

海洋調査要報

第10号

(水温 塩分編)

DATA RECORD OF OCEANOGRAPHIC OBSERVATIONS

No.10

APRIL 1994 - MARCH 1995

北海道立水産試験場

平成16年3月

HOKKAIDO FISHERIES EXPERIMENTAL STATION

March 2004

# はじめに

北海道立水産試験場による海洋観測結果の生データの印刷公表は昭和9年以降途絶えていましたが、昭和39年度より漁海況予報事業が発足してからは、その関係分は結果報告書に載るようになりました。その後、昭和51年度から中央水産試験場では石狩湾海域生態調査報告書に石狩湾付近の海洋観測結果を掲載するようになり、釧路水産試験場では昭和52年度から、稚内水産試験場では昭和58年度からそれぞれの事業報告書に当該年の全データを掲載公表してきました。このようにいくつかの報告書に掲載されていたデータについて、昭和60年度からは利用の便を図るため、5水産試験場及び1支場の海洋観測結果をまとめて「海洋調査要報」として印刷公表し、各方面の参考に供することになりました。また、今回の平成6年度版(1994年度)の各層水温・塩分データについては、電子ファイルによる配布を準備しています。ホームページをご覧頂るかまたはE-mailにてお問い合わせください。

URL <http://www.fishexp.pref.hokkaido.jp/exp/central/kaiyou/index.htm>

E-mail: [ckaiyou@fishexp.pref.hokkaido.jp](mailto:ckaiyou@fishexp.pref.hokkaido.jp)

本要報は平成6年度の各水産試験場における観測結果をまとめたものです。掲載した海洋観測結果を引用する場合には本要報によった旨を明記することをお願いいたします。また、データの品質管理には、(財)日本水路協会 海洋情報研究センターの海洋観測データ品質管理ソフト(POD-QC)を利用しました。

It is requested that due credit be given if data from this "DATA RECORD" are quoted, or if information taken herefrom is incorporated in other papers.

平成16年3月 March 2004

なお、このpdf版では、印刷配布した調査要報と若干レイアウトが異なっております。

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Table 1. Summary of oceanographic observations conducted by Hokkaido Fisheries Experimental Station from April 1994 to March 1995.

Period	Area code	Station	Num. of OBS	Research staff on board	Equipment	Pages
Oyashio-Maru Hokkaido Central Fisheries Experimental Station						
1994/4/11 - 1994/4/12	WHJS	199404J31 - 199404J39	9	K.Hirano A.Nakata	SBE 9/11 726/1054	Table 3-1
1994/4/19 - 1994/4/21	NHJS	199404J27 - 199404J11	24	H.Yagi	SBE 9/11 726/1054	Table 3-1
1994/4/22 - 1994/4/23	NHSO	199404OS04 - 199404OA12	22	M.Mitsubishi S.Yokoyama	SBE 9/11 726/1054	Table 3-4
1994/5/10 - 1994/5/11	IBJS	199405CIS109 - 199405CIS108	24	Y.Watanabe A.Fujioka	SBE 9/11 726/1054	Table 3-6
1994/5/18 - 1994/5/19	WHJS	199405CE01 - 199405CE05	5	K.Maeda	SBE 9/11 726/1054	Table 3-8
1994/5/23 - 1994/5/24	WHJS	199405CM118 - 199405CM131	33	H.Sasaki	SBE 9/11 726/1054	Table 3-9
1994/5/30 - 1994/6/2	WHJS	199406J31 - 199406J51	39	H.Yagi A.Nakata	SBE 9/11 726/1054	Table 3-12
1994/6/8 - 1994/6/14	WHJS	199406CSR01 - 199406CSR22	20	J.Nakata	SBE 9/11 726/1054	Table 3-16
1994/6/21 - 1994/6/21	WHJS	199406CT101 - 199406CT125	25	H.Yoshida	SBE 9/11 726/1054	Table 3-18
1994/6/27 - 1994/6/28	WHJS	199406JS41 - 199406JS47	7	M.Furumaki	SBE 9/11 726/1054	Table 3-21
1994/7/4 - 1994/7/5	IBJS	199407CIS301 - 199407CIS304	24	A.Fujioka	SBE 9/11 726/1054	Table 3-21
1994/7/11 - 1994/7/19	WHJS	199407CIM101 - 199407CIM116	11	J.Nakata	SBE 9/11 726/1054	Table 3-24
1994/7/26 - 1994/7/26	IBJS	199407CIS01 - 199407CIS03	3	M.Koike	SBE 9/11 726/1054	Table 3-25
1994/8/1 - 1994/8/4	WHJS	199408J31 - 199408JC11	32	I.Tanaka K.Hirano	SBE 9/11 726/1054	Table 3-25
1994/8/29 - 1994/8/31	IBJS	199408CE03 - 199408CE08	4	K.Maeda	SBE 9/11 726/1054	Table 3-28
1994/9/5 - 1994/9/6	WHJS	199409CT102 - 199409CT122	25	H.Sasaki T.Tamate	SBE 9/11 726/1054	Table 3-29
1994/9/21 - 1994/9/27	WHJS	199409CS15 - 199409CS16	6	M.Furumaki	SBE 9/11 726/1054	Table 3-31
1994/10/3 - 1994/10/5	WHJS	199410J31 - 199410JC11	19	T.Ootsuki A.Nakata	SBE 9/11 726/1054	Table 3-32
1994/10/11 - 1994/10/19	WHJS	199410CW011 - 199410CW10	26	H.Yoshida T.Tamate	SBE 9/11 726/1054	Table 3-34
1994/10/25 - 1994/10/27	WHJS	199410CSM01 - 199410CSM12	12	J.Nakata	SBE 9/11 726/1054	Table 3-36
1994/11/1 - 1994/11/1	WHJS	199411J42 - 199411J41	2	M.Furumaki	SBE 9/11 726/1054	Table 3-38
1994/11/9 - 1994/11/9	IBJS	199411CE01 -	1	J.Nakata	SBE 9/11 726/1054	Table 3-38
1994/11/15 - 1994/11/17	WHJS	199411CW01 - 199411CW28	37	H.Yoshida	SBE 9/11 726/1054	Table 3-38
1994/12/7 - 1994/12/11	WHJS	199412J31 - 199412J51	25	T.Watanabe A.Nakata	SBE 9/11 726/1054	Table 3-42
1995/2/3 - 1995/2/6	WHJS	199502J63 - 199502J31	29	I.Tanaka K.Hirano	SBE 9/11 726/1054	Table 3-44
1995/2/27 - 1995/3/1	IBJS	199502CE01 - 199502CE04	4	K.Maeda	SBE 9/11 726/1054	Table 3-47
1995/3/6 - 1995/3/7	IBJS	199503SR1E - 199503SR0E	16	A.Fujioka	SBE 9/11 726/1054	Table 3-47
1995/3/14 - 1995/3/14	WHJS	199503J47 - 199503J41	7	H.Yagi A.Nakata	SBE 9/11 726/1054	Table 3-49
Kinsei-Maru Hokkaido Hakodate Fisheries Experimental Station						
1994/4/14 - 1994/4/15	SHFB	199404P64 - 199404P65	12	M.Natsume K.Kanomata	Niel Brown Mark III	Table 4-1
1994/4/19 - 1994/4/20	SHFB	199404HKD10 - 199404HKD23	14	H.Shimada	Niel Brown Mark III	Table 4-2
1994/5/10 - 1994/5/11	SHFB	199405HKG15 - 199405HKG05	33	T.Yorita	Niel Brown Mark III	Table 4-3

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Table 1. Summary of oceanographic observations conducted by Hokkaido Fisheries Experimental Station from April 1994 to March 1995.

								continued from previous page	
1994/5/23 -	1994/5/25	SHFB	199406P64 -	199406HTP21	35	H.Shimada	Niel Brown Mark III	Table 4-6	
1994/5/31 -	1994/5/31	SHFB	199406HKG11 -	199406HKG30	20	T.Yorita	Niel Brown Mark III	Table 4-10	
1994/6/6 -	1994/6/7	SHFB	199406HKH11 -	199406HKH29	19	T.Yorita	Niel Brown Mark III	Table 4-12	
1994/6/9 -	1994/6/16	SHFB	199406HSR11 -	199406HSR27	17	I.Kanomata	Niel Brown Mark III	Table 4-14	
1994/6/28 -	1994/6/29	SHFB	199406HKD11 -	199406HKD37	27	H.Shimada	Niel Brown Mark III	Table 4-16	
1994/7/11 -	1994/7/14	SHFB	199407HSR11 -	199407HSR25	15	M.Natsume	Niel Brown Mark III	Table 4-18	
1994/7/18 -	1994/7/20	TGJS	199407HSR26 -	199407HSR27	2	M.Natsume	Niel Brown Mark III	Table 4-20	
1994/7/26 -	1994/7/28	SHFB	199408P64 -	199407HKD29	31	I.Kanomata H.Shimada	Niel Brown Mark III	Table 4-20	
1994/8/1 -	1994/8/1	TG	199408HSR01 -	199408HSR01	1	M.Natsume	Niel Brown Mark III	Table 4-23	
1994/8/23 -	1994/8/24	SHFB	199408HKG020 -	199408HKG034	34	Y.Nishida	SBE 9/11	Table 4-23	
1994/8/29 -	1994/9/1	SHFB	199408HSR001 -	199408HSR015	16	I.Kanomata	SBE 9/11	Table 4-27	
1994/10/6 -	1994/10/6	SHFB	199410P66 -	199410P61	6	I.Kanomata	SBE 9/11	Table 4-28	
1994/10/17 -	1994/10/17	TG	199410HSR001 -	199410HSR001	1	I.Kanomata	SBE 9/11	Table 4-29	
1994/10/24 -	1994/10/26	SHFB	199410HW001 -	199410HW012	12	M.Natsume	SBE 9/11	Table 4-29	
1994/11/15 -	1994/11/17	TG	199411HSR001 -	199411HSR002	2	I.Kanomata	SBE 9/11	Table 4-30	
1994/11/29 -	1994/11/29	SHFB	199412P64 -	199412P66	3	I.Kanomata E.Mihara	SBE 9/11	Table 4-30	
1994/12/7 -	1994/12/8	SHFB	199412P56 -	199412P63	8	I.Kanomata	SBE 9/11	Table 4-31	
1995/2/23 -	1995/2/23	SHFB	199502P66 -	199502P61	6	I.Kanomata	SBE 9/11	Table 4-31	
1995/3/14 -	1995/3/15	TG	199503HAD17 -	199503HAD87	21	I.Kanomata	SBE 9/11	Table 4-32	
Hokushin-Maru Hokkaido Kushiro Fisheries Experimental Station									
1994/4/12 -	1994/4/20	SHNP	199404PK11 -	199404PKA11	65	K.Kuratome	Niel Brown Mark III	Table 5-1	
1994/5/10 -	1994/5/13	SHNP	199405P31 -	199405PK11	34	A.Taka	Niel Brown Mark III	Table 5-7	
1994/5/20 -	1994/5/25	SHNP	199405SU27 -	199405SU07	16	K.Kuratome	Niel Brown Mark III	Table 5-10	
1994/5/30 -	1994/6/5	SHNP	199406P31 -	199406PKA10	61	Y.Nakame	Niel Brown Mark III	Table 5-12	
1994/6/14 -	1994/6/23	SHOS	199406IK01 -	199406IK22	22	A.Taka	MSTD	Table 5-18	
1994/6/28 -	1994/7/7	SHNP	199406IW01 -	199406IW26	28	Y.Nakame	Niel Brown Mark III	Table 5-20	
1994/7/15 -	1994/7/25	SKNP	199407SM14 -	199407SM21	19	T.Honma	Niel Brown Mark III	Table 5-23	
1994/8/1 -	1994/8/5	SHNP	199408P31 -	199408PK21	39	A.Taka M.Kotori	Niel Brown Mark III	Table 5-25	
1994/8/23 -	1994/8/31	SHNP	199408IW01 -	199408IW17	17	Y.Nakame	Niel Brown Mark III	Table 5-29	
1994/9/5 -	1994/9/21	SHNP	199409IK01 -	199409IK10	6	A.Taka	Niel Brown Mark III	Table 5-31	
1994/9/27 -	1994/9/28	SHNP	199409SM01 -	199409SM03	3	K.Kuratome	Niel Brown Mark III	Table 5-31	
1994/10/2 -	1994/10/5	SHNP	199410P31 -	199410P36	36	K.Kuratome	Niel Brown Mark III	Table 5-32	
1994/10/11 -	1994/10/20	NSSO	199410IK06 -	199410IK04	8	A.Taka	Niel Brown Mark III	Table 5-35	
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Table 1. Summary of oceanographic observations conducted by Hokkaido Fisheries Experimental Station from April 1994 to March 1995.

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1994/10/25 -	1994/10/30	SHOS	199410SM01 -	199410SM10	10	Y.Nakame	Niel Brown Mark III	Table 5-36	
1994/12/6 -	1994/12/13	SHNP	199412P22 -	199412PK21	38	Y.Nakame	Niel Brown Mark III	Table 5-37	
1995/2/13 -	1995/2/16	SHNP	199502P31 -	199502PK21	38	A.Taka	Niel Brown Mark III	Table 5-41	
Hokuyo-Maru Hokkaido Wakkanai Fisheries Experimental Station									
1994/4/16 -	1994/4/21	WHJS	199404WJR001 -	199404WJR028	28	M.Mizuno T.Suzuuchi	MSTD	Table 6-1	
1994/5/23 -	1994/5/26	SWSO	199405WEB001 -	199405WEB009	9	H.Miyake	MSTD	Table 6-3	
1994/5/30 -	1994/6/1	NHJS	199405J11 -	199406JW14	24	T.Suzuuchi	MSTD	Table 6-4	
1994/6/6 -	1994/6/8	SWSO	199406S4 -	199406O34	45	N.Tanaka	MSTD	Table 6-6	
1994/6/27 -	1994/6/30	NHJS	199406WEB001 -	199406WEB007	7	N.Tanaka M.Mitsuhashi	MSTD	Table 6-11	
1994/7/6 -	1994/7/13	NHJS	199406WEB001 -	199407WEB014	14	N.Tanaka M.Mitsuhashi	MSTD	Table 6-11	
1994/7/25 -	1994/7/27	SWSO	199407WSU001 -	199407WSU007	7	K.Kuratome	MSTD	Table 6-12	
1994/8/1 -	1994/8/3	NHJS	199408J11 -	199408JW01	24	Y.Kunihiro H.Miyake	MSTD	Table 6-13	
1994/8/3 -	1994/8/5	SWSO	199408S4 -	199408O12	39	Y.Kunihiro H.Miyake	MSTD	Table 6-15	
1994/10/3 -	1994/10/5	SWSO	199410S4 -	199410O33	35	T.Suzuuchi M.Torisawa	MSTD	Table 6-19	
1994/10/11 -	1994/10/12	NHJS	199410J11 -	199410JW14	19	M.Watanobe	MSTD	Table 6-23	
1994/12/7 -	1994/12/9	NHJS	199412J11 -	199412JW01	25	M.Mitsuhashi S.Yokoyama	MSTD	Table 6-25	
1994/12/12 -	1994/12/14	SWSO	199412S4 -	199412OA13	39	T.Kaneta	MSTD	Table 6-27	
1995/2/2 -	1995/2/4	NHJS	199502J11 -	199502JW01	23	K.Kuratome	MSTD	Table 6-31	

Table 1-1. Area Code

Code	Area
IBJS	Ishikari Bay, Japan Sea
NHJS	North of Hokkaido, Japan Sea
NSSO	Okhotsk Sea, Nenuro strait
SHFB	South of Hokkaido, Funka Bay
SHNP	South of Hokkaido, North Pacific
SHOS	South of Hokkaido and off Sanriku
SKNP	South of Kuril Island, North Pacific
SWSO	Southwestern Okhotsk Sea
TG	Tsugaru Strait
TGJS	Tsugaru Strait and Japan Sea
WHJS	West of Hokkaido, Japan Sea

Table 2. Principal particulars of research vessels

Vessel	Call sign	Gross tonnage	Main engine	Number of crew	Captain	Affiliated institution
Oyashio Maru	JCMO	178	440 p.s.	20	M. Furumaki	Central Fisheries Experimental Station
Kinsei Maru	7LXI	68	290 p.s.	12	K. Sazaki	Hakodate Fisheries Experimental Station
Hokushin Maru	7LQV	214	440 p.s.	22	Y. Nunokawa	Kushiro Fisheries Experimental Station
Hokuyo Maru	JLSR	276	610 p.s.	25	K. Kuratome	Wakkanai Fisheries Experimental Station

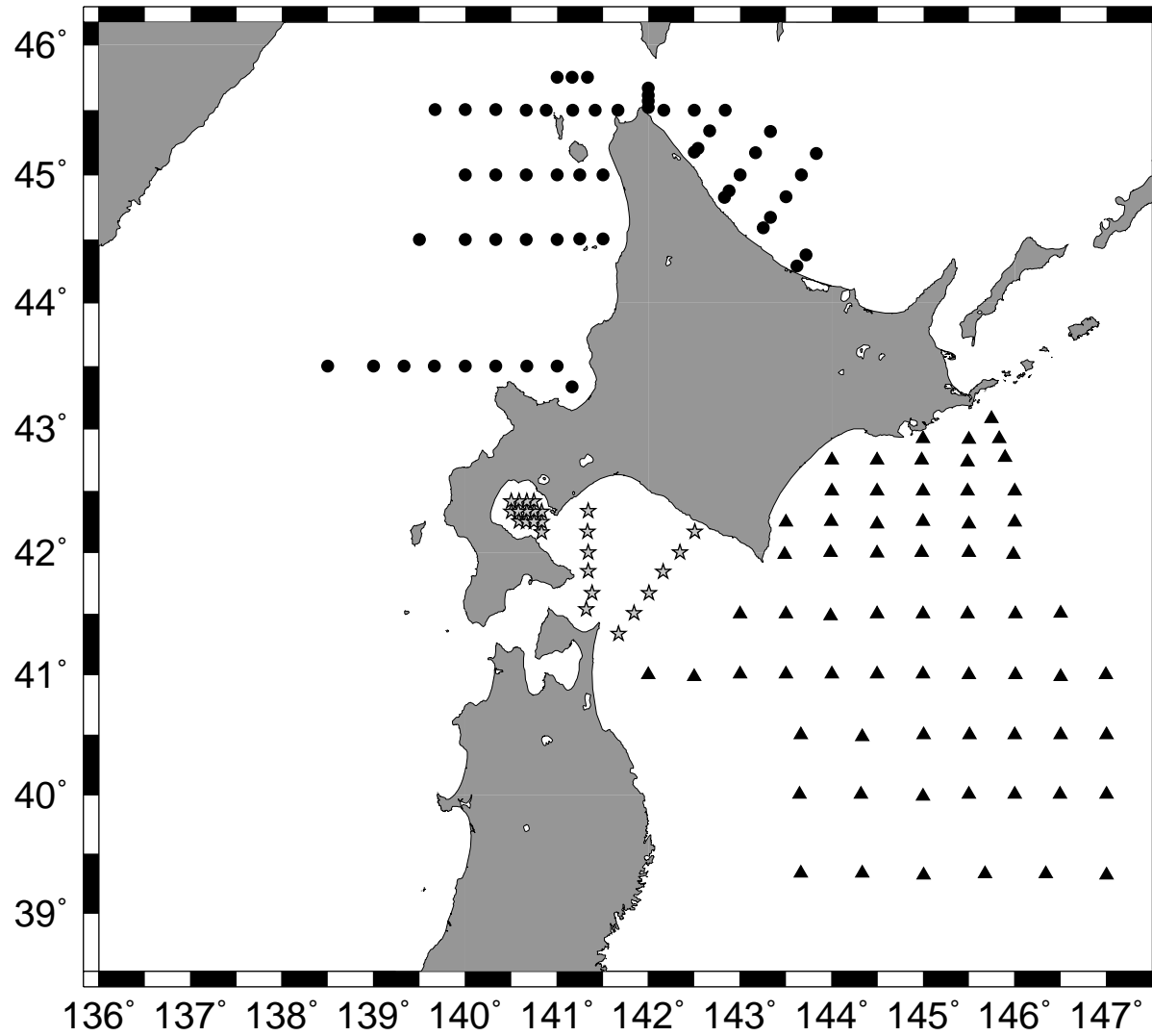


Fig. 1. Location of oceanographic stations covered in April 1994.  
 :Oyasyhio-Maru :Hokuyo-Maru :Hokushin-Maru :Kinsei-Maru



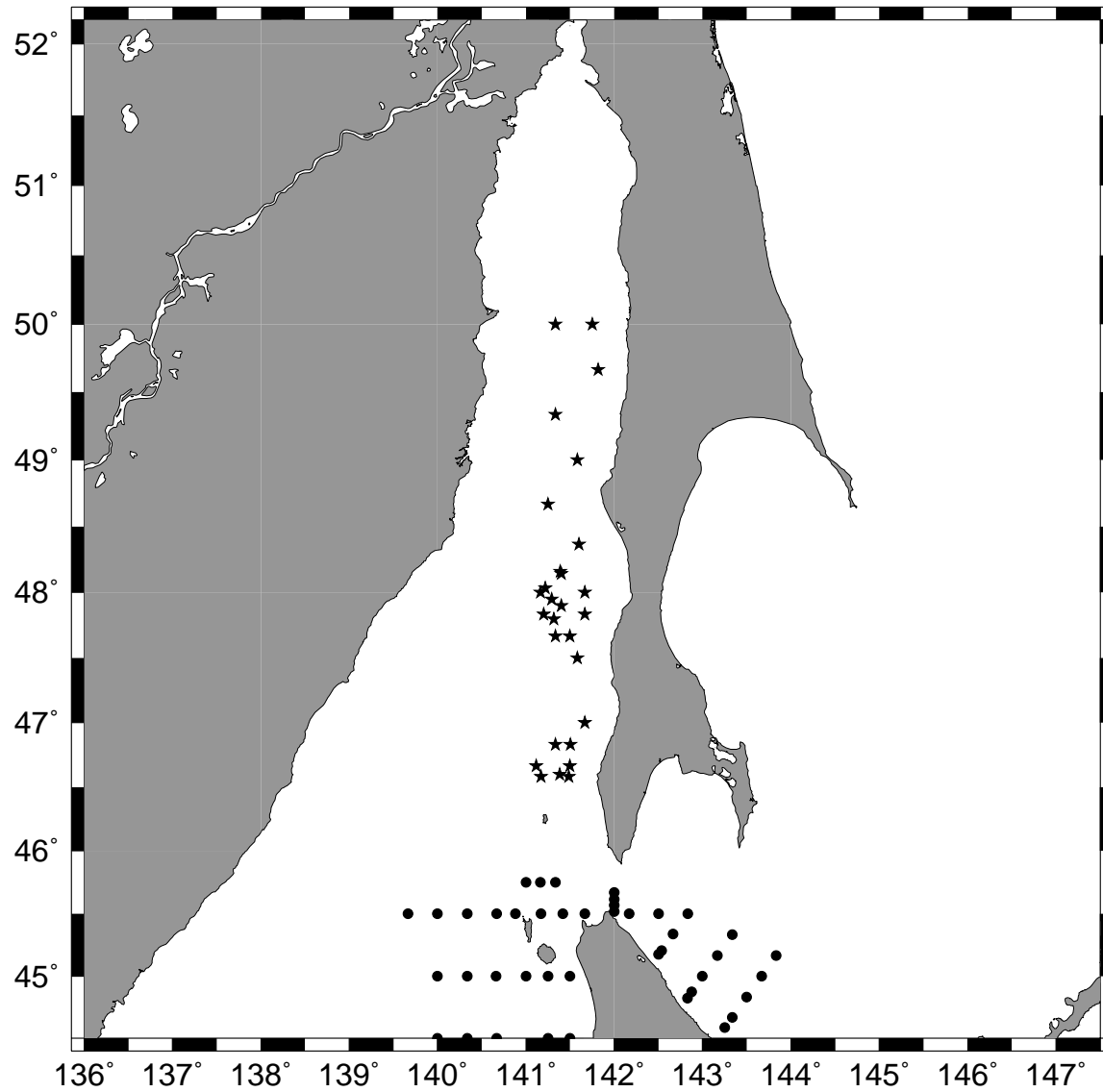


Fig. 1-2. Location of oceanographic stations covered in April 1994.  
 :Oyasyhio-Maru :Hokuyo-Maru :Hokushin-Maru :Kinsei-Maru

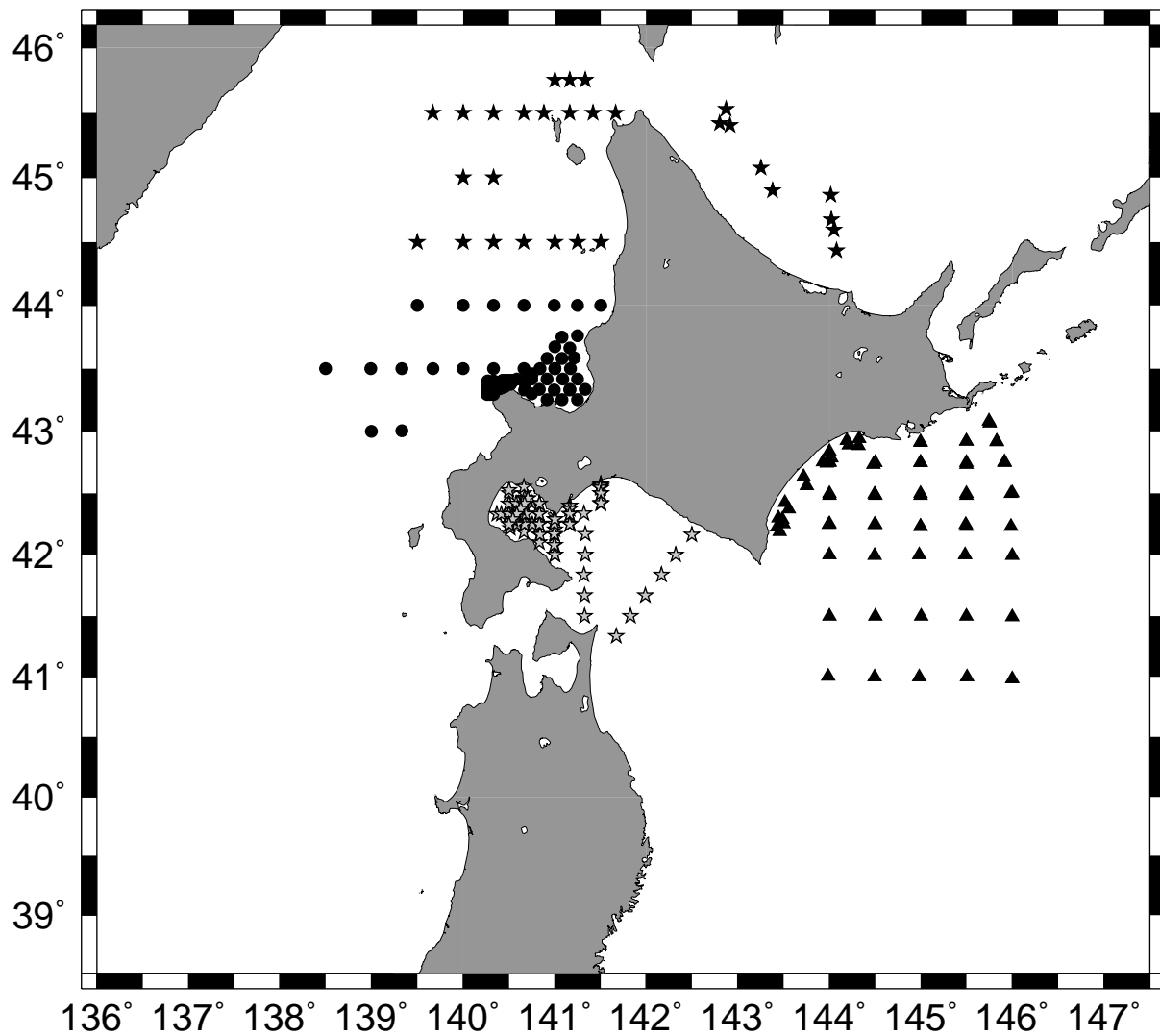


Fig. 2. Location of oceanographic stations covered in May 1994.  
 :Oyasyhio-Maru :Hokuyo-Maru :Hokushin-Maru :Kinsei-Maru

