

## CRUISE REPORT

Cruise Number: MF95-07, *Leg II*

FOCI Number: FOCI-7MF95

NOAA Ship: Miller Freeman

Area of Operations: Southeast Bering Sea

Itinerary:

Departed - Dutch Harbor, 3 May 1995

Returned- Dutch Harbor, 18 May 1995

Participating Organizations: NOAA - Alaska Fisheries Science Center  
(AFSC)  
NOAA - Pacific Marine Environmental  
Laboratory (PMEL)  
University of Washington, School of  
Oceanography

Major Cruise Objectives:

- (1) continue acquisition of long-term biological and physical time series from designated transects and moored biophysical platforms;
- (2) conduct surveys of pollock eggs and larvae for use in estimating distribution;
- (3) collect samples of larval pollock for studies on growth, feeding, condition, and vertical distribution;
- (4) determine the flux and fate of water and organisms in the Alaska Coastal Current after it enters the Bering Sea through Unimak Pass;
- (5) calibrate instruments on moored platforms;

- (6) examine fine-structure of ichthyo- and zooplankton using the Tracor Acoustic Profiling System (TAPS);
- (7) examine the impact of invertebrate predation on larval pollock;
- (8) recovery one and deploy two FOCI biophysical platforms.

Chief Scientist: Jeffrey M. Napp, NOAA/NMFS/AFSC

Personnel:

Karl Beighley	Teacher at Sea
Lisa Britt	NOAA/AFSC
Annette Brown	NOAA/AFSC
Kim Cleary	NOAA/PMEL
Carol DeWitt	NOAA/PMEL
David Kachel	NOAA/PMEL
William Parker	NOAA/PMEL
William Rugen	NOAA/AFSC
Michael Martin	University of Washington

Operations Summary

Description. Our sampling stations are shown in Figures 1 -3. We began with a test station to check our equipment and then proceeded to collect biological, chemical, and physical oceanographic samples from stations around Unimak Pass (Cruise Objectives 1, 4, 6). Calibration samples at Mooring 1 (95BSS-01 and 95BSM-01; Cruise Objective 5) were obtained enroute to the northeastern portion of our survey area. Our survey for eggs and larvae of pollock (Cruise Objective 2) was begun on the third day of the cruise. The survey was twice interrupted to deploy and recover FOCI biophysical platforms (95BSM-02 and 95BSM-03; Cruise Objective 8). At the conclusion of the survey, we completed our process-oriented studies. Samples to determine larval feeding, prey abundance, and larval physiological condition were taken from two "patches" of larvae; one each from the Outer and Middle Shelf Domains (Cruise Objective 3; Figures 2 and 3). Samples were also obtained to determine the incidence of invertebrate predation on larvae (Cruise Objective 7).. Samples for larval condition and prey abundance were collected at several locations of high larval abundance during the survey. The cruise concluded with two dedicated plankton acoustic transects (Cruise Objective 6) and reoccupation of three stations in

Unimak Pass (Cruise Objectives 1 and 4). Samples for ancillary studies include: collection and transport of live zooplankton for laboratory studies, collection of larval pollock for analysis of stock structure using genetic probes, collection of larvae and protozoa for a study on the use of protozoa by first feeding pollock larvae, samples of phytoplankton absorbance for studies on spring bloom dynamics and release of Ocean Color Monitor (OCM) satellite-tracked drifters for studies of spring bloom dynamics and generation of phytoplankton biomass algorithms for the SeaWiFS satellite.

Statistics - A total of 161 stations were occupied. A complete list of station activities is included (Table 1). Below is a table of summary statistics.

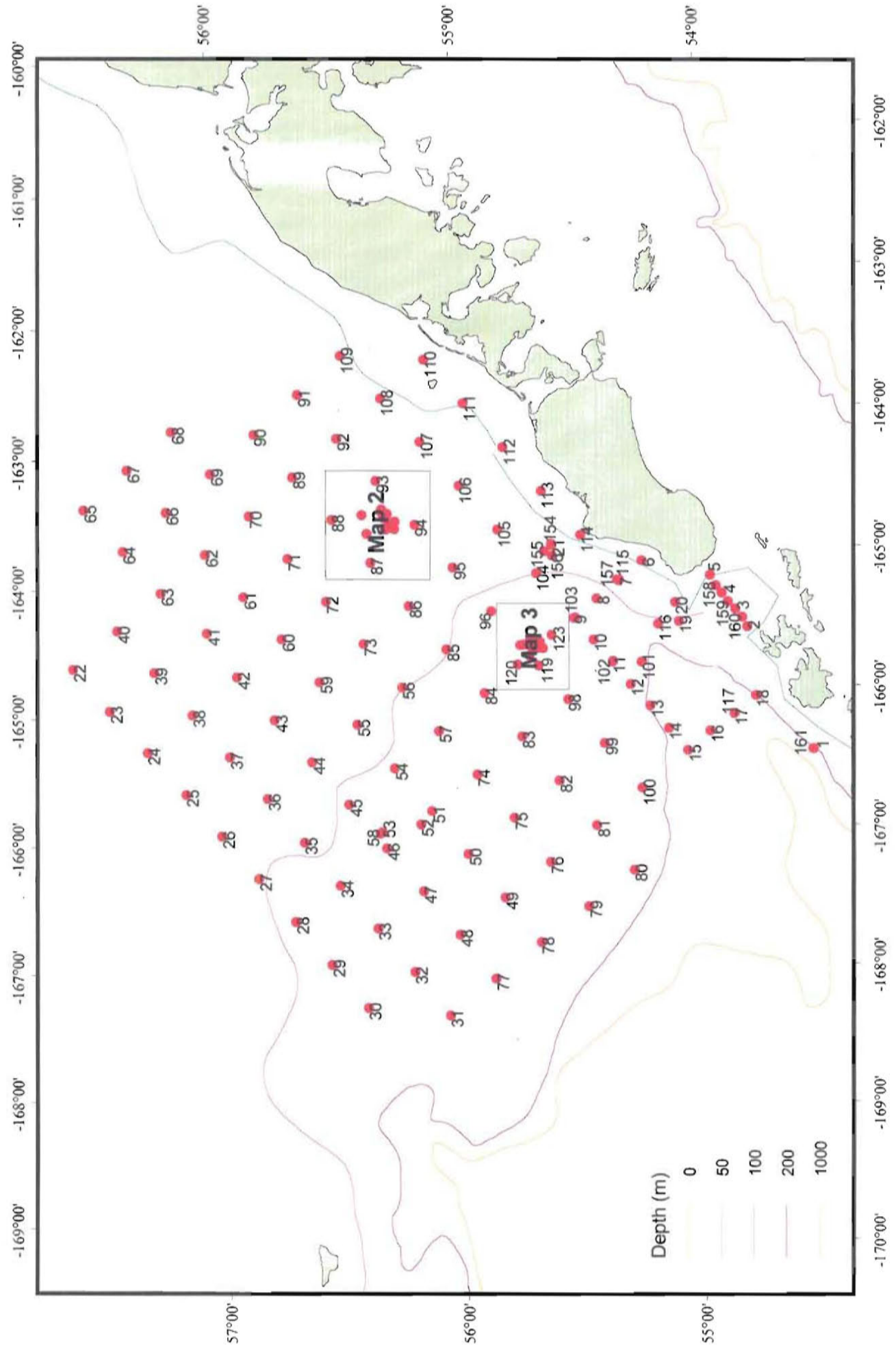
Operation	Number Completed
CTD casts	53
Plankton tows	
Bongo	136
CaIVET	9
Tucker	8
MOCNESS	9
Live	32
Ring Net	6
Biophysical Platforms	
deployments	2
recover	1
Satellite buoy deployment	
Seimac	4
WOCE/OCM	5
Bioacoustic Data Collection	
Vertical tows	14
Oblique (Tow-Yo or single)	5
Horizontal tows	5

Preliminary Results: Despite the presence of ice on the Southeast shelf until early April, large numbers of pollock eggs and larvae were

