22.30 W	60Bon	QTowF, RCNTCAPE	
18-Sep-02	19:55	92	2		BON093	58	56 55.76 N	153 22.30 W	CAT	CAT	
18-Sep-02	21:08	93	1			133	56 45.64 N	153 12.81 W	Neu	QTowF	sameoto
18-Sep-02	21:26	93	2		BON094	132	56 45.60 N	153 13.88 W	20Bon	QTowF	rough count capelin = 0.
18-Sep-02	21:26	93	2		BON094	132	56 45.60 N	153 13.88 W	60Bon	QTowF	rough count capelin = 0.
18-Sep-02	21:26	93	2		BON094	132	56 45.60 N	153 13.88 W	CAT	CAT	rough count capelin = 0.
18-Sep-02	23:02	94	1			86	56 35.25 N	152 52.28 W	Neu	QTowF	sameoto
18-Sep-02	23:20	94	2		BON095	85	56 35.66 N	152 52.49 W	20Bon	QTowF	rough count capelin = 0.
18-Sep-02	23:20	94	2		BON095	85	56 35.66 N	152 52.49 W	60Bon	QTowF	rough count capelin = 0.
18-Sep-02	23:20	94	2		BON095	85	56 35.66 N	152 52.49 W	CAT	CAT	rough count capelin = 0.
19-Sep-02	0:58	95	1			136	56 26.07 N	152 37.82 W	Neu	QTowF	sameoto
19-Sep-02	1:17	95	2		BON096	132	56 26.04 N	152 37.72 W	20Bon	QTowF	rough count capelin = 0.
19-Sep-02	1:17	95	2		BON096	132	56 26.04 N	152 37.72 W	60Bon	QTowF	rough count capelin = 0.
19-Sep-02	1:17	95	2		BON096	132	56 26.04 N	152 37.72 W	CAT	CAT	rough count capelin = 0.
19-Sep-02	2:40	96	1			1708	56 15.23 N	152 22.21 W	Neu	QTowF	Sameoto. Bottom depth estimated.
19-Sep-02	3:01	96	2		BON097	1708	56 15.13 N	152 22.87 W	20Bon	QTowF	949 fathoms x 1.8 = 1708 m. Depth estimated from chart. Rough count capelin
19-Sep-02	3:01	96	2		BON097	1708	56 15.13 N	152 22.87 W	60Bon	QTowF	949 fathoms x 1.8 = 1708 m. Depth estimated from chart. Rough count capelin
19-Sep-02	3:01	96	2		BON097	1708	56 15.13 N	152 22.87 W	CAT	CAT	949 fathoms x 1.8 = 1708 m. Depth estimated from chart. Rough count capelin
19-Sep-02	4:38	97	1			100	56 04.52 N	152 06.70 W	Neu	QTowF	sameoto
19-Sep-02	4:52	97	2		BON098	4500	56 04.43 N	152 08.10 W	20Bon	QTowF	2500 fathoms x 1.8 = 4500 m. Depth estimated from chart. Rough count capelin
19-Sep-02	4:52	97	2		BON098	4500	56 04.43 N	152 08.10 W	60Bon	QTowF	2500 fathoms x 1.8 = 4500 m. Depth estimated from chart. Rouch count capelin
19-Sep-02	4:52	97	2		BON098	4500	56 04.43 N	152 08.10 W	60Bon	QTowF	2500 fathoms x 1.8 = 4500 m. Depth estimated from chart. Rough count capelin
19-Sep-02	4:52	97	2		BON098	4500	56 04.43 N	152 08.10 W	CAT	CAT	2500 fathoms x 1.8 = 4500 m. Depth estimated from chart. Rough count capelin
19-Sep-02	8:16	98	1			189	56 17.16 N	152 54.83 W	Neu	QTowF	sameoto

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
19-Sep-02	8:52	98	2		BON099	289	56 16.90 N	152 56.60 W	20Bon	QTowF	Rough count capelin = 0