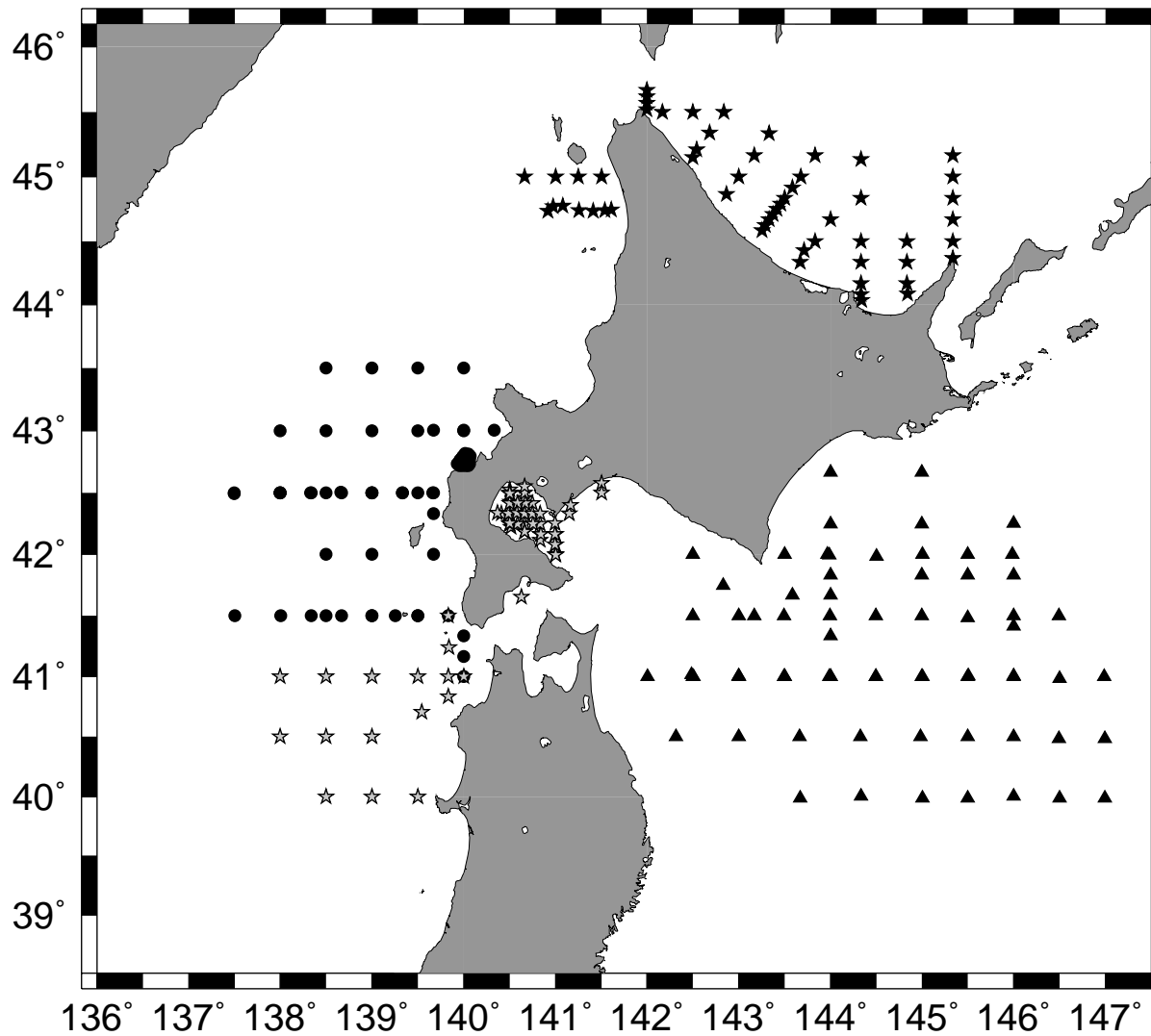


Fig. 3. Location of oceanographic stations covered in June 1994.  
 :Oyasyhio-Maru :Hokuyo-Maru :Hokushin-Maru :Kinsei-Maru

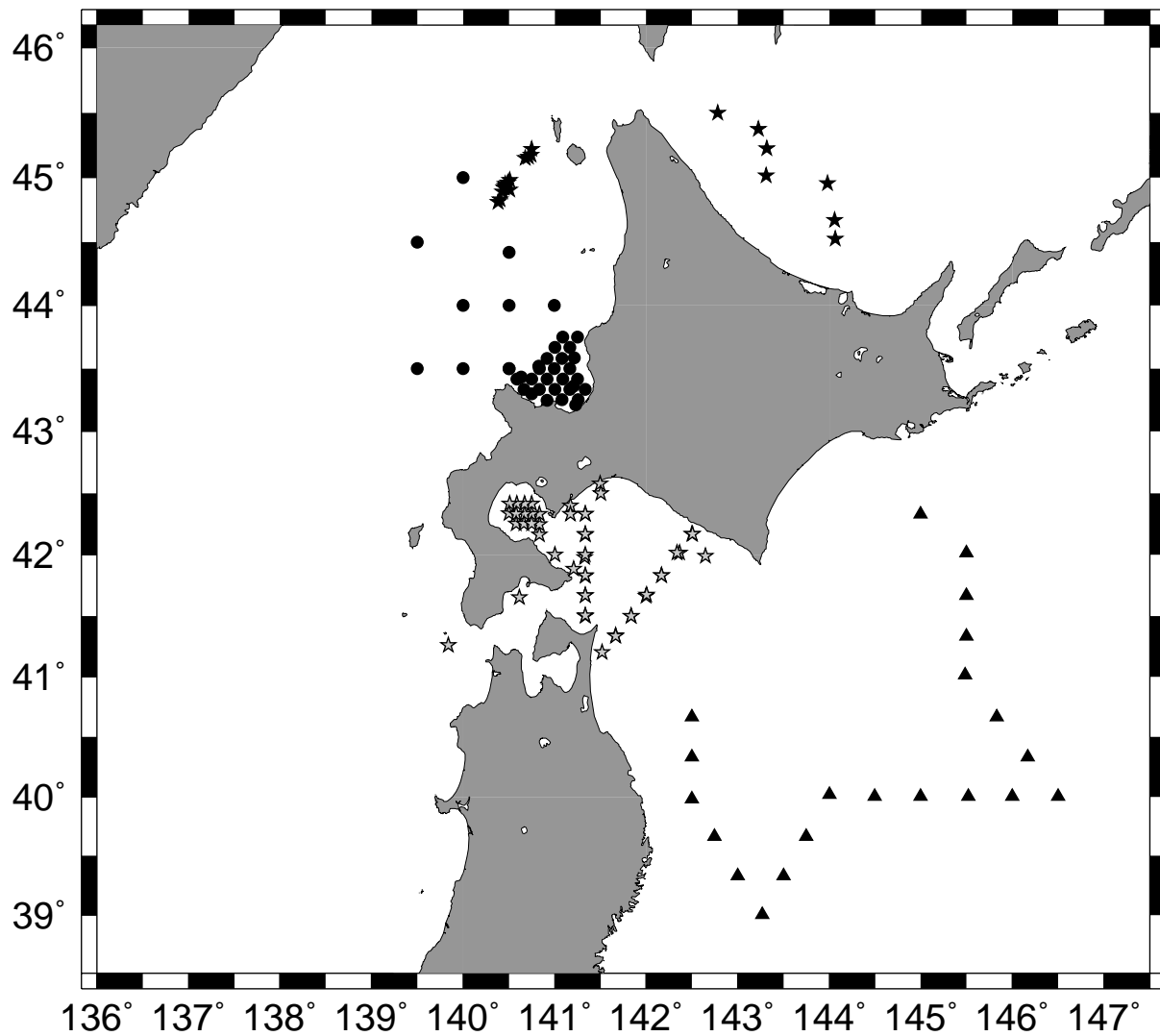


Fig. 4. Location of oceanographic stations covered in July 1994.  
 :Oyasyhio-Maru :Hokuyo-Maru :Hokushin-Maru :Kinsei-Maru

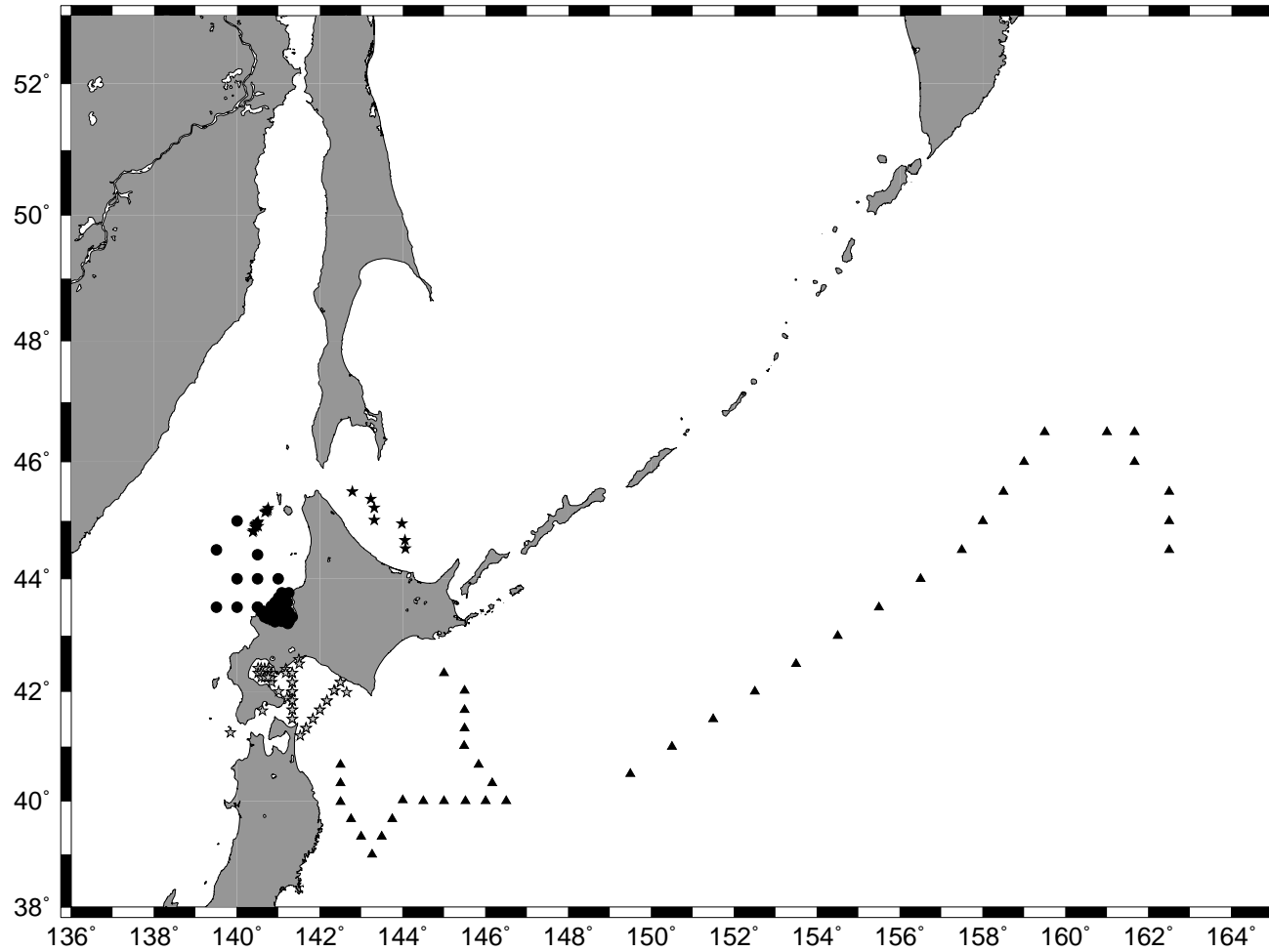


Fig. 4-2. Location of oceanographic stations covered in July 1994.  
 :Oyasyhio-Maru :Hokuyo-Maru :Hokushin-Maru :Kinsei-Maru

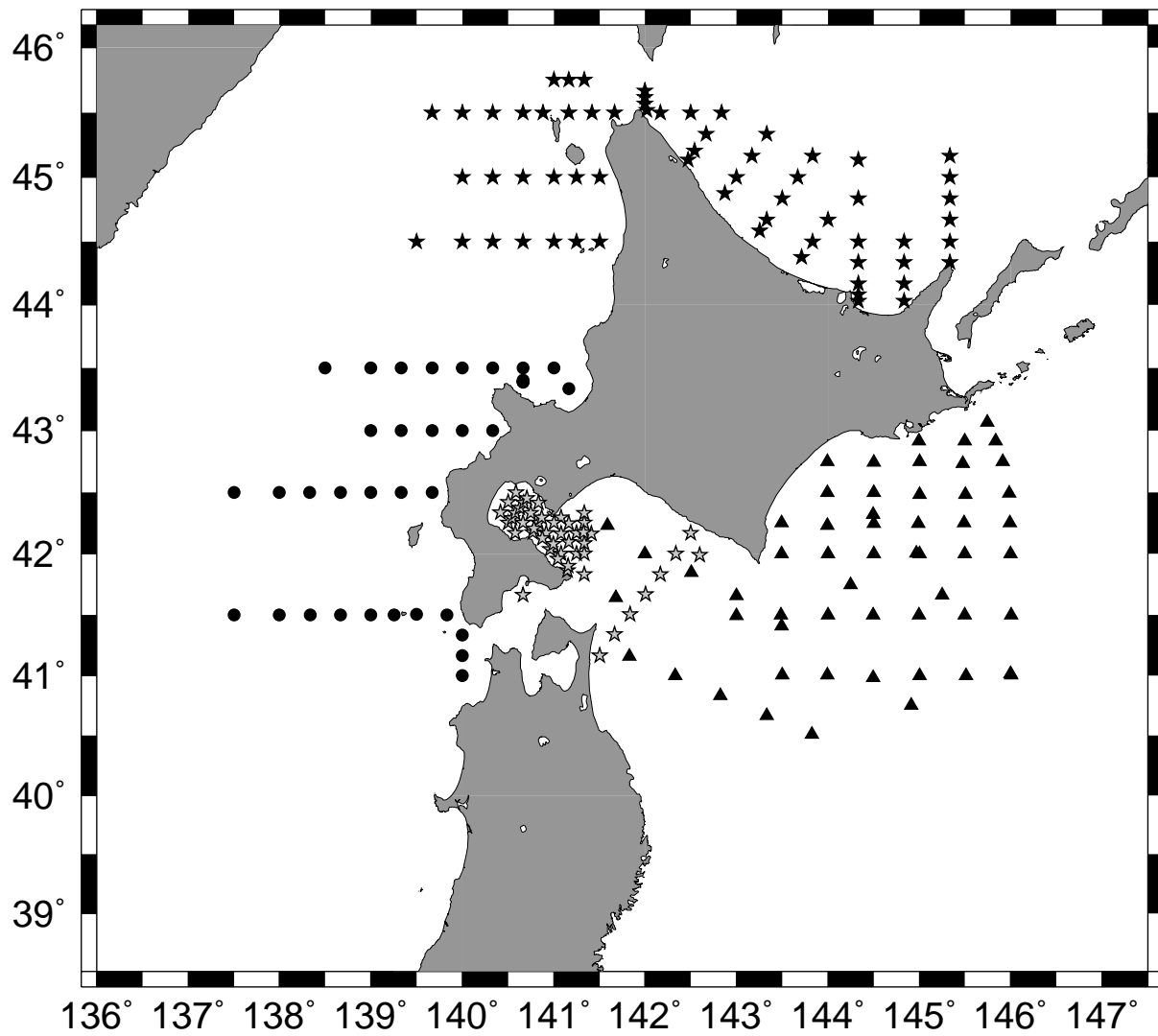


Fig. 5. Location of oceanographic stations covered in August 1994.  
 :Oyasyhio-Maru :Hokuyo-Maru :Hokushin-Maru :Kinsei-Maru

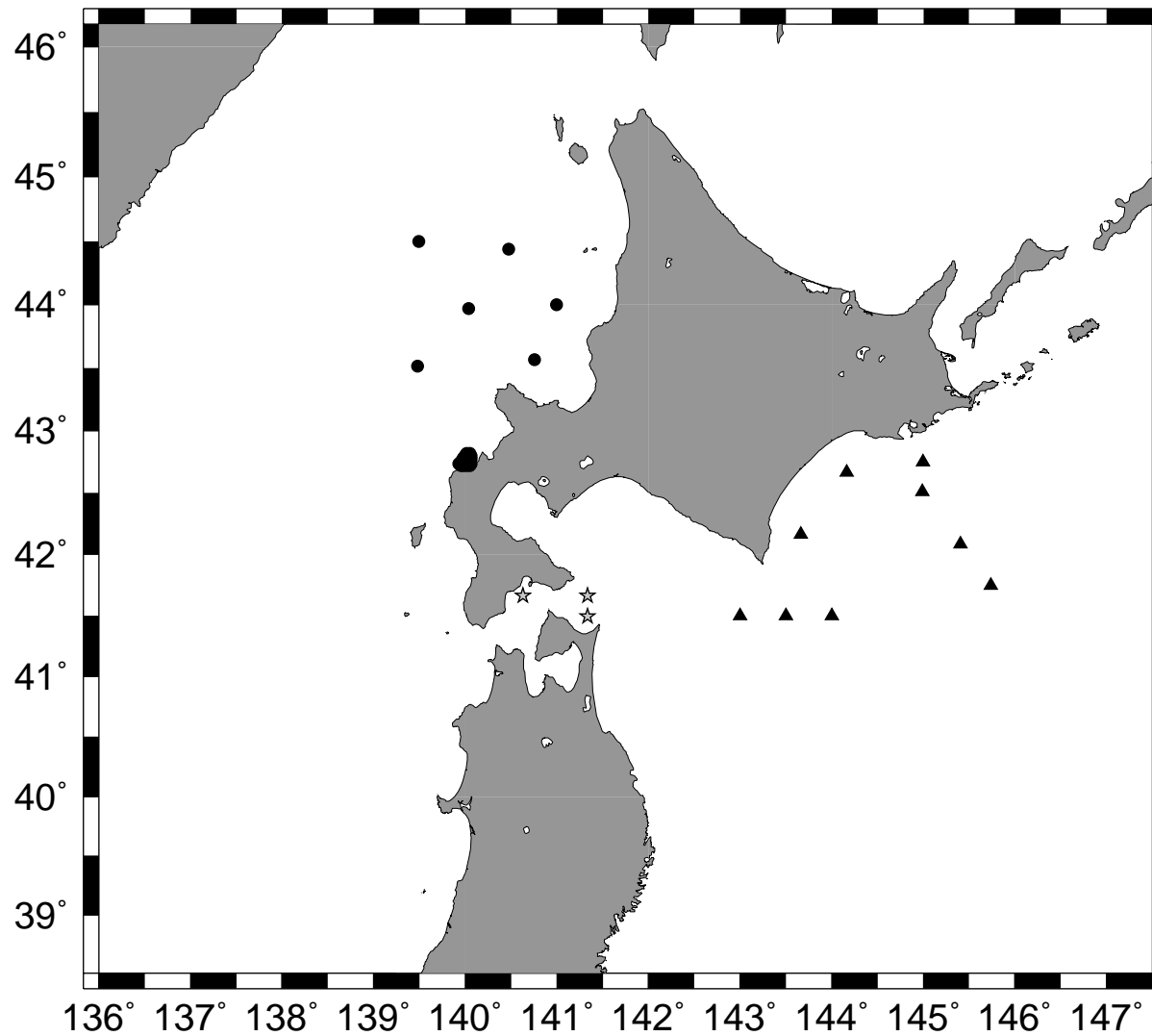


Fig. 6. Location of oceanographic stations covered in September 1994.  
 :Oyasyhio-Maru :Hokuyo-Maru :Hokushin-Maru :Kinsei-Maru

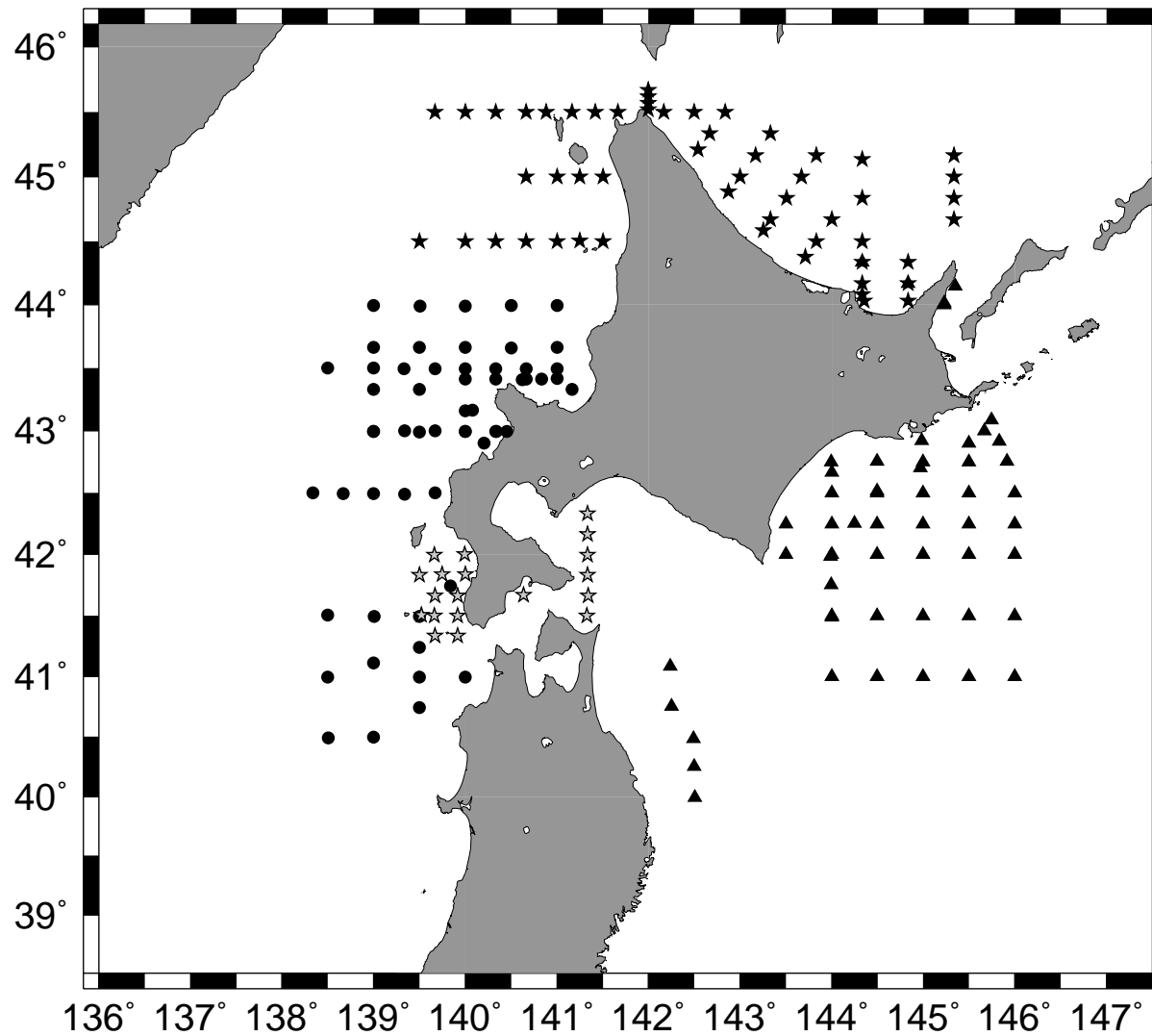


Fig. 7. Location of oceanographic stations covered in October 1994.  
 :Oyasyhio-Maru :Hokuyo-Maru :Hokushin-Maru :Kinsei-Maru



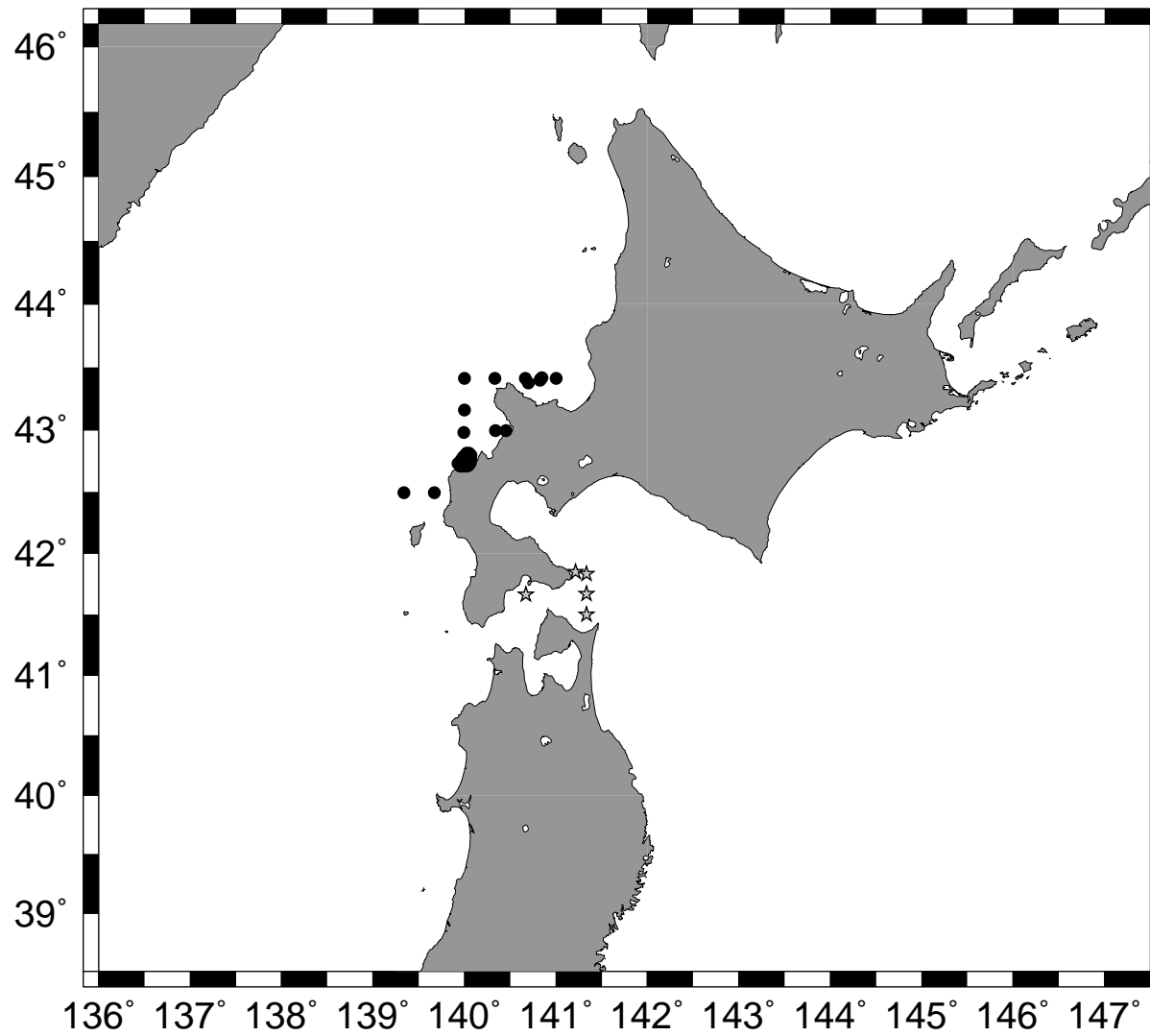


Fig. 8. Location of oceanographic stations covered in November 1994.  
 :Oyasyhio-Maru :Hokuyo-Maru :Hokushin-Maru :Kinsei-Maru

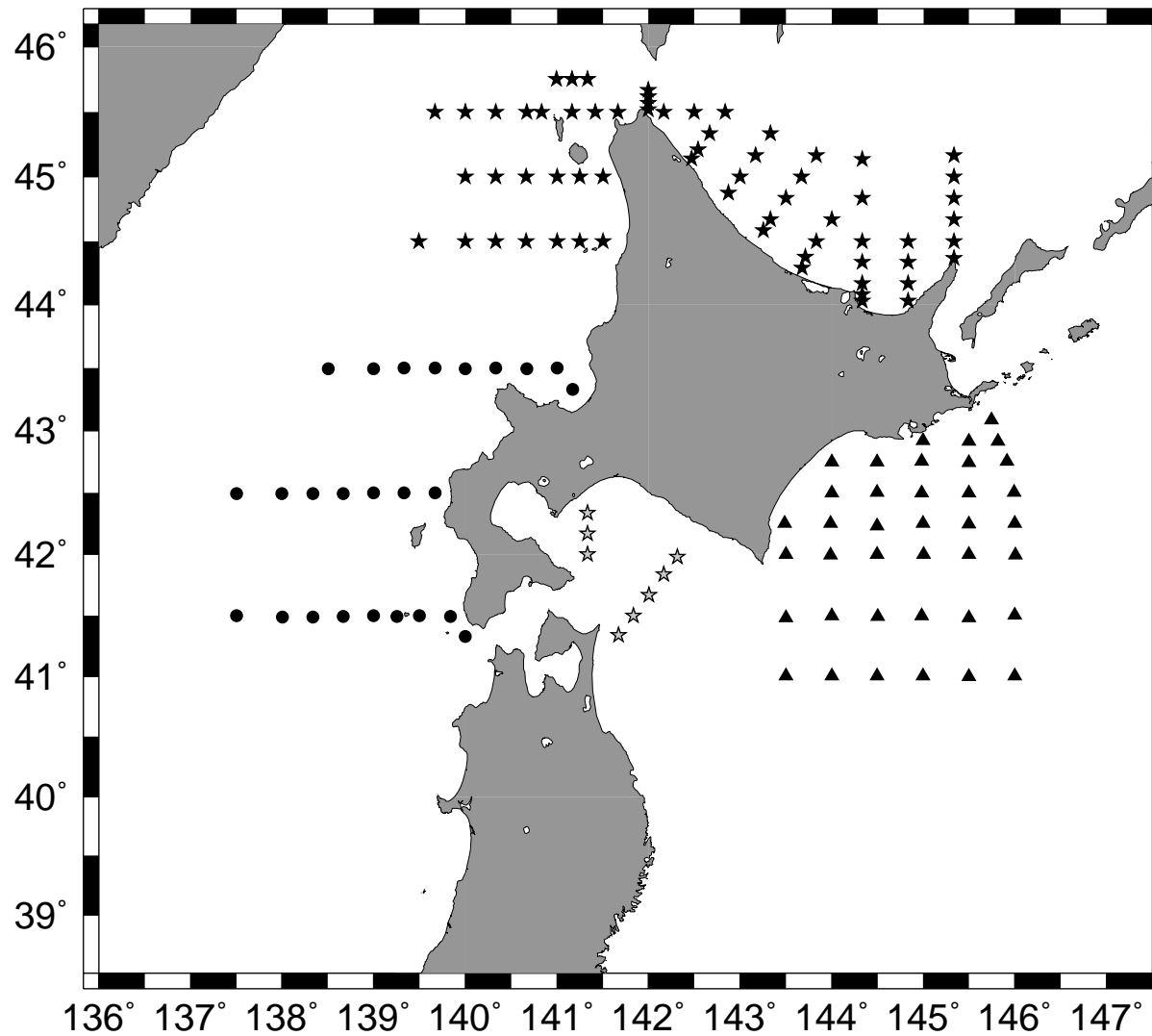


Fig. 9. Location of oceanographic stations covered in December 1994.  
 :Oyasyhio-Maru :Hokuyo-Maru :Hokushin-Maru :Kinsei-Maru