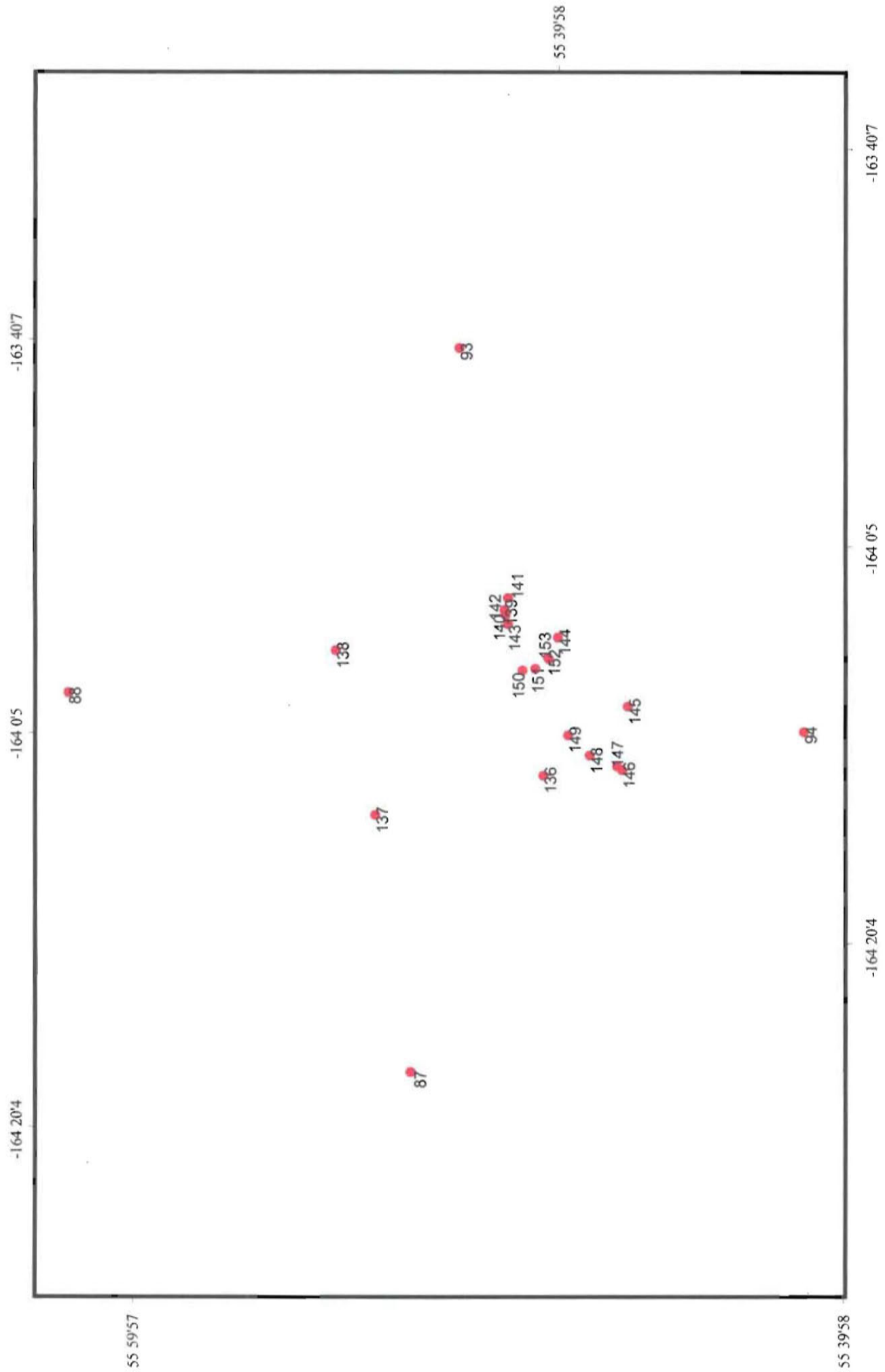
encountered. The cold temperatures probably delayed hatching of these larvae compared to other years. Further conclusions must wait until the biological and physical samples are analyzed and the data can be placed in a historical context.

Acknowledgments: We exceeded our expectations and objectives due to a combination of good weather, good luck, and the skill/logistical support of the officers and crew of the Miller Freeman. The Survey and Deck Departments worked especially hard to help us use our time efficiently and effectively. I thank the Commanding Officer for striving to create and maintain a "service-oriented" vessel, and the Field Operations Officer for his flexibility and advice. Thank you one and all!

7MF95 - Station Locations (Map 1)



# 7MF95 - Enlargement of Station Locations (Map 2)



# 7MF95 - Enlargement of Station Locations (Map 3)

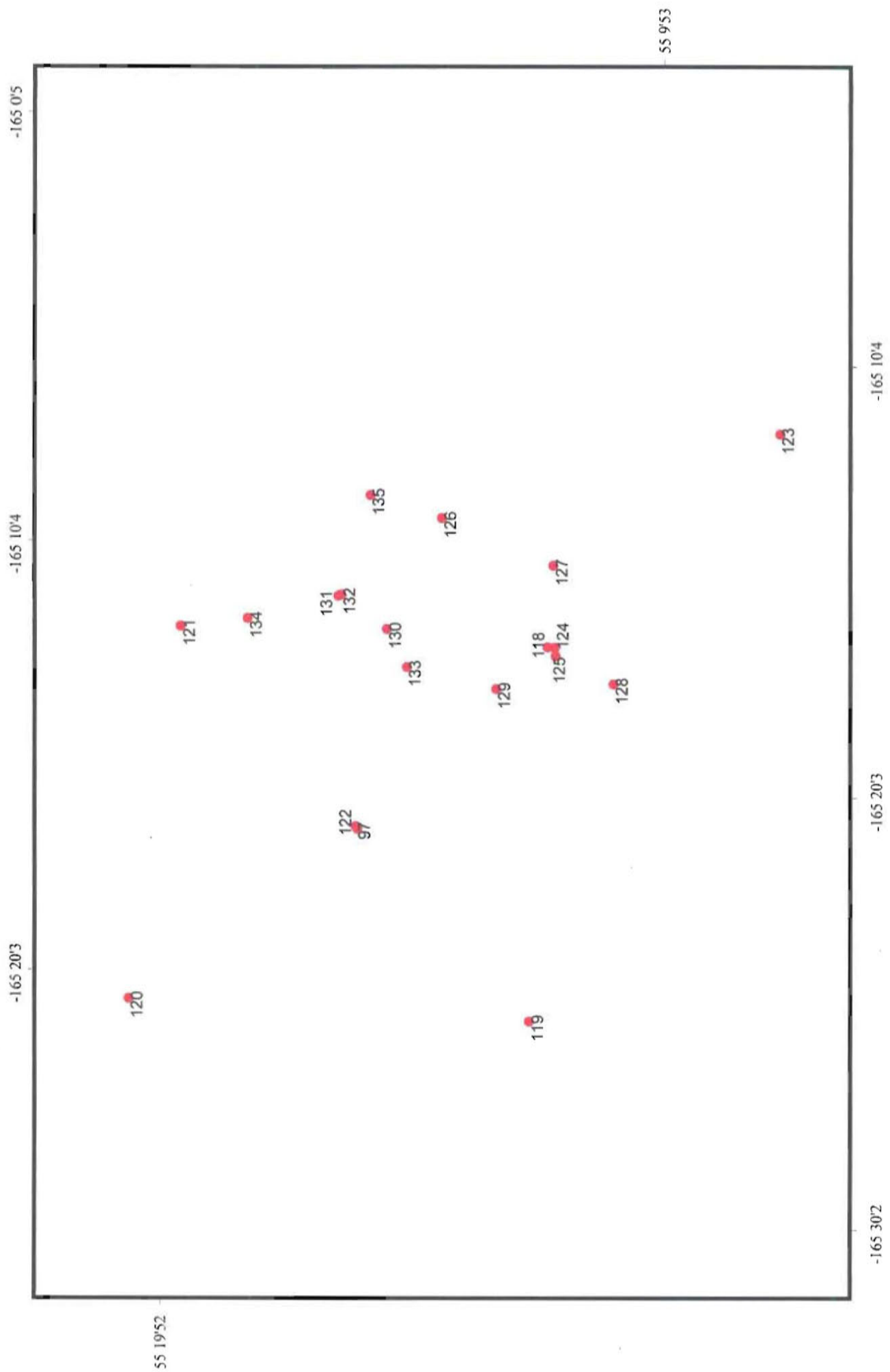


Table 1 MF95-07 CRUISE SUMMARY  
FOCI CRUISE 7MF95

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid No.	Alternate Station No.	Depth (m)	Latitude N	Longitude W	Gear	Samples Collected
4-May	0:52	1	1		CTD001	648	54° 09.96'	166° 23.97'	CTDB	BioOther,CHLAM,Chlor,CTD,Fluor,Lugolis,MZ
4-May	4:44	2	1		CTD002	146	54° 20.21'	165° 25.38'	CTDB	Absorb,BioOther,CHLAM,Chlor,CTD,Fluor,MZ,Nut
4-May	5:20	2	2			151	54° 20.33'	165° 25.78'	20Bon	QTowF
4-May	5:20	2	2			151	54° 20.33'	165° 25.78'	60Bon	QTowF
4-May	5:20	2	2			151	54° 20.33'	165° 25.78'	CAT	CAT
4-May	6:23	3	1		CTD003	168	54° 22.34'	165° 16.74'	CTDB	Absorb,BioOther,CHLAM,Chlor,CTD,Fluor,MZ,Nut
4-May	6:56	3	2			175	54° 22.41'	165° 17.71'	20Bon	QTowF
4-May	6:56	3	2			175	54° 22.41'	165° 17.71'	60Bon	QTowF
4-May	6:56	3	2			175	54° 22.41'	165° 17.71'	CAT	CAT
4-May	8:16	4	1		CTD004	141	54° 24.83'	165° 08.43'	CTDB	Absorb,BioOther,CHLAM,Chlor,CTD,Fluor,MZ,Nut
4-May	8:49	4	2			141	54° 24.56'	165° 08.26'	20Bon	QTowF
4-May	8:49	4	2			141	54° 24.56'	165° 08.26'	60Bon	QTowF
4-May	8:49	4	2			141	54° 24.56'	165° 08.26'	CAT	CAT
4-May	9:30	4	3			141	54° 24.73'	165° 08.30'	20Bon	QTowF
4-May	9:30	4	3			141	54° 24.73'	165° 08.30'	60Bon	QTowF
4-May	9:30	4	3			141	54° 24.73'	165° 08.30'	CAT	CAT
4-May	10:42	5	1		CTD005	53	54° 26.74'	164° 59.67'	CTDB	Absorb,BioOther,CHLAM,Chlor,CTD,Fluor,MZ,Nut
4-May	11:09	5	2			51	54° 26.80'	164° 59.65'	20Bon	QTowF
4-May	11:09	5	2			51	54° 26.80'	164° 59.65'	60Bon	QTowF
4-May	11:09	5	2			51	54° 26.80'	164° 59.65'	CAT	CAT
4-May	13:35	6	1		CTD006	42	54° 43.02'	164° 46.99'	CTDB	Absorb,BioOther,CHLAM,Chlor,CTD,Fluor,MZ,Nut
4-May	13:54	6	2			43	54° 43.12'	164° 47.07'	20Bon	QTowF
4-May	13:54	6	2			43	54° 43.12'	164° 47.07'	60Bon	QTowF
4-May	13:54	6	2			43	54° 43.12'	164° 47.07'	CAT	CAT
4-May	15:26	7	1		CTD007	70	54° 49.73'	164° 53.51'	CTDB	Absorb,BioOther,CHLAM,Chlor,CTD,Fluor,MZ,Nut
4-May	15:54	7	2			75	54° 50.15'	164° 53.40'	20Bon	QTowF
4-May	15:54	7	2			75	54° 50.15'	164° 53.40'	60Bon	QTowF
4-May	15:54	7	2			75	54° 50.15'	164° 53.40'	CAT	CAT
4-May	16:50	8	1		CTD008	89	54° 56.24'	164° 59.42'	CTDB	Absorb,BioOther,CHLAM,Chlor,CTD,Fluor,MZ,Nut
4-May	17:11	8	2			84	54° 56.45'	164° 59.33'	20Bon	QTowF
4-May	17:11	8	2			84	54° 56.45'	164° 59.33'	60Bon	QTowF
4-May	17:11	8	2			84	54° 56.45'	164° 59.33'	CAT	CAT
4-May	17:44	8	3			81	54° 56.34'	164° 59.46'	20Bon	QTowF
4-May	17:44	8	3			81	54° 56.34'	164° 59.46'	60Bon	QTowF
4-May	17:44	8	3			81	54° 56.34'	164° 59.46'	CAT	CAT
4-May	18:55	9	1		CTD009	111	55° 03.03'	165° 05.89'	CTDB	Absorb,BioOther,CHLAM,Chlor,CTD,Fluor,MZ,Nut
4-May	19:18	9	2			112	55° 03.25'	165° 06.08'	20Bon	QTowF
4-May	19:18	9	2			112	55° 03.25'	165° 06.08'	60Bon	QTowF
4-May	19:18	9	2			112	55° 03.25'	165° 06.08'	CAT	CAT
4-May	20:19	10	1		CTD010	110	54° 59.22'	165° 17.18'	CTDB	Absorb,BioOther,CHLAM,Chlor,CTD,Fluor,MZ,Nut
4-May	20:47	10	2			110	54° 59.12'	165° 17.38'	20Bon	QTowF
4-May	20:47	10	2			110	54° 59.12'	165° 17.38'	60Bon	QTowF
4-May	20:47	10	2			110	54° 59.12'	165° 17.38'	CAT	CAT
4-May	21:46	11	1		CTD011	120	54° 55.69'	165° 28.62'	CTDB	Absorb,BioOther,CHLAM,Chlor,CTD,Fluor,MZ,Nut