19-Sep-02	8:52	98	2		BON099	289	56 16.90 N	152 56.60 W	60Bon	QTowF	Rough count capelin = 0
19-Sep-02	8:52	98	2		BON099	289	56 16.90 N	152 56.60 W	CAT	CAT	Rough count capelin = 0
19-Sep-02	10:30	99	1			27	56 25.97 N	153 10.94 W	Neu	QTowF	sameoto
19-Sep-02	10:50	99	2		BON100	29	56 25.96 N	153 11.72 W	20Bon	QTowF	
19-Sep-02	10:50	99	2		BON100	29	56 25.96 N	153 11.72 W	60Bon	QTowF, RCNTCAPE	
19-Sep-02	10:50	99	2		BON100	29	56 25.96 N	153 11.72 W	CAT	CAT	
19-Sep-02	11:13	99	3			29	56 26.15 N	153 10.97 W	MANTA	QTowF	manta
19-Sep-02	11:32	99	4			27	56 26.20 N	153 11.70 W	MARMAP	QTowF	marmap
19-Sep-02	14:45	100	1			103	56 38.19 N	153 27.29 W	Neu	QTowF	sameoto
19-Sep-02	15:08	100	2		BON101	99	58 37.89 N	152 27.47 W	20Bon	QTowF	Cod end on Net 2 blew out. Net 2 FAIL.
19-Sep-02	15:08	100	2		BON101	99	58 37.89 N	152 27.47 W	60Bon	QTowF	Cod end on Net 2 blew out. Net 2 FAIL.
19-Sep-02	15:08	100	2		BON101	99	58 37.89 N	152 27.47 W	60Bon	QTowF	Cod end on Net 2 of 60BON blew out.
19-Sep-02	15:08	100	2		BON101	99	58 37.89 N	152 27.47 W	CAT	CAT	Cod end on Net 2 blew out. Net 2 FAIL.
19-Sep-02	16:37	101	1			86	56 47.53 N	153 40.28 W	Neu	QTowF	
19-Sep-02	16:56	101	2		BON102	71	56 47.63 N	153 41.36 W	20Bon	QTowF	
19-Sep-02	16:56	101	2		BON102	71	56 47.63 N	153 41.36 W	60Bon	QTowF, RCNTCAPE	
19-Sep-02	16:56	101	2		BON102	71	56 47.63 N	153 41.36 W	CAT	CAT	
19-Sep-02	18:27	102	1			75	56 38.61 N	153 53.01 W	Neu	QTowF	sameoto
19-Sep-02	18:47	102	2		BON103	74	56 38.64 N	153 53.73 W	20Bon	QTowF	
19-Sep-02	18:47	102	2		BON103	74	56 38.64 N	153 53.73 W	60Bon	QTowF, RCNTCAPE	
19-Sep-02	18:47	102	2		BON103	74	56 38.64 N	153 53.73 W	CAT	CAT	
19-Sep-02	20:17	103	1			91	56 28.71 N	153 44.84 W	Neu	QTowF	sameoto
19-Sep-02	20:31	103	2		BON104	73	56 28.85 N	153 46.36 W	20Bon	QTowF	
19-Sep-02	20:31	103	2		BON104	73	56 28.85 N	153 46.36 W	60Bon	QTowF, RCNTCAPE	
19-Sep-02	20:31	103	2		BON104	73	56 28.85 N	153 46.36 W	CAT	CAT	
19-Sep-02	21:57	104	1			71	56 18.43 N	153 29.27 W	Neu	QTowF	sameoto
19-Sep-02	22:10	104	2		BON105	70	56 18.77 N	153 29.97 W	20Bon	QTowF	
19-Sep-02	22:10	104	2		BON105	70	56 18.77 N	153 29.97 W	60Bon	QTowF, RCNTCAPE	
19-Sep-02	22:10	104	2		BON105	70	56 18.77 N	153 29.97 W	CAT	CAT	
19-Sep-02	23:39	105	1			1174	56 09.79 N	153 15.12 W	Neu	QTowF	sameoto
19-Sep-02	23:44	105	2		BON106	1283	56 09.66 N	153 15.12 W	20Bon	QTowF	713 fathoms x 1.8 = 1283m. Depth from nautical chart. Rough count capelin = 0.