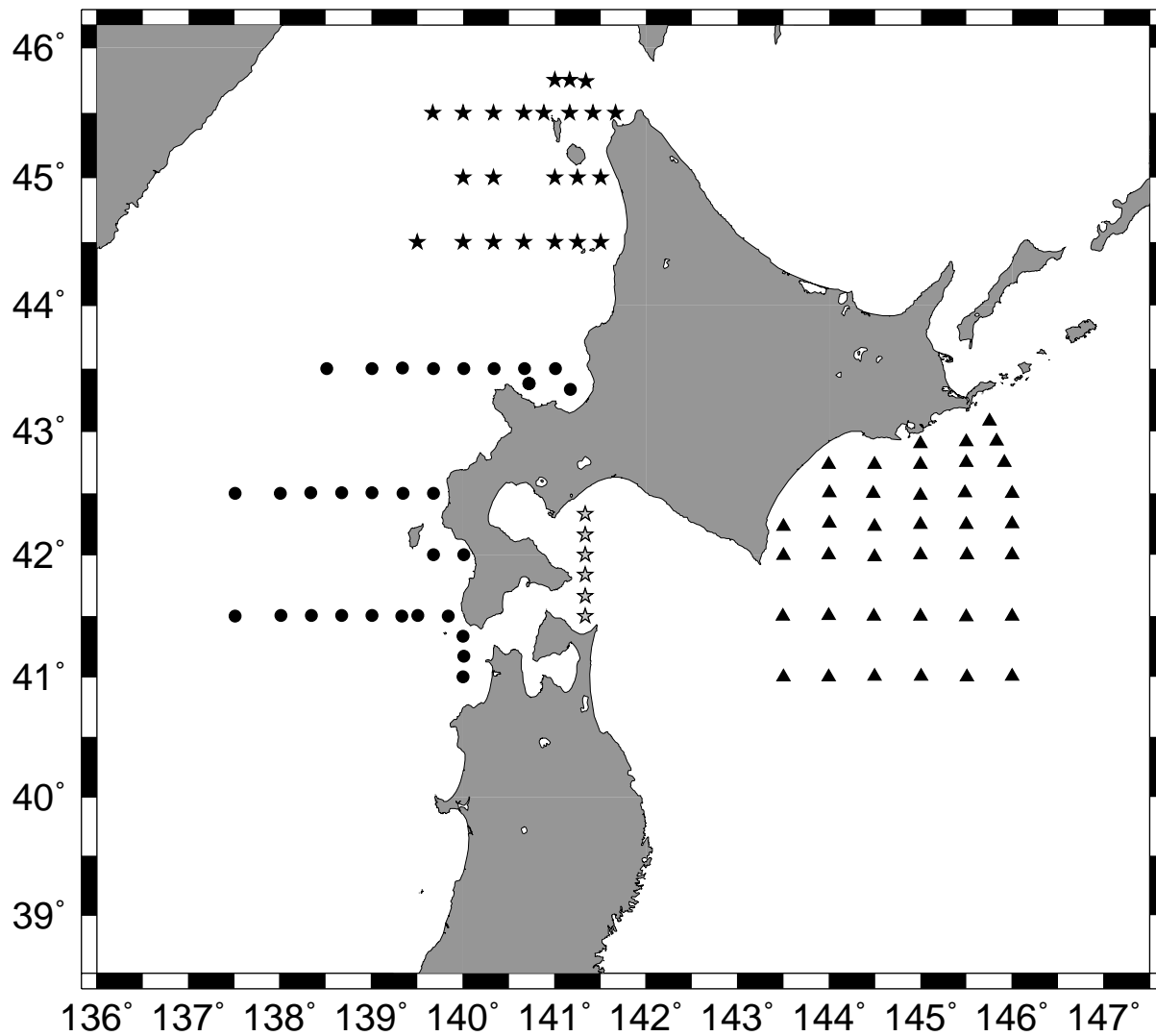


Fig. 10. Location of oceanographic stations covered in February 1995.  
 :Oyasyhio-Maru :Hokuyo-Maru :Hokushin-Maru :Kinsei-Maru

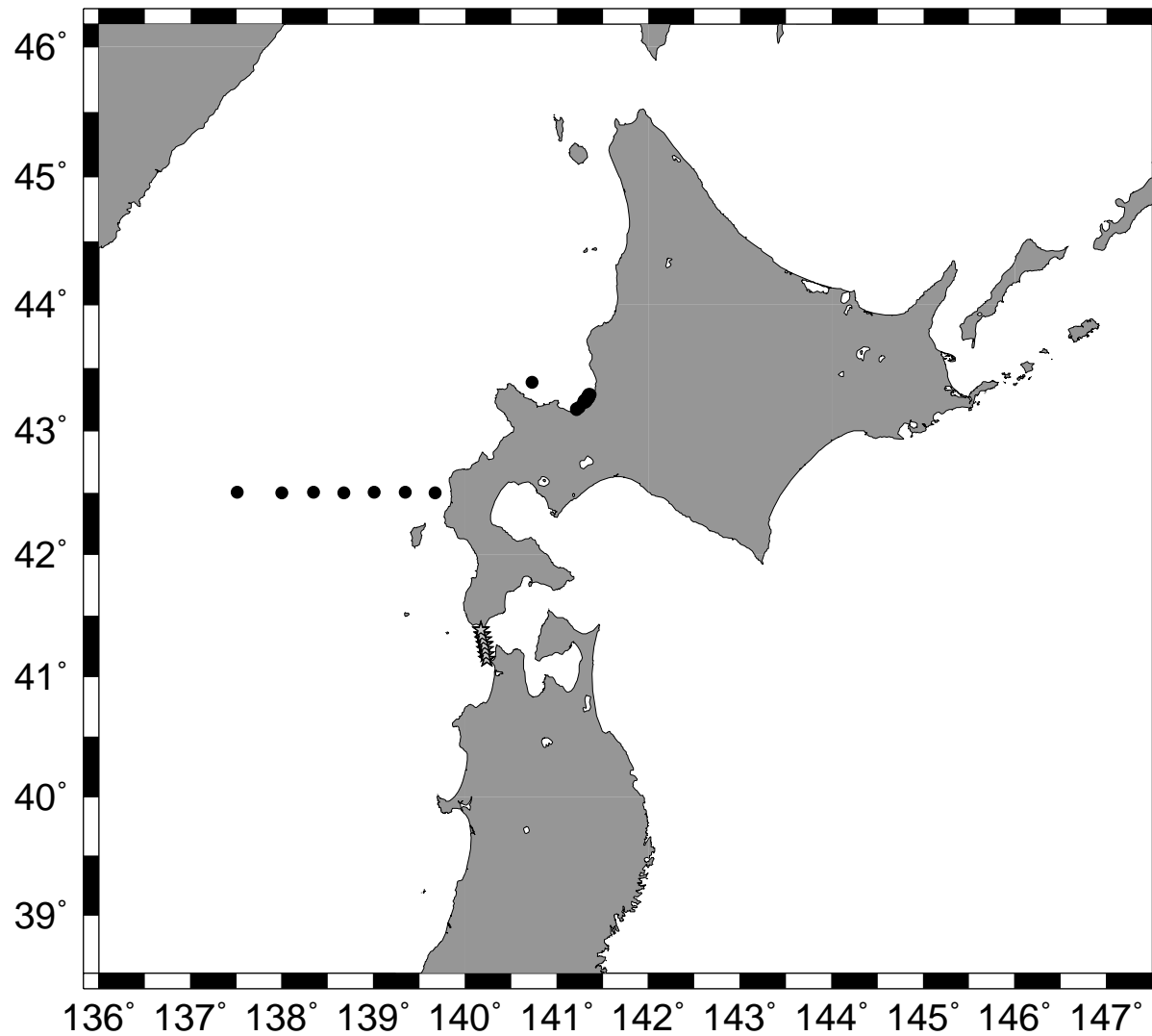


Fig. 11. Location of oceanographic stations covered in March 1995.  
 :Oyasyhio-Maru :Hokuyo-Maru :Hokushin-Maru :Kinsei-Maru

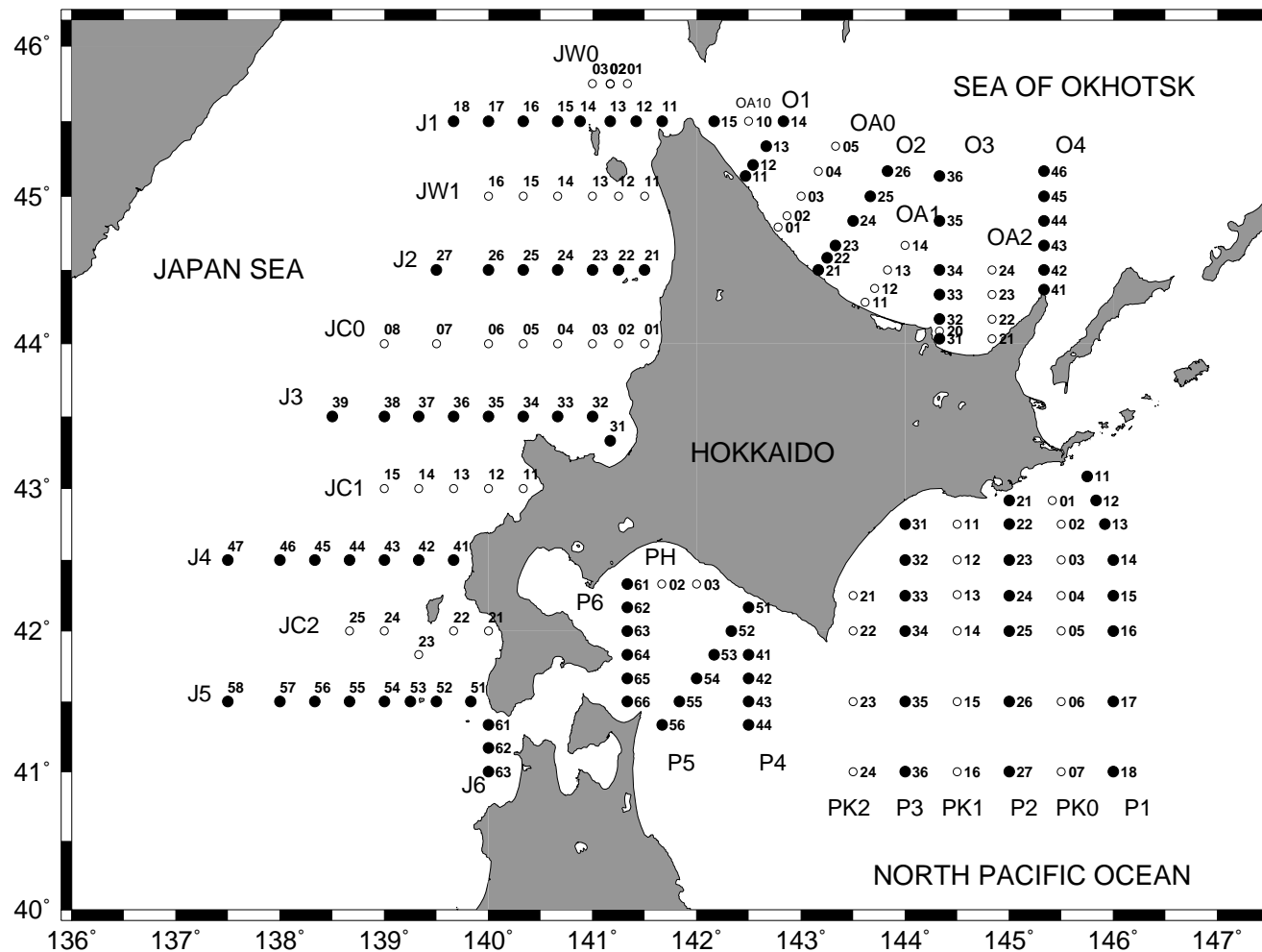


Fig. 12. Periodical observation of environmental research on fishing ground and adjacent waters off Hokkaido. Observed months: April, June, August, October, December and February except for Sea of Okhotsk (April to December only) and P4-Line (June, August and October only). ; Routine station ; Additional station

# PART I

## Summary of Serial Oceanographic Observations

Salinity was determined with Auto-Lab salinometer or CTD systems. Tables 3 to 6 show results of serial oceanographic observations. Abbreviations used are as follows: LATITUDE, north latitude; LONGITUDE, east longitude; WEATHER, WMO code 4501; AIR TEMP, air temperature in °C; BAR, barometric pressure in hectopascal; WIND DIR, wind direction; WIND FORCE (F), wind force in Beaufort scale; WIND SPEED (S), wind speed in m/s; TR, transparency in meters with white Secci disc; COLOR, water color in Forel's scale; DEPTH, water depth in meters measured with an echo-sounder; STND. DEP, standard depth in meters; T, water temperature in °C; S, salinity (PSS-78). Asterisks (\*) at 0m row indicate the value of temperature or salinity with CTD at several meter under the sea surface and N.D. means No Data.

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199404		199404	
Station No	J31		J32		J33		J34		J35		J36		J37		J38		J39		J27	
Latitude:N	43-20.1		43-30.0		43-30.0		43-29.9		43-30.0		43-30.0		43-30.0		43-30.0		43-30.0		44-29.9	
Longitude:E	141-10.0		141- 0.0		140-40.1		140-19.9		140- 0.0		139-39.8		139-20.0		139- 0.0		138-29.9		139-29.8	
Date	1994/04/11		1994/04/11		1994/04/12		1994/04/12		1994/04/12		1994/04/12		1994/04/12		1994/04/12		1994/04/12		1994/04/19	
Time(JST)	10:04		11:34		01:15		03:03		04:50		07:00		08:46		10:27		13:27		05:41	
Weather	C		C		BC		BC		BC		C		C		C		C		C	
Air Temp.	7.3		7.2		6.5		6.7		7.0		7.2		9.1		8.8		7.6		5.1	
Bar	1016.0		1015.7		1015.0		1014.2		1012.2		1010.6		1008.8		1006.3		1001.4		1012.9	
Wind Dir	WSW		SW		SE		SSW		S		SSE		SSE		SSE		SE		WSW	
Wind Spd/F	S 8		S 6		S 6		S 8		S 8		S 6		S 8		S 8		S 6		S 5	
Transparency																			13	
Depth	37		94		690		640		1252		2052		3200		3447		3408		521	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	5.2	32.592	5.5	33.428	6.7	34.073	6.4	33.981	7.2	34.055	5.4	34.066	6.0	34.053	6.1	34.048	4.5	34.088	5.0	34.11*
10m	4.98	32.602	5.34	33.558	6.54	34.008	6.08	33.979	7.09	34.055	5.26	34.063	6.32	34.046	6.47	34.044	4.41	34.082	5.33	34.112
20m	5.32	33.906	5.37	33.678	6.55	34.010	6.08	33.979	7.07	34.055	5.26	34.064	6.31	34.046	6.47	34.044	4.41	34.084	5.33	34.111
30m	5.16	34.022	5.35	33.964	6.55	34.011	6.08	33.979	6.97	34.058	5.20	34.061	6.31	34.047	6.43	34.044	4.40	34.084	5.33	34.112
50m			5.21	34.050	6.54	34.008	5.90	34.025	6.18	34.048	5.08	34.070	6.31	34.047	6.02	34.054	4.34	34.081	5.13	34.123
75m			5.05	34.068	6.11	34.049	5.74	34.042	5.85	34.058	4.86	34.072	6.08	34.049	5.40	34.062	3.73	34.090	5.06	34.125
100m					5.69	34.057	5.58	34.046	4.97	34.070	4.11	34.084	4.92	34.074	4.41	34.072	2.53	34.091	5.04	34.122
125m					5.29	34.062	5.46	34.048	3.61	34.092	3.46	34.096	4.20	34.085	3.31	34.089	2.03	34.082	4.91	34.116
150m					4.49	34.071	5.21	34.058	3.08	34.076	2.75	34.086	3.43	34.086	2.80	34.079	1.65	34.079	4.39	34.102
200m					3.42	34.080	2.56	34.083	1.83	34.077	1.82	34.082	2.36	34.083	1.65	34.074	1.26	34.079	2.40	34.098
250m					1.90	34.079	1.81	34.078	1.26	34.076	1.29	34.077	1.43	34.074	1.21	34.076	0.99	34.078	1.60	34.087
300m					1.34	34.076	1.27	34.075	0.95	34.075	0.92	34.078	1.06	34.075	0.90	34.075	0.72	34.079	1.25	34.084
400m					0.80	34.075	0.85	34.074	0.62	34.074	0.62	34.077	0.65	34.076	0.65	34.077	0.57	34.078	0.63	34.076
500m					0.62	34.074	0.58	34.074	0.46	34.074	0.49	34.078	0.49	34.078	0.48	34.077	0.45	34.077	0.29	34.075
600m									0.37	34.075					0.40	34.079				
700m																				
800m																				
900m																				
1000m																				

Table 3-1

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199404		199404	
Station No	J26		J25		J24		J23		J22		J21		JW11		JW12		JW13		JW14	
Latitude:N	44-30.0		44-30.0		44-30.0		44-29.9		44-30.1		44-30.1		45- 0.1		44-59.9		45- 0.0		45- 0.1	
Longitude:E	140- 0.0		140-20.0		140-40.0		141- 0.0		141-15.0		141-30.0		141-30.0		141-15.0		141- 0.0		140-39.8	
Date	1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/20	
Time(JST)	08:29		10:05		11:30		13:25		15:16		16:43		19:50		21:11		23:47		02:49	
Weather	C		C		BC		BC		BC		BC		BC		BC		BC		B	
Air Temp.	5.6		7.0		6.4		6.9		4.4		4.1		4.2		4.2		4.1		3.6	
Bar	1013.5		1013.5		1013.0		1013.7		1014.4		1013.9		1014.4		1013.0		1018.0		1017.6	
Wind Dir	NW		NW		N		NE		WNW		NW		N		NNE		NNE		CALM	
Wind Spd/F	S 5		S 3		S 3		S 1		S 2		S 4		S 5		S 3		S		S 0	
Transparency	12		14		16		15		14											
Depth	570		274		142		200		116		76		63		84		97		366	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	5.3	34.08*	5.3	34.07*	5.3	34.07*	6.2	34.02*	5.8	33.98*	5.8	33.88*	6.2	32.21*	5.3	34.10*	5.5	34.07*	5.3	34.07*
10m	5.16	34.078	5.20	34.074	5.12	34.081	5.79	34.033	5.48	33.981	5.34	33.945	5.49	32.984	5.03	34.105	5.44	34.081	4.92	34.111
20m	5.16	34.079	5.19	34.074	5.10	34.080	5.78	34.036	5.45	33.981	5.23	33.960	5.15	33.841	4.96	34.098	5.19	34.079	4.88	34.107
30m	5.14	34.079	5.19	34.074	5.10	34.080	5.75	34.040	5.44	33.983	5.24	33.965	5.09	33.890	4.95	34.098	5.14	34.080	4.85	34.106
50m	5.09	34.084	5.17	34.075	5.09	34.082	5.69	34.043	5.44	34.000	5.25	33.975	5.10	34.009	4.95	34.097	5.11	34.080	4.83	34.105
75m	5.04	34.088	5.12	34.079	4.92	34.086	5.64	34.045	5.48	34.043					4.91	34.098	5.05	34.083	4.81	34.106
100m	4.65	34.098	4.83	34.097	4.67	34.107	5.46	34.048	5.43	34.041									4.55	34.109
125m	3.77	34.104	4.54	34.096	4.16	34.101	5.30	34.051											4.21	34.115
150m	2.68	34.087	3.93	34.107			5.02	34.075											3.90	34.114
200m	1.58	34.080	2.20	34.086															2.46	34.096
250m	1.04	34.077																	1.46	34.089
300m	0.88	34.075																	0.97	34.079
400m	0.61	34.075																		
500m	0.46	34.073																		
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-2



Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199404		199404	
Station No	JW15		JW16		J18		J17		J16		J15		J14		JW03		JW02		JW01	
Latitude:N	45- 0.0		45- 0.1		45-30.1		45-30.1		45-30.1		45-30.0		45-30.0		45-45.1		45-45.1		45-45.1	
Longitude:E	140-20.0		140- 0.0		139-40.0		140- 0.0		140-20.0		140-40.0		140-53.0		141- 0.1		141-10.0		141-20.0	
Date	1994/04/20		1994/04/20		1994/04/20		1994/04/20		1994/04/20		1994/04/20		1994/04/20		1994/04/20		1994/04/20		1994/04/20	
Time(JST)	04:49		06:17		09:27		10:58		12:46		14:14		15:52		17:41		18:58		19:58	
Weather	C		BC		BC		BC		C		C		C		BC		C		BC	
Air Temp.	4.7		5.9		9.4		6.1		6.4		5.1		5.5		5.4		4.1		3.8	
Bar	1017.5		1017.6		1016.4		1015.5		1015.0		1014.0		1014.0		1014.0		1015.0		1015.0	
Wind Dir	W		SSW		SSW		SE		SSE		SW		S		N		N		NW	
Wind Spd/F	S 1		S 3		S 2		S 2		S 1		S 1		S 1		S 3		S 2		S 3	
Transparency	13		16		19		14		15		15		15		16					
Depth	145		340		831		588		394		544									
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	5.1	34.10*	5.5	33.93*	4.5	34.12*	5.4	34.10*	5.3	34.10*	5.1	34.11*	5.7	34.09*	5.5	34.38*	5.2	34.10*	4.8	34.11*
10m	5.02	34.097	5.31	34.092	3.87	34.113	4.92	34.101	5.07	34.097	4.56	34.118	5.31	34.094	5.31	34.084	5.14	34.096	4.78	34.113
20m	4.95	34.097	5.09	34.092	3.76	34.112	4.59	34.099	4.73	34.098	4.24	34.116	5.11	34.089	5.13	34.082	5.04	34.096	4.70	34.113
30m	4.91	34.096	5.08	34.090	3.64	34.110	4.44	34.098	4.69	34.096	4.14	34.115	5.08	34.088	5.10	34.082	5.00	34.095	4.68	34.113
50m	4.88	34.096	4.88	34.095	3.56	34.107	4.20	34.094	4.69	34.095	4.01	34.112	4.98	34.091	4.93	34.090	4.96	34.093	4.57	34.110
75m	4.61	34.104	4.61	34.094	3.06	34.114	3.56	34.103	4.68	34.096	3.53	34.114	4.76	34.096	4.85	34.092	4.93	34.093	4.51	34.106
100m	3.82	34.122	3.93	34.100	2.48	34.113	2.72	34.110	4.61	34.098	2.47	34.108	4.71	34.098	4.75	34.094	4.65	34.100	4.28	34.094
125m	2.98	34.095	3.18	34.095	1.66	34.099	1.89	34.093	4.33	34.106	1.99	34.096	4.50	34.101	4.73	34.093				
150m			2.20	34.084	1.27	34.082	1.56	34.083	3.97	34.106	1.47	34.083	3.84	34.120	4.55	34.099				
200m			1.78	34.076	0.96	34.077	1.22	34.078	2.31	34.106	1.05	34.075	3.33	34.105	3.01	34.111				
250m			1.46	34.075	0.78	34.074	0.88	34.076	1.26	34.082	0.84	34.074	1.24	34.085	1.39	34.090				
300m			1.10	34.074	0.59	34.075	0.71	34.075	0.78	34.076	0.60	34.073	0.95	34.074	0.98	34.076				
400m					0.39	34.073	0.54	34.074			0.38	34.073	0.68	34.074	0.60	34.075				
500m					0.32	34.073	0.32	34.073			0.25	34.072								
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-3

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199404		199404		
Station No	J13		J12		J11		OS04		OS03		OS02		OS01		O105		OA10		O104		
Latitude:N	45-30.0		45-29.9		45-30.0		45-40.1		45-36.9		45-34.0		45-31.0		45-30.0		45-29.9		45-30.0		
Longitude:E	141-10.0		141-25.0		141-40.0		142- 0.0		142- 0.0		142- 0.0		142- 0.0		142-10.0		142-30.0		142-50.0		
Date	1994/04/20		1994/04/20		1994/04/21		1994/04/22		1994/04/22		1994/04/22		1994/04/22		1994/04/22		1994/04/22		1994/04/22		
Time(JST)	21:55		23:37		02:17		10:56		11:20		11:40		12:04		12:49		14:28		16:13		
Weather	BC		BC		B		C						BC						BC		
Air Temp.	3.8		3.7		4.1		3.3						7.5						7.5		
Bar	1016.0		1016.0		1015.9		1019.5						1020.0						1020.0		
Wind Dir	NW		WNW		W		N				CALM		CALM						CALM		
Wind Spd/F	S 2		S 2		S 7		F 3		S		S 0		S 0		S		S		S 0		
Transparency							14		20		12		12		19		8		8		
Depth							51		42		38		20		34		81		116		
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	5.0	34.10*	5.3	33.97*	5.6	32.97*	4.3	33.87*	5.2	33.95*	6.2	33.03*	6.3	32.90*	5.2	34.14*	0.9	33.22*	1.9	33.09*	
10m	5.02	34.105	5.19	34.072	5.74	32.752	3.99	34.051	4.53	34.108	5.18	33.944	5.49	33.229	4.62	34.103	-0.23	33.134	0.10	32.475	
20m	4.94	34.103	5.07	34.086	5.38	33.307	3.97	34.060	4.50	34.107	4.99	34.069			4.59	34.102	0.36	32.768	-0.07	32.511	
30m	4.90	34.102	4.96	34.090	5.06	33.759	4.09	34.082	4.48	34.107	4.97	34.080					0.82	33.143	-0.45	32.549	
50m	4.80	34.104	4.93	34.090			4.15	34.093									2.56	33.735	-1.68	32.846	
75m	4.77	34.103	4.91	34.090													2.98	33.925	-1.76	32.998	
100m	4.72	34.104	4.82	34.092																0.34	33.312
125m																					
150m																					
200m																					
250m																					
300m																					
400m																					
500m																					
600m																					
700m																					
800m																					
900m																					
1000m																					

Table 3-4

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199404		199404	
Station No	O103		O102		O101		OA02		OA01		OA03		OA04		OA05		O206		O205	
Latitude:N	45-20.3		45-12.4		45-10.5		44-52.4		44-49.4		45- 0.0		45-10.1		45-20.0		45- 9.9		45- 0.0	
Longitude:E	142-40.0		142-32.4		142-30.0		142-52.6		142-49.7		143- 0.0		143- 9.9		143-20.0		143-50.0		143-40.0	
Date	1994/04/22		1994/04/22		1994/04/22		1994/04/22		1994/04/22		1994/04/22		1994/04/23		1994/04/23		1994/04/23		1994/04/23	
Time(JST)	17:37		18:52		19:25		21:34		22:10		23:33		01:07		02:31		04:53		06:22	
Weather							B								B		BC			
Air Temp.							3.0								1.1		0.0			
Bar							1021.5								1021.0		1020.0			
Wind Dir							SE								SSE		SSE			
Wind Spd/F	S		S		S		F 4		S		F 2		S		S		F 3		S	
Transparency	10																12		9	
Depth	95		58		46		82		52		128		130		141		355		170	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	0.3	32.50*	3.4	33.67*	5.0	34.10*	2.2	33.03*	0.9	32.88*	0.2	32.46*	0.4	32.60*	0.2	32.56*	-0.4	32.88*	-0.8	32.65*
10m	-0.32	32.480	3.62	33.948	4.61	34.106	1.54	33.210	1.15	32.986	0.04	32.473	0.29	32.521	-0.07	32.565	-0.56	32.669	-0.23	32.666
20m	-0.95	32.733	4.29	34.085	4.57	34.101	2.05	33.585	1.33	33.382	-0.40	32.524	-0.24	32.557	-0.34	32.565	-0.66	32.678	-0.50	32.702
30m	-1.61	32.993	4.29	34.090	4.53	34.101	3.54	33.905	3.29	33.707	-0.54	32.645	-0.56	32.588	-1.26	32.713	-1.23	32.786	-0.92	32.740
50m	0.07	33.244					3.80 34.002				1.95	33.531	-1.67	32.868	-1.73	32.909	-1.67	32.965	-1.77	32.939
75m	3.20	33.948									3.04	33.933	-1.76	32.975	-1.78	33.042	-1.68	33.037	-1.78	32.974
100m											3.41	34.038	-1.71	33.017	-1.79	33.072	-1.60	33.079	-1.76	33.051
125m															-1.79	33.083	-1.61	33.101	-1.74	33.114
150m																	-1.63	33.114	-1.73	33.118
200m																			-1.58	33.131
250m																			-1.38	33.158
300m																			-0.16	33.285
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-5