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Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid No.	Alternate Station No.	Depth (m)	Latitude N	Longitude W	Gear	Samples Collected
4-May	22:15	11	2			120	54° 55.59'	165° 28.69'	20Bon	QTowF
4-May	22:15	11	2			120	54° 55.59'	165° 28.69'	60Bon	QTowF
4-May	22:15	11	2			120	54° 55.59'	165° 28.69'	CAT	CAT
4-May	23:15	12	1			135	54° 52.34'	165° 40.20'	20Bon	QTowF
4-May	23:15	12	1			135	54° 52.34'	165° 40.20'	60Bon	QTowF
4-May	23:15	12	1			135	54° 52.34'	165° 40.20'	CAT	CAT
4-May	23:39	12	2		CTD012	136	54° 52.03'	165° 40.18'	CTDB	Absorb,BioOther,CHLAM,Chlor,CTD,Fluor,MZ,Nut
4-May	23:59	12	3			136	54° 52.10'	165° 40.32'	20Bon	QTowF
4-May	23:59	12	3			136	54° 52.10'	165° 40.32'	60Bon	QTowF
4-May	23:59	12	3			136	54° 52.10'	165° 40.32'	CAT	CAT
5-May	1:04	13	1		CTD013	160	54° 48.58'	165° 51.34'	CTDB	Absorb,BioOther,CHLAM,Chlor,CTD,Fluor,MZ,Nut
5-May	1:35	13	2			158	54° 48.71'	165° 51.51'	20Bon	QTowF
5-May	1:35	13	2			158	54° 48.71'	165° 51.51'	60Bon	QTowF
5-May	1:35	13	2			158	54° 48.71'	165° 51.51'	CAT	CAT
5-May	2:44	14	1		CTD014	217	54° 45.05'	166° 02.81'	CTD	BioOther,CHLAM,CTD,Fluor
5-May	4:02	15	1		CTD015	284	54° 41.37'	166° 14.20'	CTD	CHLAM,CTD,Fluor
5-May	5:17	16	1		CTD016	412	54° 34.83'	166° 07.61'	CTDB	Absorb,Chlor,CTD,Fluor,MZ,Nut
5-May	5:58	16	2			405	54° 35.17'	166° 08.12'	20Bon	QTowF
5-May	5:58	16	2			405	54° 35.17'	166° 08.12'	60Bon	QTowF
5-May	5:58	16	2			405	54° 35.17'	166° 08.12'	CAT	CAT
5-May	8:00	17	1		CTD017	537	54° 27.94'	166° 02.04'	CTDB	Absorb,Chlor,CTD,Fluor,MZ,Nut
5-May	8:45	17	2			536	54° 28.08'	166° 02.28'	20Bon	QTowF
5-May	8:45	17	2			536	54° 28.08'	166° 02.28'	60Bon	QTowF
5-May	8:45	17	2			536	54° 28.08'	166° 02.28'	CAT	CAT
5-May	10:20	18	1		CTD018	468	54° 21.63'	165° 56.04'	CTDB	Absorb,Chlor,CTD,Fluor,MZ,Nut
5-May	11:11	18	2			462	54° 21.58'	165° 55.76'	20Bon	QTowF
5-May	11:11	18	2			462	54° 21.58'	165° 55.76'	60Bon	QTowF
5-May	11:11	18	2			462	54° 21.58'	165° 55.76'	CAT	CAT
5-May	14:16	19	1			81	54° 37.01'	165° 16.99'	SatBuoy	Deploy
5-May	14:52	20	1			76	54° 36.98'	165° 08.31'	SatBuoy	Deploy
5-May	18:29	21	1			66	55° 04.45'	164° 31.46'	20Bon	QTowF
5-May	18:39	21	1			66	55° 04.45'	164° 31.46'	60Bon	QTowF
5-May	18:39	21	1			66	55° 04.45'	164° 31.46'	CAT	CAT
5-May	18:59	21	2			66	55° 04.18'	164° 31.89'	CAT	CAT
5-May	18:59	21	2			66	55° 04.18'	164° 31.89'	Live	L-Hist
5-May	19:14	21	3			66	55° 04.29'	164° 32.13'	CAT	CAT
5-May	19:14	21	3			66	55° 04.29'	164° 32.13'	Live	L-Hist
5-May	19:32	21	4			67	55° 04.45'	164° 32.32'	CAT	CAT
5-May	19:32	21	4			67	55° 04.45'	164° 32.32'	Live	L-Hist
5-May	19:56	21	5			61	55° 04.32'	164° 32.02'	CAT	CAT
5-May	19:56	21	5			61	55° 04.32'	164° 32.02'	Live	L-Oto
5-May	20:10	21	6			62	55° 04.37'	164° 32.06'	CAT	CAT
5-May	20:10	21	6			62	55° 04.37'	164° 32.06'	Live	Discard
5-May	20:27	21	7			62	55° 04.48'	164° 32.04'	CAT	CAT

