

**Preliminary Report  
of  
The Hakuho Maru Cruise KH-02-1  
(Leg 1)**

**May 7, 2002 – May 22, 2002**

**Studies on current structure and fish ecology  
in the East China Sea**

**Ocean Research Institute  
University of Tokyo  
2002**

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**By**

**The Scientific Members of the Cruise**

**Edited by**

**Takashige SUGIMOTO**

## PREFACE

The East China Sea is one of quite important spawning grounds of pelagic fish and their eggs and larvae are transported toward the east by several strong currents (the Kuroshio and the Tushima warm current). For much deeper understandings of the survival and growth strategy of the larvae, food chain structure of this region's ecosystem including primary and secondary productions based on biological and hydrographic data was observed in detail.

Frontal disturbances of the Kuroshio associated with short-periodic fluctuation of the Kuroshio meander play an important role to understand the primary and secondary productions in offshore regions because the disturbance causes frontal eddies with upwelling at their center. This upwelling phenomenon promotes enhancement of primary production by phytoplankton, and abundance of zooplankton is continuously increased following the increase of phytoplankton. In downstream regions of the Kuroshio and its extension, it has been clarified that this frontal disturbance associated with the cyclonic eddy contributes to increase of primary and secondary productions, and these productions are related to survival rates of sardine and anchovy larvae significantly.

In this research cruise, three-dimensional distribution of biological and physical factors in the Kuroshio near continental shelves of the East China Sea were focused in detail. For this purpose, several grid lines with CTD and moored current meters were prepared to obtain physical data (temperature, salinity, current field), biological data (concentration, size and species composition of phytoplankton and zooplankton) and chemical data (nutrients concentration) in addition to net sampling for larval pelagic fish.

We had very good weather condition and enthusiastic cooperation by ship crews. Most of the scheduled observation had been completed. We would like to express our deep appreciation to the crews.

Takashige Sugimoto  
Chief Scientist

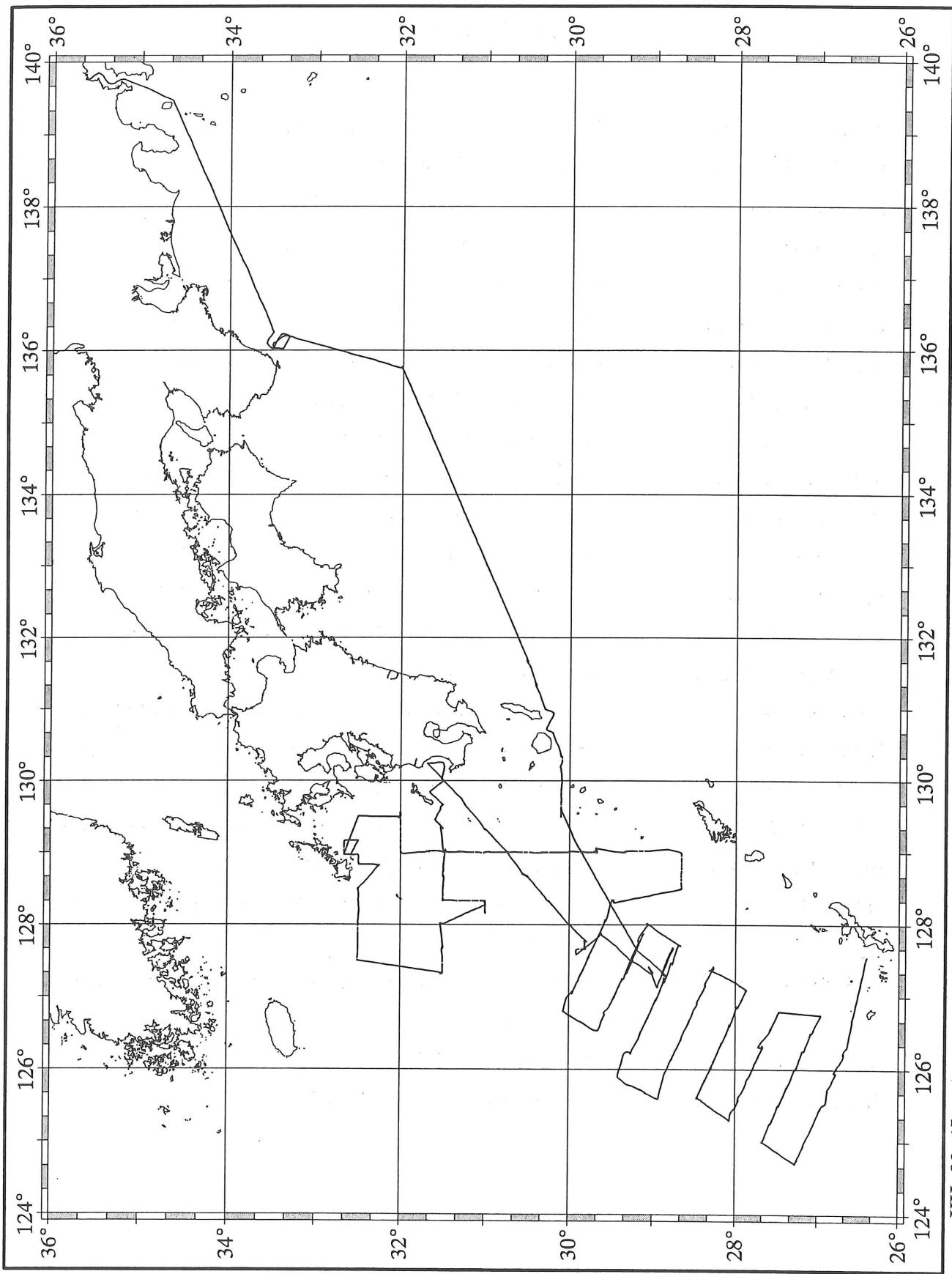
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## Scientists aboard

SUGIMOTO Takashige	Ocean Research Institute, the University of Tokyo
KOMATSU Teruhisa	Ocean Research Institute, the University of Tokyo
KIMURA Shingo	Ocean Research Institute, the University of Tokyo
IGARASHI Chiaki	Ocean Research Institute, the University of Tokyo
NAGAE Hideo	Ocean Research Institute, the University of Tokyo
Pravaker MISHRA	Ocean Research Institute, the University of Tokyo
MOKU Masatoshi	Ocean Research Institute, the University of Tokyo
Zobel ARNAUD	Ocean Research Institute, the University of Tokyo
Francois FUGIER	Ocean Research Institute, the University of Tokyo
YOSHIDA Takafumi	Ocean Research Institute, the University of Tokyo
KIM Hee-Yong	Ocean Research Institute, the University of Tokyo
ITOH Sachihiko	Ocean Research Institute, the University of Tokyo
MIKAMI Atsuko	Ocean Research Institute, the University of Tokyo
ONITSUKA Toshihiro	Ocean Research Institute, the University og Tokyo
HATAKEYAMA Rui	Ocean Research Institute, the University of Tokyo
MORINAGA Kenji	SEIKAI Natl. Fish. Res. Inst. Fisheries Research Insutitute
NISHIUCHI Kou	SEIKAI Natl. Fish. Res. Inst. Fisheries Research Insutitute
IGUCHI Takako	Shimoda Marine Research Center, Tsukuba University
NAKAMURA Yasue	Graduate School of Agricultual Science, Tohoku University
MASUDA Yoshio	Graduate School of Agricultual Science, Tohoku University
HARADA Tetsuo	Laboratory of Environmental Physiology, Faculty, Kochi University
TAKAI Osamu	Laboratory of Environmental Physiology, Faculty, Kochi University
NAGAI Satoshi	the University of Tokyo
OGATA Masaki	FURUNO ELECTRIC CO. LTD.