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199405		199405		199405		199405		199405	
Station No	O204		O203		O202		OA11		OA12		CIS109		CIS102		CIS106		CIS103		CIS107	
Latitude:N	44-49.9		44-40.0		44-35.2		44-17.5		44-22.5		43-25.0		43-25.0		43-30.1		43-35.1		43-39.8	
Longitude:E	143-30.0		143-20.0		143-15.0		143-37.4		143-43.0		141- 5.1		141-15.0		141-10.1		141-12.9		141- 9.8	
Date	1994/04/23		1994/04/23		1994/04/23		1994/04/23		1994/04/23		1994/05/10		1994/05/10		1994/05/10		1994/05/10		1994/05/10	
Time(JST)	07:44		09:16		10:13		12:43		13:24		13:16		14:06		14:46		15:21		15:58	
Weather	BC						BC		BC		C		C		C		C		C	
Air Temp.	3.1						4.1		4.1		12.2		13.9		13.5		13.7		13.4	
Bar	1010.5						1016.5		1016.5		1006.0		1004.5		1005.0		1003.9		1003.5	
Wind Dir	SE						E		E		ESE		ESE		SE		SE		SE	
Wind Spd/F	F 4		S		S		F 4		F 4		S 8		S 11		S 9		S 9		S 9	
Transparency	14		11		9		7		8											
Depth	148		111		75		41		89		60		41		58		59		85	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	-0.3	32.50*	0.8	32.62*	3.7	33.58*	5.9	32.71*	0.3	32.83*	9.2	33.97*	9.2	33.48*	9.0	33.99*	9.0	33.97*	8.7	34.03*
10m	-0.53	32.510	0.88	32.736	3.51	33.596	5.23	33.307	0.06	32.672	9.08	33.964	9.04	33.538	8.82	33.985	9.00	33.701	8.53	34.027
20m	-0.28	32.641	1.92	33.496	3.93	33.850	5.20	33.330	0.83	32.952	9.08	33.968	8.78	33.798	8.71	33.994	9.01	33.948	8.36	34.038
30m	-1.19	32.729	3.71	33.984	4.43	33.994	5.06	33.369	2.37	33.642	9.04	33.970	7.54	33.962	8.42	34.024	7.74	34.071	8.31	34.042
50m	-1.76	32.947	3.71	34.009	4.35	34.012			4.12	34.024	8.65	33.995					6.86	34.042	7.88	34.078
75m	-1.79	33.038	3.53	34.002					4.06	34.033									6.63	34.045
100m	-1.76	33.076	3.53	34.001																
125m	3.27	33.950																		
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-6

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199405		199405		199405	
Station No	CIS104		CIS111		CIS114		CIS110		CIS117		CIS113		CIS119		CIS116		CIS121		CIS123	
Latitude:N	43-45.5		43-45.0		43-40.3		43-34.9		43-35.0		43-30.0		43-30.0		43-24.9		43-24.9		43-25.0	
Longitude:E	141-14.9		141- 5.0		141- 0.3		141- 4.9		140-55.0		141- 0.0		140-50.3		140-54.9		140-44.9		140-35.0	
Date	1994/05/10		1994/05/10		1994/05/10		1994/05/10		1994/05/10		1994/05/10		1994/05/10		1994/05/10		1994/05/10		1994/05/10	
Time(JST)	16:43		17:33		18:21		19:09		19:58		20:39		21:25		22:11		22:58		23:47	
Weather	C		C		C		C		C		C		C		C		C		C	
Air Temp.	14.4		13.3		12.1		12.0		11.7		11.4		12.0		12.3		12.5		13.6	
Bar	1002.7		1002.5		1002.2		1002.2		1002.4		1001.9		1002.0		1002.4		1001.9		1001.7	
Wind Dir	SSE		SE		SSE		SE		SSE		SE		S		S		S		W	
Wind Spd/F	S 9		S 7		S 10		S 10		S 8		S 9		S 7		S 6		S 10		S 5	
Transparency																				
Depth	118		277		317		90		127		93		473		83		161		189	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	9.1	30.84*	8.4	34.04*	8.8*	33.98*	8.9	34.09*	8.9*	34.00*	8.8*	34.00*	9.1*	33.95*	9.1*	37.87*	9.6*	33.84*	9.4*	33.63*
10m	8.85	33.755	8.19	34.038	8.70	34.036	8.64	33.981	8.73	34.013	8.85	34.000	8.74	33.978	8.98	33.873	9.23	33.913	9.23	33.715
20m	8.58	33.992	8.03	34.039	8.59	34.042	8.40	34.021	8.63	34.024	8.84	34.003	8.55	33.993	8.78	33.922	8.96	33.936	9.23	33.747
30m	8.45	34.006	7.71	34.041	8.42	34.047	8.32	34.029	8.53	34.035	8.73	34.017	8.54	33.995	8.84	33.949	8.94	33.934	9.23	33.774
50m	7.93	34.046	7.57	34.093	8.12	34.057	7.97	34.041	8.29	34.060	8.42	34.032	8.54	34.010	8.63	33.982	8.92	33.935	9.07	33.866
75m	6.91	34.081	6.97	34.062	7.34	34.091	7.57	34.073	7.68	34.082	8.17	34.052	7.69	34.097	8.56	33.997	8.61	33.977	9.02	33.933
100m	6.67	34.052	6.51	34.088	6.57	34.103			6.81	34.088			7.05	34.092			8.44	34.017	8.32	34.048
125m			5.57	34.074	5.47	34.082							6.49	34.098			7.12	34.084	7.19	34.097
150m			4.91	34.084	4.91	34.080							5.24	34.093			5.91	34.073	5.81	34.100
200m			3.71	34.090	2.99	34.083							2.99	34.087						
250m			2.01	34.074	1.76	34.076							1.82	34.076						
300m					1.17	34.076							1.16	34.073						
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-7

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199405		199405		199405	
Station No	CIS122		CIS120		CIS118		CIS112		CIS115		CIS105		CIS100		CIS101		CIS108		CE01	
Latitude:N	43-19.7		43-17.9		43-20.0		43-19.9		43-15.1		43-19.9		43-20.0		43-15.0		43-15.0		43-23.2	
Longitude:E	140-40.2		140-45.0		140-50.0		140-59.9		140-55.0		141- 9.8		141-20.1		141-15.0		141- 5.0		140-40.6	
Date	1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/18	
Time(JST)	00:40		01:08		01:38		02:24		08:09		09:15		09:57		10:38		11:23		20:28	
Weather	C		C		C		C		C		C		C		C		C		C	
Air Temp.	13.9		13.1		13.1		12.7		16.4		12.7		12.5		13.0		13.9		10.3	
Bar	1001.5		1001.5		1001.5		1002.4		999.5		1001.6		1002.2		1002.8		1003.1		999.6	
Wind Dir	SW		ENE		S		WSW		SW		W		W		SW		W		SW	
Wind Spd/F	S 3		S 3		S 7		S 3		S 12		S 11		S 8		S 8		S 7		S 6	
Transparency																				
Depth	99		75		81		50		38		36		22		22		28		378	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	9.4*	32.54*	9.4*	32.79*	9.2*	33.88*	9.2	33.80*	9.5*	33.34*	9.2	33.95*	9.1	33.95*	9.4	33.03*	9.5	33.39*	9.8	33.83*
10m	9.15	33.801	9.19	33.770	8.95	33.930	9.10	33.813	9.20	33.677	9.09	33.850	9.01	33.459	9.12	33.278	9.30	33.337	9.73	33.832
20m	9.16	33.826	8.97	33.861	8.85	33.941	8.36	33.893	9.09	33.714	9.01	33.967					9.16	33.451	9.73	33.832
30m	9.09	33.883	8.96	33.885	8.79	33.934	7.64	33.927	9.03	33.725	8.89	33.996							9.71	33.834
50m	9.06	33.914	8.66	33.953	8.56	34.026													9.66	33.839
75m	9.00	33.935																	9.52	33.942
100m																			9.41	33.992
125m																			8.53	34.023
150m																			7.75	34.035
200m																			4.02	34.090
250m																			2.47	34.079
300m																			1.67	34.073
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-8

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199405		199405		199405	
Station No	CE02		CE03		CE04		CE05		CM118		CM101		CM119		CM120		CM121		CM122	
Latitude:N	43-23.5		43-23.6		43-24.7		43-27.6		43-23.5		43-22.5		43-24.5		43-24.5		43-24.5		43-24.5	
Longitude:E	140-40.4		140-40.6		140-40.3		140-45.3		140-31.9		140-30.9		140-32.1		140-29.9		140-27.9		140-25.9	
Date	1994/05/19		1994/05/19		1994/05/19		1994/05/19		1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/23	
Time(JST)	01:02		06:24		11:50		16:39		11:47		12:01		12:21		12:37		12:53		13:09	
Weather	B		B		B		B		B		B		B		B		B		B	
Air Temp.	10.2		11.4		10.7		11.5		16.7		17.2		17.3		16.7		17.2		17.2	
Bar	998.2		1000.3				1007.4		1015.0		1015.0		1015.0		1015.0		1015.0		1015.0	
Wind Dir	SW		W		WNW		WNW		E		E		ESE		E		E		ENE	
Wind Spd/F	S 4		S 7		S 4		S 5		S 1		S 1		S 1		S 1		S 1		S 1	
Transparency																				
Depth	375		391		455		472													
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	9.7	33.83*	9.8	33.83*	10.7	33.87*	10.0	33.93*	11.3	33.70*	11.1	34.37*	12.6	33.75*	11.0	33.71*	11.0	33.72*	12.4	33.75*
10m	9.70	33.832	9.68	33.832	9.87	33.862	9.76	33.923	10.64	33.768	10.70	33.728	10.62	33.776	10.59	33.775	10.66	33.736	10.66	33.761
20m	9.70	33.832	9.68	33.832	9.75	33.856	9.70	33.920	10.52	33.788	10.56	33.768	10.53	33.785	10.52	33.794	10.01	33.885	10.18	33.922
30m	9.70	33.831	9.68	33.832	9.66	33.847	9.69	33.918	10.48	33.795	10.32	33.815	10.49	33.792	10.32	33.818	10.41	34.032	10.39	34.027
50m	9.68	33.833	9.60	33.842	9.60	33.855	9.70	33.917	10.10	33.890			10.14	33.856	9.96	33.877	10.34	34.112	10.45	34.047
75m	9.57	33.874	9.51	33.945	9.52	33.931	9.48	33.938	9.45	33.976			9.94	33.959	9.48	33.997	9.94	34.119	10.07	34.108
100m	9.51	33.989	9.32	34.010	9.20	34.008	9.04	33.980					9.02	34.061	8.93	34.083			9.49	34.128
125m	9.02	34.022	8.39	34.018	8.29	34.035	8.68	34.049												
150m	7.89	34.033	7.00	34.075	5.94	34.101	7.08	34.166												
200m	4.71	34.093	4.09	34.096	3.52	34.083	3.42	34.088												
250m	2.67	34.085	2.37	34.086	2.14	34.078	2.07	34.076												
300m	1.77	34.076	1.62	34.076	1.64	34.074	1.46	34.072												
400m					0.90	34.073	0.85	34.074												
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-9

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199405		199405		199405		
Station No	CM123		CM124		CM125		CM126		CM127		CM107		CM106		CM105		CM108		CM109		
Latitude:N	43-24.2		43-24.1		43-22.0		43-22.1		43-22.1		43-21.6		43-21.0		43-20.5		43-21.5		43-21.5		
Longitude:E	140-19.8		140-16.0		140-16.0		140-18.0		140-20.0		140-22.1		140-22.1		140-24.0		140-24.0		140-26.0		
Date	1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/23		
Time(JST)	13:43		14:10		14:33		14:49		15:04		15:22		15:35		15:53		16:03		16:17		
Weather	B		B		B		B		B		B		B		B		B		B		
Air Temp.	15.5		14.6		14.0		15.4		15.2		15.3		15.1		17.2		17.6		17.9		
Bar	1015.5		1015.5		1015.0		1015.0		1014.7		1014.2		1014.0		1014.0		1014.0		1013.5		
Wind Dir	WSW		SW		SSW		SSW		SSW		SW		SW		SW		SW		WSW		
Wind Spd/F	S 3		S 4		S 4		S 5		S 7		S 8		S 10		S 9		S 9		S 9		
Transparency																					
Depth																					
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	11.9	33.76*	11.7	34.13*	11.7	33.94*	11.4	33.94*	11.5	33.55*	11.5	33.59*	11.7	33.56*	11.8	33.46*	11.1	33.71*	11.6	33.53*	
10m	11.03	33.981	11.39	34.136	10.85	34.000	10.69	33.950	11.42	33.661	10.64	33.691	10.69	33.653	10.65	33.630	10.91	33.694	10.77	33.665	
20m	10.62	33.993	10.95	34.118	10.64	34.021	10.57	33.961	11.30	33.866	10.63	33.852	10.40	33.764	10.50	33.700	10.67	33.720	10.62	33.758	
30m	10.53	34.034	10.94	34.121	10.66	34.016	10.54	33.981	10.82	33.957	10.69	33.895	10.67	33.919	9.82	33.940	10.49	33.773	10.22	33.856	
50m	10.45	34.088	9.67	34.053	9.93	34.045	10.23	34.095	10.41	34.094	10.51	33.996	9.96	33.956			9.91	34.028	9.56	34.079	
75m	9.63	34.114	8.70	34.089	9.21	34.138	9.58	34.136	10.42	34.111											
100m	9.26	34.144	7.97	34.081	8.17	34.118	8.89	34.154													
125m	8.87	34.145	6.81	34.133																	
150m			5.85	34.108																	
200m																					
250m																					
300m																					
400m																					
500m																					
600m																					
700m																					
800m																					
900m																					
1000m																					

Table 3-10



Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199405		199405		199405		
Station No	CM104		CM103		CM102		CM116		CM117		CM115		CM110		CM111		CM114		CM113		
Latitude:N	43-20.9		43-21.4		43-22.7		43-23.5		43-23.5		43-23.5		43-22.5		43-22.5		43-23.5		43-23.5		
Longitude:E	140-26.0		140-27.3		140-28.0		140-27.9		140-30.0		140-26.0		140-25.9		140-24.0		140-24.0		140-22.0		
Date	1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/23		
Time(JST)	16:28		16:41		16:55		17:05		17:39		18:00		18:13		18:27		18:39		18:55		
Weather	B		B		B		B		B		B		B		B		B		B		
Air Temp.	17.4		18.5		18.0		16.9		15.9		14.6		14.4		14.1		14.1		14.0		
Bar	1013.5		1013.5		1013.5		1013.5		1014.0		1014.0		1014.0		1014.0		1014.0		1014.0		
Wind Dir	WSW		WSW		WSW		WSW		ESE		SW		WSW		WSW		SW		SW		
Wind Spd/F	S 8		S 7		S 7		S 2		S 4		S 2		S 4		S 8		S 6		S 9		
Transparency																					
Depth																					
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	11.6	33.51*	11.8	33.36*	11.6	33.38*	12.8	33.56*	12.8	33.69*	11.2	33.73*	11.2	33.90*	11.2	33.57*	11.2	33.50*	11.7	33.17*	
10m	10.80	33.704	10.90	33.639	10.83	33.581	11.34	33.719	10.65	33.785	10.75	33.738	10.95	33.725	10.93	33.661	10.75	33.921	11.07	33.911	
20m	10.61	33.760	10.62	33.728	10.71	33.649	10.68	33.762	10.55	33.781	10.64	33.746	10.66	33.761	10.55	33.865	10.62	33.982	10.65	33.961	
30m	10.20	33.826			10.22	33.853	10.58	33.775	10.49	33.792	10.39	33.783	10.38	33.781	10.65	33.953	10.57	34.010	10.62	34.011	
50m							9.68	33.998	9.71	33.949	10.26	34.076	9.87	33.980	10.20	33.946	10.36	33.978	10.50	34.088	
75m											10.22	34.105	9.48	34.093	10.20	34.110	10.34	34.036	10.20	34.077	
100m																	10.18	34.101	9.84	34.091	
125m																					
150m																					
200m																					
250m																					
300m																					
400m																					
500m																					
600m																					
700m																					
800m																					
900m																					
1000m																					

Table 3-11

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199406		199406		199406	
Station No	CM112		CM130		CM129		CM128		CM133		CM132		CM131		J31		J32		J33	
Latitude:N	43-22.5		43-20.0		43-20.0		43-19.8		43-17.5		43-17.6		43-17.6		43-20.1		43-30.0		43-30.1	
Longitude:E	140-21.9		140-15.8		140-18.0		140-19.7		140-19.8		140-17.9		140-15.9		141-10.0		141- 0.1		140-39.9	
Date	1994/05/23		1994/05/24		1994/05/24		1994/05/24		1994/05/24		1994/05/24		1994/05/24		1994/05/30		1994/05/30		1994/05/30	
Time(JST)	19:11		14:14		14:32		14:52		15:12		15:26		15:41		09:58		11:12		12:36	
Weather	B		B		F		F		F		F		F		C		C		C	
Air Temp.	13.6		13.2		13.6		13.4		13.0		13.0		13.0		15.6		15.6		15.6	
Bar	1014.0		1016.5		1016.5		1016.5		1016.5		1016.5		1016.5		1000.6		1000.6		1000.8	
Wind Dir	SW		SW		SW		SW		SSW		SSW		SSW		ESE		ESE		WNW	
Wind Spd/F	S 8		S 4		S 4		S 4		S 6		S 7		S 6		S 7		S 7		S 4	
Transparency																				
Depth															35		93		693	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	11.6	33.35*	12.4	33.66*	12.2	33.63*	12.4	33.71*	12.3	33.48*	12.3	33.66*	12.2	33.68*	11.9	33.525	11.9	33.708	12.4	33.704
10m	11.37	33.849	11.03	33.961	11.21	33.869	11.46	33.743	11.43	33.759	11.21	33.841	11.16	33.977	11.66	33.525	11.49	33.721	11.52	33.723
20m	10.77	33.969	10.88	33.944	10.95	33.944	10.98	33.950	11.04	33.895	10.91	33.974	10.89	33.956	10.78	33.844	11.01	33.805	11.25	33.963
30m	10.76	34.038	10.70	33.923	10.74	33.972	10.72	33.967	10.92	33.971	10.82	33.991	10.84	33.959	9.70	33.911	10.95	33.878	10.75	33.947
50m	10.57	34.077	10.47	34.060	10.59	34.029	10.74	34.032			10.67	33.996	10.61	34.029			9.79	33.963	10.50	33.992
75m	10.36	34.049	10.01	34.116	10.27	34.100					10.35	34.091	10.30	34.099			8.98	34.010	9.89	34.025
100m			8.63	34.155									9.49	34.128					9.79	34.054
125m													7.89	34.141					9.01	34.095
150m																			7.48	34.125
200m																			3.49	34.090
250m																			2.25	34.072
300m																			1.55	34.070
400m																			0.78	34.068
500m																			0.58	34.067
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-12

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	J34		JC21		JC22		JC23		JC24		JC25		JC26		JC27		J35		J36	
Latitude:N	43-30.0		44- 0.0		44- 0.0		44- 0.0		44- 0.0		44- 0.1		44- 0.0		44- 0.0		43-30.0		43-30.0	
Longitude:E	140-20.0		141-30.0		141-15.0		140-59.9		140-40.0		140-19.9		140- 0.0		139-29.9		140- 0.0		139-40.0	
Date	1994/05/30		1994/05/30		1994/05/30		1994/05/30		1994/05/30		1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31	
Time(JST)	14:17		19:25		20:33		21:43		23:19		01:03		02:45		05:07		08:45		11:10	
Weather	R		C		C		BC		BC		BC		BC		BC		B		B	
Air Temp.	13.8		13.7		12.3		11.1		11.2		10.8		10.4		11.0		12.2		13.4	
Bar	1000.4		1000.1		1001.0		1000.8		1001.0		1000.7		1000.7		1001.8		1003.6		1004.6	
Wind Dir	SW		SW		SW		SW		SW		SSW		SW		SW		SSW		SSW	
Wind Spd/F	S 7		S 3		S 7		S 7		S 8		S 7		S 9		S 7		S 8		S 7	
Transparency																				
Depth	640		45		163		401		575		520		486		1372		1245		2100	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	12.1	33.823	12.2	33.585	11.9	34.066	9.8	33.940	9.9	33.940	9.8	33.944	9.5	33.928	9.3	33.943	10.4	33.959	10.5	33.945
10m	11.98	33.913	12.03	33.916	11.84	34.061	9.79	33.939	9.88	33.934	9.78	33.941	9.85	33.924	9.30	33.937	10.25	33.956	10.33	33.947
20m	11.51	33.926	11.71	33.943	11.56	34.060	9.58	33.944	9.75	33.973	9.57	33.978	9.84	33.957	9.26	33.948	10.17	33.974	10.11	33.965
30m	11.30	34.001	11.23	33.907	11.47	34.072	9.43	33.951	9.64	33.971	9.27	33.983	9.31	33.997	8.56	34.016	8.54	34.248	9.68	34.000
50m	10.90	34.078			10.85	34.074	6.59	34.079	5.61	34.084	7.24	34.052	5.48	34.102	5.94	34.112	7.73	34.212	5.73	34.137
75m	9.63	34.127			8.58	34.108	5.14	34.082	4.65	34.085	4.94	34.098	5.24	34.092	4.44	34.090	6.33	34.170	4.34	34.126
100m	8.75	34.140			7.72	34.117	4.51	34.087	4.08	34.085	4.47	34.090	5.16	34.089	3.89	34.086	4.66	34.148	3.31	34.101
125m	7.21	34.122			6.64	34.126	3.71	34.085	3.37	34.083	3.70	34.085	5.10	34.091	3.70	34.081	3.87	34.104	2.65	34.087
150m	6.72	34.121			6.08	34.099	2.85	34.082	2.54	34.080	2.79	34.079	4.97	34.092	3.10	34.089	3.22	34.091	1.95	34.086
200m	4.63	34.084					1.80	34.073	1.59	34.070	1.68	34.073	4.47	34.098	1.73	34.075	2.19	34.087	1.29	34.077
250m	2.90	34.083					1.36	34.068	1.16	34.068	1.25	34.068	3.04	34.085	1.29	34.070	1.60	34.080	0.97	34.071
300m	1.62	34.069					1.09	34.068	0.91	34.068	0.96	34.069	1.72	34.075	0.93	34.070	1.13	34.075	0.80	34.074
400m	0.73	34.069							0.61	34.067	0.60	34.068	1.09	34.069	0.62	34.075	0.69	34.074	0.56	34.072
500m	0.53	34.067							0.40	34.067	0.42	34.067			0.45	34.073	0.51	34.072	0.41	34.071
600m																	0.39	34.071		
700m																				
800m																				
900m																				
1000m																				

Table 3-13

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	J37		J38		J39		JC15		JC14		JC13		JC12		JC11		J41		J42	
Latitude:N	43-30.0		43-30.1		43-30.1		43- 0.0		43- 0.1		43- 0.1		43- 0.1		43- 0.1		42-30.0		42-30.1	
Longitude:E	139-19.9		138-59.7		138-29.9		138-59.9		139-20.0		139-40.0		140- 0.0		140-19.9		139-39.8		139-20.0	
Date	1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/06/01		1994/06/01		1994/06/01		1994/06/01		1994/06/01	
Time(JST)	12:46		14:24		17:34		21:15		22:50		00:24		01:59		03:35		07:59		10:17	
Weather	BC		C		C		C		C		C		C		BC		B		B	
Air Temp.	12.5		11.6		11.7		12.1		12.6		13.2		12.9		13.8		14.7		16.6	
Bar	1009.5		1003.8		1003.6		1004.6		1004.3		1003.5		1003.4		1003.2		1004.8		1005.1	
Wind Dir	S		S		SW		S		S		S		S		S		SW		SW	
Wind Spd/F	S 9		S 10		S 5		S 7		S 8		S 9		S 5		S 8		S 4		S 5	
Transparency																			19	
Depth	3250		1836		1788		3500		2350		2886		1274		471		1837		3288	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	10.8	33.969	10.7	33.954	10.6	33.987	11.0	33.923	11.6	33.986	12.5	34.072	12.3	34.035	13.3	32.677	13.2	34.166	12.7	34.096
10m	10.69	33.973	10.47	33.952	10.60	33.979	10.93	33.914	11.50	34.014	12.41	34.069	12.24	34.031	12.22	33.929	13.04	34.162	12.36	34.082
20m	10.42	33.963	10.02	33.962	9.40	34.057	10.74	33.926	10.65	34.170	12.41	34.069	12.24	34.031	12.08	34.077	11.75	34.163	11.78	34.106
30m	9.90	34.022	9.11	34.051	8.73	34.039	9.44	34.017	8.76	34.220	11.85	34.099	12.24	34.033	11.93	34.125	11.40	34.381	9.71	34.253
50m	6.76	34.123	6.46	34.088	7.39	34.097	4.75	34.124	7.66	34.155	9.67	34.255	11.89	34.087	10.41	34.078	10.24	34.368	8.21	34.177
75m	5.51	34.106	5.78	34.073	5.60	34.106	3.30	34.093	6.69	34.122	8.08	34.146	10.66	34.163	8.98	34.142	8.65	34.196	7.09	34.149
100m	4.70	34.095	5.24	34.069	4.43	34.095	2.37	34.082	5.92	34.119	7.66	34.143	9.02	34.187	7.90	34.120	7.38	34.152	6.17	34.121
125m	3.56	34.100	4.73	34.072	3.47	34.092	1.90	34.078	4.15	34.094	7.16	34.140	8.31	34.174	6.61	34.099	7.04	34.139	4.91	34.103
150m	2.81	34.090	4.14	34.081	2.60	34.082	1.55	34.078	3.26	34.082	5.64	34.110	7.36	34.145	5.12	34.098	6.32	34.118	3.62	34.085
200m	1.71	34.080	2.61	34.073	1.57	34.077	1.20	34.075	2.35	34.079	3.57	34.082	4.51	34.104	3.71	34.076	3.93	34.083	2.15	34.075
250m	1.17	34.074	1.63	34.072	1.20	34.074	1.16	34.080	1.96	34.078	2.44	34.080	3.04	34.082	2.53	34.072	2.37	34.080	1.44	34.077
300m	0.89	34.073	1.17	34.070	0.98	34.074	1.04	34.081	1.45	34.079	1.98	34.077	2.27	34.077	1.67	34.074	1.67	34.075	1.20	34.080
400m	0.60	34.072	0.74	34.071	0.66	34.073	0.60	34.073	0.87	34.070	1.02	34.069	0.96	34.067	0.88	34.066	0.83	34.066	0.83	34.074
500m	0.45	34.072	0.58	34.071	0.47	34.074	0.45	34.072	0.61	34.071	0.67	34.071	0.58	34.067			0.56	34.065	0.59	34.072
600m			0.42	34.071													0.40	34.066		
700m																				
800m																				
900m																				
1000m																				

Table 3-14

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	J43		J44		J45		J46		J47		J58		J57		J56		J55		J54	
Latitude:N	42-30.1		42-30.2		42-30.1		42-30.0		42-30.1		41-30.0		41-30.1		41-30.0		41-30.1		41-30.0	
Longitude:E	138-59.9		138-39.7		138-20.0		138- 0.0		137-29.9		137-30.0		138- 0.1		138-20.0		138-39.9		139- 0.0	
Date	1994/06/01		1994/06/01		1994/06/01		1994/06/01		1994/06/01		1994/06/02		1994/06/02		1994/06/02		1994/06/02		1994/06/02	
Time(JST)	11:58		13:42		15:26		17:05		19:45		01:51		04:07		05:43		07:19		08:56	
Weather	B		B		B		B		B		BC		BC		BC		C		C	
Air Temp.	14.7		13.6		13.7		12.7		11.9		11.7		12.0		12.5		12.7		13.3	
Bar	1004.6		1004.0		1004.2		1004.2		1003.9		1003.5		1003.6		1004.0		1004.3		1004.6	
Wind Dir	SSW		SSW		SW		SW		SW		WSW		SW		SW		S		SW	
Wind Spd/F	S 4		S 5		S 4		S 4		S 4		S 6		S 3		S 4		S 4		S 6	
Transparency																				
Depth	3600		3700		3635		3678		3678		3669		3691		3702		3200		1300	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	11.7	33.946	11.3	33.985	12.1	33.975	11.4	33.949	11.3	33.966	11.5	33.934	11.2	33.931	11.9	33.914	12.9	34.005	13.1	34.083
10m	11.29	33.958	10.66	33.981	10.70	33.970	10.39	33.950	10.40	33.968	10.94	33.934	11.13	33.921	11.68	33.918	12.87	34.000	13.00	34.070
20m	10.87	34.087	10.47	33.977	9.04	34.073	10.10	33.971	9.24	34.025	8.99	34.029	10.62	33.934	10.26	33.951	10.82	34.021	11.15	34.115
30m	8.02	34.176	7.16	34.095	5.85	34.137	8.63	34.024	6.86	34.077	5.53	34.106	7.61	34.080	5.37	34.116	7.04	34.165	9.45	34.221
50m	5.90	34.128	3.63	34.102	4.39	34.098	5.20	34.096	4.89	34.091	3.36	34.088	4.35	34.097	3.20	34.115	5.20	34.109	6.91	34.165
75m	4.04	34.090	2.63	34.090	3.34	34.081	3.74	34.094	3.99	34.086	2.50	34.095	3.37	34.099	2.28	34.095	3.72	34.095	4.78	34.097
100m	2.79	34.090	2.08	34.085	2.73	34.082	2.63	34.085	3.32	34.090	2.13	34.090	2.57	34.096	1.67	34.090	2.80	34.078	3.66	34.091
125m	2.24	34.074	1.70	34.083	2.25	34.076	2.13	34.076	2.72	34.092	1.96	34.091	2.12	34.088	1.30	34.083	2.17	34.074	2.87	34.078
150m	1.89	34.073	1.42	34.078	1.93	34.079	1.67	34.076	2.29	34.088	1.88	34.088	1.82	34.084	1.15	34.078	1.72	34.069	2.33	34.073
200m	1.22	34.074	1.12	34.077	1.31	34.075	1.24	34.073	1.56	34.078	1.30	34.077	1.37	34.079	1.00	34.078	1.29	34.067	1.49	34.069
250m	1.19	34.076	0.91	34.076	1.12	34.075	0.92	34.071	1.03	34.070	1.11	34.079	1.10	34.073	0.80	34.073	0.88	34.067	1.00	34.065
300m	1.16	34.080	0.72	34.073	0.84	34.073	0.74	34.072	0.90	34.071	0.91	34.075	0.86	34.073	0.68	34.072	0.69	34.066	0.73	34.063
400m	0.98	34.079	0.52	34.071	0.57	34.071	0.58	34.071	0.64	34.072	0.59	34.071	0.59	34.073	0.49	34.071	0.47	34.067	0.46	34.064
500m	0.56	34.072	0.41	34.070	0.46	34.071	0.46	34.070	0.47	34.071	0.45	34.070	0.45	34.071	0.40	34.070	0.39	34.066	0.35	34.064
600m							0.39	34.070												
700m																				
800m																				
900m																				
1000m																				