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Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid No.	Alternate Station No.	Depth (m)	Latitude N	Longitude W	Gear	Samples Collected
5-May	20:27	21	7			62	55° 04.48'	164° 32.04'	Live	L-Oto
5-May	20:47	21	8		CTD019	60	55° 04.18'	164° 31.58'	CTDB	Absorb, CHLAM, Chlor, CTD, Fluor, MZ, Nut
5-May	22:38	21	9		MOC001	60	55° 04.28'	164° 32.37'	MOC1	QTowF
6-May	11:08	22	1	AI28		69	57° 10.82'	164° 40.30'	60Bon	QTowF, RCount
6-May	11:08	22	1	AI28		69	57° 10.82'	164° 40.30'	CAT	CAT
6-May	12:50	23	1	AL28		68	57° 03.92'	165° 03.38'	60Bon	QTowF, RCount
6-May	12:50	23	1	AL28		68	57° 03.92'	165° 03.38'	CAT	CAT
6-May	14:30	24	1	AO28		68	56° 56.71'	165° 26.26'	60Bon	QTowF, RCount
6-May	14:30	24	1	AO28		68	56° 56.71'	165° 26.26'	CAT	CAT
6-May	16:18	25	1	AR28		75	56° 49.22'	165° 49.33'	60Bon	QTowF, RCount
6-May	16:18	25	1	AR28		75	56° 49.22'	165° 49.33'	CAT	CAT
6-May	17:51	26	1	AU28		80	56° 42.37'	166° 11.84'	60Bon	QTowF, RCount
6-May	17:51	26	1	AU28		80	56° 42.37'	166° 11.84'	CAT	CAT
6-May	19:30	27	1	AX28		94	56° 35.20'	166° 34.62'	60Bon	QTowF, RCount
6-May	19:30	27	1	AX28		94	56° 35.20'	166° 34.62'	CAT	CAT
6-May	21:07	28	1	BA28		101	56° 28.01'	166° 57.64'	60Bon	QTowF, RCount
6-May	21:07	28	1	BA28		101	56° 28.01'	166° 57.64'	CAT	CAT
6-May	22:37	29	1	BD28		114	56° 20.90'	167° 20.28'	60Bon	QTowF, RCount
6-May	22:37	29	1	BD28		114	56° 20.90'	167° 20.28'	CAT	CAT
7-May	0:08	30	1	BG28		129	56° 13.70'	167° 42.80'	60Bon	L-Oto, QTowF, RCount
7-May	0:08	30	1	BG28		129	56° 13.70'	167° 42.80'	CAT	CAT
7-May	2:18	31	1	BJ25		127	55° 53.38'	167° 52.63'	60Bon	L-Oto, QTowF, RCount
7-May	2:18	31	1	BJ25		127	55° 53.38'	167° 52.63'	CAT	CAT
7-May	3:57	32	1	BG25		133	56° 00.42'	167° 30.21'	60Bon	QTowF, RCount
7-May	3:57	32	1	BG25		133	56° 00.42'	167° 30.21'	CAT	CAT
7-May	5:41	33	1	BD25		130	56° 07.70'	167° 07.40'	60Bon	L-Oto, QTowF, RCount
7-May	5:41	33	1	BD25		130	56° 07.70'	167° 07.40'	CAT	CAT
7-May	7:18	34	1	BA25		116	56° 15.09'	166° 44.81'	60Bon	QTowF, RCount
7-May	7:18	34	1	BA25		116	56° 15.09'	166° 44.81'	CAT	CAT
7-May	9:14	35	1	AX25		102	56° 22.00'	166° 22.10'	60Bon	QTowF, RCount
7-May	9:14	35	1	AX25		102	56° 22.00'	166° 22.10'	CAT	CAT
7-May	10:58	36	1	AU25		88	56° 29.00'	165° 58.76'	60Bon	QTowF, RCount
7-May	10:58	36	1	AU25		88	56° 29.00'	165° 58.76'	CAT	CAT
7-May	12:46	37	1	AR25		74	56° 36.35'	165° 36.15'	60Bon	QTowF, RCount
7-May	12:46	37	1	AR25		74	56° 36.35'	165° 36.15'	CAT	CAT
7-May	14:26	38	1	AO25		72	56° 43.46'	165° 13.25'	60Bon	L-Oto, QTowF, RCount
7-May	14:26	38	1	AO25		72	56° 43.46'	165° 13.25'	CAT	CAT
7-May	16:06	39	1	AL25		74	56° 50.74'	164° 49.93'	60Bon	QTowF, RCount
7-May	16:06	39	1	AL25		74	56° 50.74'	164° 49.93'	CAT	CAT
7-May	17:44	40	1	AI25		71	56° 57.67'	164° 26.95'	60Bon	QTowF, RCount
7-May	17:44	40	1	AI25		71	56° 57.67'	164° 26.95'	CAT	CAT
7-May	22:45	41	1			73	56° 35.39'	164° 37.23'	Moar	Deploy
7-May	23:11	41	2		CTD020	72	56° 35.39'	164° 37.65'	CTDB	Absorb, CHLAM, Chlor, CTD, Fluor
7-May	23:29	41	3	AL22		72	56° 35.56'	164° 37.40'	60Bon	QTowF, RCount



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Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid No.	Alternate Station No.	Depth (m)	Latitude N	Longitude W	Gear	Samples Collected
9-May	16:14	57	1	AX16		116	55° 42.68'	165° 43.62'	CAT	CAT
9-May	19:16	58	1		CTD026	123	56° 02.51'	166° 24.59'	CTDB	Absorb,CHLAM,Chlor,CTD,Fluor
9-May	19:33	58	2			123	56° 02.54'	166° 24.87'	SatBuoy	Deploy
10-May	0:47	59	1	AR19		95	56° 09.95'	165° 10.29'	60Bon	QTowF,RCount
10-May	0:47	59	1	AR19		95	56° 09.95'	165° 10.29'	CAT	CAT
10-May	2:24	60	1	AO19		90	56° 17.08'	164° 47.32'	60Bon	L-Oto,QTowF,RCount
10-May	2:24	60	1	AO19		90	56° 17.08'	164° 47.32'	CAT	CAT
10-May	4:02	61	1	AL19		84	56° 24.28'	164° 24.33'	60Bon	QTowF,RCount
10-May	4:02	61	1	AL19		84	56° 24.28'	164° 24.33'	CAT	CAT
10-May	5:41	62	1	AI19		80	56° 31.37'	164° 01.06'	60Bon	QTowF,RCount
10-May	5:41	62	1	AI19		80	56° 31.37'	164° 01.06'	CAT	CAT
10-May	7:10	63	1	AI22		74	56° 44.62'	164° 14.20'	60Bon	QTowF,RCount
10-May	7:10	63	1	AI22		74	56° 44.62'	164° 14.20'	CAT	CAT
10-May	8:42	64	1	AF22		71	56° 51.70'	163° 51.00'	60Bon	QTowF,RCount
10-May	8:42	64	1	AF22		71	56° 51.70'	163° 51.00'	CAT	CAT
10-May	10:22	65	1	AC22		67	56° 58.93'	163° 27.74'	60Bon	QTowF,RCount
10-May	10:22	65	1	AC22		67	56° 58.93'	163° 27.74'	CAT	CAT
10-May	12:37	66	1	AF19		71	56° 38.69'	163° 37.75'	60Bon	QTowF,RCount
10-May	12:37	66	1	AF19		71	56° 38.69'	163° 37.75'	CAT	CAT
10-May	14:11	67	1	AC19		72	56° 45.86'	163° 14.33'	60Bon	QTowF,RCount
10-May	14:11	67	1	AC19		72	56° 45.86'	163° 14.33'	CAT	CAT
10-May	15:54	68	1	AC16		76	56° 32.47'	163° 01.74'	60Bon	QTowF,RCount
10-May	15:54	68	1	AC16		76	56° 32.47'	163° 01.74'	CAT	CAT
10-May	17:28	69	1	AF16		83	56° 25.33'	163° 24.94'	60Bon	QTowF,RCount
10-May	17:28	69	1	AF16		83	56° 25.33'	163° 24.94'	CAT	CAT
10-May	19:05	70	1	AI16		86	56° 18.17'	163° 48.16'	60Bon	QTowF,RCount
10-May	19:05	70	1	AI16		86	56° 18.17'	163° 48.16'	CAT	CAT
10-May	20:39	71	1	AL16		84	56° 11.00'	164° 11.40'	60Bon	L-Oto,QTowF,RCount
10-May	20:39	71	1	AL16		84	56° 11.00'	164° 11.40'	CAT	CAT
10-May	21:04	71	2	AL16		84	56° 11.15'	164° 11.33'	CAT	CAT
10-May	21:04	71	2	AL16		84	56° 11.15'	164° 11.33'	Live	L-Hist
10-May	21:20	71	3	AL16		85	56° 11.20'	164° 11.63'	CAT	CAT
10-May	21:20	71	3	AL16		85	56° 11.20'	164° 11.63'	Live	L-Hist
10-May	21:40	71	4	AL16		85	56° 11.28'	164° 11.73'	CAT	CAT
10-May	21:40	71	4	AL16		85	56° 11.28'	164° 11.73'	Live	L-Musc,L-Oto
10-May	21:54	71	5	AL16		85	56° 11.44'	164° 11.77'	CalVet	QTowF
10-May	21:54	71	5	AL16		85	56° 11.44'	164° 11.77'	CAT	CAT
10-May	23:22	72	1	AO16		87	56° 03.96'	164° 34.56'	60Bon	L-Oto,QTowF,RCount
10-May	23:22	72	1	AO16		87	56° 03.96'	164° 34.56'	CAT	CAT
11-May	1:04	73	1	AR16		96	55° 56.91'	164° 57.47'	60Bon	L-Oto,QTowF,RCount
11-May	1:04	73	1	AR16		96	55° 56.91'	164° 57.47'	CAT	CAT
11-May	4:59	74	1	BA16		122	55° 35.25'	166° 06.56'	60Bon	L-Oto,QTowF,RCount
11-May	4:59	74	1	BA16		122	55° 35.25'	166° 06.56'	CAT	CAT
11-May	5:20	74	2	BA16		122	55° 35.54'	166° 06.64'	CAT	CAT