# TRACK CHART



KH-02-1Leg.1

## KH-02-1

## Observational Table

No.1

Station	Date	Time	Lat.	Lon.	Depth	CTD	RMS	Norp.	XBT	ORI-o	ORI-s	Trol	IKMT	Ntnet	VMPS	CMT.
Fe-1	5.08	17:45	32	00.80	135 46.02	4153	○	○								
Fe-2	5.09	09:10	30	30.23	131 40.15	2005	○									
Fe-3		12:10	24.42	20.69	1980	○										
Fe-4		14:13	18.05	130 59.96	110	○										
Fe-5		16:20	12.26	40.03	130	○										
Fe-6		17:50	06.16	20.18	329	○										
Fe-7		19:30	05.78	00.38	557	○										
Fe-8		23:15	05.91	129 34.97	591	○										
Fe-9	5.10	09:00	29	12.13	127 40.65	1052	○									
Fe-10		15:00	28	52.68	18.55	864	○									
Fe-11		17:17	45.39	40.14	1108	○										
Fe-12		17:38	47.51	34.90	1020	○										
Fe-13		17:58	49.43	29.50	981	○										
Fe-14		18:16	51.19	24.59	971	○										
Fe-15		18:34	53.00	19.60	881	○										
Fe-16		18:53	54.92	14.32	642	○										
Fe-17		19:12	56.73	08.78	386	○										
Fe-18		20:16	29 02.49	23.65	878	○										
Fe-19	5.11	04:24	29	07.38	51.76	1092	○									
Fe-20		04:57	09.51	45.92	1066	○										
Fe-21		05:18	11.18	40.50	1054	○										
Fe-22		05:39	13.05	35.14	1062	○										
Fe-23		05:58	14.97	29.76	856	○										
Fe-24		06:17	16.87	24.50	480	○										
Fe-25		06:35	18.79	19.32	283	○										
Fe-26		07:30	14.63	30.36	908	○										
Fe-27		11:25	37.27	52.25	841	○										
Fe-28		17:50	59.93	59.80	363	○										
Fe-29		19:58	30 15.25	128 19.89	743	○										
Fe-30		20:01	29.92	40.17	790	○										
Fe-31	5.12	04:00	44.94	129 00.16	764	○										
Fe-32		05:58	59.78	19.68	781	○										
Fe-33		08:15	31 14.79	129 39.39	150	○										
Fe-34		10:10	30.07	59.92	173	○										
Fe-35		17:00	30.40	39.56	642	○										
Fe-36		20:00	30.09	20.00	731	○										
Fe-37		23:28	29.89	00.00	720	○										
Fe-38	5.13	03:40	29.73	128 40.21	520	○										
Fe-39		05:30	30.04	19.98	219	○										
Fe-40		08:20	00.08	19.62	361	○										
Fe-41		15:30	30.00	00.29	146	○										
Fe-42		18:50	30.12	127 40.13	134	○										
Fe-43		20:33	30.20	19.73	116	○										
Fe-44	5.14	02:00	32 30.08	29.96	134	○										
Fe-45		03:35	30.05	49.86	147	○										
Fe-46		05:05	29.80	128 10.09	273	○										
Fe-47		05:05	—	—	—	—	—	—	—	—	—	—	—	—	—	Mooring

Station	Date	Time	Lat.	Lon.	Depth	CTD	RMS	Norp.	XBT	ORI-o	ORI-S	Trol	IKMT	Ntnet	VMPS	CMT.
D-4		06:55	30.16	29.92	273	○										
D-5		09:10	15.11	49.62	243	○										
D-6		13:05	30.05	129 09.99	234	○										
D-7		16:40	32	30.27	30.00	104	○									
D-8		20:05	31	59.96	29.89	682	○					○				
D-9	5.15	02:35	59.72	00.02	781	○										
D-10		05:55	39.90	00.59	722	○										
D-11		08:15	20.08	00.04	694	○										○
D-12		10:55	30	59.97	128 59.99	545	○									
D-13		12:55	40.17	129 00.14	760	○										
D-14		14:55	20.16	128 59.92	384	○										
D-15		17:05	29	59.93	129 00.23	914	○									
D-16		20:01	40.10	00.50	821	○						○				
D-17	5.16	03:52	20.03	00.14	656	○										
D-18		07:00	28	40.00	129 00.00	856	○									
D-19		09:20	39.84	128 30.51	1058	○										
D-20		13:11	29	28.14	18.50	1058	○									○
D-21		16:00	33.98	03.33	984	○										
D-22		18:00	39.99	127 48.14	640	○										
D-23		19:40	46.14	32.80	233	○						○				○
D-24						○										
D-25		22:35	58.04	02.76	106	○										
D-26	5.17	02:00	30	04.14	126 48.46	96	○									
D-27		04:24	29	32.02	32.15	97	○									
D-28		05:43	34.92	46.03	104	○										
D-29		07:08	27.76	59.94	117	○										
D-30		08:27	22.01	127 14.78	172	○										
D-31		10:02	16.01	30.11	844	○										
D-32		11:45	10.15	45.15	1062	○										
D-33						○										
D-34		16:45	28	40.24	42.26	1156	○									
D-35		19:00	45.98	26.99	1011	○										○
D-36	5.18	09:03	52.02	12.15	639	○										○
D-37		12:58	57.87	126 57.16	155	○										
D-38		14:20	29	03.78	42.02	113	○									
D-39			09.36	28.51	111	○										
D-40			15.64	12.94	107	○										
D-41		28	51.98	125 53.95	123	○										
D-42			46.11	126 08.80	123	○										
D-43			39.88	24.15	125	○										
D-44			33.39	39.21	150	○										
D-45			27.78	54.56	260	○										
D-46			21.90	127 09.10	978	○										
D-47			15.90	24.52	1090	○										
D-48	5.19	01:08	27	51.91	05.98	1216	○									
D-49		03:10	58.02	126 51.16	1133	○										○
D-50		05:15	28	04.01	36.26	208	○									

Station	Date	Time	Lat.	Lon.	Depth	CTD	RMS	Norp.	XBT	ORI-o	ORI-S	Trol	IKMT	Ntnet	VMPS	CMT.
J-4		06:45	10.19	21.04	135	○	○	○								
J-5		08:10	15.99	06.07	117	○	○	○								
J-6		10:30	22.04	125	50.96	112	○	○								
J-7		11:50	27.87	36.18	○	○	○	○								
J-8		14:00	04.25	18.12	107	○	○	○								
J-9		16:40	27	57.67	34.10	107	○	○								
J-10		18:00	51.91	49.02	112	○	○	○								
J-11		19:15	45.97	126	02.94	○	○	○								
J-12		20:35	39.92	18.14	1134	○	○	○								
J-13		5:20	00:58	33.96	33.03	1461	○	○								
J-14		02:49	27.85	47.94	1661	○	○	○								
J-15		05:30	26	57.66	45.08	1606	○	○								
J-16		07:40	27	04.17	30.19	1711	○	○								
J-17		10:05	10.00	15.04	1260	○	○	○								
J-18		11:55	16.06	00.01	375	○	○	○								
J-19		13:30	22.07	125	45.04	130	○	○								
J-20		14:45	28.12	30.02	115	○	○	○								
J-21		16:05	34.12	15.16	108	○	○	○								
J-22		17:27	40.04	00.06	100	○	○	○								
J-23		19:55	16.01	124	42.24	101	○	○								
J-24		21:15	10.02	57.04	106	○	○	○								
J-25		22:50	04.00	125	10.00	117	○	○								
J-26	5:21	00:30	26	57.98	125	26.82	148	○								
J-27		02:05	52.11	41.89	650	○	○	○								
J-28		03:45	46.09	56.99	1600	○	○	○								
J-29		06:10	40.25	11.90	1856	○	○	○								

Argos buoy throw

Station: FE1d  
 Latitude:32-00.43N  
 Longitude:135-45.15E  
 DEPTH:500m  
 Date:2002/05/08 TIME:17:30

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
2	22.316	3.555e-0	.674e-17
5	22.314	3.352e-0	.674e-17
10	22.287	3.540e-0	.674e-17
20	21.863	3.284e-0	.674e-17
30	21.605	3.707e-0	.674e-17
40	21.370	4.114e-0	.674e-17
50	21.052	4.732e-0	.674e-17
60	20.741	7.743e-0	.674e-17
70	20.450	9.410e-0	.674e-17
80	20.194	1.784e-0	.674e-17
90	19.908	2.668e-0	.674e-17
100	19.683	2.504e-0	.674e-17
125	19.395	1.132e-0	.674e-17
150	19.173	4.815e-0	.674e-17
175	19.047	3.676e-0	.674e-17
200	18.958	2.145e-0	.674e-17
250	18.722	1.266e-0	.674e-17
300	18.126	1.799e-0	.674e-17
400	16.355	1.360e-0	.674e-17
500	14.307	8.442e-0	.674e-17
503	14.251	2.943e-0	.674e-17

Station: M1D  
 Latitude:28-52.67N  
 Longitude:127-18.55E  
 DEPTH: 864m  
 Date:2002/05/10 TIME:15:00

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	26.280	34.752	3.918
5	26.287	34.753	3.928
10	26.273	34.752	3.919
20	26.166	34.742	3.927
30	24.584	34.654	4.136
50	23.966	34.794	3.942
75	22.607	34.773	3.750
100	21.086	34.711	3.648
125	18.906	34.714	3.422
150	17.583	34.735	3.557
200	15.663	34.634	3.504
300	11.932	34.444	3.295
400	10.604	34.386	3.000
500	8.603	34.337	2.603
600	7.365	34.328	2.338
700	6.319	34.352	2.042
800	5.832	34.371	1.914
807	5.831	34.371	1.905

Station: M3D  
 Latitude:29-12.11N  
 Longitude:127-40.52E  
 DEPTH:1052m  
 Date:2002/05/10 TIME:09:00