Table 3-15

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	J53		J52		J63		J62		J61		J51		CSR01		CSR02		CSR03		CSR04	
Latitude:N	41-30.1		41-30.1		41- 0.1		41-10.0		41-20.0		41-30.0		43- 0.0		43- 0.0		42-30.0		42-20.0	
Longitude:E	139-15.0		139-30.0		140- 0.1		140- 0.0		139-59.9		139-49.9		140- 0.0		139-30.0		139-30.0		139-40.0	
Date	1994/06/02		1994/06/02		1994/06/02		1994/06/02		1994/06/02		1994/06/02		1994/06/08		1994/06/09		1994/06/09		1994/06/09	
Time(JST)	10:11		11:30		15:08		16:16		17:15		18:36		18:28		12:35		15:33		16:57	
Weather	R		R		C		BC		R		C									
Air Temp.	13.4		13.6		16.4		15.6		14.6		14.4									
Bar	1004.6		1004.6		1004.6		1004.4		1004.2		1003.8									
Wind Dir	SSW		SW		SW		SW		SSW		S									
Wind Spd/F	S 5		S 6		S 9		S 6		S 8		S 6		S		S		S		S	
Transparency																				
Depth	1134		1663		500		105		225		1370									
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	12.9	33.999	12.4	33.996	15.3	33.960	15.0	34.170	14.7	34.176	13.6	33.967	14.6	33.86*	14.8	34.03*	14.3	34.05*	15.0	34.12*
10m	12.50	34.009	12.12	33.943	15.08	33.949	14.93	34.159	14.63	34.169	13.45	33.985	13.37	34.036	12.97	34.002	11.94	34.014	14.63	34.125
20m	11.00	34.019	10.70	34.011	14.57	33.996	14.18	34.165	13.24	34.225	12.62	34.346	12.77	34.072	12.05	34.029	11.08	34.125	12.95	34.187
30m	8.90	34.107	9.54	34.088	13.55	33.997	12.46	34.313	11.50	34.255	10.90	34.326	12.59	34.077	11.03	34.098	10.32	34.389	11.09	34.257
50m	5.95	34.132	7.96	34.188	12.18	34.142	10.65	34.344	10.91	34.275	10.11	34.338	11.66	34.142	10.44	34.363	8.92	34.229	9.59	34.295
75m	4.31	34.098	6.51	34.129	10.63	34.282	9.78	34.271	10.17	34.267	8.81	34.242	9.59	34.233	9.03	34.264	8.03	34.180	7.59	34.182
100m	3.31	34.081	4.66	34.088	10.07	34.211	9.02	34.190	9.99	34.298	7.52	34.165	8.20	34.175	8.05	34.200	7.12	34.142	6.06	34.126
125m	2.65	34.074	3.53	34.085	10.01	34.259					8.64	34.182	6.69	34.124	6.93	34.141	6.25	34.122	5.89	34.108
150m	2.07	34.073	2.83	34.075	9.65	34.281					8.56	34.173	5.13	34.102	5.58	34.104	5.10	34.097	4.99	34.096
200m	1.36	34.066	1.64	34.070	7.29	34.139					7.52	34.145	3.37	34.078	3.59	34.086	3.07	34.078	3.72	34.082
250m	0.99	34.064	1.17	34.066	4.52	34.095							2.30	34.070	2.24	34.082	2.04	34.071	2.30	34.071
300m	0.75	34.064	0.88	34.066	2.72	34.072							1.24	34.069	1.68	34.068	1.44	34.066	1.42	34.067
400m	0.47	34.064	0.55	34.064	1.16	34.064							0.77	34.064						
500m	0.35	34.064	0.40	34.064									0.57	34.064						
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-16

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406		
Station No	CSR05		CSR06		CSR07		CSR08		CSR09		CSR12		CSR13		CSR14		CSR15		CSR16		
Latitude:N	42- 0.0		41-30.0		41-30.0		41-30.0		42- 0.0		42- 0.0		42-30.0		42-30.0		42-30.0		43- 0.0		
Longitude:E	139-40.0		139-30.0		139- 0.0		138-30.0		138-30.0		139- 0.0		139- 0.0		138-30.0		138- 0.0		138- 0.0		
Date	1994/06/10		1994/06/10		1994/06/11		1994/06/11		1994/06/11		1994/06/11		1994/06/12		1994/06/12		1994/06/13		1994/06/13		
Time(JST)	06:04		17:58		08:28		10:41		13:25		18:17		15:01		17:13		05:17		08:09		
Weather																					
Air Temp.																					
Bar																					
Wind Dir																					
Wind Spd/F	S		S		S		S		S		S		S		S		S		S		
Transparency																					
Depth																					
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	14.9	33.97*	16.4	34.19*	15.4	34.07*	15.2	33.91*	15.1	34.12*	15.5	33.95*	15.5	34.09*	14.2	33.98*	13.5	33.94*	13.3	33.96*	
10m	14.38	34.140	14.82	34.196	13.56	34.041	12.13	33.962	14.41	33.995	13.24	34.028	14.79	34.033	13.67	33.987	13.33	33.936	12.98	33.960	
20m	12.22	34.168	12.77	34.229	9.40	34.152	8.95	34.047	11.57	34.008	10.00	34.138	13.75	34.076	10.92	34.026	10.16	34.023	10.86	33.978	
30m	11.14	34.169	11.72	34.227	7.61	34.168	5.33	34.142	6.12	34.088	8.74	34.233	11.89	34.109	6.84	34.124	6.64	34.143	7.79	34.107	
50m	9.44	34.223	8.62	34.251	5.11	34.111	3.90	34.104	3.65	34.103	7.59	34.178	7.40	34.173	3.77	34.116	4.63	34.106	4.34	34.109	
75m	8.01	34.170	8.33	34.213	3.96	34.090	2.88	34.081	2.40	34.082	5.87	34.116	5.38	34.116	2.50	34.096	3.31	34.083	3.38	34.088	
100m	6.78	34.133	7.58	34.180	3.12	34.080	2.19	34.069	1.80	34.086	4.68	34.092	4.20	34.090	1.95	34.085	2.57	34.078	2.42	34.083	
125m	6.18	34.110	5.17	34.111	2.39	34.074	1.75	34.067	1.41	34.079	3.42	34.082	3.29	34.081	1.63	34.079	2.02	34.075	2.11	34.079	
150m	5.58	34.100	3.51	34.086	1.79	34.069	1.42	34.068	1.23	34.075	2.66	34.074	2.67	34.079	1.42	34.075	1.73	34.079	1.76	34.074	
200m	4.48	34.089	2.03	34.073	1.15	34.065	1.26	34.079	1.11	34.077	1.48	34.068	1.62	34.070	1.14	34.070	1.32	34.074	1.21	34.069	
250m	2.63	34.073	1.36	34.070	0.86	34.065	1.19	34.080	0.89	34.072	1.10	34.065	1.16	34.067	0.93	34.069	1.12	34.072	0.88	34.066	
300m	1.64	34.066	0.98	34.064	0.67	34.062	0.96	34.074	0.72	34.069	0.90	34.063	0.87	34.064	0.74	34.069	0.88	34.072	0.74	34.068	
400m																					
500m																					
600m																					
700m																					
800m																					
900m																					
1000m																					

Table 3-17

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	CSR17		CSR19		CSR20		CSR18		CSR21		CSR22		CT101		CT102		CT105		CT104	
Latitude:N	43- 0.0		43-30.0		43-30.0		43- 0.0		43-30.0		43-30.0		42-49.0		42-48.8		42-47.9		42-48.0	
Longitude:E	138-30.0		138-30.0		139- 0.0		139- 0.0		139-30.0		140- 0.0		140- 0.7		140- 2.9		140- 4.1		140- 1.9	
Date	1994/06/13		1994/06/13		1994/06/13		1994/06/13		1994/06/14		1994/06/14		1994/06/21		1994/06/21		1994/06/21		1994/06/21	
Time(JST)	10:21		13:10		15:22		18:17		13:47		18:05		04:07		04:37		04:59		05:18	
Weather													D		D		D		D	
Air Temp.													12.9		12.9		12.6		12.7	
Bar													1008.8		1008.9		1008.9		1009.0	
Wind Dir													E		SE		ESE		ENE	
Wind Spd/F	S		S		S		S		S		S		S 2		S 2		S 2		S 1	
Transparency																				
Depth													441		305		145		288	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	13.8	33.97*	13.2	33.97*	14.2	34.10*	15.8	34.10*	14.1	33.97*	15.9	34.03*	14.2	33.92*	14.6	33.85*	12.6	34.02*	14.5	33.82*
10m	13.12	33.960	12.18	33.967	12.34	33.978	15.30	34.058	12.48	33.979	13.24	34.017	14.04	33.919	14.28	33.939	10.94	34.115	13.67	33.966
20m	10.95	34.013	11.56	33.996	10.44	34.012	12.31	34.219	11.20	34.003	12.57	33.972	12.50	34.165	12.31	34.050	10.48	34.134	12.12	34.052
30m	6.07	34.177	8.84	34.071	9.40	34.058	9.34	34.188	9.59	34.033	10.52	33.993	10.45	34.276	11.21	34.104	9.96	34.161	9.81	34.190
50m	4.07	34.105	6.16	34.078	7.66	34.094	7.85	34.188	6.91	34.103	7.89	34.098	9.03	34.252	8.93	34.193	8.36	34.184	8.28	34.183
75m	2.83	34.089	5.26	34.068	5.60	34.099	6.03	34.124	5.40	34.109	5.10	34.094	8.29	34.203	7.57	34.155	7.67	34.146	7.53	34.160
100m	2.31	34.077	4.75	34.075	4.31	34.091	4.59	34.102	4.27	34.088	3.96	34.090	7.21	34.151	6.13	34.113	6.25	34.118	6.63	34.118
125m	1.77	34.076	3.93	34.075	3.60	34.081	3.36	34.084	3.36	34.080	3.16	34.076	6.16	34.107	4.58	34.093	4.56	34.085	5.15	34.093
150m	1.39	34.070	3.33	34.074	2.66	34.077	2.46	34.075	2.65	34.076	2.34	34.073	4.39	34.085	3.82	34.075			4.21	34.080
200m	1.21	34.073	2.28	34.068	1.66	34.065	1.59	34.067	1.62	34.067	1.63	34.066	3.14	34.071	3.29	34.068			3.22	34.070
250m	1.05	34.075	1.43	34.069	1.22	34.065	1.22	34.071	1.16	34.064	1.19	34.064	2.25	34.064	2.09	34.068			2.31	34.067
300m	0.81	34.070	1.04	34.069	0.96	34.063	1.16	34.077	0.90	34.066	0.89	34.064	1.47	34.064						
400m													0.65	34.061						
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-18



Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	CT103		CT106		CT107		CT108		CT112		CT111		CT110		CT109		CT113		CT114	
Latitude:N	42-47.9		42-46.9		42-47.0		42-47.0		42-46.0		42-46.0		42-45.9		42-45.9		42-45.0		42-45.0	
Longitude:E	139-59.8		139-58.9		140- 1.2		140- 3.1		140- 4.0		140- 1.9		139-59.9		139-57.5		139-57.1		139-59.1	
Date	1994/06/21		1994/06/21		1994/06/21		1994/06/21		1994/06/21		1994/06/21		1994/06/21		1994/06/21		1994/06/21		1994/06/21	
Time(JST)	05:37		06:17		06:51		07:08		07:23		07:39		07:54		08:26		08:49		09:15	
Weather	D		C		C		C		C		C		C		C		C		C	
Air Temp.	12.8		13.3		13.2		13.0		13.2		13.3		13.7		14.0		14.7		15.3	
Bar	1009.0		1009.0		1009.0		1009.0		1009.0		1008.9		1008.8		1008.7		1008.2		1008.2	
Wind Dir	NE		ENE		ENE		ENE		E		ESE		E		ESE		ESE		SE	
Wind Spd/F	S 2		S 3		S 4		S 3		S 2		S 2		S 2		S 3		S 2		S 1	
Transparency																				
Depth	570		572		162		162		128		122		148		630		750		317	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	14.2	33.75*	14.3	33.86*	13.9	33.73*	12.8	34.20*	12.4	34.03*	12.7	34.02*	12.8	33.97*	14.1	33.74*	14.0	33.01*	13.9	33.81*
10m	14.11	33.906	13.76	33.944	11.93	34.088	11.57	34.155	11.81	34.103	12.39	34.049	12.67	34.007	12.94	33.984	12.74	34.038	12.90	34.259
20m	12.29	34.143	12.84	34.010	10.81	34.243	10.38	34.167	10.38	34.211	10.65	34.245	10.09	34.267	12.10	34.155	11.27	34.153	11.06	N.D.
30m	10.83	34.260	11.05	34.227	10.29	34.294	9.93	34.257	9.77	34.212	9.80	34.297	9.87	34.284	10.20	34.306	10.43	34.205	10.04	34.232
50m	9.01	34.234	9.08	34.202	8.72	34.231	8.62	34.221	8.30	34.191	8.47	34.182	8.58	34.210	8.83	34.209	9.33	34.255	8.50	34.276
75m	8.23	34.200	7.84	34.155	8.03	34.184	7.10	34.144	7.17	34.146	7.25	34.148	7.71	34.163	7.99	34.183	7.80	34.141	7.25	34.140
100m	7.02	34.145	6.81	34.132	6.04	34.110	5.84	34.107	6.01	34.107	6.10	34.107	6.28	34.119	6.93	34.123	6.13	34.112	6.16	34.107
125m	5.80	34.101	5.68	34.101	4.89	34.087	5.12	34.091					5.09	34.090	5.39	34.103	5.52	34.100	5.29	34.093
150m	4.74	34.089	4.44	34.085	4.44	34.079	5.07	34.085					4.58	34.085	4.59	34.080	4.67	34.084		
200m	3.19	34.071	3.20	34.069									2.88	34.071	2.94	34.072	3.39	34.078		
250m	2.14	34.069	2.17	34.069									1.92	34.065	1.99	34.066	1.87	34.067		
300m	1.38	34.064	1.38	34.064									1.32	34.062	1.36	34.063	1.29	34.062		
400m	0.75	34.061	0.75	34.060									0.82	34.060	0.76	34.060				
500m	0.55	34.061	0.55	34.061									0.57	34.060	0.56	34.059				
600m																	0.45	34.060		
700m																				
800m																				
900m																				
1000m																				

Table 3-19

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	CT115		CT116		CT121		CT120		CT119		CT118		CT117		CT122		CT123		CT124	
Latitude:N	42-45.0		42-45.0		42-44.0		42-44.0		42-44.1		42-44.0		42-44.0		42-43.0		42-43.0		42-43.0	
Longitude:E	140- 1.0		140- 3.1		140- 4.0		140- 1.9		140- 0.0		139-58.0		139-56.0		139-57.0		139-59.2		140- 1.2	
Date	1994/06/21		1994/06/21		1994/06/21		1994/06/21		1994/06/21		1994/06/21		1994/06/21		1994/06/21		1994/06/21		1994/06/21	
Time(JST)	09:33		09:47		10:00		10:14		10:30		10:46		11:03		11:44		12:02		12:16	
Weather	C		C		C		C		B		C		C		C		C		C	
Air Temp.	15.8		16.2		16.7		16.2		16.2		16.7		17.3		18.2		17.5		17.6	
Bar	1008.2		1008.1		1008.0		1008.0		1008.0		1008.0		1007.9		1007.8		1007.6		1007.6	
Wind Dir	CALM		CALM		NNW		NNW		NW		CALM		E		ENE		N		NNW	
Wind Spd/F	S 0		S 0		S 1		S 3		S 2		S 0		S 1		S 1		S 1		S 1	
Transparency																				
Depth	121		115		47		104		118		170		527		277		97		71	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	12.7	34.35*	13.0	34.30*	13.3	34.06*	14.4	33.85*	14.4	33.92*	14.7	33.91*	15.4	33.86*	15.4	33.90*	14.9	33.90*	14.4	33.99*
10m	11.94	34.058	12.26	34.078	12.81	34.053	13.11	34.019	13.20	34.035	13.47	34.012	13.33	34.029	12.96	34.182	13.66	34.137	13.90	34.032
20m	11.00	34.151	11.24	34.159	11.33	34.137	11.41	34.176	11.47	34.177	12.72	34.089	12.41	34.082	12.25	34.150	12.32	34.144	12.65	34.143
30m	10.45	34.223	10.56	34.179	10.54	34.161	10.52	34.182	10.81	34.182	11.58	34.185	11.61	34.107	11.26	34.165	11.83	34.130	12.06	34.117
50m	8.37	34.165	8.34	34.171			8.73	34.182	9.21	34.195	9.46	34.204	9.70	34.204	10.59	34.171	11.13	34.138	11.43	34.123
75m	6.57	34.128	6.95	34.130			7.39	34.137	7.19	34.137	7.71	34.159	8.11	34.168	9.21	34.189	8.71	34.207		
100m	5.93	34.099	6.12	34.101					6.14	34.110	6.28	34.122	6.83	34.132	7.30	34.145				
125m											5.79	34.100	6.12	34.106	6.87	34.128				
150m													5.32	34.091	6.27	34.107				
200m													3.83	34.081	4.31	34.074				
250m													2.52	34.067						
300m													1.54	34.065						
400m													0.84	34.060						
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-20

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199407		199407	
Station No	CT125		JS41		JS42		JS43		JS44		JS45		JS46		JS47		CIS301		CIS305	
Latitude:N	42-43.0		42-30.0		42-30.0		42-30.0		42-30.0		42-29.9		42-29.9		42-29.8		43-15.1		43-20.0	
Longitude:E	140- 3.1		139-40.1		139-20.0		139- 0.0		138-39.9		138-19.8		138- 0.0		137-29.6		141-15.5		141-10.0	
Date	1994/06/21		1994/06/27		1994/06/27		1994/06/27		1994/06/27		1994/06/28		1994/06/28		1994/06/28		1994/07/04		1994/07/04	
Time(JST)	12:30		18:35		20:20		22:00		23:50		01:25		03:03		05:25		10:38		20:15	
Weather	C																B		C	
Air Temp.	17.3																23.2		19.3	
Bar	1007.6																1001.0		1002.3	
Wind Dir	CALM																		NW	
Wind Spd/F	S 0		S		S		S		S		S		S		S		S		S 5	
Transparency																			20	
Depth	29																		21	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	14.1	34.28*	15.3	34.21*	15.8	34.22*	14.9	33.90*	14.4	33.92*	14.3	33.97*	14.8	34.03*	14.4	33.97*	17.5	33.97*	16.7	34.04*
10m	12.75	34.079	15.22	34.209	15.81	34.222	14.92	33.904	14.31	33.916	14.26	33.975	14.75	34.028	14.38	33.970	16.26	34.024	15.95	34.017
20m	12.56	34.094	15.01	34.211	15.72	34.227	12.25	34.099	12.26	34.087	14.26	33.975	11.47	34.256	14.38	33.970			15.52	34.081
30m			13.76	34.219	15.38	34.251	8.27	34.207	7.80	34.187	7.16	34.165	5.73	34.115	9.56	34.094			15.29	34.083
50m			11.12	34.282	10.20	34.391	5.46	34.115	6.11	34.123	3.57	34.087	3.36	34.084	5.50	34.090				
75m			8.15	34.211	6.03	34.114	4.21	34.085	4.03	34.086	2.34	34.072	2.54	34.080	4.00	34.086				
100m			6.49	34.141	4.91	34.096	3.22	34.073	2.84	34.072	1.77	34.075	1.99	34.076	3.12	34.071				
125m			5.27	34.098	4.07	34.079	2.64	34.065	2.32	34.066	1.34	34.059	1.61	34.067	2.55	34.076				
150m			4.54	34.088	3.34	34.067	2.25	34.063	1.82	34.060	1.26	34.066	1.44	34.067	2.22	34.074				
200m			2.67	34.072	2.33	34.058	1.49	34.058	1.28	34.058	1.16	34.069	1.18	34.064	1.54	34.069				
250m			1.75	34.065	1.58	34.060	1.05	34.057	1.19	34.070	1.07	34.070	0.95	34.063	1.04	34.059				
300m			1.22	34.060	1.14	34.057	0.80	34.057	0.95	34.067	0.86	34.063	0.75	34.062	0.87	34.061				
400m			0.70	34.058	0.68	34.056	0.55	34.059	0.63	34.061	0.54	34.062	0.54	34.062	0.63	34.060				
500m			0.49	34.058	0.47	34.056	0.43	34.061	0.48	34.062	0.44	34.061	0.42	34.061	0.47	34.060				
600m													0.36	34.060						
700m																				
800m																				
900m																				
1000m																				

Table 3-21

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199407		199407		199407		199407		199407		199407		199407		199407		199407		199407	
Station No	CIS300		CIS302		CIS306		CIS303		CIS307		CIS310		CIS313		CIS316		CIS309		CIS312	
Latitude:N	43-20.0		43-25.0		43-30.0		43-35.1		43-40.0		43-35.0		43-30.0		43-25.0		43-25.0		43-20.0	
Longitude:E	141-20.0		141-14.9		141-10.0		141-12.9		141- 9.8		141- 5.0		140-59.9		140-54.9		141- 5.1		141- 0.1	
Date	1994/07/04		1994/07/04		1994/07/05		1994/07/05		1994/07/05		1994/07/05		1994/07/05		1994/07/05		1994/07/05		1994/07/05	
Time(JST)	21:07		23:58		00:49		01:37		02:25		03:17		04:00		04:41		05:30		06:13	
Weather	C		C		C		R		R		R		C		C		R		C	
Air Temp.	19.5		19.0		18.5		18.2		17.7		17.4		17.3		17.5		17.9		17.9	
Bar	1002.6		1001.6		1001.5		1001.0		1001.0		1000.7		1001.0		1001.0		1001.5		1000.9	
Wind Dir	WNW		NW		ESE		ESE		NE		ESE		ESE		E		E		ENE	
Wind Spd/F	S 6		S 4		S 2		S 3		S 4		S 5		S 5		S 6		S 7		S 7	
Transparency															19		19		18	
Depth	21		40		57		59		83		89		93		84		59		49	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	18.6	33.84*	17.7	33.63*	16.2	33.69*	16.2	33.98*	17.6	32.70*	15.3	33.88*	15.8	33.53*	16.3	33.67*	16.3	33.80*	16.2	33.67*
10m	15.82	34.050	15.97	33.876	15.63	33.880	15.71	33.987	15.45	33.489	14.41	33.973	13.83	33.894	16.08	33.699	15.62	33.824	15.81	33.693
20m			14.75	34.062	11.87	34.156	10.60	34.073	15.11	33.970	10.70	34.061	10.54	34.013	13.74	33.951	11.10	34.011	14.48	33.812
30m			14.28	34.062	10.41	34.062	9.99	34.060	10.67	34.107	10.05	34.080	9.65	34.003	11.50	34.174	10.81	34.170	11.25	34.048
50m					9.59	34.121	9.89	34.041	8.68	34.128	9.37	34.228	8.83	34.059	9.28	34.153	9.55	34.196		
75m									8.44	34.123	7.62	34.135	7.82	34.159	8.29	34.181				
100m																				
125m																				
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-22

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199407		199407		199407		199407		199407		199407		199407		199407		199407		199407	
Station No	CIS308		CIS315		CIS318		CIS320		CIS322		CIS323		CIS321		CIS319		CIS317		CIS314	
Latitude:N	43-15.0		43-14.9		43-20.0		43-18.0		43-20.0		43-25.0		43-24.9		43-30.0		43-35.0		43-40.0	
Longitude:E	141- 4.9		140-55.0		140-49.9		140-45.0		140-39.9		140-35.0		140-45.1		140-50.1		140-55.1		141- 0.1	
Date	1994/07/05		1994/07/05		1994/07/05		1994/07/05		1994/07/05		1994/07/05		1994/07/05		1994/07/05		1994/07/05		1994/07/05	
Time(JST)	06:54		08:46		09:24		09:52		10:20		11:00		11:49		12:34		13:27		14:10	
Weather	R		C		C		C		C		R		C		C		C		BC	
Air Temp.	18.0		18.0		18.2		18.6		18.3		18.2		18.4		19.0		19.6		20.6	
Bar	1000.6		1001.3		1001.5		1001.4		1001.6		1001.6		1001.9		1002.4		1002.5		1002.7	
Wind Dir	E		ESE		E		ENE		E		SE		E		ENE		NE		NE	
Wind Spd/F	S 10		S 6		S 5		S 6		S 5		S 5		S 6		S 6		S 5		S 5	
Transparency	17		20		14		20		20		18		13		16		6		13	
Depth	28		37		80		74		105		185		156		470		125		307	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	17.1	33.93*	16.3	34.28*	16.4	33.52*	16.4	34.07*	16.1	34.08*	16.2	34.29*	16.3	33.55*	16.4	33.63*	17.0	32.87*	17.8	33.68*
10m	16.76	33.968	15.78	34.082	16.08	33.641	16.13	34.077	15.90	34.077	15.95	34.066	15.60	33.584	15.99	33.637	13.34	33.858	15.64	33.344
20m	16.31	34.029	15.76	34.086	15.60	33.745	15.88	34.091	15.82	34.071	15.93	34.066	14.64	33.696	15.86	33.671	12.62	33.950	14.63	33.600
30m			15.72	34.084	13.80	33.810	15.84	34.102	15.79	34.074	15.93	34.066	13.46	33.855	12.19	33.939	10.53	34.032	11.81	33.934
50m					9.85	34.040	14.23	34.102	11.95	34.143	12.20	34.224	9.81	34.003	9.89	34.091	9.27	34.147	10.01	34.098
75m					8.64	34.192			8.99	34.225	9.29	34.251	8.90	34.107	8.56	34.177	7.78	34.129	7.84	34.097
100m									6.38	34.126	7.60	34.167	7.51	34.162	7.01	34.141	6.73	34.126	6.70	34.113
125m											5.84	34.110	6.35	34.115	5.61	34.089			5.59	34.087
150m											5.43	34.098	5.94	34.098	4.73	34.077			4.49	34.076
200m															2.72	34.075			3.33	34.068
250m															1.71	34.064			1.74	34.064
300m															1.27	34.057			1.21	34.057
400m															0.79	34.059				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-23

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199407		199407		199407		199407		199407		199407		199407		199407		199407		199407	
Station No	CIS311		CIS304		CIM101		CIM102		CIM103		CIM105		CIM106		CMI107		CIM113		CIM111	
Latitude:N	43-45.0		43-45.0		43-30.0		43-30.0		43-30.1		44- 0.1		44- 0.1		44-25.0		43-30.0		45- 0.0	
Longitude:E	141- 5.1		141-15.1		140-29.9		139-59.9		139-30.0		140- 0.0		140-30.0		140-30.0		140-29.9		140- 0.0	
Date	1994/07/05		1994/07/05		1994/07/11		1994/07/11		1994/07/11		1994/07/12		1994/07/13		1994/07/13		1994/07/15		1994/07/16	
Time(JST)	14:58		15:50		12:20		14:47		17:26		17:29		14:09		16:59		17:56		15:22	
Weather	BC		BC																	
Air Temp.	21.1		21.8																	
Bar	1002.6		1002.8																	
Wind Dir	NNE		N																	
Wind Spd/F	S 6		S 7		S		S		S		S		S		S		S		S	
Transparency	20		8																	
Depth	275		113																	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	16.4	33.97*	17.3	33.06*	16.8*	34.12*	16.6*	34.22*	17.3	34.03*	17.2	34.02*	16.6*	33.70*	16.7	34.01*	17.4	33.79*	17.5	33.95*
10m	15.92	33.981	16.25	33.982	16.82	34.028	16.51	34.003	17.15	34.031	16.81	34.002	16.35	33.721	16.45	34.017	16.16	33.810	16.36	33.945
20m	15.86	33.985	14.93	34.047	16.81	34.031	16.40	33.996	12.50	34.343	12.53	34.085	15.84	33.720	16.28	34.049	13.32	33.956	13.20	34.130
30m	12.21	34.027	12.04	33.999	16.62	34.041	15.85	34.006	10.10	34.328	9.70	34.135	15.23	33.806	11.10	34.017	10.86	34.007	9.89	34.332
50m	9.95	34.033	10.75	34.007	11.22	34.276	9.46	34.126	7.17	34.070	6.86	34.155	9.93	34.022	9.45	34.113	9.23	34.018	7.40	34.165
75m	8.64	34.176	9.58	34.136	8.95	34.228	5.50	34.113	6.03	34.046	5.06	34.095	8.52	34.054	7.86	34.175	7.90	34.079	5.62	34.103
100m	7.19	34.149	8.09	34.162	7.54	34.160	4.13	34.084	5.41	34.055	4.06	34.083	7.53	34.145	7.24	34.142			4.41	34.073
125m	6.01	34.100			6.32	34.125	3.11	34.079	4.99	34.082	3.31	34.073	6.05	34.103	6.29	34.117			3.44	34.067
150m	5.01	34.085			5.02	34.088	2.51	34.071	4.16	34.069	2.71	34.073	4.97	34.090	5.02	34.082			2.92	34.059
200m	3.34	34.075			3.93	34.074	1.55	34.061	2.61	34.070	1.72	34.059	3.40	34.071	3.58	34.067			2.59	34.058
250m	2.19	34.062			2.06	34.062	1.18	34.064	1.57	34.061	1.31	34.057	2.32	34.061					2.14	34.052
300m					1.27	34.059	0.87	34.058	1.14	34.058	0.98	34.057	1.49	34.058						
400m					0.78	34.057	0.63	34.058	0.77	34.058	0.63	34.057	0.76	34.056						
500m					0.59	34.057	0.48	34.058	0.53	34.057			0.54	34.055						
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-24