Table 1 MF95-07 CRUISE SUMMARY  
FOCI CRUISE 7MF95

4-18 May, 1995

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid No.	Alternate Station No.	Depth (m)	Latitude N	Longitude W	Gear	Samples Collected
11-May	5:20	74	2	BA16		122	55° 35.54'	166° 06.64'	Ring, 8	Live
11-May	6:52	75	1	BD16		133	55° 28.07'	166° 29.26'	60Bon	L-Oto,QTowF,RCOUNT
11-May	6:52	75	1	BD16		133	55° 28.07'	166° 29.26'	CAT	CAT
11-May	7:14	75	2	BD16		132	55° 28.46'	166° 29.20'	CAT	CAT
11-May	7:14	75	2	BD16		132	55° 28.46'	166° 29.20'	Ring, 8	Live
11-May	8:50	76	1	BG16		138	55° 21.21'	166° 51.95'	60Bon	QTowF,RCOUNT
11-May	8:50	76	1	BG16		138	55° 21.21'	166° 51.95'	CAT	CAT
11-May	12:00	77	1	BJ22		134	55° 40.18'	167° 39.82'	60Bon	QTowF,RCOUNT
11-May	12:00	77	1	BJ22		134	55° 40.18'	167° 39.82'	CAT	CAT
11-May	13:52	78	1	BJ19		139	55° 27.24'	167° 27.00'	60Bon	L-Oto,QTowF,RCOUNT
11-May	13:52	78	1	BJ19		139	55° 27.24'	167° 27.00'	CAT	CAT
11-May	16:06	79	1	BJ16		148	55° 13.59'	167° 14.77'	60Bon	QTowF,RCOUNT
11-May	16:06	79	1	BJ16		148	55° 13.59'	167° 14.77'	CAT	CAT
11-May	18:05	80	1	BJ13		158	55° 00.63'	167° 02.31'	60Bon	QTowF,RCOUNT
11-May	18:05	80	1	BJ13		158	55° 00.63'	167° 02.31'	CAT	CAT
11-May	19:47	81	1	BG13		137	55° 07.83'	166° 39.53'	60Bon	L-Oto,QTowF,RCOUNT
11-May	19:47	81	1	BG13		137	55° 07.83'	166° 39.53'	CAT	CAT
11-May	20:10	81	2	BG13		137	55° 08.05'	166° 39.56'	CAT	CAT
11-May	20:10	81	2	BG13		137	55° 08.05'	166° 39.56'	Ring, 8	Live
11-May	20:40	81	3	BG13		137	55° 07.70'	166° 38.55'	CAT	CAT
11-May	20:40	81	3	BG13		137	55° 07.70'	166° 38.55'	Live	L-Hist
11-May	22:10	82	1	BD13		127	55° 15.00'	166° 16.49'	60Bon	L-Oto,QTowF,RCOUNT
11-May	22:10	82	1	BD13		127	55° 15.00'	166° 16.49'	CAT	CAT
11-May	22:31	82	2	BD13		127	55° 15.29'	166° 16.30'	CAT	CAT
11-May	22:31	82	2	BD13		127	55° 15.29'	166° 16.30'	Ring, 8	Live
11-May	22:56	82	3	BD13		127	55° 14.87'	166° 16.44'	CAT	CAT
11-May	22:56	82	3	BD13		127	55° 14.87'	166° 16.44'	Live	L-Hist
11-May	23:11	82	4	BD13		127	55° 14.73'	166° 16.42'	CAT	CAT
11-May	23:11	82	4	BD13		127	55° 14.73'	166° 16.42'	Live	L-Musc,L-Oto
11-May	23:31	82	5	BD13		127	55° 14.91'	166° 16.37'	CalVet	QTowF
11-May	23:31	82	5	BD13		127	55° 14.91'	166° 16.37'	CAT	CAT
12-May	0:55	83	1	BA13		121	55° 22.08'	165° 53.63'	60Bon	L-Oto,QTowF,RCOUNT
12-May	0:55	83	1	BA13		121	55° 22.08'	165° 53.63'	CAT	CAT
12-May	1:27	83	2	BA13		121	55° 22.03'	165° 53.65'	CAT	CAT
12-May	1:27	83	2	BA13		121	55° 22.03'	165° 53.65'	Live	L-Hist
12-May	1:39	83	3	BA13		121	55° 22.13'	165° 53.71'	CAT	CAT
12-May	1:39	83	3	BA13		121	55° 22.13'	165° 53.71'	Live	Live,L-Musc,L-Oto
12-May	1:52	83	4	BA13		120	55° 22.22'	165° 53.79'	CalVet	QTowF
12-May	1:52	83	4	BA13		120	55° 22.22'	165° 53.79'	CAT	CAT
12-May	3:17	84	1	AX13		114	55° 29.22'	165° 30.83'	60Bon	L-Oto,QTowF,RCOUNT
12-May	3:17	84	1	AX13		114	55° 29.22'	165° 30.83'	CAT	CAT
12-May	3:56	84	2	AX13		115	55° 29.20'	165° 30.93'	CAT	CAT
12-May	3:56	84	2	AX13		115	55° 29.20'	165° 30.93'	Live	L-Musc
12-May	4:12	84	3	AX13		115	55° 29.31'	165° 30.92'	CAT	CAT

Table 1 MF95-07 CRUISE SUMMARY  
FOCI CRUISE 7MF95

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid No.	Alternate Station No.	Depth (m)	Latitude N	Longitude W	Gear	Samples Collected
12-May	4:12	84	3	AX13		115	55° 29.31'	165° 30.92'	Live	L-Hist
12-May	4:23	84	4	AX13		114	55° 29.38'	165° 30.92'	Cal/Vet	QTowF
12-May	4:23	84	4	AX13		114	55° 29.38'	165° 30.92'	CAT	CAT
12-May	5:51	85	1	AU13		108	55° 36.46'	165° 07.83'	60Bon	QTowF, RCount
12-May	5:51	85	1	AU13		108	55° 36.46'	165° 07.83'	CAT	CAT
12-May	7:21	86	1	AR13		96	55° 43.59'	164° 44.80'	60Bon	L-Oto, QTowF, RCount
12-May	7:21	86	1	AR13		96	55° 43.59'	164° 44.80'	CAT	CAT
12-May	8:55	87	1	AO13		94	55° 50.73'	164° 21.64'	60Bon	QTowF, RCount
12-May	8:55	87	1	AO13		94	55° 50.73'	164° 21.64'	CAT	CAT
12-May	9:34	87	2	AO13		94	55° 50.73'	164° 21.67'	CAT	CAT
12-May	9:34	87	2	AO13		94	55° 50.73'	164° 21.67'	Live	L-Hist, L-Musc, L-Oto
12-May	10:02	87	3	AO13		94	55° 50.80'	164° 21.74'	CAT	CAT
12-May	10:02	87	3	AO13		94	55° 50.80'	164° 21.74'	Live	L-Musc, L-Oto
12-May	10:23	87	4	AO13		94	55° 50.91'	164° 21.74'	Cal/Vet	QTowF
12-May	10:23	87	4	AO13		94	55° 50.91'	164° 21.74'	CAT	CAT
12-May	11:54	88	1	AL13		92	55° 57.91'	163° 58.45'	60Bon	L-Oto, QTowF, RCount
12-May	11:54	88	1	AL13		92	55° 57.91'	163° 58.45'	CAT	CAT
12-May	13:34	89	1	AI13		91	56° 05.07'	163° 35.12'	60Bon	QTowF, RCount
12-May	13:34	89	1	AI13		91	56° 05.07'	163° 35.12'	CAT	CAT
12-May	15:11	90	1	AF13		86	56° 12.20'	163° 11.83'	60Bon	L-Oto, QTowF, RCount
12-May	15:11	90	1	AF13		86	56° 12.20'	163° 11.83'	CAT	CAT
12-May	16:52	91	1	AF10		85	55° 58.90'	162° 58.85'	20Bon	QTowF
12-May	16:52	91	1	AF10		85	55° 58.90'	162° 58.85'	60Bon	L-Oto, QTowF, RCount
12-May	16:52	91	1	AF10		85	55° 58.90'	162° 58.85'	CAT	CAT
12-May	17:23	91	2	AF10		85	55° 58.93'	162° 59.43'	60Bon	QTowF
12-May	17:23	91	2	AF10		85	55° 58.93'	162° 59.43'	CAT	CAT
12-May	18:57	92	1	AI10	CTD027	90	55° 51.85'	163° 22.61'	CTDB	Absorb, CHLAM, Chlor, CTD, Fluor, Lugols, Nut
12-May	19:16	92	2	AI10		90	55° 51.67'	163° 22.83'	20Bon	QTowF
12-May	19:16	92	2	AI10		90	55° 51.67'	163° 22.83'	60Bon	QTowF, RCount
12-May	19:16	92	2	AI10		90	55° 51.67'	163° 22.83'	CAT	CAT
12-May	20:56	93	1	AL10		88	55° 44.63'	163° 45.60'	20Bon	QTowF
12-May	20:56	93	1	AL10		88	55° 44.63'	163° 45.60'	60Bon	L-Oto, QTowF, RCount
12-May	20:56	93	1	AL10		88	55° 44.63'	163° 45.60'	CAT	CAT
12-May	21:20	93	2	AL10		88	55° 44.66'	163° 45.56'	60Bon	QTowF
12-May	21:20	93	2	AL10		88	55° 44.66'	163° 45.56'	CAT	CAT
12-May	22:52	94	1	AO10	CTD028	89	55° 37.50'	164° 08.95'	CTDB	Absorb, CHLAM, Chlor, CTD, Fluor, Nut
12-May	23:21	94	2	AO10		89	55° 37.58'	164° 08.83'	60Bon	L-Oto, QTowF, RCount
12-May	23:21	94	2	AO10		89	55° 37.58'	164° 08.83'	CAT	CAT
13-May	0:56	95	1	AR10		101	55° 30.32'	164° 31.96'	20Bon	QTowF
13-May	0:56	95	1	AR10		101	55° 30.32'	164° 31.96'	60Bon	L-Oto, QTowF, RCount
13-May	0:56	95	1	AR10		101	55° 30.32'	164° 31.96'	CAT	CAT
13-May	1:22	95	2	AR10		101	55° 30.19'	164° 31.62'	60Bon	QTowF
13-May	1:22	95	2	AR10		101	55° 30.19'	164° 31.62'	CAT	CAT
13-May	3:00	96	1	AU10		107	55° 23.21'	164° 55.06'	20Bon	QTowF