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	24.432	34.655	4.177
5	24.428	34.655	4.177
10	24.425	34.656	4.175
20	24.413	34.656	4.158
30	24.267	34.659	4.170
50	22.790	34.654	4.172
75	21.246	34.760	3.610
100	20.123	34.747	3.527
125	18.517	34.534	3.947
150	18.021	34.631	3.733
200	14.184	34.555	3.580
300	11.247	34.413	3.194
400	9.297	34.361	2.776
500	7.446	34.317	2.392
600	6.383	34.352	2.079
700	5.787	34.365	1.940
800	5.315	34.378	1.827
900	4.901	34.404	1.747
1000	4.447	34.426	1.683
1003	4.433	34.427	1.677

Station: M2D  
 Latitude:29-14.69N  
 Longitude:127-30.26E  
 DEPTH: 902m  
 Date:2002/05/11 TIME: 7:30

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	24.605	34.688	4.084
5	24.564	34.682	4.097
10	24.501	34.672	4.101
20	24.293	34.641	4.122
30	22.432	34.309	4.393
50	21.527	34.476	4.466
75	20.616	34.671	3.932
100	19.871	34.744	3.523
125	17.341	34.626	3.607
150	16.118	34.609	3.827
200	13.580	34.523	3.461
250	12.876	34.493	3.348
300	12.579	34.478	3.303
350	11.080	34.418	3.086
400	9.768	34.373	2.839
450	8.883	34.347	2.701
500	8.159	34.329	2.553
550	7.025	34.333	2.280
600	6.520	34.343	2.117
650	6.162	34.358	2.021
700	5.904	34.367	1.944
750	5.747	34.373	1.909
800	5.422	34.385	1.845
850	5.267	34.390	1.808
900	5.125	34.396	1.774
918	5.048	34.398	1.754

Station: C3  
 Latitude:31-30.12N  
 Longitude:129-20.03E  
 DEPTH: 731m  
 Date:2002/05/12 TIME:20:00

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	22.846	34.656	4.291
5	22.847	34.656	4.297
10	22.817	34.653	4.292
20	22.664	34.643	4.313
30	21.806	34.648	4.333
50	19.793	34.661	3.965
75	17.951	34.510	4.312
100	17.419	34.548	4.174
125	16.922	34.511	4.317
150	16.689	34.583	4.162
200	14.217	34.554	3.740
300	11.641	34.442	3.227
400	9.700	34.381	2.774
500	7.850	34.366	2.349
503	7.816	34.365	2.333

Station: C4  
 Latitude:31-29.90N  
 Longitude:129-00.00E  
 DEPTH: 722m  
 Date:2002/05/12 TIME:23:25

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	22.206	34.584	4.408
5	22.207	34.584	4.407
10	22.210	34.584	4.412
20	22.199	34.586	4.408
30	22.141	34.603	4.426
50	20.738	34.611	4.395
75	19.445	34.632	4.003
100	18.033	34.518	4.068
125	17.283	34.526	4.273
150	16.827	34.603	4.005
200	15.542	34.565	4.211
300	12.577	34.476	3.374
400	9.844	34.385	2.816
500	7.832	34.367	2.349
505	7.777	34.366	2.325

Station: C10  
 Latitude:31-30.00N  
 Longitude:127-20.00E  
 DEPTH: 115m  
 Date:2002/05/13 TIME:20:35

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
5	18.921	33.662	5.024
10	18.722	33.674	5.027
20	18.531	33.689	5.031
30	15.270	33.103	5.526
50	15.216	33.561	4.633
75	13.154	33.351	4.902
100	14.718	34.232	3.813
101	14.713	34.231	3.796

Station: C5  
 Latitude:31-30.01N  
 Longitude:128-40.21E  
 DEPTH: 520m  
 Date:2002/05/13 TIME:03:40

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
2	21.965	34.581	4.445
5	21.962	34.581	4.453
10	21.969	34.582	4.457
20	21.966	34.605	4.468
30	21.850	34.614	4.461
50	20.963	34.666	4.225
75	19.884	34.653	4.132
100	18.961	34.610	4.122
125	17.971	34.627	4.115
150	17.277	34.608	4.204
200	16.041	34.585	4.101
300	11.671	34.441	3.153
400	9.361	34.388	2.726
482	8.351	34.374	2.421

Station: C6  
 Latitude:31-30.00N  
 Longitude:128-20.00E  
 DEPTH: 220m  
 Date:2002/05/13 TIME:05:30

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
4	22.305	34.603	4.410
5	22.309	34.602	4.408
10	22.312	34.603	4.406
20	22.260	34.610	4.413
30	22.198	34.616	4.418
50	21.853	34.648	4.442
75	20.612	34.691	4.105
100	19.135	34.641	4.088
125	18.356	34.621	4.086
150	17.956	34.606	4.102
200	16.772	34.571	4.407
202	16.746	34.570	4.397

Station: C7  
 Latitude:31-00.81N  
 Longitude:128-19.69E  
 DEPTH: 360m  
 Date:2002/05/13 TIME:08:15

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
5	23.177	34.591	4.316
10	23.155	34.589	4.318
20	22.161	34.545	4.424
30	22.093	34.626	4.314
50	21.457	34.636	4.173
75	20.173	34.609	4.103
100	19.031	34.628	3.881
125	18.308	34.640	3.766
150	17.469	34.662	3.591
200	14.266	34.555	3.565
300	11.664	34.440	3.248
342	10.360	34.396	2.950

Station: C8  
 Latitude:31-30.00N  
 Longitude:128-00.29E  
 DEPTH: 290m  
 Date:2002/05/13 TIME:15:30

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
2	22.356	34.561	4.430
5	22.345	34.563	4.423
10	22.317	34.563	4.411
20	22.191	34.568	4.405
30	21.235	34.620	4.455
50	19.807	34.458	4.608
75	18.786	34.630	4.011
100	18.158	34.608	3.775
121	16.808	34.622	3.878

Station: C9  
 Latitude:31-30.12N  
 Longitude:127-40.13E  
 DEPTH: 134m  
 Date:2002/05/13 TIME:18:50

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	21.796	34.442	4.526
5	21.796	34.443	4.523
10	20.034	34.343	4.811
20	18.693	34.338	5.281
30	18.330	34.405	5.087
50	18.248	34.571	4.128
75	18.134	34.569	3.840
100	17.652	34.439	4.171
101	17.647	34.437	4.183

Station: D1  
 Latitude:32-30.00N  
 Longitude:127-29.85E  
 DEPTH: 134m  
 Date:2002/05/14 TIME:01:45

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
7	21.795	34.595	4.439
10	21.791	34.594	4.438
20	21.662	34.588	4.441
30	21.632	34.587	4.428
50	18.643	34.109	4.975
75	18.546	34.630	4.179
100	16.514	34.614	3.727
103	16.345	34.610	3.871

Station: D2  
 Latitude:32-30.00N  
 Longitude:127-48.50E  
 DEPTH: 147m  
 Date:2002/05/14 TIME:03:25

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
4	21.979	34.612	4.446
5	21.980	34.612	4.447
10	21.978	34.612	4.444
20	21.934	34.616	4.437
30	21.893	34.617	4.433
50	20.781	34.616	4.344
75	18.810	34.636	4.017
100	17.832	34.624	3.998
122	16.976	34.606	3.899

Station: D3  
 Latitude:32-30.00N  
 Longitude:128-09.64E  
 DEPTH: 270m  
 Date:2002/05/14 TIME:05:05

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	20.490	34.574	4.664
5	20.582	34.585	4.663
10	20.548	34.584	4.660
20	20.099	34.547	4.706
30	19.205	34.458	4.808
50	18.568	34.400	4.678
75	16.732	34.202	4.764
100	16.266	34.247	4.557
125	16.197	34.524	4.545
150	15.558	34.542	4.266
200	15.036	34.554	3.955
243	14.512	34.534	3.783

Station: D4  
 Latitude:32-30.10N  
 Longitude:128-29.30E  
 DEPTH: 275m  
 Date:2002/05/14 TIME:06:50

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	20.562	34.557	4.686
5	20.564	34.557	4.688
10	20.545	34.556	4.683
20	20.275	34.519	4.699
30	19.974	34.554	4.560
50	19.164	34.558	4.362
75	17.323	34.449	4.557
100	16.861	34.463	4.597
125	16.405	34.488	4.648
150	15.935	34.521	4.556
200	15.491	34.541	4.329
252	14.555	34.533	3.963

Station: D5  
 Latitude:32-15.11N  
 Longitude:128-49.62E  
 DEPTH: 243m  
 Date:2002/05/14 TIME:09:10