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199407		199407		199407		199407		199407		199407		199408		199408		199408		199408	
Station No	CIM109		CIM115		CIM116		CIS01		CIS02		CIS03		J31		J32		J33		J34	
Latitude:N	44-30.0		44- 0.1		43-31.1		43-12.7		43-21.6		43-25.9		43-20.0		43-30.0		43-30.0		43-29.9	
Longitude:E	139-29.9		140-59.8		140-49.7		141-13.6		141-12.6		140-38.3		141-10.0		141- 0.0		140-39.9		140-20.0	
Date	1994/07/17		1994/07/18		1994/07/19		1994/07/26		1994/07/26		1994/07/26		1994/08/01		1994/08/01		1994/08/01		1994/08/01	
Time(JST)	17:40		17:58		18:01		15:32		16:50		19:15		10:26		11:39		13:07		14:47	
Weather							BC		C		C		C		C		C		F	
Air Temp.							23.0		22.4		20.9		27.1		25.0		25.1		23.9	
Bar							1003.9		1004.0		1004.0		1006.7		1006.4		1005.7		1005.7	
Wind Dir							NW		NNW		W		ESE		SW		SW		SW	
Wind Spd/F	S		S		S		S 5		S 5		S 5		S 2		S 4		S 9		S 9	
Transparency																				
Depth							19		35		432		36		92		695		642	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	17.2	33.94*	17.8	33.68*	18.8	34.03*	21.0	33.99*	21.1	34.03*	20.8	34.05*	21.9	33.924	21.3	33.795	21.6	33.881	22.2	34.157
10m	16.23	33.975	16.82	33.736	18.40	34.037	18.17	34.147	17.91	34.119	20.42	34.054	18.02	34.163	20.27	33.784	20.36	33.827	19.70	34.103
20m	15.92	33.951	16.57	33.726	17.80	34.081			16.56	34.100	18.55	34.081	17.11	34.121	17.49	33.825	18.56	33.980	16.86	34.137
30m	11.32	34.126	16.33	33.732	17.27	34.054			15.66	34.119	17.27	34.058	15.09	34.172	16.67	33.988	16.54	34.004	13.80	34.198
50m	6.78	34.147	13.04	33.974	15.67	34.085			14.66	34.142					12.41	34.074	11.55	34.060	9.94	34.296
75m	5.19	34.094	10.46	34.101	10.52	34.293			10.31	34.279					8.49	34.230	9.67	34.172	8.12	34.218
100m	4.01	34.077	8.39	34.102	8.70	34.212			8.57	34.206							8.03	34.186	7.37	34.183
125m	3.19	34.070	7.31	34.130	7.29	34.113			7.11	34.146							6.76	34.152	6.06	34.151
150m	2.38	34.064	6.08	34.100	5.60	34.102			6.07	34.102							5.61	34.119	4.79	34.110
200m	1.73	34.067	4.49	34.075	3.22	34.070			3.91	34.079							2.32	34.101	3.22	34.093
250m	1.14	34.054	3.05	34.067	1.95	34.060			2.06	34.068							1.46	34.081	1.93	34.088
300m	0.87	34.054	1.59	34.059	1.35	34.055			1.36	34.059							1.07	34.078	1.20	34.081
400m	0.58	34.053			0.74	34.052			0.86	34.057							0.72	34.077	0.71	34.077
500m																	0.58	34.077	0.53	34.077
600m																				
700m																				
800m																				
900m																				
1000m																				

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Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408	
Station No	J35		J36		J37		J38		J39		J41		J42		J43		J44		J45	
Latitude:N	43-30.0		43-30.0		43-30.0		43-30.1		43-30.1		42-30.0		42-30.0		42-30.0		42-30.0		42-30.0	
Longitude:E	139-59.9		139-40.0		139-20.0		139- 0.0		138-29.9		139-40.0		139-20.0		138-59.9		138-39.9		138-19.9	
Date	1994/08/01		1994/08/01		1994/08/01		1994/08/01		1994/08/02		1994/08/02		1994/08/02		1994/08/02		1994/08/02		1994/08/02	
Time(JST)	16:34		18:42		20:22		22:00		00:52		08:22		10:41		12:16		13:58		15:35	
Weather	F		F		D		F		F		C		C		C		R		R	
Air Temp.	23.6		23.4		23.6		23.6		22.8		23.8		24.2		24.5		24.1		23.7	
Bar	1005.6		1006.0		1006.0		1005.8		1004.7		1006.6		1005.3		1004.0		1002.5		1001.3	
Wind Dir	SSW		SW		SSW		SW		SW		S		SE		SE		SE		E	
Wind Spd/F	S 6		S 8		S 9		S 6		S 5		S 8		S 7		S 5		S 7		S 8	
Transparency																				
Depth	2247		2085		3250				3413		1838		3300		2419				3656	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	22.8	34.237	22.4	34.171	23.5	34.182	23.7	34.160	22.0	33.942	23.3	34.279	23.3	34.197	23.6	34.018	23.1	33.917	23.1	33.930
10m	22.65	34.237	22.33	34.173	23.16	34.217	23.66	34.157	20.36	34.031	20.79	34.365	21.04	34.388	21.41	34.036	20.16	34.008	22.11	34.042
20m	19.00	34.146	18.13	34.175	19.43	34.301	18.04	34.350	18.28	34.078	17.33	34.396	14.16	34.477	10.14	34.158	13.05	34.062	16.00	34.198
30m	12.34	34.424	16.89	34.202	16.27	34.423	11.84	34.367	10.03	34.231	12.87	34.413	13.35	34.460	6.92	34.194	7.00	34.170	8.84	34.199
50m	9.90	34.349	12.14	34.337	11.64	34.360	9.60	34.374	6.19	34.165	9.78	34.364	7.64	34.252	4.37	34.128	3.48	34.142	4.17	34.147
75m	8.19	34.243	9.66	34.325	9.54	34.328	7.91	34.223	3.94	34.108	8.41	34.279	5.29	34.140	3.17	34.106	2.27	34.112	2.79	34.106
100m	6.67	34.167	8.07	34.218	8.43	34.247	6.08	34.140	2.97	34.093	6.99	34.196	3.36	34.106	2.10	34.090	1.92	34.108	2.27	34.097
125m	5.14	34.113	6.83	34.165	6.66	34.156	5.00	34.107	2.51	34.088	5.92	34.148	2.85	34.089	1.77	34.095	1.57	34.099	1.67	34.089
150m	3.94	34.098	5.65	34.127	5.44	34.121	4.08	34.105	1.98	34.089	4.71	34.109	2.29	34.085	1.34	34.084	1.32	34.091	1.39	34.091
200m	2.67	34.088	3.75	34.099	3.55	34.098	2.53	34.087	1.37	34.086	3.71	34.090	1.64	34.083	1.17	34.088	1.01	34.084	1.16	34.088
250m	1.65	34.085	2.68	34.089	2.45	34.091	1.58	34.081	1.19	34.092	2.41	34.092	1.09	34.080	1.04	34.088	0.83	34.084	1.03	34.089
300m	1.18	34.081	1.73	34.081	1.62	34.085	1.09	34.079	1.00	34.088	1.35	34.080	0.78	34.076	0.82	34.082	0.69	34.083	0.79	34.082
400m	0.76	34.080	0.95	34.080	1.00	34.078	0.66	34.077	0.61	34.080	0.72	34.076	0.49	34.075	0.59	34.081	0.51	34.082	0.54	34.081
500m	0.53	34.079	0.65	34.078	0.72	34.080	0.49	34.078	0.46	34.080	0.48	34.076	0.41	34.077	0.45	34.081	0.41	34.081	0.43	34.081
600m	0.42	34.077					0.39	34.079			0.36	34.075								
700m																				
800m																				
900m																				
1000m																				

Table 3-26



Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408	
Station No	J46		J47		J58		J57		J56		J55		J54		J53		J52		J63	
Latitude:N	42-29.9		42-30.0		41-30.0		41-30.0		41-30.1		41-30.0		41-30.0		41-30.0		41-30.3		41- 0.0	
Longitude:E	137-59.9		137-30.0		137-30.0		138- 0.0		138-20.0		138-40.0		139- 0.0		139-15.0		139-30.1		140- 0.1	
Date	1994/08/02		1994/08/02		1994/08/03		1994/08/03		1994/08/03		1994/08/03		1994/08/03		1994/08/03		1994/08/03		1994/08/03	
Time(JST)	17:11		20:02		01:52		04:17		06:00		07:41		09:24		10:44		12:06		15:56	
Weather	R		C		F		F		C		C		C		C		C		F	
Air Temp.	23.4		22.8		22.7		22.8		23.1		23.6		24.7		25.4		26.2		24.1	
Bar	1001.1		1003.8		1005.7		1005.7		1006.3		1006.7		1007.0		1006.7		1016.2		1006.3	
Wind Dir	E		NNW		W		W		W		W		WSW		SW		WSW		SW	
Wind Spd/F	S 6		S 4		S 6		S 5		S 4		S 2		S 1		S 5		S 7		S 7	
Transparency																				
Depth			3680				3695		3695		3073		1341		1134		1658		500	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	23.2	33.874	22.1	33.875	23.0	34.036	23.3	33.671	23.6	33.693	23.5	33.698	24.0	33.984	24.4	33.973	25.2	33.979	24.2	34.087
10m	18.99	33.945	21.61	33.902	19.76	33.879	20.13	33.902	23.43	33.708	23.42	33.704	24.01	33.986	23.24	34.033	25.02	33.974	24.07	34.087
20m	14.75	34.059	13.48	34.062	12.69	34.022	14.52	34.037	15.82	33.988	14.42	34.211	16.85	33.978	17.08	34.147	18.22	34.142	21.37	34.360
30m	8.62	34.150	8.01	34.156	7.22	34.132	7.39	34.195	9.02	34.148	7.29	34.209	9.68	34.143	9.60	34.157	9.13	34.138	18.92	34.503
50m	5.01	34.135	3.80	34.151	4.02	34.125	3.71	34.131	3.66	34.136	3.98	34.120	3.94	34.163	4.92	34.156	5.91	34.164	15.19	34.548
75m	3.37	34.116	2.57	34.113	2.89	34.110	2.63	34.117	2.32	34.119	2.33	34.104	2.64	34.106	3.08	34.109	4.21	34.102	13.15	34.539
100m	2.54	34.107	2.02	34.103	2.27	34.111	2.23	34.114	1.73	34.107	1.94	34.091	2.15	34.090	2.24	34.098	3.02	34.093	11.61	34.475
125m	1.98	34.093	1.68	34.093	1.82	34.097	1.86	34.106	1.39	34.095	1.51	34.087	1.65	34.095	1.83	34.085	2.42	34.087	10.75	34.366
150m	1.60	34.090	1.48	34.091	1.41	34.083	1.59	34.093	1.24	34.090	1.28	34.083	1.36	34.089	1.46	34.081	1.86	34.086	10.21	34.318
200m	1.21	34.087	1.12	34.085	1.21	34.089	1.25	34.088	1.07	34.089	1.18	34.086	0.96	34.080	1.04	34.076	1.33	34.082	6.89	34.197
250m	0.94	34.084	0.91	34.083	1.00	34.087	1.10	34.090	0.90	34.085	0.96	34.082	0.70	34.080	0.78	34.074	1.11	34.083	3.19	34.092
300m	0.78	34.083	0.72	34.083	0.81	34.085	0.87	34.084	0.74	34.083	0.83	34.080	0.59	34.079	0.61	34.075	0.82	34.074	1.92	34.082
400m	0.56	34.083	0.53	34.081	0.59	34.083	0.60	34.083	0.54	34.082	0.57	34.082	0.41	34.074	0.44	34.074	0.51	34.075	0.85	34.079
500m	0.43	34.082	0.42	34.081	0.45	34.082	0.48	34.082	0.43	34.081	0.44	34.081	0.33	34.076	0.34	34.075	0.41	34.078		
600m	0.37	34.081																		
700m																				
800m																				
900m																				
1000m																				

Table 3-27

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408	
Station No	J62		J61		J51		JC15		JC14		JC13		JC12		JC11		CE03		CE05	
Latitude:N	41-10.0		41-20.1		41-30.0		43- 0.0		43- 0.0		43- 0.0		43- 0.0		43- 0.0		43-23.3		43-23.5	
Longitude:E	140- 0.0		140- 0.0		139-50.0		139- 0.0		139-20.0		139-40.0		140- 0.0		140-20.0		140-39.9		140-39.8	
Date	1994/08/03		1994/08/03		1994/08/03		1994/08/04		1994/08/04		1994/08/04		1994/08/04		1994/08/04		1994/08/29		1994/08/30	
Time(JST)	17:10		18:07		19:39		04:37		06:16		07:54		09:30		11:08		18:32		05:39	
Weather	C		C		C		C		BC		C		C		C		C		B	
Air Temp.	24.4		24.1		24.4		23.9		23.7		24.1		24.7		25.0		24.3		22.7	
Bar	1005.6		1005.7		1005.8		1000.2		1001.0		1002.2		1002.1		1003.3		1016.1		1015.3	
Wind Dir	SW		SSW		SSW		SW		WSW		SW		SW		SW		CALM		SE	
Wind Spd/F	S 6		S 6		S 6		S 10		S 8		S 6		S 8		S 7		S 0		S 1	
Transparency																				
Depth	105		216		1365		3543		2326		3356		1288		466		319		328	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	24.5	34.015	23.6	33.908	24.4	33.983	23.6	34.151	22.4	34.163	22.6	34.210	22.7	34.227	23.1	34.245	23.7	34.05*	23.4	34.04*
10m	24.50	34.013	19.86	34.294	22.05	34.139	23.49	34.165	22.34	34.158	22.46	34.209	22.54	34.222	22.82	34.243	23.53	34.050	23.41	34.040
20m	23.90	34.081	18.72	34.320	19.26	34.359	19.24	34.191	17.81	34.214	18.27	34.171	18.33	34.288	21.88	34.225	23.49	34.048	23.30	34.030
30m	18.38	34.565	15.80	34.570	14.76	34.527	15.42	34.397	13.62	34.374	16.32	34.340	14.32	34.379	19.67	34.243	23.26	34.045	18.69	34.273
50m	12.73	34.518	13.31	34.490	11.49	34.507	7.49	34.103	10.50	34.379	10.97	34.363	11.19	34.373	12.33	34.424	12.13	34.422	11.47	34.393
75m	10.27	34.306	10.69	34.365	8.87	34.275	4.86	34.126	8.15	34.255	9.05	34.288	8.75	34.266	9.10	34.297	8.81	34.266	8.45	34.250
100m	9.80	34.257	9.78	34.302	7.24	34.187	3.62	34.090	6.99	34.193	7.02	34.148	7.32	34.198	7.61	34.203	6.98	34.182	6.33	34.168
125m			9.43	34.285	5.51	34.132	2.58	34.089	5.87	34.141	6.13	34.096	6.25	34.146	6.13	34.135	5.21	34.128	4.56	34.118
150m			9.13	34.271	4.61	34.096	1.98	34.092	5.05	34.120	5.30	34.114	4.99	34.115	4.76	34.123	4.02	34.106	3.42	34.105
200m			8.34	34.229	3.08	34.084	1.40	34.077	3.73	34.094	3.50	34.096	3.06	34.099	3.40	34.098	2.33	34.096	2.03	34.092
250m					1.85	34.084	1.02	34.076	2.48	34.083	2.25	34.087	1.86	34.083	2.35	34.085	1.52	34.086	1.36	34.084
300m					1.27	34.083	0.80	34.075	1.53	34.080	1.58	34.080	1.42	34.081	1.29	34.080	1.18	34.082	1.06	34.082
400m					0.91	34.083	0.55	34.078	0.82	34.079	1.00	34.079	0.80	34.078	0.57	34.078				
500m					0.61	34.081	0.44	34.081	0.54	34.077	0.67	34.080	0.54	34.077						
600m													0.39	34.077						
700m																				
800m																				
900m																				
1000m																				

Table 3-28

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199409		199409		199409		199409		199409		199409		199409		199409	
Station No	CE07		CE08		CT102		CT101		CT103		CT104		CT105		CT108		CT107		CT106	
Latitude:N	43-23.5		43-24.0		42-49.0		42-49.0		42-48.0		42-47.9		42-47.9		42-47.0		42-47.0		42-47.0	
Longitude:E	140-39.8		140-39.8		140- 2.9		140- 1.0		140- 0.0		140- 2.0		140- 4.0		140- 2.9		140- 1.0		139-58.9	
Date	1994/08/30		1994/08/31		1994/09/05		1994/09/05		1994/09/05		1994/09/05		1994/09/05		1994/09/05		1994/09/05		1994/09/06	
Time(JST)	18:59		18:53		21:49		22:09		22:31		23:00		23:20		23:36		23:51		00:10	
Weather	BC		C		BC		BC		BC		BC		BC		BC		BC		BC	
Air Temp.	23.9		24.1		24.0		24.3		24.4		24.4		23.9		23.7		23.9		24.4	
Bar	1014.0		1009.3		1006.5		1006.5		1006.0		1006.0		1006.0		1006.0		1006.0		1005.5	
Wind Dir	N		NNW		SE		SE		SE		SE		SE		SE		SE		SE	
Wind Spd/F	S 2		S 3		S 9		S 7		S 6		S 7		S 9		S 10		S 6		S 7	
Transparency																				
Depth	324		363		325		393		534		286		142		164		180		484	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	23.7	34.05*	24.2	33.80*	24.7	33.99*	25.0	33.94*	25.0	33.96*	24.8	33.97*	24.5	34.01*	24.4	33.98*	24.9	33.97*	25.1	33.95*
10m	23.45	34.052	23.41	33.905	24.73	33.999	24.96	33.968	25.12	33.959	24.89	33.980	24.40	33.992	24.43	33.987	24.52	33.985	25.14	33.950
20m	23.24	34.032	22.95	34.068	24.17	34.002	24.24	33.985	24.44	33.967	24.22	34.003	23.93	33.979	24.07	33.995	24.24	33.946	24.67	33.954
30m	21.29	34.116	18.31	34.230	23.43	34.040	23.78	34.030	23.73	34.044	22.56	34.130	20.71	34.202	20.46	34.210	20.52	34.247	22.46	34.099
50m	11.36	34.322	12.10	34.365	13.75	34.558	13.61	34.541	13.01	34.536	13.05	34.539	12.79	34.502	13.05	34.491	12.75	34.506	13.07	34.539
75m	8.41	34.262	8.96	34.237	9.25	34.349	9.70	34.344	9.55	34.359	9.30	34.345	9.95	34.366	10.16	34.379	9.43	34.357	9.14	34.325
100m	6.70	34.180	6.78	34.176	7.24	34.217	7.55	34.240	7.28	34.221	7.18	34.210	7.35	34.218	7.63	34.245	7.41	34.231	7.60	34.224
125m	5.19	34.122	5.47	34.128	5.84	34.148	5.87	34.154	5.84	34.160	6.10	34.152	6.09	34.148	6.18	34.170	6.67	34.181	6.38	34.178
150m	3.53	34.109	3.79	34.123	4.90	34.113	4.66	34.111	5.06	34.122	5.38	34.125			5.17	34.121	4.80	34.133	5.38	34.133
200m	2.25	34.091	2.30	34.090	2.89	34.099	2.84	34.094	3.04	34.092	2.86	34.103							2.80	34.095
250m	1.50	34.088	1.50	34.087	1.74	34.088	1.71	34.085	1.80	34.086	1.48	34.091							1.69	34.088
300m	1.02	34.082	1.09	34.083	0.94	34.082	1.12	34.081	1.16	34.083									1.13	34.083
400m											0.65	34.078							0.66	34.079
500m											0.49	34.077								
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-29

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199409		199409		199409		199409		199409		199409		199409		199409		199409		199409	
Station No	CT109		CT110		CT111		CT112		CT116		CT115		CT114		CT113		CT117		CT118	
Latitude:N	42-46.0		42-46.1		42-46.1		42-46.1		42-45.0		42-45.1		42-45.0		42-45.0		42-44.0		42-43.9	
Longitude:E	139-58.0		139-59.9		140- 1.9		140- 3.9		140- 2.9		140- 0.9		139-58.9		139-57.0		139-55.9		139-58.0	
Date	1994/09/06		1994/09/06		1994/09/06		1994/09/06		1994/09/06		1994/09/06		1994/09/06		1994/09/06		1994/09/06		1994/09/06	
Time(JST)	00:37		01:05		01:26		01:46		02:03		02:20		02:37		03:00		03:29		03:57	
Weather	BC		BC		BC		BC		BC		BC		BC		BC		BC		BC	
Air Temp.	24.3		24.9		24.4		24.1		23.9		24.1		24.3		24.9		24.8		24.8	
Bar	1005.5		1005.0		1005.0		1005.0		1005.0		1004.7		1005.0		1004.5		1004.4		1004.4	
Wind Dir	SE		SE		SE		SE		SE		SE		SE		ESE		E		E	
Wind Spd/F	S 7		S 7		S 9		S 8		S 7		S 8		S 8		S 7		S 6		S 7	
Transparency																				
Depth	465		165		122		129		117		123		379		786		465		153	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	25.2	33.93*	24.8	33.97*	24.3	33.97*	24.3	33.90*	24.3	33.93*	24.4	33.96*	24.6	33.97*	25.0	33.94*	25.1	33.93*	24.5	33.96*
10m	24.90	33.946	24.77	33.975	24.39	33.969	24.36	33.914	24.29	33.951	24.53	33.957	24.65	33.966	24.97	33.940	25.16	33.931	24.59	33.960
20m	24.57	33.958	24.33	33.972	23.91	34.015	23.65	34.034	23.59	34.026	24.19	33.986	24.46	33.962	24.58	33.955	24.67	33.958	24.46	33.960
30m	21.09	34.165	17.89	34.334	19.26	34.278	18.81	34.323	18.39	34.306	19.53	34.265	18.15	34.339	17.90	34.344	18.58	34.311	22.01	34.150
50m	13.74	34.523	13.79	34.504	13.17	34.489	12.62	34.469	12.45	34.463	12.68	34.474	14.20	34.427	13.65	34.497	13.64	34.415	13.57	34.450
75m	9.26	34.341	9.78	34.360	10.39	34.379	10.61	34.397	10.64	34.405	10.48	34.389	10.76	34.399	10.63	34.398	12.22	34.417	11.35	34.419
100m	8.04	34.251	8.37	34.266	7.92	34.264	7.45	34.213	7.91	34.229	8.26	34.248	8.59	34.283	9.04	34.308	9.93	34.365	9.58	34.348
125m	6.22	34.171	7.10	34.196									6.83	34.190	6.96	34.203	8.15	34.258	7.91	34.252
150m	4.89	34.123	4.35	34.130									4.80	34.143	5.54	34.139	5.90	34.171		
200m	2.99	34.099											3.34	34.098	3.34	34.097	3.41	34.101		
250m	1.76	34.087											1.73	34.092	1.87	34.090	1.81	34.088		
300m	1.18	34.083											1.04	34.083	1.22	34.083	1.19	34.084		
400m	0.66	34.079													0.63	34.078	0.68	34.079		
500m															0.43	34.078				
600m															0.36	34.078				
700m																				
800m																				
900m																				
1000m																				

Table 3-30

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199409		199409		199409		199409		199409		199409		199409		199409		199409		199409	
Station No	CT119		CT120		CT121		CT125		CT124		CT123		CT122		CS15		CS07		CS09	
Latitude:N	42-44.0		42-44.0		42-44.0		42-43.0		42-43.0		42-43.0		42-43.0		44- 0.0		44-26.3		44-29.9	
Longitude:E	140- 0.0		140- 2.0		140- 3.9		140- 3.0		140- 0.9		139-58.9		139-57.1		140-59.8		140-28.3		139-29.7	
Date	1994/09/06		1994/09/06		1994/09/06		1994/09/06		1994/09/06		1994/09/06		1994/09/06		1994/09/21		1994/09/22		1994/09/24	
Time(JST)	04:16		04:35		04:54		05:08		05:25		05:42		06:02		18:57		17:28		16:24	
Weather	BC		BC		BC		BC		BC		BC		BC		C		C		BC	
Air Temp.	24.7		24.4		24.0		23.9		24.6		25.0		25.3		18.7		18.9		21.9	
Bar	1004.0		1004.0		1003.7		1003.6		1004.0		1003.5		1003.5		1012.0		1015.0		1011.5	
Wind Dir	ESE		SE		SE		SE		SE		SE		SE		E		E		E	
Wind Spd/F	S 8		S 9		S 9		S 9		S 8		S 10		S 9		S 9		S 9		S 3	
Transparency																				
Depth	115		100		56		34		81		103		214		400		225		537	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	24.2	33.93*	24.2	33.93*	24.2	33.76*	24.3	33.85*	24.4	33.94*	24.5	33.95*	25.6	33.92*	21.8	33.91*	21.1	33.75*	17.8	33.69*
10m	24.26	33.933	24.28	33.943	24.14	33.930	24.30	33.911	24.46	33.950	24.59	33.953	25.53	33.927	21.85	33.913	20.98	33.748	17.46	33.718
20m	24.19	33.968	23.92	34.003	23.95	33.999	24.12	33.972	24.17	33.974	24.51	33.955	24.93	33.944	21.88	33.915	18.81	34.062	17.42	33.719
30m	20.31	34.260	22.76	34.071	21.34	34.157			22.70	34.081	23.77	34.018	24.57	33.966	21.57	33.961	14.49	34.109	8.10	34.154
50m	12.78	34.482	12.75	34.454	13.32	34.426			12.79	34.484	14.53	34.473	14.14	34.495	11.99	34.461	10.88	34.061	5.06	34.142
75m	10.94	34.410	10.15	34.376					9.95	34.363	11.69	34.412	11.86	34.434	8.75	34.310	10.10	34.076	3.69	34.102
100m	8.73	34.294											10.66	34.383	6.18	34.142	8.53	34.218	2.82	34.095
125m													8.73	34.301	4.96	34.112	7.68	34.173	2.31	34.096
150m													6.44	34.196	4.12	34.097	6.22	34.134	1.82	34.090
200m													4.17	34.107	2.37	34.085	1.71	34.095	1.32	34.084
250m															1.40	34.081			1.04	34.080
300m															0.88	34.078			0.84	34.078
400m																			0.54	34.075
500m																			0.39	34.073
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-31

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199409		199409		199409		199410		199410		199410		199410		199410		199410		199410	
Station No	CS05		CS03		CS16		J31		J32		J33		J34		J35		J36		J37	
Latitude:N	43-58.1		43-31.0		43-33.9		43-19.7		43-29.6		43-29.6		43-29.6		43-29.8		43-29.7		43-29.8	
Longitude:E	140- 2.2		139-28.5		140-45.5		141-10.0		141- 0.0		140-40.0		140-20.0		139-59.9		139-40.0		139-20.0	
Date	1994/09/25		1994/09/26		1994/09/27		1994/10/03		1994/10/03		1994/10/03		1994/10/03		1994/10/03		1994/10/03		1994/10/03	
Time(JST)	17:37		17:35		17:36		09:58		11:11		12:40		14:20		15:59		18:05		19:41	
Weather	R		BC		BC		BC		BC		B		BC		BC		BC		BC	
Air Temp.	17.8		19.2		21.0		20.5		23.7		20.8		19.5		19.0		18.5		18.3	
Bar	1001.5		1013.5		1013.5		1019.5		1019.5		1019.5		1019.5		1019.5		1020.3		1020.4	
Wind Dir	NNE		SSW		ESE		W		W		CALM		NE		CALM		SSE		S	
Wind Spd/F	S 11		S 7		S 10		S 1		S 1		S 0		S 1		S 0		S 1		S 1	
Transparency																				
Depth	347		2378		614		38		92		682		626		1238		1500		3086	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	20.4	34.07*	21.4	33.78*	21.9	33.81*	21.3	33.385	21.6	33.699	22.0	33.772	21.6	33.721	22.1	33.697	21.4	33.67*	21.4	33.596
10m	20.42	34.069	21.35	33.778	21.87	33.809	21.31	33.740	21.29	33.685	21.74	33.759	21.22	33.736	21.86	33.691	21.16	33.699	21.36	33.605
20m	20.42	34.068	21.34	33.773	21.87	33.810	21.09	33.730	21.08	33.722	21.66	33.760	20.08	34.023	21.40	33.662	21.12	33.704	21.03	33.688
30m	20.43	34.077	18.89	34.024	21.15	33.866	20.88	33.708	21.03	33.753	21.62	33.761	18.38	34.176	18.00	34.115	19.17	34.137	16.38	34.244
50m	9.99	34.376	13.46	34.494	13.39	34.464			16.43	34.449	18.03	34.254	14.19	34.436	15.03	34.503	14.45	34.461	12.00	34.439
75m	6.62	34.195	9.73	34.341	9.49	34.341			11.68	34.432	13.67	34.510	12.83	34.513	11.50	34.430	9.51	34.336	8.83	34.285
100m	4.88	34.124	7.87	34.228	7.65	34.220			10.01	34.349	9.00	34.305	8.50	34.270	7.73	34.214	7.41	34.201		
125m	3.62	34.096	6.74	34.163	5.79	34.123			8.19	34.248	7.46	34.214	6.31	34.164	6.49	34.148	6.09	34.149		
150m	2.76	34.086	5.57	34.127	4.62	34.101			6.44	34.161	6.03	34.149	5.12	34.122	5.38	34.126	4.65	34.109		
200m	1.85	34.082	3.55	34.092	3.01	34.089			3.57	34.099	4.23	34.103	3.35	34.091	3.49	34.092	3.04	34.092		
250m	1.45	34.077	2.37	34.081	1.90	34.081			2.27	34.086	2.62	34.089	2.08	34.085	2.32	34.087	1.99	34.083		
300m	1.27	34.076	1.70	34.080	1.35	34.078			1.76	34.080	1.73	34.082	1.47	34.080	1.55	34.082	1.42	34.080		
400m			0.89	34.074	0.72	34.074			0.84	34.078	0.84	34.078	0.86	34.080	0.87	34.078	0.80	34.076		
500m			0.58	34.072	0.55	34.073			0.67	34.077	0.53	34.076	0.60	34.079	0.56	34.076	0.54	34.077		
600m													0.42	34.077						
700m																				
800m																				
900m																				
1000m																				