Table 1 MF95-07 CRUISE SUMMARY  
FOCI CRUISE 7MF95

Date (GMT)	Time	Station	Haul	FOCI Grid No.	Alternate Station No.	Depth (m)	Latitude N	Longitude W	Gear	Samples Collected
13-May 3:00		96	1	AU10		107	55° 23.21'	164° 55.06'	60Bon	Live,L-Oto,QTowF,RCount
13-May 3:00		96	1	AU10		107	55° 23.21'	164° 55.06'	CAT	CAT
13-May 4:48		97	1	AX10	CTD029	114	55° 16.05'	165° 18.31'	CTDB	Absorb,CHLAM,Chlor.ctd,Fluor,Nut
13-May 5:06		97	2	AX10		114	55° 16.02'	165° 18.13'	20Bon	QTowF
13-May 5:06		97	2	AX10		114	55° 16.02'	165° 18.13'	60Bon	L-Oto,QTowF,RCount
13-May 5:06		97	2	AX10		114	55° 16.02'	165° 18.13'	CAT	CAT
13-May 6:46		98	1	BA10	CTD030	122	55° 08.74'	165° 41.24'	CTDB	Absorb,CHLAM,Chlor,CTD,Fluor,Lugolis,Nut
13-May 7:11		98	2	BA10		122	55° 08.98'	165° 41.12'	20Bon	QTowF
13-May 7:11		98	2	BA10		122	55° 08.98'	165° 41.12'	60Bon	L-Oto,QTowF,RCount
13-May 7:41		98	3	BA10		122	55° 08.90'	165° 41.18'	CAT	CAT
13-May 7:41		98	3	BA10		122	55° 08.90'	165° 41.18'	60Bon	QTowF
13-May 9:16		99	1	BD10		136	55° 01.79'	166° 03.93'	60Bon	QTowF,RCount
13-May 9:16		99	1	BD10		136	55° 01.79'	166° 03.93'	CAT	CAT
13-May 11:04		100	1	BG10		153	54° 54.62'	166° 26.80'	20Bon	QTowF
13-May 11:04		100	1	BG10		153	54° 54.62'	166° 26.80'	60Bon	QTowF,RCount
13-May 11:04		100	1	BG10		153	54° 54.62'	166° 26.80'	CAT	CAT
13-May 13:18		101	1	BD7		166	54° 48.49'	165° 51.39'	60Bon	QTowF,RCount
13-May 13:18		101	1	BD7		166	54° 48.49'	165° 51.39'	CAT	Discard
13-May 14:02		101	2	BD7		166	54° 48.44'	165° 51.36'	Live	L-Oto
13-May 15:49		102	1	BA7		125	54° 55.53'	165° 28.34'	60Bon	L-Oto,QTowF,RCount
13-May 17:51		103	1	AX7		111	55° 02.67'	165° 05.75'	60Bon	L-Oto,QTowF,RCount
13-May 17:51		103	1	AX7		111	55° 02.67'	165° 05.75'	CAT	CAT
13-May 19:48		104	1	AU7		95	55° 09.91'	164° 42.62'	60Bon	L-Oto,QTowF,RCount
13-May 19:48		104	1	AU7		95	55° 09.91'	164° 42.62'	CAT	CAT
13-May 21:24		105	1	AR7		90	55° 17.07'	164° 19.58'	60Bon	QTowF,RCount
13-May 23:01		106	1	AO7		83	55° 24.21'	163° 56.29'	60Bon	QTowF,RCount
13-May 23:01		106	1	AO7		83	55° 24.21'	163° 56.29'	CAT	CAT
14-May 0:48		107	1	AL7		72	55° 31.32'	163° 32.81'	60Bon	QTowF,RCount
14-May 0:48		107	1	AL7		72	55° 31.32'	163° 32.81'	CAT	CAT
14-May 2:15		108	1	A17		67	55° 38.58'	163° 09.39'	60Bon	L-Oto,QTowF,RCount
14-May 2:15		108	1	A17		67	55° 38.58'	163° 09.39'	CAT	CAT
14-May 3:45		109	1	AF7		62	55° 45.93'	162° 46.03'	60Bon	L-Oto,QTowF,RCount
14-May 3:45		109	1	AF7		62	55° 45.93'	162° 46.03'	CAT	CAT
14-May 5:53		110	1	A14		33	55° 25.50'	162° 56.91'	60Bon	L-Oto,QTowF,RCount
14-May 5:53		110	1	A14		33	55° 25.50'	162° 56.91'	CAT	CAT
14-May 7:33		111	1	AL4		49	55° 18.30'	163° 20.41'	60Bon	QTowF,RCount
14-May 7:33		111	1	AL4		49	55° 18.30'	163° 20.41'	CAT	CAT
14-May 9:50		112	1	AO4		45	55° 11.03'	163° 43.89'	60Bon	QTowF,RCount
14-May 9:50		112	1	AO4		45	55° 11.03'	163° 43.89'	CAT	CAT
14-May 11:26		113	1	AR4		35	55° 04.07'	164° 06.85'	60Bon	L-Oto,QTowF,RCount
14-May 11:26		113	1	AR4		35	55° 04.07'	164° 06.85'	CAT	CAT
14-May 13:10		114	1	AU4		45	54° 56.83'	164° 30.05'	60Bon	L-Oto,QTowF,RCount

Table 1 MF95-07 CRUISE SUMMARY  
FOCI CRUISE 7MF95

4-18 May, 1995

Date (GMT)	Time (GMT)	Station	Haul	Grid No.	FOCI	Alternate Station No.	Depth (m)	Latitude N	Longitude W	Gear	Samples Collected
14-May	13:10	114	1	AU4			45	54° 56.83'	164° 30.05'	CAT	CAT
14-May	13:32	114	2	AU4			45	54° 56.93'	164° 29.82'	CAT	CAT
14-May	13:32	114	2	AU4			45	54° 56.93'	164° 29.82'	Live	BioOther,L-Gut,L-Hist,L-Musc,L-Oto
14-May	14:01	114	3	AU4			45	54° 56.95'	164° 29.90'	Cal/Vet	Q TowF
14-May	14:01	114	3	AU4			45	54° 56.95'	164° 29.90'	CAT	CAT
14-May	15:51	115	1	AX4			74	54° 50.10'	164° 53.05'	60Bon	L-Oto,Q TowF,RCount
14-May	15:51	115	1	AX4			74	54° 50.10'	164° 53.05'	CAT	CAT
14-May	15:57	116	3	BA4			133	54° 42.32'	165° 16.13'	CAT	CAT
14-May	17:39	116	1	BA4			135	54° 42.38'	165° 16.47'	60Bon	L-Oto,Q TowF,RCount
14-May	17:39	116	1	BA4			135	54° 42.38'	165° 16.47'	CAT	CAT
14-May	18:29	116	2	BA4			133	54° 42.32'	165° 16.13'	CAT	CAT
14-May	18:29	116	2	BA4			133	54° 42.32'	165° 16.13'	Live	BioOther,L-Hist,L-Musc,L-Oto
14-May	18:57	116	3	BA4			133	54° 42.32'	165° 16.13'	Cal/Vet	Q TowF
14-May	22:24	117	1	BG4	CTD031		539	54° 27.84'	166° 01.97'	CTDB	Chlor,CTD,Fluor,Lugols,MZ
14-May	23:10	117	2	BG4			549	54° 27.51'	166° 02.05'	Ring,8	Live
14-May	23:47	117	3	BG4	CTD032		549	54° 27.43'	166° 02.02'	CTD	CTD,Fluor
15-May	4:33	118	1				114	55° 13.04'	165° 15.09'	60Bon	L-Oto,Q TowF,RCount
15-May	4:33	118	1				114	55° 13.04'	165° 15.09'	CAT	CAT
15-May	5:21	119	1				116	55° 14.32'	165° 23.68'	60Bon	L-Oto,Q TowF,RCount
15-May	5:21	119	1				116	55° 14.32'	165° 23.68'	CAT	CAT
15-May	6:05	120	1				114	55° 19.50'	165° 21.20'	60Bon	L-Oto,Q TowF,RCount
15-May	6:05	120	1				114	55° 19.50'	165° 21.20'	CAT	CAT
15-May	6:52	121	1				112	55° 17.78'	165° 12.79'	60Bon	L-Oto,Q TowF,RCount
15-May	6:52	121	1				112	55° 17.78'	165° 12.79'	CAT	CAT
15-May	7:29	122	1	AX10			114	55° 16.03'	165° 18.38'	60Bon	L-Oto,Q TowF,RCount
15-May	7:29	122	1	AX10			114	55° 16.03'	165° 18.38'	CAT	CAT
15-May	8:52	123	1				113	55° 09.41'	165° 11.30'	60Bon	L-Oto,Q TowF,RCount
15-May	8:52	123	1				113	55° 09.41'	165° 11.30'	CAT	CAT
15-May	9:51	124	1				113	55° 12.95'	165° 15.14'	ShipBuoy	Deploy
15-May	10:28	125	1		CTD034		114	55° 12.96'	165° 15.34'	CTD	CHLAM,CTD,Fluor
15-May	10:49	125	2				114	55° 13.12'	165° 15.21'	CAT	Discard
15-May	10:49	125	2				114	55° 13.12'	165° 15.21'	LG-CB	Q TowF
15-May	10:49	125	2				114	55° 13.12'	165° 15.21'	Tuck1	Pred,Q TowF
15-May	11:39	125	3				114	55° 13.06'	165° 14.55'	CAT	CAT
15-May	11:39	125	3				114	55° 13.06'	165° 14.55'	LG-CB	Q TowF
15-May	11:39	125	3				114	55° 13.06'	165° 14.55'	Tuck1	Pred,Q TowF
15-May	12:27	125	4				114	55° 13.13'	165° 14.49'	CAT	CAT
15-May	12:27	125	4				114	55° 13.13'	165° 14.49'	Live	BioOther,L-Hist,L-Musc,L-Oto
15-May	13:03	125	5				114	55° 12.94'	165° 14.89'	CAT	CAT
15-May	13:03	125	5				114	55° 12.94'	165° 14.89'	Live	BioOther,L-Oto
15-May	13:38	125	6				114	55° 13.04'	165° 15.23'	Cal/Vet	Q TowF
15-May	13:38	125	6				114	55° 13.04'	165° 15.23'	CAT	CAT
15-May	17:38	126	1		MOC004		112	55° 14.06'	165° 11.58'	MOC1	Q TowF
15-May	18:45	126	2		CTD035		113	55° 13.86'	165° 13.28'	CTDB	Chlor,CTD,Fluor,Lugols,MZ