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
2	22.178	34.598	4.452
5	22.169	34.599	4.455
10	22.091	34.602	4.457
20	21.772	34.582	4.480
30	20.743	34.634	4.252
50	19.651	34.662	3.942
75	17.943	34.629	3.954
100	16.589	34.587	4.116
125	15.856	34.566	4.327
150	15.506	34.565	4.303
200	14.554	34.548	3.906
211	14.449	34.544	3.827

Station: D6  
 Latitude:32-30.00N  
 Longitude:129-10.00E  
 DEPTH: 240m  
 Date:2002/05/14 TIME:13:00

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	21.935	34.590	4.466
5	21.938	34.591	4.470
10	21.921	34.588	4.464
20	21.874	34.586	4.463
30	21.714	34.587	4.473
50	19.676	34.598	4.224
75	18.022	34.622	3.997
100	16.884	34.527	4.391
125	16.219	34.544	4.361
150	15.853	34.558	4.338
200	15.048	34.565	3.908
202	15.077	34.533	3.906

Station: D7  
 Latitude:32-30.27N  
 Longitude:129-30.00E  
 DEPTH: 104m  
 Date:2002/05/14 TIME:16:40

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
6	21.868	34.597	4.502
10	21.867	34.597	4.500
20	21.869	34.598	4.494
30	21.838	34.601	4.492
50	21.373	34.589	4.490
75	18.793	34.491	4.500
83	17.947	34.611	4.017

Station: D8  
 Latitude:31-59.95N  
 Longitude:129-29.92E  
 DEPTH: 683m  
 Date:2002/05/14 TIME:20:00

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	22.611	34.547	4.402
5	22.610	34.547	4.403
10	22.607	34.546	4.408
20	21.374	34.450	4.562
30	20.693	34.523	4.639
50	19.675	34.561	4.414
75	18.161	34.606	3.980
100	16.689	34.561	4.210
125	16.243	34.567	4.126
150	16.122	34.569	4.096
200	15.358	34.567	3.909
300	13.338	34.505	3.500
400	10.619	34.410	3.042
500	8.238	34.367	2.439
501	8.223	34.365	2.431

Station: E1  
 Latitude:31-59.72N  
 Longitude:129-00.02E  
 DEPTH: 781m  
 Date:2002/05/15 TIME:02:35

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	19.613	34.418	4.734
5	19.614	34.445	4.739
10	19.613	34.449	4.737
20	19.613	34.448	4.726
30	19.612	34.448	4.719
50	18.601	34.461	4.569
75	17.391	34.506	4.374
100	16		

Station: E2  
 Latitude:31-40.00N  
 Longitude:129-00.02E  
 DEPTH: 720m  
 Date:2002/05/15 TIME:06:00

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
6	20.513	34.482	4.646
10	20.509	34.479	4.650
20	20.196	34.456	4.693
30	18.775	34.391	4.915
50	17.318	34.426	4.994
75	16.474	34.542	4.428
100	15.786	34.599	3.872
125	15.112	34.567	4.051
150	14.393	34.540	3.881
200	13.566	34.509	3.587
300	11.733	34.449	3.167
400	9.591	34.383	2.746
500	7.792	34.367	2.344
503	7.754	34.366	2.310

Station: E3  
 Latitude:31-20.28N  
 Longitude:129-00.09E  
 DEPTH: 694m

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
2	21.815	34.596	4.437
5	21.809	34.597	4.445
10	21.805	34.597	4.453
20	21.808	34.597	4.446
30	21.783	34.598	4.437
50	21.317	34.604	4.354
75	19.916	34.620	4.230
100	18.414	34.601	3.961
125	17.980	34.547	4.106
150	16.989	34.628	3.887
200	14.777	34.552	4.009
300	11.820	34.443	3.198
400	9.859	34.396	2.774
500	8.132	34.369	2.409
505	8.038	34.368	2.374

Station: E4  
 Latitude:31-01.09N  
 Longitude:128-59.92E  
 DEPTH: 540m

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
7	23.971	34.634	4.198
10	23.962	34.634	4.192
20	23.928	34.635	4.191
30	23.548	34.636	4.206
50	23.058	34.633	4.191
75	20.841	34.525	4.234
100	19.511	34.625	3.986
125	18.767	34.633	3.840
150	18.019	34.662	3.654
200	16.022	34.626	3.578
300	11.547	34.435	3.243
400	8.940	34.350	2.675
500	8.037	34.357	2.472
504	7.879	34.358	2.377

Station: E5  
 Latitude:30-40.21N  
 Longitude:129-00.14E  
 DEPTH: 760m

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	25.038	34.459	4.102
5	25.041	34.459	4.100
10	25.028	34.461	4.082
20	24.977	34.471	4.094
30	24.430	34.715	4.123
50	21.733	34.637	4.156
75	20.223	34.372	4.623
100	20.205	34.735	3.583
125	18.640	34.665	3.550
150	17.469	34.627	3.681
200	14.202	34.562	3.504
300	10.378	34.388	3.047
400	8.948	34.360	2.669
500	7.836	34.345	2.390
503	7.812	34.344	2.373

Station: E6  
 Latitude:30-20.50N  
 Longitude:128-59.89E  
 DEPTH: 380m

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	24.087	34.483	4.233
5	24.151	34.481	4.222
10	23.855	34.504	4.259
20	21.897	34.509	4.441
30	21.410	34.553	4.482
50	19.907	34.582	4.091
75	19.007	34.605	3.855
100	18.885	34.642	3.810
125	17.892	34.661	3.595
150	16.327	34.615	3.593
200	13.981	34.548	3.561
300	11.943	34.447	3.343
347	11.006	34.407	3.129

Station: E11  
 Latitude:28-39.84N  
 Longitude:128-30.51E  
 DEPTH: 1058m

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
2	24.777	34.572	4.125
5	24.773	34.698	4.125
10	24.772	34.698	4.128
20	24.770	34.699	4.115
30	24.755	34.702	4.103
50	24.263	34.736	4.146
75	23.079	34.759	4.175
100	22.354	34.780	4.243
125	21.320	34.809	4.178
150	20.951	34.810	4.163
200	20.326	34.813	4.165
300	17.160	34.733	3.895
400	15.392	34.633	3.824
500	12.104	34.458	3.382
600	9.345	34.322	2.934
700	7.388	34.330	2.434
800	5.862	34.357	2.040
900	5.116	34.392	1.842
902	5.112	34.392	1.828

Station: E9  
 Latitude:29-59.93N  
 Longitude:129-00.23E  
 DEPTH: 914m

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	23.815	34.474	4.309
5	23.843	34.474	4.299
10	23.845	34.475	4.305
20	23.084	34.523	4.372
30	22.407	34.486	4.432
50	20.989	34.566	4.432
75	19.984	34.617	4.163
100	18.868	34.633	3.793
125	18.317	34.634	3.686
150	17.710	34.636	3.567
200	14.511	34.571	3.621
300	10.168	34.377	3.025
400	8.296	34.336	2.595
500	6.991	34.334	2.257
502	6.984	34.332	2.248

Station: E8  
 Latitude:29-40.00N  
 Longitude:129-00.00E  
 DEPTH: 821m

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
5	26.510	34.461	3.988
10	26.511	34.461	3.976
20	26.512	34.462	3.968
30	26.293	34.607	4.011
50	25.370	34.862	4.062
75	24.237	34.886	4.067
100	23.672	34.886	4.068
125	22.469	34.846	3.814
150	20.541	34.815	3.774
200	18.432	34.735	3.647
300	13.703	34.532	3.524
400	9.908	34.395	2.914
500	7.984	34.321	2.522
600	6.508	34.336	2.136
700	5.635	34.366	1.924
701	5.631	34.366	1.925

Station: F1  
 Latitude:29-28.04N  
 Longitude:128-18.22E  
 DEPTH: 1058m

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
4	26.297	34.546	3.985
5	26.301	34.546	3.984
10	26.304	34.546	3.979
20	26.303	34.557	3.981
30	24.762	34.672	4.082
50	23.911	34.797	3.943
75	22.842	34.842	3.890
100	21.227	34.804	3.718
125	20.193	34.816	3.765
150	18.198	34.732	3.542
200	15.908	34.668	3.790
300	11.852	34.445	3.255
400	10.695	34.400	3.020
500	8.833	34.350	2.651
600	7.267	34.330	2.290
700	6.486	34.353	2.082
800	5.637	34.377	1.881
900	5.213	34.391	1.791
1000	4.654	34.415	1.692
1000	4.654	34.415	1.692

Station: E10  
 Latitude:28-40.18N  
 Longitude:129-00.00E  
 DEPTH: 856m

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
7	25.012	34.698	4.083
10	24.875	34.703	4.090
20	24.433	34.718	4.136
30	24.029	34.740	4.142
50	23.475	34.765	4.217
75	22.761	34.791	4.093
100	21.673	34.802	4.209
125	21.168	34.815	4.257
150	20.798	34.824	4.361
200	20.273	34.827	4.271
300	17.654	34.753	3.910
400	14.319	34.568	3.767
500	11.095	34.411	3.180
600	9.078	34.322	2.835
700	6.998	34.335	2.333
800	5.550	34.377	1.933
804	5.523	34.378	1.918