Table 3-32

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199410		199410		199410		199410		199410		199410		199410		199410		199410	
Station No	J38		J39		J41		J42		J43		J44		J45		JC15		JC14		JC13	
Latitude:N	43-30.0		43-30.0		42-30.0		42-29.5		42-29.6		42-29.6		42-30.0		42-59.7		42-59.8		42-59.8	
Longitude:E	139- 0.0		138-30.0		139-40.0		139-20.1		139- 0.0		138-40.0		138-20.0		139- 0.0		139-20.1		139-40.1	
Date	1994/10/03		1994/10/03		1994/10/04		1994/10/04		1994/10/04		1994/10/04		1994/10/04		1994/10/05		1994/10/05		1994/10/05	
Time(JST)	21:15		23:54		07:36		09:58		11:40		13:17		17:04		15:43		17:32		19:12	
Weather	BC		BC		BC		BC		BC		BC		C		BC		BC		BC	
Air Temp.	18.2		18.0		17.7		19.7		19.9		19.7		19.6		17.8		17.0		16.9	
Bar	1020.2		1020.2		1017.9		1016.6		1014.2		1012.6		1011.2		1011.2		1011.8		1012.6	
Wind Dir	S		SSE		ESE		ESE		SE		SE		SE		WSW		WSW		SW	
Wind Spd/F	S 3		S 2		S 12		S 10		S 14		S 13		S 13		S 10		S 8		S 7	
Transparency																				
Depth	3400		3400		1960		3300										1430		2000	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	21.2	33.745	21.1	33.737	21.8	33.861	21.2	33.898	21.0	33.808	20.2	33.668	19.6	33.658	19.7	33.641	20.7	33.686	21.0	33.690
10m	21.24	33.732	21.11	33.719	20.80	33.846	21.16	33.884	20.93	33.788	20.16	33.653	18.94	33.629	19.69	33.625	20.70	33.670	21.06	33.675
20m	21.13	33.736	20.25	33.625	20.14	33.981	20.14	34.034	20.68	33.778	19.33	33.718	18.95	33.628	19.69	33.625	20.69	33.670	20.64	33.737
30m	18.27	34.240	11.70	34.383	17.24	34.369	16.33	34.522	18.78	33.868	7.00	34.183	8.02	34.233	9.79	34.110	20.21	33.718	20.37	33.865
50m	10.28	34.241	7.51	34.246	14.55	34.543	13.96	34.566	6.04	34.112	3.13	34.104	3.54	34.133	5.41	34.148	5.34	34.156	11.58	34.408
75m	6.91	34.198	4.73	34.119	12.33	34.526	11.54	34.472	3.52	34.107	2.32	34.094	2.34	34.086	3.49	34.098	3.50	34.100	5.99	34.108
100m	5.05	34.119	3.60	34.096	10.57	34.374	5.98	34.186	2.54	34.093	1.83	34.091	1.86	34.081	2.53	34.079	2.76	34.087	4.11	34.102
125m	3.55	34.098	2.67	34.084	9.29	34.227	3.91	34.117	2.02	34.084	1.52	34.090	1.41	34.074	1.95	34.081	2.31	34.083	2.75	34.088
150m	2.80	34.090	2.14	34.082	7.40	34.197	2.88	34.092	1.63	34.079	1.34	34.088	1.27	34.077	1.55	34.080	1.81	34.083	2.07	34.081
200m	1.80	34.084	1.41	34.082	2.89	34.089	1.55	34.082	1.29	34.078	1.04	34.081	1.17	34.081	1.21	34.077	1.31	34.077	1.41	34.078
250m	1.31	34.078	1.02	34.080	1.64	34.080	1.11	34.081	1.11	34.083	0.87	34.079	1.01	34.081	1.02	34.080	1.01	34.075	1.15	34.079
300m	1.02	34.079	0.82	34.079	1.27	34.081	0.98	34.081	0.93	34.082	0.71	34.081	0.85	34.082	0.90	34.082	0.75	34.073	0.91	34.076
400m	0.64	34.077	0.56	34.079	0.95	34.082	0.61	34.080	0.66	34.079	0.51	34.081	0.59	34.082	0.61	34.080	0.50	34.075	0.60	34.074
500m	0.46	34.077	0.43	34.079	0.63	34.079	0.48	34.079	0.48	34.080	0.42	34.080	0.45	34.081	0.47	34.079	0.39	34.075	0.46	34.076
600m	0.40	34.080			0.46	34.077														
700m																				
800m																				
900m																				
1000m																				

Table 3-33

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199410		199410		199410		199410		199410		199410		199410		199410		199410	
Station No	JC12		JC11		CW011		CW102		CW03		CW04		CW050		CW25		CW22		CW23	
Latitude:N	42-59.6		42-59.6		43-25.0		43-24.6		43-24.7		43-24.7		43-24.7		43- 9.6		42-59.6		42-59.6	
Longitude:E	140- 0.1		140-20.1		141- 0.0		140-50.0		140-39.7		140-19.9		140- 0.2		139-59.9		139-59.9		140-20.2	
Date	1994/10/05		1994/10/05		1994/10/11		1994/10/11		1994/10/11		1994/10/11		1994/10/11		1994/10/11		1994/10/11		1994/10/12	
Time(JST)	20:53		22:31		10:24		11:08		12:03		13:51		15:24		19:43		23:35		01:13	
Weather	BC		BC		B		B		B		B		B		B		B		B	
Air Temp.	17.2		16.1		19.3		20.5		21.1		17.6		17.9		16.7		17.0		14.9	
Bar	1012.9		1012.8		1020.4		1020.0		1019.0		1018.7		1018.1		1018.1		1017.8		1017.7	
Wind Dir	WSW		SSE		S		SSE		SE		SW		SW		WSW		WSW		ESE	
Wind Spd/F	S 6		S 6		S 3		S 1		S 1		S 7		S 6		S 6		S 3		S 3	
Transparency																				
Depth	1313		598		70		340		429		142		700		670		1286		600	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	21.0	33.629	21.1	33.739	20.0	33.84*	20.1	33.83*	20.1	33.85*	20.1	33.88*	19.9	33.88*	19.1	33.80*	20.0	33.86*	19.6	33.49*
10m	20.97	33.616	21.16	33.726	19.90	33.845	19.94	33.841	19.85	33.839	19.99	33.887	19.79	33.881	18.98	33.796	20.04	33.862	19.61	33.534
20m	20.97	33.633	21.16	33.723	19.90	33.846	19.93	33.841	19.83	33.839	19.99	33.886	19.79	33.883	18.87	33.786	20.04	33.863	19.84	33.647
30m	20.52	33.752	21.11	33.765	19.85	33.848	19.92	33.842	19.84	33.843	19.96	33.882	19.76	33.884	18.08	33.796	19.47	33.961	19.66	33.802
50m	15.23	34.493	16.83	34.261	19.64	33.850	19.92	33.843	19.81	33.843	19.85	33.892	18.61	34.095	12.80	34.517	14.84	34.533	15.87	34.397
75m	12.66	34.510	14.49	34.482			13.66	34.500	13.43	34.505	13.78	34.465	13.98	34.569	10.11	34.326	10.26	34.374	12.29	34.469
100m	10.77	34.418	11.72	34.451			9.96	34.375	10.34	34.371	11.25	34.456	11.65	34.442	8.76	34.266	8.76	34.276	9.76	34.290
125m	8.50	34.257	9.54	34.337			8.32	34.266	8.48	34.257	9.54	34.323	10.14	34.328	5.50	34.152	4.93	34.119	8.64	34.268
150m	6.81	34.179	7.91	34.234			6.72	34.181	7.19	34.176			8.58	34.244	4.46	34.115	3.51	34.102	7.31	34.207
200m	2.95	34.088	4.47	34.112			3.94	34.108	4.39	34.108			3.54	34.094	2.34	34.088	1.89	34.081	3.08	34.095
250m	1.92	34.079	2.35	34.091			2.47	34.089	1.91	34.088			1.99	34.078	1.36	34.082	1.30	34.078	1.76	34.083
300m	1.44	34.076	1.38	34.083			1.65	34.083	1.22	34.082			1.45	34.078	1.12	34.081	1.06	34.077	1.17	34.077
400m	0.84	34.075	0.76	34.074					0.73	34.078			0.79	34.076	0.69	34.075	0.77	34.075	0.63	34.075
500m	0.55	34.075	0.48	34.073									0.53	34.075	0.45	34.074	0.47	34.073	0.51	34.074
600m													0.30	34.074	0.38	34.075	0.36	34.074		
700m																				
800m																				
900m																				
1000m																				

Table 3-34



Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199410		199410		199410		199410		199410		199410		199410		199410		199410		
Station No	CW24		CW21		CW119		CW90		CW91		CW116		CW17		CW14		CW15		CW13		
Latitude:N	42-59.6		42-59.4		42-59.6		42-54.0		43- 9.9		43-19.7		43-19.7		43-39.7		43-39.8		43-59.6		
Longitude:E	140-27.1		139-30.1		138-59.9		140-12.5		140- 4.5		139-29.8		139- 0.1		139- 0.0		139-30.0		139- 0.1		
Date	1994/10/12		1994/10/12		1994/10/12		1994/10/15		1994/10/15		1994/10/15		1994/10/15		1994/10/15		1994/10/16		1994/10/16		
Time(JST)	02:03		06:17		08:51		07:03		10:42		18:59		21:25		23:27		01:59		07:12		
Weather	B		BC		C		BC		BC		C		C		C		C		C		
Air Temp.	12.3		16.1		18.6		13.3		17.1		14.7		14.2		15.2		15.6		14.5		
Bar	1017.8		1015.4		1014.2		1022.0		1021.5		1018.0		1015.1		1012.7		1011.8		1004.7		
Wind Dir	E		ENE		E		SE		WSW		SW		SW		SW		SW		SSW		
Wind Spd/F	S 7		S 2		S 5		S 3		S 6		S 13		S 12		S 12		S 12		S 12		
Transparency																					
Depth	71		3300		3500		229		284		3200		2800		3400						
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	19.6	33.54*	18.4	33.74*	18.6	33.74*	19.3	33.92*	19.4	33.83*	17.6	33.64*	16.9	34.03*	17.7	34.00*	18.2	33.84*	17.5	34.01*	
10m	19.71	33.573	18.35	33.741	18.44	33.737	19.31	33.928	19.32	33.912	17.48	33.814	16.81	34.027	17.68	34.006	19.15	33.879	17.49	34.008	
20m	19.95	33.744	18.34	33.741	18.44	33.736	19.32	33.928	19.31	33.913	17.48	33.814	16.80	34.028	17.68	34.006	19.15	33.879	17.48	34.010	
30m	19.44	33.934	18.18	33.736	17.98	33.787	19.32	33.930	19.31	33.913	17.49	33.814	16.64	34.047	17.68	34.007	19.15	33.879	17.49	34.010	
50m	15.01	34.438	8.70	34.183	5.98	34.202	18.55	34.003	19.25	33.932	12.98	34.121	9.72	34.309	15.02	34.038	14.33	34.492	13.06	34.518	
75m			4.04	34.106	4.02	34.120	13.49	34.501	13.99	34.575	5.71	34.124	5.75	34.142	7.95	34.237	11.56	34.434	10.08	34.357	
100m			2.84	34.095	2.88	34.090	10.07	34.342	10.04	34.351	4.07	34.098	3.91	34.101	5.82	34.152	9.43	34.312	7.70	34.222	
125m			2.37	34.087	2.31	34.083	8.10	34.248	8.02	34.241	2.80	34.085	2.95	34.089	3.81	34.098	6.70	34.175	6.27	34.144	
150m			1.96	34.083	1.81	34.081	6.86	34.196	4.01	34.140	2.25	34.078	2.21	34.085	3.18	34.083	5.67	34.138	4.56	34.113	
200m			1.40	34.080	1.30	34.079			2.01	34.081	1.49	34.080	1.51	34.076	2.02	34.081	2.41	34.085	3.02	34.086	
250m			1.16	34.078	1.14	34.081			1.60	34.075	1.10	34.075	1.10	34.076	1.43	34.079	1.80	34.076	1.95	34.080	
300m			0.97	34.080	0.98	34.080					0.90	34.074	0.87	34.075	1.03	34.075	1.27	34.078	1.38	34.076	
400m			0.58	34.074	0.69	34.078					0.60	34.073	0.60	34.074	0.69	34.075	0.75	34.075	0.85	34.075	
500m			0.43	34.074	0.52	34.079					0.46	34.075	0.44	34.073	0.49	34.075	0.56	34.075	0.63	34.073	
600m			0.35	34.074	0.41	34.078					0.37	34.075	0.35	34.073	0.39	34.075	0.41	34.074	0.47	34.073	
700m																					
800m																					
900m																					
1000m																					

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Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410	199410	199410	199410	199410	199410	199410	199410	199410	199410											
Station No	CW12	CW11	CW08	CW07	CW92	CW06	CW09	CW10	CSM01	CSM02											
Latitude:N	43-59.5	43-59.5	43-59.7	43-59.8	43-24.5	43-39.7	43-39.5	43-39.7	40-29.5	40-29.6											
Longitude:E	139-30.2	140- 0.1	140-30.1	141- 0.2	140-37.1	141- 0.2	140-30.1	140- 0.1	138-30.2	139- 0.1											
Date	1994/10/16	1994/10/16	1994/10/16	1994/10/16	1994/10/18	1994/10/18	1994/10/19	1994/10/19	1994/10/25	1994/10/25											
Time(JST)	09:17	11:27	13:38	15:50	11:36	21:13	00:08	03:35	07:34	10:31											
Weather	C	C	C	BC	C	BC	C	C	C	BC											
Air Temp.	14.2	14.2	13.9	13.6	12.9	13.7	13.5	13.6	13.5	14.5											
Bar	1002.2	997.0	997.8	999.0	1018.0	1017.2	1016.5	1015.0	1028.2	1028.9											
Wind Dir	SW	SW	WNW	WNW	W	WSW	WSW	SW	NE	ENE											
Wind Spd/F	S 14	S 16	S 14	S 16	S 6	S 8	S 9	S 11	S 2	S 4											
Transparency																					
Depth	1400	400	742	411	288	269	809	1400	999	999											
Equipment	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD											
STND. Dep	T	S	T	S	T	S	T	S	T	S											
0m	17.4	33.78*	15.3	34.02*	13.9	34.07*	15.5	34.09*	18.4	33.96*	17.8	33.99*	17.0	34.05*	18.2	33.93*	19.0	33.74*	19.5	33.75*	
10m	17.30	34.069	15.13	34.030	13.74	34.064	15.41	34.127	18.37	33.956	17.77	33.998	17.25	34.062	18.12	33.942	19.05	33.744	19.45	33.754	
20m	17.30	34.073	14.84	34.051	13.73	34.063	15.33	34.125	18.36	33.955	16.65	34.126	17.22	34.075	18.11	33.945	19.05	33.744	19.42	33.755	
30m	17.30	34.073	14.55	34.061	13.61	34.062	15.28	34.124	18.35	33.957	15.73	34.074	17.21	34.070	17.78	34.001	16.93	34.348	18.86	33.941	
50m	17.15	34.094	12.69	34.150	9.19	34.232	13.49	34.243	18.13	33.984	14.95	34.074	16.81	34.138	17.01	34.111	14.52	34.457	16.10	34.318	
75m	11.44	34.458	10.15	34.306	6.32	34.157	8.48	34.252	14.44	34.376	13.53	34.101	11.75	34.406	11.51	34.433	12.06	34.501	12.63	34.413	
100m	10.01	34.354	7.58	34.207	5.20	34.111	7.14	34.180	10.07	34.377	8.38	34.253	7.98	34.243	8.87	34.279	8.45	34.283	9.43	34.343	
125m	7.92	34.219	6.36	34.148	4.09	34.093	5.60	34.129	7.63	34.233	7.27	34.183	6.61	34.171	7.25	34.183	5.93	34.156	6.29	34.173	
150m	6.49	34.152	4.73	34.112	3.46	34.084	4.63	34.108	6.03	34.151	5.80	34.133	5.72	34.132	6.28	34.146	4.14	34.098	4.32	34.101	
200m	4.50	34.100	2.74	34.086	1.95	34.085	2.98	34.083	2.55	34.092	3.41	34.084	4.22	34.096	3.87	34.090	2.12	34.069	2.20	34.085	
250m	3.13	34.080	1.54	34.084	1.30	34.077	2.01	34.083	1.62	34.078			2.99	34.084	2.75	34.085	1.43	34.075	1.44	34.075	
300m	2.17	34.079	1.03	34.076	1.01	34.074	1.34	34.077					1.87	34.077	1.87	34.077	1.10	34.073	1.08	34.072	
400m	1.20	34.079			0.66	34.073							0.98	34.074	1.03	34.074					
500m	0.72	34.077			0.48	34.073							0.60	34.073	0.60	34.073					
600m	0.47	34.074			0.43	34.073							0.48	34.072	0.44	34.072					
700m																					
800m																					
900m																					
1000m																					

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199410		199410		199410		199410		199410		199410		199410		199410		199410	
Station No	CSM03		CSM04		CSM05		CSM06		CSM07		CSM08		CSM09		CSM10		CSM11		CSM12	
Latitude:N	40-44.6		40-59.5		40-59.6		41- 6.6		40-59.7		41-30.2		41-29.6		41-14.5		41-29.6		41-44.6	
Longitude:E	139-30.1		140- 0.2		139-30.0		139- 0.0		138-29.9		138-29.9		139- 0.2		139-30.0		139-29.9		139-50.3	
Date	1994/10/25		1994/10/25		1994/10/25		1994/10/26		1994/10/26		1994/10/26		1994/10/26		1994/10/26		1994/10/26		1994/10/27	
Time(JST)	14:06		17:37		19:47		06:37		09:24		11:56		14:30		17:54		19:34		12:06	
Weather	B		BC		BC		BC		C		C		C		C		R		BC	
Air Temp.	18.2		15.1		14.7		17.1		17.0		18.4		17.5		18.0		16.8		18.0	
Bar	1026.3		1025.5		1025.5		1023.2		1023.2		1021.7		1021.0		1020.8		1020.4		1022.4	
Wind Dir	ENE		ENE		ENE		SE		SSE		SSE		SE		SE		SSE		WNW	
Wind Spd/F	S 2		S 6		S 4		S 5		S 4		S 4		S 6		S 6		S 9		S 2	
Transparency																				
Depth	999		505		999		999		301		999		999		999		999		999	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	20.9	33.57*	20.6	33.60*	21.0	33.60*	20.9	33.58*	18.7	33.78*	18.6	33.80*	20.6	33.57*	21.1	33.54*	20.8	33.52*	19.7	33.59*
10m	20.79	33.570	20.95	33.600	21.11	33.597	20.83	33.579	18.57	33.785	18.46	33.803	20.60	33.572	21.08	33.541	20.74	33.522	19.58	33.586
20m	20.76	33.570	20.95	33.599	21.09	33.598	20.85	33.578	17.92	33.896	18.11	33.835	20.61	33.574	21.08	33.541	20.54	33.555	19.58	33.596
30m	20.75	33.569	20.93	33.594	21.09	33.598	20.85	33.579	17.29	33.893	17.85	33.856	19.92	33.634	21.08	33.542	20.40	33.579	19.33	33.765
50m	20.75	33.572	20.94	33.597	21.11	33.598	20.85	33.583	14.56	34.256	12.08	34.462	19.28	33.714	21.04	33.558	20.24	33.613	16.45	34.330
75m	17.73	34.297	19.86	34.099	21.03	33.633	17.28	34.355	9.18	34.338	7.00	34.211	12.99	34.473	20.90	33.579	19.33	33.845	14.13	34.560
100m	15.34	34.518	16.12	34.439	16.32	34.480	14.60	34.584	5.66	34.156	4.17	34.114	9.59	34.352	16.85	34.420	14.66	34.478	11.05	34.436
125m	13.18	34.544	14.91	34.544	14.96	34.599	11.85	34.507	3.92	34.094	2.59	34.041	7.43	34.214	15.12	34.565	12.64	34.524	9.46	34.333
150m	9.12	34.344	11.35	34.481	12.77	34.613	9.89	34.371	2.81	34.078	2.08	34.052	5.50	34.121	12.51	34.535	7.96	34.304	6.75	34.186
200m	3.65	34.100	3.92	34.121	8.70	34.345	4.79	34.116	1.64	34.067	1.49	34.065	2.58	34.069	7.00	34.224	3.44	34.097	3.54	34.087
250m	1.85	34.078	1.85	34.072	2.70	34.098	1.92	34.059	1.15	34.070	1.18	34.072	1.44	34.073	3.13	34.094	2.13	34.072	2.19	34.074
300m	1.19	34.071	1.32	34.073	1.56	34.076	1.49	34.065	0.94	34.073	0.97	34.073	1.07	34.074	1.74	34.070	1.54	34.069	1.48	34.069
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

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Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199411		199411		199411		199411		199411		199411		199411		199411		199411		199411	
Station No	J42		J41		CE01		CW01		CW02		CW03		CW04		CW05		CW25		CW22	
Latitude:N	42-29.7		42-29.7		43-22.5		43-24.7		43-24.5		43-24.7		43-24.7		43-24.7		43- 9.5		42-58.7	
Longitude:E	139-20.2		139-40.1		140-42.1		141- 0.1		140-50.1		140-39.9		140-20.0		140- 0.0		140- 0.1		139-59.8	
Date	1994/11/01		1994/11/01		1994/11/09		1994/11/15		1994/11/15		1994/11/15		1994/11/15		1994/11/15		1994/11/15		1994/11/15	
Time(JST)	13:19		15:00		15:56		10:24		11:23		12:24		14:08		15:43		17:24		21:18	
Weather	BC		BC		B		C		C		C		C		C		C		C	
Air Temp.	13.3		14.2		16.7		0.0		0.9		1.3		0.9		1.9		1.9		3.0	
Bar	1020.6		1027.0		1015.8		1035.0		1035.0		1035.0		1034.9		1034.8		1035.2		1036.5	
Wind Dir	WNW		WSW		S		NW		NNW		NNW		WNW		NW		WNW		WNW	
Wind Spd/F	S 2		S		S 8		S 7		S 8		S 8		S 5		S 4		S 5		S 5	
Transparency	19		16																	
Depth	3304		1865		302		71		335		451		142		693		660		1346	
Equipment	CTD		STD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	18.5	34.077	16.7	34.077	15.3	34.03*	13.6	34.09*	13.6	34.09*	13.8	33.94*	13.9	33.81*	14.3	34.08*	14.2	34.08*	14.4	34.04*
10m	18.45	33.758	16.61	34.01	15.08	34.026	13.70	34.089	13.70	34.091	13.92	34.094	14.02	34.091	14.31	34.084	14.46	34.085	14.49	34.042
20m	18.28	33.774	16.59	34.01	15.09	34.026	13.71	34.089	13.70	34.091	13.92	34.094	14.04	34.091	14.30	34.083	14.45	34.084	14.50	34.041
30m	18.11	33.798	16.53	34.02	15.06	34.026	13.71	34.089	13.70	34.091	13.92	34.094	14.04	34.091	14.31	34.085	14.46	34.084	14.51	34.041
50m	15.40	34.385	16.02	34.21	15.01	34.042	13.72	34.088	13.59	34.090	13.86	34.092	14.03	34.090	14.14	34.108	14.47	34.083	14.50	34.040
75m	11.40	34.421	10.94	34.42	14.95	34.063			13.46	34.101	13.80	34.090	13.96	34.092	13.93	34.119	14.47	34.085	14.55	34.060
100m	7.49	34.237	8.86	34.30	14.76	34.072			9.22	34.267	13.77	34.091	7.41	34.242	11.16	34.438	11.72	34.433	11.23	34.394
125m	5.37	34.127	6.11	34.18	9.20	34.297			7.19	34.191	4.83	34.181	6.30	34.170	9.05	34.323	9.06	34.307	8.56	34.274
150m	3.71	34.084	4.51	34.12	6.61	34.182			4.14	34.120	3.04	34.099			6.62	34.167	6.53	34.171	5.99	34.148
200m	1.75	34.076	2.62	34.08	3.50	34.099			2.40	34.081	2.09	34.079			2.86	34.080	2.86	34.085	2.83	34.085
250m	1.41	34.075	1.56	34.08	1.79	34.078			1.70	34.075	1.55	34.074			1.84	34.070	1.82	34.071	1.76	34.072
300m	1.15	34.076	1.14	34.08	1.43	34.074			1.15	34.072	1.21	34.071			1.31	34.072	1.34	34.072	1.21	34.073
400m	0.72	34.076	0.71	34.07							0.68	34.070			0.78	34.071	0.81	34.072	0.81	34.074
500m	0.50	34.075	0.52	34.07											0.50	34.070	0.59	34.072	0.55	34.072
600m	0.40	34.073	0.39	34.07											0.42	34.070	0.36	34.070	0.41	34.072
700m																				
800m																				
900m																				
1000m																				

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Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199411		199411		199411		199411		199411		199411		199411		199411		199411		199411	
Station No	CW23		CW24		CT101		CT102		CT105		CT104		CT103		CT106		CT107		CT108	
Latitude:N	42-59.5		42-59.6		42-48.6		42-48.6		42-47.7		42-47.7		42-47.6		42-47.0		42-46.6		42-46.6	
Longitude:E	140-20.2		140-27.1		140- 1.1		140- 3.1		140- 4.2		140- 2.0		139-59.9		139-59.0		140- 1.1		140- 3.1	
Date	1994/11/15		1994/11/15		1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/16	
Time(JST)	22:58		23:42		02:35		03:00		03:21		03:42		04:03		04:27		04:54		05:12	
Weather	C		C		C		BC		BC		BC		BC		BC		BC		BC	
Air Temp.	3.1		2.9		4.7		5.2		5.4		4.5		5.3		5.3		5.5		5.6	
Bar	1036.1		1036.1		1035.2		1034.9		1035.0		1035.0		1034.7		1034.5		1034.5		1034.5	
Wind Dir	WNW		W		WSW		W		W		W		WSW		WSW		WSW		WSW	
Wind Spd/F	S 5		S 2		S 4		S 7		S 6		S 4		S 6		S 6		S 7		S 7	
Transparency																				
Depth	560		74		362		272		149		237		415		440		135		161	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	14.2	34.03*	13.8	32.98*	14.0	33.96*	14.2	34.03*	14.0	33.96*	13.8	33.93*	14.1	33.99*	14.3	34.03*	13.9	33.95*	13.8	33.91*
10m	14.29	34.040	14.06	33.994	14.05	33.965	14.22	34.029	14.02	33.961	13.80	33.929	14.08	33.989	14.24	34.025	13.98	33.950	13.73	33.910
20m	14.27	34.049	14.07	33.996	14.02	33.956	14.23	34.029	14.05	33.960	13.81	33.927	14.10	33.996	14.24	34.025	13.90	33.939	13.78	33.914
30m	14.26	34.050	14.07	33.994	14.06	33.966	14.23	34.029	14.05	33.961	13.82	33.927	14.11	33.995	14.25	34.025	13.84	33.929	13.77	33.913
50m	14.14	34.070	14.11	34.014	14.11	33.984	14.22	34.027	13.77	33.908	13.81	33.927	14.13	34.003	14.26	34.026	13.76	33.929	12.83	34.080
75m	13.08	34.369			11.67	34.399	10.95	34.293	9.47	34.313	13.13	34.012	12.10	34.379	12.73	34.329	10.76	34.417	9.51	34.316
100m	8.94	34.297			9.12	34.306	8.04	34.240	7.88	34.230	9.32	34.310	9.48	34.328	9.31	34.296	8.56	34.264	8.84	34.263
125m	6.98	34.196			7.23	34.212	6.28	34.163			7.97	34.229	7.73	34.220	7.66	34.227			8.62	34.246
150m	5.88	34.151			5.71	34.146	4.70	34.124			6.56	34.174	6.48	34.165	6.20	34.157				
200m	3.59	34.095			3.17	34.084	3.18	34.085			4.31	34.105	4.53	34.106	4.35	34.104				
250m	2.09	34.090			2.05	34.076							2.74	34.077	2.53	34.083				
300m	1.41	34.073			1.34	34.074							1.87	34.073	1.74	34.073				
400m	0.77	34.071													1.05	34.073				
500m	0.58	34.071																		
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-39