19-Sep-02	23:44	105	2		BON106	1283	56 09.66 N	153 15.12 W	60Bon	QTowF	713 fathoms x 1.8 = 1283m. Depth from nautical chart. Rough count capelin = 0.
19-Sep-02	23:44	105	2		BON106	1283	56 09.66 N	153 15.12 W	CAT	CAT	713 fathoms x 1.8 = 1283m. Depth from nautical chart. Rough count capelin = 0.
20-Sep-02	1:36	106	1			231	55 59.79 N	153 32.07 W	Neu	QTowF	sameoto
20-Sep-02	1:40	106	2		BON107	168	55 59.61 N	153 32.07 W	20Bon	QTowF	rough count capelin = 0.
20-Sep-02	1:40	106	2		BON107	168	55 59.61 N	153 32.07 W	60Bon	QTowF	rough count capelin = 0.

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
20-Sep-02	1:40	106	2		BON107	168	55 59.61 N	153 32.07 W	CAT	CAT	rough count capelin = 0.
20-Sep-02	3:16	107	1			800	55 52.55 N	153 51.47 W	Neu	QTowF	sameoto
20-Sep-02	3:30	107	2		BON108	995	55 52.66 N	153 52.62 W	20Bon	QTowF	Rough count capelin = 0
20-Sep-02	3:30	107	2		BON108	995	55 52.66 N	153 52.62 W	60Bon	QTowF	Rough count capelin = 0
20-Sep-02	3:30	107	2		BON108	995	55 52.66 N	153 52.62 W	CAT	CAT	Rough count capelin = 0
20-Sep-02	5:18	108	1			149	56 01.85 N	154 07.85 W	Neu	QTowF	sameoto
20-Sep-02	5:41	108	2			152	56 01.85 N	154 07.99 W	MANTA	QTowF	Manta
20-Sep-02	6:02	108	3			152	56 01.71 N	154 07.74 W	MARMAP	QTowF	Marmap
20-Sep-02	6:22	108	4		BON109	146	56 01.89 N	154 07.79 W	20Bon	QTowF	
20-Sep-02	6:22	108	4		BON109	146	56 01.89 N	154 07.79 W	60Bon	QTowF	Seacat hit bottom. Flowmeter net 1 60bon very low. Use net 2 flowmeter for estimate. Rough count capelin = 0.
20-Sep-02	6:22	108	4		BON109	146	56 01.89 N	154 07.79 W	60Bon	QTowF	Seacat hit bottom. Nets OK. Rough count capelin = 0
20-Sep-02	6:22	108	4		BON109	146	56 01.89 N	154 07.79 W	CAT	CAT	
20-Sep-02	8:01	109	1			250	56 09.85 N	153 47.94 W	Neu	QTowF	sameoto
20-Sep-02	8:26	109	2		BON110	234	56 10.28 N	153 48.75 W	20Bon	QTowF	
20-Sep-02	8:26	109	2		BON110	234	56 10.28 N	153 48.75 W	60Bon	QTowF, RCNTCAPE	
20-Sep-02	8:26	109	2		BON110	234	56 10.28 N	153 48.75 W	CAT	CAT	
20-Sep-02	9:46	110	1			87	56 20.24 N	154 02.55 W	Neu	QTowF	sameoto
20-Sep-02	10:04	110	2		BON111	88	56 20.62 N	154 03.35 W	20Bon	QTowF	
20-Sep-02	10:04	110	2		BON111	88	56 20.62 N	154 03.35 W	60Bon	QTowF, RCNTCAPE	
20-Sep-02	10:04	110	2		BON111	88	56 20.62 N	154 03.35 W	CAT	CAT	
20-Sep-02	10:33	110	3			88	56 20.42 N	154 02.97 W	MANTA	QTowF	manta
20-Sep-02	10:49	110	4			90	56 20.70 N	154 03.71 W	MARMAP	QTowF	marmap