Station: F2  
 Latitude:29-33.79N  
 Longitude:128-03.37E  
 DEPTH: 978m  
 Date:2002/05/16 TIME:15:50

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	25.600	34.421	4.054
5	25.601	34.420	4.051
10	25.524	34.458	4.075
20	24.007	34.682	4.262
30	22.764	34.639	4.262
50	21.584	34.746	3.766
75	19.862	34.437	4.248
100	19.287	34.689	3.576
125	18.289	34.642	3.387
150	16.433	34.642	3.444
200	13.592	34.534	3.371
300	11.060	34.414	3.122
400	9.596	34.371	2.808
500	8.704	34.346	2.597
600	7.022	34.341	2.259
700	6.243	34.361	2.040
800	5.537	34.379	1.876
900	5.135	34.395	1.789
956	4.888	34.404	1.740

Station: F3  
 Latitude:29-40.03N  
 Longitude:127-48.13E  
 DEPTH: 640m  
 Date:2002/05/16 TIME:17:50

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	22.919	34.503	4.406
5	22.935	34.503	4.383
10	22.873	34.500	4.397
20	22.749	34.508	4.415
30	22.615	34.538	4.409
50	21.251	34.635	4.311
75	20.480	34.667	3.966
100	19.023	34.674	3.760
125	17.798	34.663	3.724
150	16.866	34.627	3.736
200	14.861	34.568	3.789
300	11.468	34.433	3.181
400	10.213	34.387	2.961
500	8.322	34.335	2.604
600	6.796	34.341	2.193
605	6.752	34.343	2.168

Station: F4  
 Latitude:29-46.13N  
 Longitude:127-32.94E  
 DEPTH: 222m  
 Date:2002/05/16 TIME:19:35

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
4	23.468	34.567	4.312
5	23.471	34.567	4.315
10	23.477	34.567	4.326
20	23.329	34.562	4.323
30	22.342	34.564	4.449
50	20.741	34.645	4.131
75	19.623	34.630	4.050
100	18.450	34.605	3.999
125	16.688	34.592	4.074
150	15.948	34.576	4.018
200	14.708	34.555	3.742
202	14.718	34.554	3.743

Station: F5  
 Latitude:29-51.83N  
 Longitude:127-18.15E  
 DEPTH: 123m  
 Date:2002/05/16 TIME:21:10

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	24.529	34.661	4.161
5	24.529	34.661	4.176
10	24.533	34.661	4.164
20	24.538	34.661	4.162
30	22.997	34.747	4.149
50	22.067	34.741	3.897
75	20.030	34.736	3.614
100	18.083	34.669	3.527
102	17.904	34.660	3.522

Station: F6  
 Latitude:29-57.88N  
 Longitude:127-03.01E  
 DEPTH: 106m  
 Date:2002/05/16 TIME:22:35

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
4	23.415	34.523	4.312
5	23.414	34.551	4.323
10	23.415	34.553	4.304
20	23.257	34.572	4.308
30	22.148	34.641	4.326
50	21.090	34.624	4.350
75	19.124	34.526	4.152
92	18.114	34.609	3.580

Station: G2D  
 Latitude:29-10.19N  
 Longitude:127-44.83E  
 DEPTH: 1060m  
 Date:2002/05/17 TIME:11:40

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
2	25.777	34.363	4.010
5	25.766	34.363	4.025
10	25.779	34.363	4.020
20	25.689	34.461	4.054
30	25.329	34.575	4.100
50	24.324	34.627	4.188
75	22.578	34.714	4.029
100	21.797	34.752	3.766
125	20.554	34.776	3.649
150	19.026	34.722	3.508
200	14.934	34.603	3.558
250	13.286	34.501	3.654
300	12.283	34.449	3.492
350	10.994	34.381	3.252
400	10.090	34.386	2.936
450	8.405	34.277	2.772
500	7.719	34.286	2.509
550	7.186	34.323	2.308
600	6.744	34.338	2.164
650	6.524	34.348	2.088
700	5.946	34.365	1.966
750	5.636	34.374	1.895
800	5.378	34.382	1.842
850	5.101	34.394	1.786
900	4.929	34.401	1.747
950	4.738	34.409	1.720
1000	4.627	34.413	1.700
1002	4.621	34.414	1.697

Station: G3  
 Latitude:29-15.92N  
 Longitude:127-29.94E  
 DEPTH: 823m  
 Date:2002/05/17 TIME:09:55

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	26.608	34.707	3.985
5	26.609	34.708	3.986
10	26.609	34.708	3.991
20	26.612	34.708	3.963
30	25.963	34.821	4.075
50	25.001	34.860	4.093
75	24.466	34.878	4.050
100	23.660	34.857	3.928
125	23.007	34.861	3.907
150	22.056	34.858	3.853
200	19.026	34.788	3.770
250	16.456	34.695	3.905
300	15.372	34.634	3.843
350	13.033	34.477	3.764
400	12.079	34.429	3.486
450	11.294	34.434	3.214
500	9.474	34.387	2.799
550	8.313	34.290	2.689
600	7.568	34.323	2.408
650	6.632	34.336	2.175
700	6.241	34.338	2.056
750	5.963	34.347	1.988
800	5.657	34.364	1.915
850	5.365	34.375	1.851
900	5.174	34.388	1.806
1000	4.817	34.403	1.731
1050	4.633	34.414	1.699
1100	4.397	34.427	1.662
1101	4.391	34.427	1.662

Station: G4  
 Latitude:29-21.92N  
 Longitude:127-14.87E  
 DEPTH: 173m  
 Date:2002/05/17 TIME:08:20

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
2	24.167	34.520	4.223
5	24.170	34.520	4.222
10	24.169	34.520	4.201
20	23.991	34.549	4.251
30	23.370	34.602	4.308
50	20.764	34.700	3.823
75	19.259	34.724	3.584
100	17.114	34.670	3.490
125	15.387	34.583	3.805
150	14.831	34.567	3.762
154	14.828	34.566	3.754

Station: G5  
 Latitude:29-28.00N  
 Longitude:127-00.00E  
 DEPTH:120m  
 Date:2002/05/17 TIME:07:05

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	23.680	34.571	4.268
5	23.681	34.571	4.269
10	23.681	34.571	4.284
20	23.682	34.572	4.271
30	21.556	34.573	4.444
50	19.326	34.439	4.392
75	18.282	34.655	3.539
100	15.904	34.604	3.589
100	15.904	34.604	3.589

Station: G6  
 Latitude:29-34.92N  
 Longitude:126-45.95E  
 DEPTH:105m  
 Date:2002/05/17 TIME:05:35

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
4	22.711	34.490	4.430
5	22.715	34.490	4.434
10	22.713	34.490	4.438
20	22.716	34.490	4.423
30	21.534	34.408	4.735
50	19.206	34.297	4.855
75	18.238	34.465	3.925
92	18.040	34.618	3.503

Station: G7  
 Latitude:29-39.57N  
 Longitude:126-32.18E  
 DEPTH: 98m  
 Date:2002/05/17 TIME:04:25

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
4	22.442	34.450	4.465
5	22.443	34.450	4.460
10	22.447	34.450	4.464
20	22.448	34.450	4.464
30	21.882	34.526	4.558
50	19.608	34.397	4.815
75	18.175	34.486	3.720
82	18.175	34.486	3.704

Station: H1  
 Latitude:28-40.24N  
 Longitude:127-42.26E  
 DEPTH:1156m  
 Date:2002/05/17 TIME:16:45

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	26.377	34.771	4.000
5	26.380	34.772	4.000
10	26.381	34.772	4.013
20	26.382	34.773	4.000
30	26.388	34.772	3.988
50	25.686	34.831	4.056
75	24.431	34.875	3.994
100	23.642	34.870	3.950
125	23.298	34.864	3.919
150	22.121	34.868	3.826
200	19.242	34.806	3.770
250	17.139	34.735	3.837
300	15.775	34.658	3.848
350	13.733	34.530	3.825
400	11.793	34.388	3.665
450	10.460	34.378	3.149
500	9.109	34.358	2.785
550	8.122	34.324	2.586
600	7.181	34.345	2.315
650	6.492	34.336	2.141
700	6.287	34.338	2.060
750	5.998	34.355	1.990
800	5.630	34.368	1.909
850	5.335	34.385	1.836
900	5.127	34.393	1.792
950	4.948	34.401	1.755
1000	4.870	34.404	1.730
1050	4.715	34.410	1.713
1100	4.614	34.414	1.701
1102	4.611	34.414	1.698