Table 1 MF95-07 CRUISE SUMMARY  
FOCI CRUISE 7MF95

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid No.	Station No.	Alternate	Depth (m)	Latitude N	Longitude W	Gear	Samples Collected
15-May	19:41	126	3		CTD036		111	55° 13.96'	165° 12.12'	CTDB	Chlor,CTD,Fluor,Lugols,MZ
15-May	20:41	127	1		MOC005		111	55° 12.73'	165° 13.23'	MOC1	QTowF
15-May	22:03	127	2		CTD037		112	55° 12.91'	165° 14.99'	CTDB	Chlor,CTD,Fluor,Lugols,MZ
15-May	22:48	127	3		CTD038		112	55° 12.79'	165° 13.54'	CTDB	Chlor,CTD,Fluor,Lugols,MZ
15-May	23:43	128	1		MOC006		113	55° 12.28'	165° 16.28'	MOC1	QTowF
16-May	0:47	128	2		CTD039		113	55° 12.46'	165° 17.46'	CTDB	Chlor,CTD,Fluor,Lugols,MZ
16-May	1:22	128	3		CTD040		113	55° 13.31'	165° 16.26'	CTDB	Chlor,CTD,Fluor,Lugols,MZ
16-May	2:03	129	1				113	55° 13.83'	165° 15.81'	CAT	CAT
16-May	2:03	129	1				113	55° 13.83'	165° 15.81'	LG-CB	QTowF
16-May	2:03	129	1				113	55° 13.83'	165° 15.81'	Tuck1	Pred,QTowF
16-May	2:55	129	2				113	55° 14.50'	165° 14.87'	CAT	CAT
16-May	2:55	129	2				113	55° 14.50'	165° 14.87'	LG-CB	QTowF
16-May	2:55	129	2				113	55° 14.50'	165° 14.87'	Tuck1	Pred,QTowF
16-May	3:35	130	1				113	55° 15.09'	165° 13.88'	20Bon	Live,QTowF
16-May	3:35	130	1				113	55° 15.09'	165° 13.88'	60Bon	Live,QTowF
16-May	3:35	130	1				113	55° 15.09'	165° 13.88'	CAT	CAT
16-May	4:05	131	1				113	55° 15.63'	165° 12.87'	ShipBuoy	Recovery
16-May	6:37	132	1		CTD041		113	55° 15.59'	165° 12.86'	CTDB	Absorb,Chlor,CTD,Fluor,Nut
16-May	6:57	132	2				113	55° 15.55'	165° 12.40'	SatBuoy	Deploy
16-May	7:37	133	1				113	55° 14.94'	165° 14.86'	SatBuoy	Deploy
16-May	7:55	134	1				113	55° 16.88'	165° 12.94'	SatBuoy	Deploy
16-May	8:16	135	1				112	55° 14.93'	165° 10.69'	SatBuoy	Deploy
16-May	12:02	136	1				94	55° 45.09'	164° 08.17'	60Bon	QTowF,RCCount
16-May	12:02	136	1				94	55° 45.09'	164° 08.17'	CAT	CAT
16-May	12:45	137	1				94	55° 50.07'	164° 08.24'	60Bon	L-Oto,QTowF,RCCount
16-May	12:45	137	1				94	55° 50.07'	164° 08.24'	CAT	CAT
16-May	13:32	138	1				94	55° 50.11'	163° 59.43'	60Bon	L-Oto,QTowF,RCCount
16-May	13:32	138	1				94	55° 50.11'	163° 59.43'	CAT	CAT
16-May	14:15	139	1				94	55° 45.11'	163° 59.36'	60Bon	L-Oto,QTowF,RCCount
16-May	14:15	139	1				94	55° 45.11'	163° 59.36'	CAT	CAT
16-May	14:50	140	1				95	55° 45.11'	163° 59.36'	60Bon	L-Oto,QTowF,RCCount
16-May	14:50	140	1				95	55° 45.11'	163° 59.36'	CAT	CAT
16-May	16:07	141	1				95	55° 44.93'	163° 58.79'	CAT	CAT
16-May	16:07	141	1				95	55° 44.93'	163° 58.79'	Live	L-Hist
16-May	16:31	141	2				95	55° 44.79'	163° 58.55'	CAT	CAT
16-May	16:31	141	2				95	55° 44.79'	163° 58.55'	Live	L-Oto
16-May	16:54	141	3				94	55° 44.65'	163° 58.30'	CAT	CAT
16-May	16:54	141	4				94	55° 44.44'	163° 58.00'	CAT	CAT
16-May	16:54	141	3				94	55° 44.65'	163° 58.30'	Live	L-Musc
16-May	16:54	141	4				94	55° 44.44'	163° 58.00'	Live	BioOther
16-May	18:11	142	1				94	55° 45.11'	163° 59.63'	ShipBuoy	Deploy
16-May	18:52	143	1		MOC007		94	55° 45.10'	164° 00.11'	MOC1	QTowF
16-May	19:55	143	2		CTD042		94	55° 45.15'	164° 01.93'	CTDB	Chlor,CTD,Fluor,Lugols,MZ
16-May	20:34	143	3		CTD043		93	55° 44.63'	164° 01.54'	CTDB	Chlor,CTD,Fluor,Lugols,MZ

Table 1 MF95-07 CRUISE SUMMARY  
FOCI CRUISE 7MF95

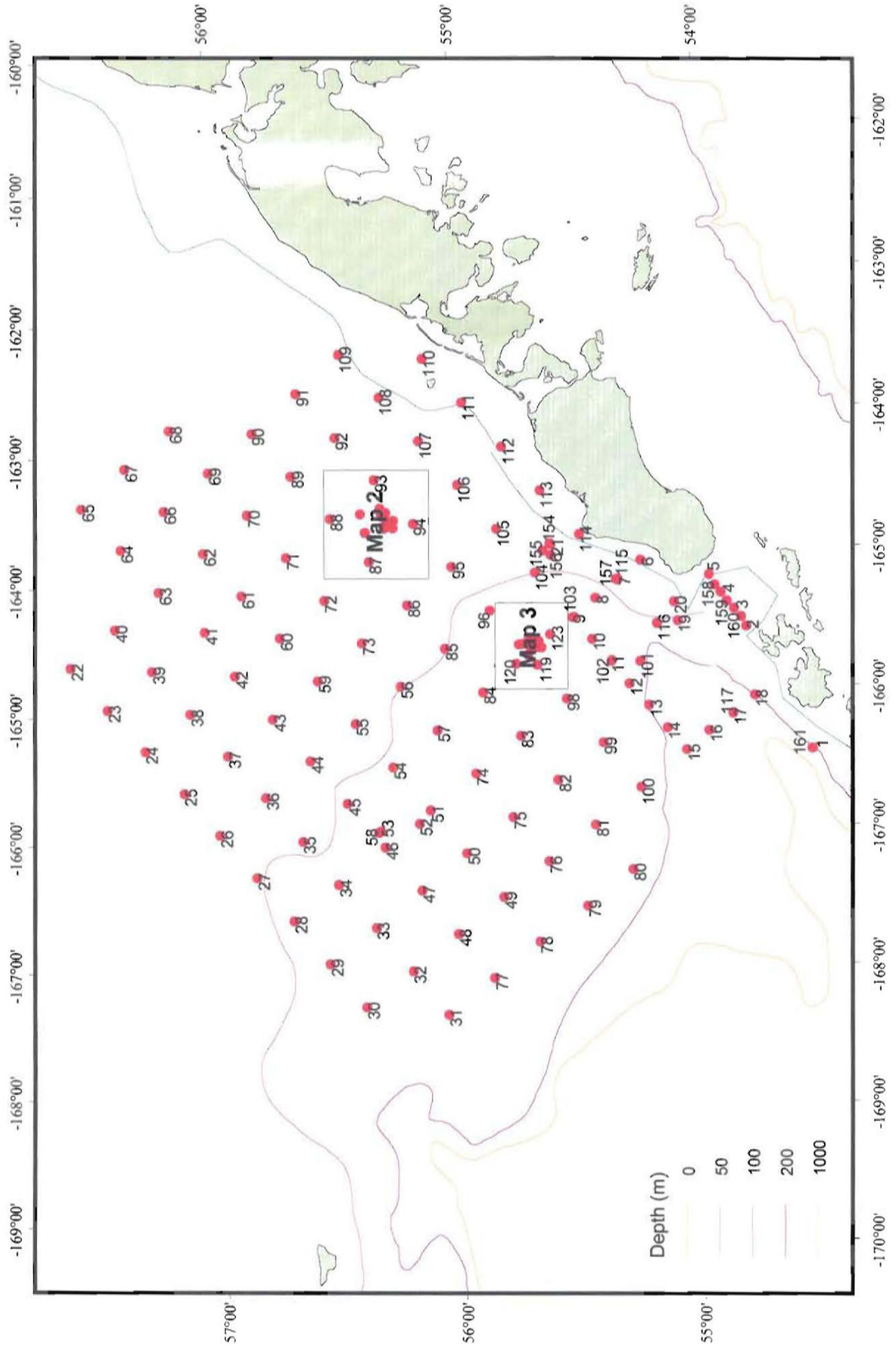
Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid No.	Station No.	Alternate Station No.	Depth (m)	Latitude N	Longitude W	Gear	Samples Collected
16-May	21:25	144	1		MOC008		93	55° 43.78'	164° 01.35'	MOC1	QTowF
16-May	22:13	144	2		CTD044		93	55° 43.80'	164° 03.36'	CTDB	Chlor,CTD,Fluor,Lugols,MZ
16-May	22:48	144	3		CTD045		92	55° 43.13'	164° 04.01'	CTDB	Chlor,CTD,Fluor,Lugols,MZ
16-May	23:38	145	1		MOC009		93	55° 42.27'	164° 05.67'	MOC1	QTowF
17-May	0:36	145	2		CTD046		91	55° 42.61'	164° 07.21'	CTDB	Chlor,CTD,Fluor,Lugols,MZ
17-May	1:14	145	3		CTD047		93	55° 42.23'	164° 07.77'	CTDB	Chlor,CTD,Fluor,Lugols,MZ
17-May	2:23	146	1				93	55° 42.84'	164° 08.81'	CAT	CAT
17-May	2:23	146	1				93	55° 42.84'	164° 08.81'	LG-CB	QTowF
17-May	2:23	146	1				93	55° 42.84'	164° 08.81'	Tuck1	Pred,QTowF
17-May	2:57	147	1				93	55° 42.96'	164° 08.55'	CAT	CAT
17-May	2:57	147	1				93	55° 42.96'	164° 08.55'	LG-CB	QTowF
17-May	2:57	147	1				93	55° 42.96'	164° 08.55'	Tuck1	Pred,QTowF
17-May	3:31	147	2				94	55° 43.26'	164° 08.19'	CAT	CAT
17-May	3:31	147	2				94	55° 43.26'	164° 08.19'	Live	BioOther
17-May	3:49	147	3				94	55° 43.57'	164° 08.07'	CAT	CAT
17-May	3:49	147	3				94	55° 43.57'	164° 08.07'	Live	BioOther
17-May	4:11	147	4				94	55° 43.61'	164° 07.76'	20Bon	QTowF
17-May	4:11	147	4				94	55° 43.61'	164° 07.76'	60Bon	QTowF
17-May	4:11	147	4				94	55° 43.61'	164° 07.76'	CAT	CAT
17-May	4:11	147	4				94	55° 43.61'	164° 07.76'	CAT	CAT
17-May	4:41	148	1				95	55° 43.66'	164° 07.70'	60Bon	QTowF
17-May	4:41	148	1				95	55° 43.66'	164° 07.70'	CAT	CAT
17-May	5:37	149	1				95	55° 44.13'	164° 06.42'	CalVet	QTowF
17-May	5:37	149	1				95	55° 44.13'	164° 06.42'	CAT	CAT
17-May	5:58	149	2		CTD048		95	55° 44.31'	164° 05.85'	CTDB	Absorb,Chlor,CTD,Fluor,Nut
17-May	8:40	150	1				95	55° 45.00'	164° 02.62'	CAT	CAT
17-May	8:40	150	1				95	55° 45.00'	164° 02.62'	LG-CB	QTowF
17-May	8:40	150	1				95	55° 45.00'	164° 02.62'	Tuck1	Pred,QTowF
17-May	9:14	150	2				95	55° 44.74'	164° 02.07'	CAT	CAT
17-May	9:14	150	2				95	55° 44.74'	164° 02.07'	LG-CB	QTowF
17-May	9:14	150	2				95	55° 44.74'	164° 02.07'	Tuck1	Pred,QTowF
17-May	9:52	151	1				94	55° 44.63'	164° 02.69'	60Bon	QTowF
17-May	9:52	151	1				94	55° 44.63'	164° 02.69'	CAT	CAT
17-May	10:32	152	1				94	55° 44.20'	164° 02.26'	ShipBuoy	Recovery
17-May	10:38	153	1				94	55° 44.19'	164° 02.34'	SatBuoy	Deploy
17-May	14:30	154	1		CTD049		66	55° 04.53'	164° 31.20'	CTDB	CTD,Fluor,Lugols,MZ,Nut,PhyOther
17-May	15:19	154	2		CTD050		67	55° 04.23'	164° 31.76'	CTDB	Absorb,Chlor,CTD,Fluor
17-May	18:10	155	1				74	55° 06.82'	164° 33.54'	MOC1	BioOther
17-May	20:47	156	1				73	55° 05.04'	164° 36.41'	MOC1	BioOther
18-May	0:07	157	1	AX4			73	54° 49.70'	164° 53.28'	CAT	CAT
18-May	0:07	157	1	AX4			73	54° 49.70'	164° 53.28'	Live	L-Hist,L-Musc,L-Oto
18-May	0:40	157	2	AX4			73	54° 49.70'	164° 53.20'	CalVet	QTowF
18-May	0:40	157	2	AX4			73	54° 49.70'	164° 53.20'	CAT	CAT
18-May	3:21	158	1		CTD051		102	54° 25.95'	165° 04.64'	CTDB	Chlor,CTD,Fluor,Nut
18-May	3:54	158	2				101	54° 26.14'	165° 05.29'	20Bon	QTowF