20-Sep-02	12:08	111	1			119	56 12.83 N	154 21.61 W	Neu	QTowF	Sameoto
20-Sep-02	12:33	111	2		BON112	114	56 13.01 N	154 22.00 W	20Bon	QTowF	
20-Sep-02	12:33	111	2		BON112	114	56 13.01 N	154 22.00 W	60Bon	QTowF, RCNTCAPE	
20-Sep-02	12:33	111	2		BON112	114	56 13.01 N	154 22.00 W	CAT	CAT	
20-Sep-02	13:43	112	1			39	56 21.24 N	154 33.97 W	Neu	QTowF	Sameoto
20-Sep-02	14:02	112	2			38	56 21.27 N	154 33.91 W	MANTA	QTowF	Manta
20-Sep-02	14:21	112	3			40	56 21.35 N	154 33.96 W	MARMAP	QTowF	Marmap
20-Sep-02	14:44	112	4		BON113	39	56 21.42 N	154 33.85 W	20Bon	QTowF	
20-Sep-02	14:44	112	4		BON113	39	56 21.42 N	154 33.85 W	60Bon	QTowF, RCNTCAPE	
20-Sep-02	14:44	112	4		BON113	39	56 21.42 N	154 33.85 W	CAT	CAT	
20-Sep-02	17:29	113	1			23	56 32.92 N	154 51.49 W	Neu	QTowF	Sameoto
20-Sep-02	17:46	113	2		BON114	25	56 33.58 N	154 50.87 W	20Bon	QTowF	
20-Sep-02	17:46	113	2		BON114	25	56 33.58 N	154 50.87 W	60Bon	QTowF, RCNTCAPE	
20-Sep-02	17:46	113	2		BON114	25	56 33.58 N	154 50.87 W	CAT	CAT	
20-Sep-02	18:46	114	1			74	56 43.01 N	155 07.03 W	Neu	QTowF	sameoto

## Cruise Summary For FOCI Cruise 5MF02 (MF0210)

Date (GMT)	Time (GMT)	Station	Haul	Grid	FOCI Station	Alternat (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
20-Sep-02	19:12	114	2		BON115	74	56 43.58 N	155 06.54 W	20Bon	QTowF	
20-Sep-02	19:12	114	2		BON115	74	56 43.58 N	155 06.54 W	60Bon	QTowF, RCNTCAPE	
20-Sep-02	19:12	114	2		BON115	74	56 43.58 N	155 06.54 W	CAT	CAT	
20-Sep-02	20:23	115	1			245	56 52.74 N	155 20.98 W	Neu	QTowF	sameoto
20-Sep-02	20:38	115	2		BON116	248	56 53.40 N	155 21.06 W	20Bon	QTowF	
20-Sep-02	20:38	115	2		BON116	248	56 53.40 N	155 21.06 W	60Bon	QTowF	
20-Sep-02	20:38	115	2		BON116	248	56 53.40 N	155 21.06 W	60Bon	QTowF	rough count capelin = 0
20-Sep-02	20:38	115	2		BON116	248	56 53.40 N	155 21.06 W	CAT	CAT	
20-Sep-02	22:08	116	1			183	57 00.09 N	155 03.04 W	Neu	QTowF	sameoto
20-Sep-02	22:22	116	2		BON117	188	57 01.55 N	155 03.11 W	20Bon	QTowF	rough count capelin = 0
20-Sep-02	22:22	116	2		BON117	188	57 01.55 N	155 03.11 W	60Bon	QTowF	rough count capelin = 0
20-Sep-02	22:22	116	2		BON117	188	57 01.55 N	155 03.11 W	CAT	CAT	rough count capelin = 0
20-Sep-02	23:48	117	1			49	56 51.83 N	154 47.50 W	Neu	QTowF	Sameoto
21-Sep-02	0:12	117	2		BON118	48	56 51.92 N	154 47.53 W	20Bon	QTowF	
21-Sep-02	0:12	117	2		BON118	48	56 51.92 N	154 47.53 W	60Bon	QTowF	60Bon net 1 - 1 Aqueoria 88 gm.