Station: H2  
 Latitude:28-45.98N  
 Longitude:127-26.99E  
 DEPTH:1011m  
 Date:2002/05/17 TIME:19:00

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	25.817	34.475	4.046
5	25.824	34.475	4.057
10	25.803	34.478	4.068
20	25.508	34.518	4.094
30	24.860	34.575	4.157
50	24.273	34.622	4.187
75	22.840	34.720	4.113
100	21.922	34.762	3.822
125	20.837	34.733	3.675
150	19.986	34.738	3.594
200	17.762	34.687	3.490
250	13.670	34.535	3.480
300	11.702	34.443	3.243
350	10.291	34.353	3.099
400	9.324	34.356	2.828
450	8.418	34.324	2.634
500	7.225	34.243	2.455
550	7.160	34.323	2.301
600	6.642	34.330	2.140
650	6.355	34.343	2.058
700	6.013	34.357	1.983
750	5.709	34.369	1.905
800	5.548	34.375	1.867
850	5.215	34.388	1.808
900	5.034	34.391	1.764
950	4.869	34.402	1.735
951	4.865	34.402	1.731

Station: H3  
 Latitude:28-51.89N  
 Longitude:127-12.04E  
 DEPTH:636m  
 Date:2002/05/17 TIME:21:00

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
6	25.051	34.623	4.139
10	25.060	34.623	4.122
20	25.055	34.625	4.125
30	24.253	34.635	4.254
50	22.264	34.808	3.830
75	19.931	34.415	4.513
100	18.424	34.554	3.677
125	18.251	34.571	3.555
150	17.359	34.616	3.415
200	13.614	34.527	3.431
250	12.856	34.488	3.394
300	12.147	34.450	3.361
350	10.934	34.407	3.104
400	9.281	34.356	2.808
450	8.527	34.334	2.611
500	7.253	34.327	2.330
550	6.690	34.336	2.174
600	6.449	34.345	2.079
602	6.442	34.345	2.073

Station: H4  
 Latitude:28-57.88N  
 Longitude:126-57.18E  
 DEPTH:154m  
 Date:2002/05/18 TIME:01:00

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
6	24.709	34.627	4.123
10	24.677	34.622	4.107
20	24.009	34.550	4.234
30	21.070	34.332	4.760
50	20.207	34.529	4.294
75	18.401	34.581	3.650
100	16.812	34.596	3.431
125	14.820	34.573	3.617
130	14.775	34.569	3.596

Station: H5  
 Latitude:29-03.70N  
 Longitude:126-42.40E  
 DEPTH:112m  
 Date:2002/05/18 TIME:02:20

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	22.033	34.176	4.607
5	22.033	34.177	4.609
10	22.036	34.177	4.628
20	20.185	34.195	5.064
30	19.145	34.220	5.019
50	18.530	34.553	3.778
75	17.867	34.614	3.480
100	16.098	34.588	3.279
100	16.098	34.588	3.283
101	16.098	34.587	3.284

Station: H6  
 Latitude:29-09.35N  
 Longitude:126-28.51E  
 DEPTH:112m  
 Date:2002/05/18 TIME:03:35

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	23.070	34.440	4.332
5	23.069	34.440	4.353
10	23.074	34.440	4.366
20	22.195	34.487	4.505
30	20.182	34.446	4.741
50	18.696	34.420	4.287
75	18.413	34.512	3.828
100	18.113	34.580	3.508
100	18.113	34.580	3.508

Station: H7  
 Latitude:29-15.66N  
 Longitude:126-12.91E  
 DEPTH:107m  
 Date:2002/05/18 TIME:05:00

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	21.317	33.851	4.619
5	21.300	33.839	4.634
10	21.393	33.923	4.642
20	21.568	34.011	4.617
30	19.525	33.693	4.912
50	18.074	34.126	4.263
75	18.158	34.553	3.482
96	18.162	34.554	3.455

Station: I2  
 Latitude:28-22.07N  
 Longitude:127-08.71E  
 DEPTH:971m  
 Date:2002/05/18 TIME:18:05

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	26.976	34.735	3.955
5	26.977	34.735	3.960
10	26.988	34.735	3.975
20	26.961	34.732	3.959
30	26.905	34.731	3.973
50	25.463	34.863	4.099
75	24.639	34.859	4.041
100	23.110	34.766	3.847
125	22.382	34.841	3.832
150	21.927	34.839	3.789
200	19.839	34.753	3.650
250	17.527	34.689	3.527
300	15.083	34.603	3.555
350	12.350	34.462	3.343
400	11.615	34.431	3.217
450	9.868	34.374	2.923
500	7.847	34.305	2.562
550	7.065	34.288	2.328
600	6.589	34.341	2.172
650	6.155	34.343	2.034
700	5.911	34.354	1.964
750	5.805	34.360	1.919
800	5.488	34.375	1.859
850	5.346	34.383	1.822
900	5.182	34.388	1.792
905	5.153	34.389	1.782

Station: I3  
 Latitude:28-27.79N  
 Longitude:126-54.19E  
 DEPTH:259m  
 Date:2002/05/18 TIME:16:45

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	26.278	34.380	4.031
5	26.271	34.379	4.038
10	26.275	34.379	4.043
20	26.161	34.366	4.055
30	25.878	34.438	4.074
50	23.614	34.769	4.041
75	22.980	34.839	3.914
100	21.003	34.503	4.299
125	18.464	34.676	3.431
150	18.368	34.676	3.374
200	15.057	34.590	3.360
240	13.719	34.525	3.472

Station: I4  
 Latitude:28-34.00N  
 Longitude:126-39.00E  
 DEPTH:150m  
 Date:2002/05/18 TIME:15:30

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	23.712	34.339	4.328
5	23.699	34.340	4.322
10	23.699	34.340	4.339
20	22.850	34.437	4.467
30	21.054	34.448	4.693
50	20.396	34.457	4.468
75	18.784	34.675	3.467
100	18.388	34.665	3.363
125	17.885	34.643	3.245
131	16.432	34.613	3.288

Station: I5  
 Latitude:28-40.05N  
 Longitude:126-23.83E  
 DEPTH:125m  
 Date:2002/05/18 TIME:14:10

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	23.695	34.122	4.311
5	23.601	34.190	4.313
10	23.606	34.190	4.324
20	20.731	34.254	4.876
30	20.164	34.256	4.730
50	20.007	34.688	3.626
75	18.281	34.653	3.301
100	17.999	34.641	3.205
101	17.971	34.641	3.197

Station: I6  
 Latitude:28-46.25N  
 Longitude:126-08.50E  
 DEPTH:123m  
 Date:2002/05/18 TIME:12:50

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
2	23.041	34.296	4.392
5	23.078	34.261	4.398
10	22.961	34.374	4.425
20	22.822	34.384	4.420
30	21.576	34.404	4.611
50	20.240	34.375	4.566
75	19.036	34.378	4.279
100	17.996	34.635	3.218
100	17.996	34.635	3.218
101	17.997	34.635	3.216

Station: I7  
 Latitude:28-51.98N  
 Longitude:125-53.95E  
 DEPTH:123m  
 Date:2002/05/18 TIME:11:30

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
4	23.229	34.344	4.382
5	23.224	34.344	4.385
10	23.218	34.345	4.386
20	23.194	34.387	4.362
30	22.517	34.406	4.493
50	20.756	34.458	4.452
75	18.434	34.586	3.563
100	18.140	34.671	3.245
101	18.143	34.671	3.234

Station: J2  
 Latitude:27-58.02N  
 Longitude:126-51.16E  
 DEPTH:1133  
 Date:2002/05/19 TIME03:10

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	26.952	34.748	3.937
5	26.957	34.748	3.939
10	26.960	34.749	3.942
20	26.959	34.749	3.941
30	26.150	34.818	4.076
50	25.081	34.812	4.040
75	24.266	34.766	3.924
100	23.281	34.848	3.945
125	22.237	34.869	3.815
150	20.859	34.849	3.785
200	18.555	34.791	3.818
250	16.895	34.727	3.907
300	15.249	34.629	3.872
350	12.925	34.475	3.732
400	10.711	34.345	3.456
450	9.718	34.272	3.234
500	8.646	34.256	2.893
550	7.696	34.247	2.594
600	7.611	34.344	2.403
650	6.777	34.342	2.228
700	6.281	34.343	2.061
750	5.774	34.350	1.949
800	5.405	34.363	1.859
850	5.071	34.381	1.785
900	4.845	34.396	1.738
950	4.632	34.406	1.702
1000	4.453	34.417	1.680
1002	4.445	34.418	1.678

Station: J1  
 Latitude:27-51.98N  
 Longitude:127-06.05E  
 DEPTH:1214  
 Date:2002/05/19 TIME01:08