Table 1 MF95-07 CRUISE SUMMARY  
FOCI CRUISE 7MF95

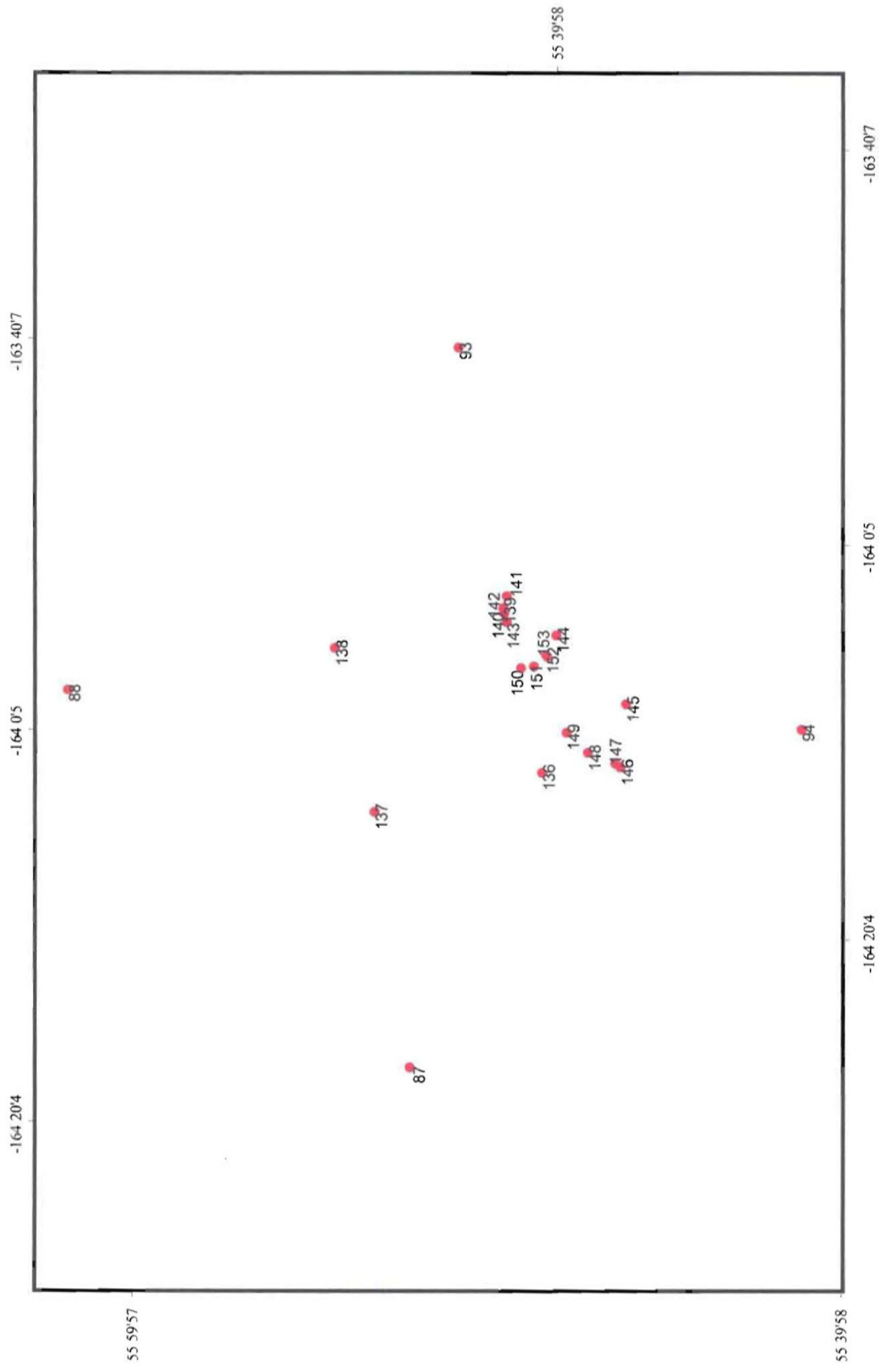
4-18 May, 1995

Date (GMT)	Time (GMT)	Station	Haul	FOCI Grid No.	Alternate Station No.	Depth (m)	Latitude N	Longitude W	Gear	Samples Collected
18-May	3:54	158	2			101	54° 26.14'	165° 05.29'	60Bon	QTowF
18-May	3:54	158	2			101	54° 26.14'	165° 05.29'	CAT	CAT
18-May	4:43	159	1		CTD052	170	54° 23.73'	165° 12.77'	CTDB	Chlor,CTD,Fluor,Nut
18-May	5:19	159	2			170	54° 23.78'	165° 13.12'	20Bon	QTowF
18-May	5:19	159	2			170	54° 23.78'	165° 13.12'	60Bon	QTowF
18-May	5:19	159	2			170	54° 23.78'	165° 13.12'	CAT	CAT
18-May	6:31	160	1		CTD053	95	54° 20.95'	165° 20.91'	CTDB	Chlor,CTD,Fluor,Nut
18-May	6:50	160	2			94	54° 21.16'	165° 20.95'	20Bon	QTowF
18-May	6:50	160	2			94	54° 21.16'	165° 20.95'	60Bon	QTowF
18-May	6:50	160	2			94	54° 21.16'	165° 20.95'	CAT	CAT
18-May	10:22	161	1			645	54° 09.92'	166° 24.08'	20Bon	Live
18-May	10:22	161	1			645	54° 09.92'	166° 24.08'	CAT	CAT
18-May	10:43	161	2			657	54° 09.96'	166° 24.23'	20Bon	Live
18-May	10:43	161	2			657	54° 09.96'	166° 24.23'	CAT	CAT

7MF95 - Station Locations (Map 1)



# 7MF95 - Enlargement of Station Locations (Map 2)



7MF95 - Enlargement of Station Locations (Map 3)