21-Sep-02	0:12	117	2		BON118	48	56 51.92 N	154 47.53 W	60Bon	QTowF	60Bon net 1 - 1 Aqueoria 88 gm. Rough count capelin = 0.
21-Sep-02	0:12	117	2		BON118	48	56 51.92 N	154 47.53 W	CAT	CAT	
21-Sep-02	3:13	118	1			24	56 42.07 N	154 33.68 W	Neu	QTowF	Sameoto
21-Sep-02	3:28	118	2		BON119	23	56 42.06 N	154 32.96 W	20Bon	QTowF	
21-Sep-02	3:28	118	2		BON119	23	56 42.06 N	154 32.96 W	60Bon	QTowF, RCNTCAPE	
21-Sep-02	3:28	118	2		BON119	23	56 42.06 N	154 32.96 W	CAT	CAT	
21-Sep-02	4:11	119	1			29	56 42.46 N	154 23.24 W	Neu	QTowF	Sameoto
21-Sep-02	4:30	119	2		BON120	28	56 42.22 N	154 23.04 W	20Bon	QTowF	
21-Sep-02	4:30	119	2		BON120	28	56 42.22 N	154 23.04 W	60Bon	QTowF, RCNTCAPE	
21-Sep-02	4:30	119	2		BON120	28	56 42.22 N	154 23.04 W	CAT	CAT	
21-Sep-02	5:24	120	1			38	56 47.42 N	154 09.79 W	Neu	QTowF	Sameoto
21-Sep-02	5:45	120	2		BON121	40	56 47.40 N	154 09.56 W	20Bon	QTowF	
21-Sep-02	5:45	120	2		BON121	40	56 47.40 N	154 09.56 W	60Bon	QTowF, RCNTCAPE	
21-Sep-02	5:45	120	2		BON121	40	56 47.40 N	154 09.56 W	CAT	CAT	
21-Sep-02	6:49	121	1			26	56 53.57 N	154 22.12 W	Neu	QTowF	Sameoto neuston far inboard then out of water for a few seconds to reset.
21-Sep-02	7:21	121	2		BON122	28	56 53.63 N	154 22.51 W	20Bon	QTowF	
21-Sep-02	7:21	121	2		BON122	28	56 53.63 N	154 22.51 W	60Bon	QTowF, RCNTCAPE	
21-Sep-02	7:21	121	2		BON122	28	56 53.63 N	154 22.51 W	CAT	CAT	
21-Sep-02	8:36	122	1			30	57 01.45 N	154 36.10 W	Neu	QTowF	Sameoto
21-Sep-02	8:54	122	2		BON123	29	57 02.20 N	154 36.03 W	20Bon	QTowF	
21-Sep-02	8:54	122	2		BON123	29	57 02.20 N	154 36.03 W	60Bon	QTowF, RCNTCAPE	
21-Sep-02	8:54	122	2		BON123	29	57 02.20 N	154 36.03 W	CAT	CAT	

**Cruise Summary For FOCI Cruise 5MF02 (MF0210)**

Date (GMT)	Time (GMT)	Station	Haul Grid	FOCI Station	Alternat Depth (m)	Latitude	Longitude	Gear	Samples Collected	Haul Comments
21-Sep-02	9:51	123	1		80	57 07.91 N	154 48.49 W	Neu	QTowF	Sameoto
21-Sep-02	10:17	123	2		80	57 08.06 N	154 48.34 W	MANTA	QTowF	Manta
21-Sep-02	10:36	123	3		79	57 08.65 N	154 47.98 W	MARMAP	QTowF	Marmap
21-Sep-02	11:05	123	4	BON124	79	57 08.11 N	154 48.30 W	20Bon	QTowF	
21-Sep-02	11:05	123	4	BON124	79	57 08.11 N	154 48.30 W	60Bon	QTowF, RCNTCAPE	
21-Sep-02	11:05	123	4	BON124	79	57 08.11 N	154 48.30 W	CAT	CAT	

*Monday, September 23, 2002*