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	26.059	34.762	4.017
5	26.047	34.763	4.026
10	26.059	34.763	4.035
20	26.074	34.762	4.009
30	25.473	34.723	4.054
50	24.198	34.692	4.196
75	22.730	34.811	4.176
100	21.699	34.811	4.047
125	20.893	34.815	4.132
150	20.154	34.820	4.223
200	18.951	34.792	4.138
250	18.071	34.764	4.020
300	16.921	34.719	3.970
350	14.808	34.604	3.835
400	13.261	34.490	3.800
450	11.772	34.403	3.545
500	10.630	34.348	3.340
550	9.374	34.274	3.102
600	7.905	34.251	2.712
650	7.436	34.294	2.431
700	6.499	34.295	2.181
750	6.315	34.357	2.089
800	5.765	34.364	1.957
850	5.385	34.368	1.869
900	5.163	34.383	1.816
950	4.876	34.397	1.764
1000	4.673	34.406	1.726
1050	4.496	34.416	1.706
1100	4.348	34.423	1.680
1104	4.344	34.423	1.676

Station: J4  
 Latitude:28-10.19N  
 Longitude:126-21.04E  
 DEPTH:136m  
 Date:2002/05/19 TIME:06:45

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
6	22.907	34.255	4.429
10	22.918	34.255	4.424
20	22.919	34.255	4.410
30	21.562	34.274	4.651
50	19.905	34.132	4.773
75	18.499	34.667	3.460
100	18.489	34.676	3.360
112	18.487	34.675	3.342

Station: J5  
 Latitude:28-15.99N  
 Longitude:126-06.07E  
 DEPTH:118m  
 Date:2002/05/19 TIME:08:10

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	22.741	34.202	4.426
5	22.743	34.201	4.419
10	22.753	34.202	4.424
20	21.508	34.312	4.739
30	20.788	34.307	4.728
50	20.277	34.416	4.499
75	18.069	34.611	3.341
100	18.064	34.615	3.301
103	18.064	34.615	3.307

Station: J6			
Latitude:28-22.01N			
Longitude:125-50.98E			
DEPTH:112m			
Date:2002/05/19 TIME:10:30			
Press	Temp	Sal	Oxy
[dBar]	[°C]	[PSU]	[ml/L]
3	22.769	34.320	4.400
5	22.765	34.320	4.410
10	22.772	34.321	4.412
20	22.756	34.333	4.402
30	22.414	34.351	4.495
50	21.228	34.460	4.458
75	18.203	34.580	3.434
100	18.093	34.595	3.250
100	18.093	34.595	3.250

Station: J7			
Latitude:28-27.77N			
Longitude:125-36.36E			
DEPTH:107m			
Date:2002/05/19 TIME:11:50			
Press	Temp	Sal	Oxy
[dBar]	[°C]	[PSU]	[ml/L]
4	22.792	34.302	4.410
5	22.792	34.302	4.423
10	22.789	34.304	4.413
20	22.760	34.305	4.408
30	21.396	34.355	4.656
50	20.928	34.380	4.386
75	18.212	34.581	3.349
92	18.037	34.593	3.235

Station: K3			
Latitude:27-39.94N			
Longitude:126-18.28E			
DEPTH:1137m			
Date:2002/05/19 TIME:20:35			
Press	Temp	Sal	Oxy
[dBar]	[°C]	[PSU]	[ml/L]
5	26.805	34.643	4.431
10	26.807	34.643	4.419
20	26.823	34.642	4.446
30	26.815	34.642	4.439
50	26.578	34.710	4.490
75	25.975	34.787	4.525
100	25.222	34.832	4.449
125	23.952	34.878	4.450
150	23.043	34.857	4.371
200	21.562	34.814	4.259
250	16.616	34.688	3.996
300	12.528	34.493	3.668
350	11.380	34.434	1.538
400	10.232	34.392	0.835
450	9.448	34.361	3.630
500	8.603	34.352	2.989
550	6.884	34.347	2.513
600	6.351	34.353	2.304
650	5.952	34.364	2.171
700	5.756	34.370	2.103
750	5.523	34.377	2.022
800	5.222	34.389	1.941
850	5.021	34.396	1.882
900	4.784	34.407	1.837
950	4.622	34.416	1.804
1000	4.433	34.425	1.765
1001	4.434	34.425	1.766

Station: K4			
Latitude:27-45.97N			
Longitude:126-02.94E			
DEPTH:126m			
Date:2002/05/19 TIME:19:15			
Press	Temp	Sal	Oxy
[dBar]	[°C]	[PSU]	[ml/L]
1	26.497	4.45	4.455
10	26.505	4.44	4.446
20	26.512	4.45	4.449
30	26.521	4.45	4.464
50	25.350	4.60	4.613
75	23.623	4.31	4.340
100	21.341	4.38	4.428
101	21.352	4.32	4.336

Station: K5			
Latitude:27-51.91N			
Longitude:125-49.02E			
DEPTH:112m			
Date:2002/05/19 TIME:18:07			
Press	Temp	Sal	Oxy
[dBar]	[°C]	[PSU]	[ml/L]
91	18.772	3.85	3.833
75	20.236	4.09	4.099
50	21.704	4.57	4.575
30	24.254	4.88	4.886
20	24.977	4.72	4.742
10	25.319	4.63	4.635
91	18.772	3.85	3.833

Station: K2			
Latitude:27-34.12N			
Longitude:126-32.77E			
DEPTH:1454m			
Date:2002/05/20 TIME:00:55			
Press	Temp	Sal	Oxy
[dBar]	[°C]	[PSU]	[ml/L]
2	26.865	34.687	4.415
5	26.891	34.687	4.397
10	26.900	34.688	4.426
20	26.884	34.687	4.411
30	26.874	34.688	4.423
50	26.441	34.761	4.458
75	24.996	34.816	4.462
100	24.051	34.750	4.333
125	23.470	34.817	4.364
150	22.480	34.882	4.275
200	20.085	34.833	4.231
250	18.296	34.780	4.273
300	15.854	34.668	4.178
350	13.742	34.536	4.017
400	12.284	34.448	0.897
450	9.332	34.299	4.788
500	8.268	34.238	3.338
550	7.542	34.236	2.943
600	6.563	34.269	2.486
650	6.220	34.286	2.325
700	5.989	34.359	2.228
750	5.505	34.360	2.076
800	5.192	34.378	1.955
850	5.027	34.397	1.927
900	4.848	34.406	1.881
950	4.639	34.411	1.813
1000	4.503	34.418	1.793
1003	4.495	34.419	1.794

Station: L0			
Latitude:26-57.85N			
Longitude:126-45.15E			
DEPTH:1609m			
Date:2002/05/20 TIME:05:30			
Press	Temp	Sal	Oxy
[dBar]	[°C]	[PSU]	[ml/L]
1	25.235	34.759	4.585
5	25.220	34.758	4.588
10	25.200	34.758	4.593
20	24.825	34.738	4.628
30	24.294	34.712	4.669
50	22.636	34.809	4.787
75	21.565	34.821	4.518
100	20.915	34.817	4.679
125	20.481	34.821	4.766
150	20.251	34.820	4.724
200	19.585	34.804	4.564
250	18.356	34.783	4.410
300	17.214	34.752	4.451
350	15.391	34.645	4.351
400	14.029	34.551	4.215
450	12.412	34.464	3.950
500	10.711	34.383	3.696
550	9.956	34.346	3.428
600	7.813	34.270	2.917
650	6.855	34.234	2.572
700	6.241	34.258	2.272
750	5.894	34.304	2.149
800	5.492	34.361	2.085
850	4.973	34.392	1.940
900	4.734	34.402	1.872
950	4.457	34.413	1.799
1000	4.283	34.420	1.762
1050	4.246	34.421	1.742
1100	4.149	34.424	1.711
1150	4.100	34.428	1.680
1200	4.064	34.432	1.698
1300	3.956	34.441	1.656
1400	3.908	34.446	1.662
1500	3.900	34.448	1.628
1502	3.900	34.448	1.629

Station: L1  
 Latitude:27-04.00N  
 Longitude:126-30.20E  
 DEPTH:1730m  
 Date:2002/05/20 TIME:07:40

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
1	25.600	34.744	4.629
5	25.606	34.744	4.625
10	25.607	34.744	4.612
20	25.606	34.745	4.596
30	25.608	34.745	4.581
50	25.404	34.785	4.637
75	23.779	34.818	4.725
100	23.291	34.809	4.742
125	22.612	34.813	4.637
150	21.478	34.817	4.516
200	20.008	34.820	4.388
250	18.403	34.789	4.418
300	16.953	34.737	4.424
350	15.348	34.646	4.395
400	13.089	34.500	4.110
450	11.374	34.416	3.701
500	10.014	34.372	3.372
550	8.624	34.320	3.065
600	7.405	34.281	2.746
650	6.566	34.272	2.446
700	5.985	34.310	2.205
750	5.513	34.341	2.047
800	5.161	34.364	1.931
850	4.930	34.390	1.865
900	4.732	34.401	1.842
950	4.518	34.411	1.786
1000	4.298	34.424	1.742
1050	4.206	34.429	1.723
1100	4.104	34.425	1.673
1150	4.041	34.430	1.658
1200	3.982	34.440	1.658
1300	3.922	34.446	1.661
1400	3.849	34.447	1.609
1500	3.834	34.452	1.638
1500	3.834	34.452	1.638

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
1	26.930	34.708	4.543
5	26.927	34.707	4.546
10	26.922	34.707	4.528
20	26.913	34.707	4.518
30	26.907	34.708	4.516
50	26.734	34.767	4.517
75	25.340	34.788	4.507
100	24.860	34.817	4.497
125	23.739	34.809	4.438
150	21.702	34.845	4.318
200	20.259	34.825	4.276
250	18.693	34.779	4.256
300	17.109	34.702	4.140
350	13.641	34.550	3.768
400	11.452	34.439	0.932
450	9.956	34.375	19.656
500	8.405	34.264	3.373
550	7.652	34.322	2.823
600	6.739	34.315	2.532
650	6.023	34.301	2.254
700	5.727	34.330	2.122
750	5.560	34.380	2.083
800	5.211	34.387	1.971
850	4.977	34.400	1.907
900	4.791	34.409	1.850
950	4.578	34.416	1.816
1000	4.323	34.430	1.778
1002	4.320	34.430	1.780

Station: L3  
 Latitude:27-16.02N  
 Longitude:126-00.00E  
 DEPTH:382m  
 Date:2002/05/20 TIME:11:55

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
2	27.035	34.709	4.451
5	27.021	34.709	4.457
10	27.000	34.708	4.458
20	26.983	34.707	4.453
30	26.979	34.707	4.472
50	26.747	34.667	4.481
75	25.418	34.707	4.547
100	24.354	34.808	4.443
125	23.364	34.816	4.382
150	22.079	34.743	4.238
200	19.368	34.793	4.190
250	17.640	34.689	3.914
300	13.911	34.555	3.838
330	11.936	34.423	1.699

Station: L4  
 Latitude:27-22.00N  
 Longitude:125-45.16E  
 DEPTH:131m  
 Date:2002/05/20 TIME:13:30

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
2	26.649	34.601	4.484
5	26.625	34.598	4.492
10	26.602	34.594	4.486
20	26.545	34.664	4.499
30	26.280	34.665	4.527
50	25.314	34.735	4.499
75	23.853	34.821	4.361
100	20.959	34.852	4.181
111	20.746	34.818	4.200

Station: L5  
 Latitude:27-28.07N  
 Longitude:125-30.06E  
 DEPTH:115m  
 Date:2002/05/20 TIME:14:45

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
1	26.693	34.660	4.467
5	26.709	34.663	4.470
10	26.711	34.665	4.478
20	26.666	34.661	4.479
30	26.224	34.697	4.544
50	24.361	34.769	4.493
75	23.039	34.820	4.281
100	20.487	34.777	4.151
101	20.484	34.775	4.166

Station: L6  
 Latitude:27-34.08N  
 Longitude:125-15.14E  
 DEPTH:108m  
 Date:2002/05/20 TIME:16:05

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
4	25.731	34.589	4.560
5	25.721	34.588	4.548
10	25.772	34.589	4.553
20	25.391	34.589	4.591
30	25.283	34.573	4.607
50	22.668	34.577	4.859
75	20.808	34.691	4.365
91	19.198	34.721	3.757

Station: L7  
 Latitude:27-40.04N  
 Longitude:125-00.07E  
 DEPTH:100m  
 Date:2002/05/20 TIME:17:30

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
1	24.126	34.571	4.803
5	24.139	34.570	4.794
10	24.138	34.571	4.793
20	24.043	34.566	4.806
30	22.454	34.618	5.096
50	20.418	34.617	4.582
75	18.140	34.676	3.727
81	18.116	34.672	3.751

Station: M5  
 Latitude:27-03.96N  
 Longitude:125-11.97E  
 DEPTH:119m  
 Date:2002/05/20 TIME:22:55

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
1	26.410	34.659	4.469
5	26.411	34.659	4.468
10	26.405	34.659	4.477
20	26.384	34.660	4.473
30	25.449	34.730	4.606
50	24.004	34.756	4.457
75	21.978	34.800	4.224
100	19.424	34.760	4.113
101	19.423	34.760	4.129

Station: M6  
 Latitude:27-10.04N  
 Longitude:124-57.02E  
 DEPTH:106m  
 Date:2002/05/20 TIME:21:15

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
1	26.176	34.677	4.501
5	26.176	34.678	4.497
10	26.178	34.678	4.508
20	26.172	34.676	4.513
30	26.127	34.675	4.522
50	23.258	34.732	4.360
75	21.255	34.807	4.163
92	19.407	34.730	3.985

Station: M7  
 Latitude:27-16.01N  
 Longitude:124-42.23E  
 DEPTH:100m  
 Date:2002/05/20 TIME:19:53

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
1	25.269	34.430	4.614
5	25.272	34.434	4.626
10	25.273	34.436	4.630
20	25.123	34.549	4.648
30	23.164	34.617	4.860
50	22.218	34.582	4.665
75	18.209	34.682	3.678
81	18.182	34.675	3.680

Station: M1'  
 Latitude:26-40.25N  
 Longitude:126-11.90E  
 DEPTH:1861m  
 Date:2002/05/21 TIME:06:10

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
1	26.845	34.692	4.429
5	26.860	34.695	4.407
10	26.851	34.692	4.393
20	26.919	34.718	4.404
30	26.636	34.778	4.479
50	26.074	34.818	4.507
75	25.247	34.859	4.514
100	24.111	34.877	4.459
125	22.761	34.835	4.454
150	21.977	34.830	4.393
200	19.498	34.816	4.272
250	17.907	34.765	4.271
300	16.561	34.706	4.338
350	15.025	34.614	4.253
400	13.035	34.497	4.075
450	11.685	34.435	3.668
500	10.105	34.389	3.295
550	8.645	34.358	2.946
600	7.408	34.320	2.697
650	6.386	34.270	2.392
700	5.927	34.302	2.180
750	5.611	34.337	2.065
800	5.310	34.370	1.992
850	5.056	34.394	1.941
900	4.791	34.412	1.870
950	4.573	34.408	1.797
1000	4.439</td		

Station: M2'  
 Latitude:26-46.17N  
 Longitude:125-56.71E  
 DEPTH:1595M  
 Date:2002/05/21 TIME:03:50

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	25.947	34.469	4.463
5	25.959	34.473	4.447
10	25.515	34.468	4.519
20	24.967	34.436	4.651
30	24.443	34.384	4.705
50	23.232	34.591	4.564
75	22.228	34.788	4.269
100	21.653	34.805	4.228
125	21.167	34.790	4.209
150	20.121	34.725	4.152
200	17.785	34.757	4.223
250	16.392	34.689	4.271
300	15.070	34.619	4.281
350	12.739	34.474	3.996
400	11.048	34.409	3.582
450	9.426	34.358	3.210
500	7.766	34.245	2.910
550	7.280	34.350	2.592
600	6.736	34.348	2.395
650	6.487	34.354	2.318
700	6.089	34.361	2.186
750	5.718	34.371	2.084
800	5.237	34.390	1.969
850	4.961	34.400	1.899
900	4.644	34.416	1.854
950	4.454	34.426	1.807
1000	4.337	34.432	1.759
1050	4.207	34.431	1.723
1100	4.162	34.433	1.711
1150	4.122	34.443	1.735
1200	4.060	34.449	1.736
1300	4.004	34.453	1.726
1400	3.961	34.457	1.689
1500	3.918	34.460	1.711
1502	3.917	34.460	1.711

Station: M3'  
 Latitude:26-52.11N  
 Longitude:125-41.89E  
 DEPTH:650m  
 Date:2002/05/21 TIME:02:05

Press [dBar]	Temp [°C]	Sal [PSU]	Oxy [ml/L]
3	24.924	34.415	4.692
5	24.922	34.414	4.704
10	24.922	34.414	4.706
20	24.794	34.477	4.734
30	24.000	34.524	4.896
50	22.666	34.540	4.756
75	20.810	34.740	4.184
100	20.423	34.821	4.249
125	19.071	34.727	4.130
150	18.802	34.689	4.095
200	17.206	34.679	3.997
250	13.908	34.562	3.804
300	12.215	34.470	3.649
350	10.490	34.334	3.757
400	9.255	34.283	3.384
450	8.825	34.353	3.010
500	8.143	34.357	2.819
550	7.127	34.351	2.507
552	7.123	34.349	2.494