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199411		199411		199411		199411		199411		199411		199411		199411		199411		199411	
Station No	CT112		CT111		CT110		CT109		CT113		CT114		CT115		CT116		CT121		CT120	
Latitude:N	42-45.7		42-45.6		42-45.7		42-45.7		42-44.6		42-44.7		42-44.7		42-44.7		42-44.0		42-43.5	
Longitude:E	140- 4.2		140- 2.0		140- 0.0		139-58.0		139-57.0		139-59.1		140- 1.1		140- 3.2		140- 3.8		140- 1.3	
Date	1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/16	
Time(JST)	05:31		05:49		06:24		06:40		07:04		07:34		07:51		08:07		08:19		08:35	
Weather	BC		BC		BC		BC		BC		BC		BC		BC		BC		B	
Air Temp.	5.1		5.2		6.2		6.6		6.9		7.0		7.4		6.4		6.9		8.6	
Bar	1034.6		1034.5		1034.4		1034.5		1034.6		1034.7		1034.8		1034.6		1034.7		1034.8	
Wind Dir	SSW		SW		WSW		WSW		WSW		WSW		WSW		S		S		SW	
Wind Spd/F	S 6		S 6		S 8		S 8		S 9		S 9		S 8		S 5		S 4		S 7	
Transparency																				
Depth	126		121		137		440		714		197		117		110		66		98	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	13.8	33.92*	13.8	33.25*	13.7	33.91*	14.4	34.01*	14.3	33.99*	14.2	33.87*	13.5	33.78*	13.8	33.94*	13.9	33.33*	14.2	33.81*
10m	13.85	33.927	13.74	33.918	13.77	33.918	14.35	34.017	14.41	34.012	14.34	34.017	13.63	33.881	13.88	33.942	14.06	33.969	14.29	34.024
20m	13.82	33.919	13.74	33.918	13.76	33.916	14.37	34.016	14.41	34.013	14.33	34.019	13.63	33.881	13.90	33.942	14.06	33.969	14.30	34.024
30m	13.71	33.896	13.75	33.920	13.77	33.917	14.36	34.017	14.41	34.013	14.32	34.022	13.62	33.878	13.90	33.942	14.06	33.971	14.29	34.023
50m	13.70	33.894	13.69	33.959	13.78	33.916	14.33	34.026	14.42	34.013	14.26	34.026	13.67	33.892	13.88	33.939	13.85	33.984	13.90	33.945
75m	10.58	34.357	11.08	34.410	12.46	34.397	12.35	34.361	12.12	34.469	12.05	34.334	11.85	34.423	10.98	34.387			11.15	34.402
100m	8.86	34.271	8.88	34.262	9.08	34.285	9.49	34.320	9.23	34.286	8.38	34.258	9.16	34.288	9.03	34.281				
125m							7.79	34.225	7.19	34.207	6.94	34.193								
150m							6.11	34.158	6.25	34.159	6.16	34.160								
200m							4.12	34.107	4.36	34.108										
250m							2.49	34.074	2.30	34.080										
300m							1.81	34.072	1.75	34.073										
400m							0.91	34.073	0.93	34.075										
500m									0.50	34.070										
600m									0.37	34.070										
700m																				
800m																				
900m																				
1000m																				

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Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199411		199411		199411		199411		199411		199411		199411		199411		199411		199411	
Station No	CT119		CT118		CT117		CT122		CT123		CT124		CT125		CT126		CW27		CW28	
Latitude:N	42-43.6		42-43.6		42-43.6		42-42.6		42-42.6		42-42.6		42-42.7		42-46.6		43-23.8		43-24.9	
Longitude:E	140- 0.1		139-58.1		139-56.0		139-57.0		139-59.1		140- 1.2		140- 2.6		140- 0.0		140-49.7		140-50.7	
Date	1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/16		1994/11/17		1994/11/17	
Time(JST)	08:48		09:04		09:20		09:44		10:00		10:13		10:25		11:48		07:09		12:30	
Weather	B		B		BC		BC		BC		B		B		BC		BC		C	
Air Temp.	8.7		8.8		8.8		7.6		7.4		7.4		7.6		8.9		9.7		11.5	
Bar	1034.5		1034.5		1034.9		1034.5		1034.4		1034.5		1034.5		1033.3		1027.7		1026.3	
Wind Dir	WSW		WSW		WSW		WSW		WSW		WSW		WSW		WSW		SW		SW	
Wind Spd/F	S 10		S 11		S 10		S 9		S 10		S 9		S 8		S 9		S 7		S 6	
Transparency																				
Depth	100		123		430		115		86		60		30		217		256		261	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	14.2	34.02*	14.2	33.87*	14.3	33.85*	13.9	33.61*	14.1	33.89*	13.9	33.82*	14.0	33.38*	14.0	33.87*	13.3	34.11*	13.3	34.09*
10m	14.32	34.021	14.39	34.016	14.37	34.016	14.12	33.975	14.29	34.019	14.06	33.974	14.07	33.976	14.25	34.026	13.64	34.109	13.35	34.094
20m	14.32	34.021	14.39	34.008	14.37	34.017	14.13	33.979	14.27	34.016	14.04	33.975	14.02	33.976	14.25	34.026	13.65	34.106	13.36	34.093
30m	14.32	34.021	14.39	34.017	14.37	34.018	14.13	33.979	14.27	34.017	13.95	33.981			14.25	34.026	13.66	34.107	13.36	34.093
50m	14.21	34.015	14.39	34.019	14.38	34.017	14.10	33.990	14.03	33.988	13.73	34.004			14.19	34.024	13.60	34.104	13.36	34.093
75m	11.40	34.408	11.89	34.440	10.96	34.417	10.80	34.301									13.06	34.209	13.32	34.106
100m			9.37	34.305	8.82	34.275	8.55	34.251												9.69 34.267
125m					7.28	34.217														7.09 34.191
150m					6.19	34.158														5.58 34.146
200m					4.39	34.109														3.03 34.088
250m					2.45	34.077														2.03 34.074
300m					1.71	34.072														
400m					0.88	34.073														
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-41

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199412		199412		199412		199412		199412		199412		199412		199412		199412		199412	
Station No	J31		J32		J33		J34		J35		J36		J37		J38		J39		J41	
Latitude:N	43-19.7		43-30.0		43-29.7		43-30.0		43-29.5		43-30.0		43-30.0		43-29.6		43-29.6		42-30.0	
Longitude:E	141-10.1		141- 0.0		140-40.1		140-20.0		140- 0.2		139-40.0		139-20.0		139- 0.0		138-30.1		139-40.0	
Date	1994/12/07		1994/12/07		1994/12/07		1994/12/07		1994/12/07		1994/12/07		1994/12/07		1994/12/07		1994/12/08		1994/12/08	
Time(JST)	09:52		11:07		12:38		14:24		16:21		18:43		20:29		22:14		01:03		08:29	
Weather	C		BC		BC		C		C		C								BC	
Air Temp.	4.2		5.0		5.1		3.2		3.0		2.8		2.8		2.2		2.6		4.3	
Bar	1010.0		1008.6		1007.9		1008.0		1009.4		1010.4		1012.5		1019.0		1016.0		1019.6	
Wind Dir	WNW		NW		NW		NNW		N		NNW		NNW		NW				WNW	
Wind Spd/F	S 6		S 6		S 5		S 7		S 6		S 7		S 7		S 7		S		S 7	
Transparency																				
Depth	38		92		687		627		1240		2031				3400				1840	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	10.3	34.116	11.7	34.148	11.9	34.123	10.8	34.182	12.1	34.155	12.0	34.167	11.1	34.132	9.3	34.141	8.6	34.161	11.9	34.165
10m	10.55	34.104	11.81	34.137	12.00	34.114	9.64	34.219	12.20	34.147	12.22	34.160	11.25	34.121	9.44	34.135	8.73	34.152	12.06	34.154
20m	10.59	34.109	11.81	34.137	12.00	34.115	8.80	34.206	12.20	34.150	12.23	34.160	11.26	34.124	9.45	34.135	8.73	34.151	12.06	34.154
30m	10.59	34.108	11.81	34.137	12.00	34.115	8.16	34.175	12.19	34.151	12.23	34.160	11.23	34.130	9.45	34.136	8.62	34.160	12.06	34.154
50m			11.80	34.139	11.96	34.117	8.16	34.167	12.15	34.158	12.23	34.160	11.15	34.131	9.42	34.136	7.65	34.178	12.06	34.154
75m			11.66	34.137	11.50	34.199	8.15	34.165	12.12	34.166	12.23	34.160	10.30	34.201	6.70	34.226	4.21	34.118	12.06	34.153
100m					9.89	34.206	7.88	34.136	10.27	34.311	12.21	34.170	8.94	34.318	4.13	34.097	3.31	34.101	9.94	34.356
125m					8.20	34.162	6.52	34.131	9.14	34.292	10.41	34.345	6.49	34.188	2.50	34.092	2.21	34.079	6.67	34.215
150m					7.86	34.162	4.28	34.122	8.04	34.256	8.60	34.284	4.13	34.119	1.90	34.085	1.69	34.090	4.64	34.136
200m					4.17	34.117	2.89	34.088	4.26	34.121	4.48	34.118	2.12	34.093	1.34	34.081	1.24	34.083	3.07	34.099
250m					2.07	34.095	2.03	34.088	2.23	34.092	2.24	34.090	1.49	34.085	1.10	34.086	1.05	34.087	1.69	34.089
300m					1.33	34.083	1.34	34.087	1.43	34.087	1.50	34.085	1.10	34.085	0.89	34.085	0.83	34.088	1.20	34.084
400m					0.88	34.078	0.83	34.081	0.96	34.084	0.93	34.086	0.72	34.081	0.63	34.082	0.54	34.083	0.83	34.081
500m					0.67	34.077	0.57	34.081	0.69	34.084	0.58	34.081	0.52	34.083	0.45	34.081	0.44	34.083	0.55	34.081
600m									0.47	34.080					0.37	34.083			0.41	34.080
700m																				
800m																				
900m																				
1000m																				

Table 3-42



Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199412		199412		199412		199412		199412		199412		199412		199412		199412		199412	
Station No	J42		J43		J44		J45		J46		J47		J58		J57		J56		J55	
Latitude:N	42-30.0		42-30.0		42-29.6		42-29.7		42-29.7		42-29.6		41-30.0		41-29.5		41-29.5		41-29.7	
Longitude:E	139-20.0		139- 0.0		138-40.0		138-20.0		138- 0.0		137-30.0		137-30.0		138- 0.1		138-20.1		138-40.2	
Date	1994/12/08		1994/12/08		1994/12/08		1994/12/08		1994/12/08		1994/12/08		1994/12/09		1994/12/09		1994/12/09		1994/12/09	
Time(JST)	10:57		12:41		14:28		16:16		18:00		20:25		02:37		04:58		06:37		08:15	
Weather	BC		BC		BC												C		C	
Air Temp.	5.6		6.1		5.8		5.5		5.4		6.2		7.4		8.5		9.6		10.2	
Bar	1018.0		1018.4		1017.4		1016.5		1016.1		1013.2		1008.0		1004.5		1001.7		1001.0	
Wind Dir	W		WSW		WSW		WSW		WSW		SSW		S		S		S		WSW	
Wind Spd/F	S 8		S 8		S 8		S 9		S 9		S 11		S 11		S 10		S 11		S 13	
Transparency																				
Depth	3200								3678						3695		3689			
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	12.0	34.194	12.3	34.159	11.8	34.187	8.6	34.109	7.9	34.119	7.3	34.107	6.8	34.080	7.9	34.081	9.0	34.097	11.2	34.144
10m	12.15	34.183	12.40	34.146	11.92	34.169	8.66	34.096	7.96	34.103	7.35	34.095	6.88	34.068	7.86	34.070	9.01	34.086	11.25	34.136
20m	12.15	34.183	12.40	34.147	11.93	34.170	8.66	34.096	7.96	34.104	7.25	34.100	6.88	34.068	7.86	34.070	8.98	34.086	11.25	34.135
30m	12.15	34.183	12.40	34.148	11.93	34.169	8.66	34.095	7.96	34.103	6.71	34.105	6.88	34.068	7.82	34.071	8.61	34.089	11.25	34.139
50m	12.15	34.183	12.41	34.150	10.88	34.097	8.66	34.095	7.94	34.103	6.18	34.094	6.79	34.073	7.22	34.063	8.48	34.087	11.22	34.141
75m	12.13	34.179	12.41	34.153	7.25	34.217	3.22	34.089	2.82	34.091	3.56	34.101	3.09	34.120	2.68	34.113	2.16	34.101	6.43	34.185
100m	10.23	34.381	10.28	34.420	5.00	34.142	2.00	34.081	2.08	34.078	2.60	34.073	2.23	34.101	1.91	34.094	1.67	34.086	3.95	34.121
125m	7.85	34.255	7.59	34.251	2.82	34.094	1.62	34.077	1.84	34.092	1.80	34.080	1.95	34.098	1.78	34.089	1.52	34.086	2.56	34.074
150m	6.18	34.174	6.00	34.192	1.86	34.081	1.37	34.081	1.53	34.086	1.43	34.076	1.74	34.092	1.52	34.090	1.37	34.087	2.05	34.067
200m	2.76	34.099	2.77	34.087	1.53	34.087	1.07	34.082	1.20	34.085	1.21	34.084	1.29	34.081	1.24	34.089	1.12	34.086	1.38	34.076
250m	1.78	34.083	1.53	34.077	1.22	34.087	0.92	34.084	1.00	34.085	1.03	34.086	1.08	34.086	1.00	34.086	0.92	34.084	1.11	34.080
300m	1.32	34.082	1.18	34.079	1.06	34.086	0.77	34.082	0.87	34.084	0.81	34.084	0.92	34.085	0.90	34.089	0.73	34.083	0.91	34.081
400m	0.87	34.082	0.83	34.082	0.71	34.084	0.57	34.082	0.59	34.083	0.58	34.084	0.67	34.085	0.64	34.084	0.51	34.082	0.60	34.080
500m	0.58	34.081	0.59	34.083	0.49	34.083	0.44	34.082	0.46	34.082	0.47	34.081	0.48	34.083	0.50	34.082	0.41	34.081	0.46	34.081
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-43

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199412		199412		199412		199412		199412		199502		199502		199502		199502		199502	
Station No	J54		J53		J52		J61		J51		J63		J62		J61		J51		JC21	
Latitude:N	41-30.0		41-29.7		41-30.0		41-19.7		41-29.6		41- 0.0		41-10.1		41-20.0		41-30.1		42- 0.2	
Longitude:E	139- 0.0		139-15.0		139-30.0		140- 0.2		139-50.1		140- 0.0		140- 0.5		140- 0.0		139-50.4		140- 0.4	
Date	1994/12/09		1994/12/09		1994/12/09		1994/12/11		1994/12/11		1995/02/03		1995/02/03		1995/02/03		1995/02/03		1995/02/04	
Time(JST)	09:51		11:08		12:26		07:53		09:15		19:44		20:50		21:50		23:15		02:23	
Weather	C		C		C		C		C		C		S		S		C		S	
Air Temp.	8.9		9.6		8.8		3.6		3.4		0.8		0.0		0.0		0.0		0.2	
Bar	1000.1		998.4		998.0		1019.0		1019.5		1024.5		1024.8		1024.5		1024.3		1024.2	
Wind Dir	WSW		W		WNW		WNW		WNW		WNW		NNW		NNW		WNW		WNW	
Wind Spd/F	S 12		S 10		S 8		S 9		S 9		S 7		S 7		S 8		S 8		S 4	
Transparency																				
Depth	1320		1133		1700		230		1330		486		103		234		1342		711	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	12.1	34.084	12.1	34.127	11.9	34.165	14.3	33.944	12.8	34.075	9.1	33.954	9.4	33.972	9.2	34.008	8.2	34.087	8.0	34.118
10m	12.22	34.081	12.15	34.114	11.96	34.147	14.46	33.921	12.99	34.057	9.15	33.945	9.75	33.979	9.66	34.001	8.52	34.088	8.38	34.113
20m	12.25	34.085	12.14	34.114	11.75	34.124	14.46	33.924	12.99	34.062	9.40	34.052	9.75	33.979	9.65	34.004	8.42	34.097	8.38	34.113
30m	12.24	34.086	12.15	34.117	11.49	34.132	13.81	33.961	12.98	34.063	9.39	34.075	9.75	33.979	9.68	34.056	8.38	34.095	8.36	34.118
50m	12.22	34.087	12.16	34.121	11.40	34.305	12.67	34.159	12.21	34.479	8.90	34.130	9.76	33.980	9.32	34.080	8.36	34.096	7.26	34.156
75m	9.81	34.079	10.71	34.335	7.99	34.117	11.07	34.068	10.00	34.354	8.43	34.156	8.92	34.148	8.23	34.138	8.35	34.095	5.68	34.131
100m	6.80	34.206	7.37	34.228	6.21	34.177	10.50	34.111	9.08	34.286	8.35	34.145			6.69	34.148	8.31	34.095	3.97	34.108
125m	4.70	34.115	4.57	34.109	4.49	34.109	9.71	34.103	6.90	34.198	8.15	34.140			5.98	34.136	6.95	34.151	2.63	34.091
150m	3.59	34.094	3.21	34.091	3.54	34.086	9.31	34.091	5.22	34.138	7.88	34.135			5.46	34.128	5.96	34.140	2.23	34.083
200m	1.78	34.082	1.61	34.083	2.03	34.087	7.98	34.239	3.40	34.094	7.45	34.148			4.36	34.111	3.29	34.096	1.37	34.076
250m	0.96	34.079	1.12	34.079	1.37	34.081			2.10	34.081	5.65	34.134					1.75	34.077	1.01	34.075
300m	0.69	34.076	0.89	34.078	0.97	34.079			1.45	34.080	2.98	34.090					1.21	34.076	0.77	34.076
400m	0.46	34.076	0.56	34.078	0.62	34.078			0.82	34.077	1.09	34.076					0.79	34.076	0.55	34.074
500m	0.35	34.076	0.36	34.076	0.43	34.077			0.45	34.076							0.55	34.074	0.45	34.074
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-44

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199502		199502		199502		199502		199502		199502		199502		199502		199502		199502	
Station No	JC22		J52		J53		J54		J55		J56		J57		J58		J47		J46	
Latitude:N	42- 0.2		41-30.3		41-30.0		41-30.2		41-30.2		41-30.2		41-30.2		41-30.1		42-30.1		42-30.1	
Longitude:E	139-40.5		139-30.6		139-20.0		139- 0.5		138-40.5		138-20.5		138- 0.5		137-30.5		137-30.5		138- 0.4	
Date	1995/02/04		1995/02/04		1995/02/04		1995/02/04		1995/02/04		1995/02/04		1995/02/04		1995/02/04		1995/02/04		1995/02/05	
Time(JST)	04:06		07:14		08:36		09:54		11:34		13:14		14:55		17:17		23:19		01:29	
Weather	S		C		C		C		C		C		C		C		B		C	
Air Temp.	-0.1		0.3		0.1		0.4		0.5		0.0		1.0		-0.1		-1.5		-1.7	
Bar	1023.9		1023.0		1023.7		1022.3		1022.8		1022.2		1024.8		1021.6		1020.3		1019.4	
Wind Dir	W		W		SW		W		WNW		W		W		W		NW		NNW	
Wind Spd/F	S 6		S 6		S 6		S 8		S 7		S 6		S 7		S 6		S 3		S 4	
Transparency																				
Depth	923		1578		1113		1336		3020		3700		3700		3650		3300			
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	7.5	34.097	9.3	34.075	8.6	34.109	8.3	34.124	7.6	34.132	5.4	34.142	4.8	34.164	3.3	34.168	5.4	34.162	5.7	34.150
10m	8.23	34.086	9.68	34.065	8.94	34.104	8.52	34.118	7.72	34.128	5.54	34.138	4.81	34.159	3.51	34.165	5.63	34.149	5.85	34.145
20m	8.24	34.087	9.68	34.066	8.95	34.104	8.53	34.118	7.73	34.127	5.54	34.138	4.79	34.160	3.50	34.165	5.55	34.146	5.71	34.155
30m	8.23	34.087	9.68	34.067	8.95	34.104	8.53	34.118	7.58	34.135	5.54	34.138	4.76	34.159	3.40	34.162	5.54	34.145	5.67	34.169
50m	8.18	34.096	8.85	34.143	8.83	34.115	7.86	34.152	6.85	34.136	5.48	34.138	4.12	34.168	3.27	34.158	5.50	34.143	5.63	34.173
75m	7.86	34.109	8.20	34.134	7.63	34.160	6.17	34.162	4.13	34.147	4.93	34.154	3.83	34.166	3.17	34.151	5.45	34.137	5.60	34.174
100m	7.12	34.130	7.19	34.150	5.45	34.154	3.53	34.105	2.62	34.097	3.63	34.130	3.60	34.159	2.80	34.140	4.77	34.062	3.46	34.113
125m	5.17	34.118	5.86	34.141	4.18	34.122	2.47	34.085	1.63	34.079	3.19	34.119	2.12	34.117	1.70	34.093	2.99	34.066	2.19	34.087
150m	4.07	34.096	4.15	34.118	2.83	34.091	1.99	34.069	1.52	34.085	1.74	34.082	1.81	34.099	1.39	34.088	2.31	34.065	1.66	34.080
200m	2.16	34.083	2.05	34.082	1.46	34.076	1.38	34.076	1.19	34.081	1.23	34.081	1.40	34.088	1.16	34.086	1.38	34.073	1.20	34.075
250m	1.36	34.080	1.19	34.077	1.11	34.078	1.10	34.077	0.97	34.082	0.96	34.081	1.13	34.086	0.92	34.085	1.15	34.079	1.04	34.078
300m	0.98	34.078	0.92	34.076	0.85	34.076	0.92	34.076	0.87	34.083	0.84	34.080	0.94	34.085	0.77	34.084	1.00	34.083	0.87	34.081
400m	0.61	34.075	0.56	34.075	0.53	34.075	0.54	34.076	0.61	34.082	0.65	34.082	0.63	34.082	0.58	34.082	0.67	34.080	0.61	34.080
500m	0.40	34.074	0.46	34.076	0.39	34.074	0.42	34.074	0.48	34.080	0.47	34.080	0.49	34.081	0.46	34.081	0.52	34.080	0.46	34.080
600m																			0.39	34.079
700m																				
800m																				
900m																				
1000m																				

Table 3-45

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199502		199502		199502		199502		199502		199502		199502		199502		199502		199502	
Station No	J45		J44		J43		J42		J41		J39		J38		J37		J36		J35	
Latitude:N	42-30.2		42-30.2		42-30.2		42-30.1		42-30.1		43-30.1		43-30.1		43-30.2		43-30.1		43-30.1	
Longitude:E	138-20.3		138-40.4		139- 0.3		139-20.5		139-40.5		138-30.6		139- 0.4		139-20.3		139-40.4		140- 0.4	
Date	1995/02/05		1995/02/05		1995/02/05		1995/02/05		1995/02/05		1995/02/05		1995/02/05		1995/02/05		1995/02/06		1995/02/06	
Time(JST)	03:43		05:21		07:07		08:43		10:17		18:32		20:51		22:49		00:58		02:38	
Weather	C		C		C		C		BC		S		C		C		C		C	
Air Temp.	-1.4		-1.1		-0.5		0.7		1.3		-0.5		-0.1		-0.1		-0.9		-1.0	
Bar	1018.5		1017.8		1017.5		1016.5		1015.7		1014.9		1014.3		1013.8		1012.5		1012.7	
Wind Dir	NNW		NNW		NW		NNW		NNW		NNE		ENE		NE		NE		NNE	
Wind Spd/F	S 5		S 4		S 2		S 5		S 5		S 8		S 5		S 5		S 3		S 5	
Transparency																				
Depth			3650		3600		3300		1800		3430		3450		3260		2043		1230	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	5.8	34.145	7.0	34.131	8.1	34.111	7.3	34.129	7.4	34.121	4.7	34.195	4.8	34.203	6.3	34.157	6.1	34.164	6.9	34.136
10m	5.93	34.140	7.47	34.124	8.62	34.105	7.69	34.120	7.61	34.110	5.09	34.186	5.32	34.182	6.56	34.151	6.36	34.156	7.23	34.125
20m	5.71	34.142	7.43	34.125	8.29	34.121	7.69	34.120	7.54	34.116	5.09	34.187	5.30	34.183	6.58	34.151	6.35	34.156	7.23	34.125
30m	5.64	34.138	7.35	34.126	8.16	34.122	7.69	34.121	7.43	34.121	5.10	34.186	5.20	34.192	6.56	34.153	6.07	34.163	7.23	34.125
50m	5.02	34.132	6.97	34.134	7.67	34.151	7.69	34.121	7.26	34.130	5.09	34.186	4.40	34.178	5.44	34.199	4.81	34.129	7.21	34.125
75m	2.95	34.094	5.41	34.155	6.28	34.139	7.68	34.120	7.24	34.133	5.10	34.186	4.14	34.171	4.53	34.174	4.07	34.110	6.77	34.153
100m	2.20	34.090	2.16	34.110	4.74	34.116	7.07	34.134	7.17	34.136	4.97	34.181	3.78	34.175	4.07	34.178	3.35	34.093	6.61	34.153
125m	1.60	34.079	1.53	34.087	3.65	34.087	5.06	34.111	5.90	34.148	3.72	34.177	3.51	34.157	3.97	34.178	2.66	34.086	5.18	34.119
150m	1.33	34.080	1.36	34.084	2.51	34.076	4.43	34.111	4.23	34.110	2.20	34.109	2.95	34.130	3.84	34.179	2.23	34.084	3.82	34.102
200m	1.02	34.080	1.14	34.083	1.51	34.079	2.17	34.081	2.22	34.081	1.28	34.086	1.50	34.081	2.01	34.086	1.54	34.079	2.06	34.084
250m	0.88	34.083	0.97	34.083	1.16	34.083	1.34	34.078	1.69	34.079	1.05	34.081	1.25	34.080	1.26	34.080	1.13	34.080	1.46	34.082
300m	0.76	34.083	0.80	34.082	0.94	34.082	1.06	34.079	1.16	34.081	0.91	34.079	1.01	34.080	1.03	34.081	0.89	34.077	1.06	34.078
400m	0.55	34.080	0.59	34.080	0.68	34.080	0.76	34.080	0.77	34.077	0.62	34.080	0.64	34.078	0.67	34.079	0.58	34.075	0.65	34.076
500m	0.43	34.079	0.43	34.079	0.48	34.079	0.50	34.077	0.54	34.075	0.48	34.078	0.48	34.078	0.45	34.076	0.49	34.075	0.48	34.076
600m									0.41	34.075			0.39	34.078					0.38	34.075
700m																				
800m																				
900m																				
1000m																				

Table 3-46

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199502		199502		199502		199502		199502		199502		199502		199502		199503		199503	
Station No	J34		J33		J32		J31		CE01		CE02		CE03		CE04		SR1E		SR2E	
Latitude:N	43-30.1		43-30.0		43-30.1		43-20.2		43-23.0		43-22.9		43-22.9		43-23.1		43-11.1		43-14.2	
Longitude:E	140-20.4		140-40.3		141- 0.4		141-10.4		140-43.3		140-43.3		140-43.4		140-43.7		141-14.7		141-19.3	
Date	1995/02/06		1995/02/06		1995/02/06		1995/02/06		1995/02/27		1995/02/28		1995/02/28		1995/03/01		1995/03/06		1995/03/06	
Time(JST)	04:32		06:17		07:54		09:07		18:41		07:05		18:08		07:28		10:45		12:06	
Weather	C		C		C		C		C		BC		BC		C					
Air Temp.	-1.1		-2.2		-2.3		-3.0		0.4		0.4		0.1		0.5					
Bar	1012.3		1012.3		1012.5		1012.6		1013.6		1014.4		1014.5		1012.4					
Wind Dir	NNE		NE		ENE		SE		NNE		NNE		CALM		CALM					
Wind Spd/F	S 3		S 2		S 2		S 6		S 5		S 6		S 0		S 0		S		S	
Transparency																				
Depth	652		684		93		35		390		356		328		268		11		11	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	6.2	34.156	5.5	34.199	6.2	34.181	5.2	34.091	5.4	34.12*	5.6	34.14*	5.4	34.12*	5.3	34.12*	3.6	33.58*	3.8	33.58*
10m	6.62	34.151	5.81	34.193	6.54	34.171	5.66	34.101	5.57	34.120	5.66	34.135	5.56	34.122	5.45	34.123	5.00	34.084		
20m	6.60	34.149	5.79	34.192	6.50	34.176	5.66	34.107	5.57	34.120	5.66	34.135	5.57	34.125	5.46	34.123				
30m	6.59	34.149	5.79	34.193	6.42	34.179	5.61	34.097	5.58	34.120	5.66	34.136	5.57	34.127	5.45	34.123				
50m	6.59	34.159	5.78	34.193	6.13	34.179			5.58	34.124	5.63	34.131	5.34	34.170	5.34	34.164				
75m	6.48	34.180	5.75	34.189	6.12	34.178			5.07	34.171	5.13	34.179	5.07	34.173	5.06	34.174				
100m	6.31	34.193	5.69	34.186					4.91	34.170	4.93	34.174	4.94	34.170	4.86	34.168				
125m	5.65	34.188	5.64	34.185					3.76	34.135	3.52	34.128	3.89	34.135	3.59	34.122				
150m	3.55	34.106	5.30	34.179					2.32	34.092	2.65	34.092	2.56	34.097	3.08	34.100				
200m	2.21	34.085	2.99	34.103					1.57	34.083	1.65	34.081	2.04	34.083	1.84	34.082				
250m	1.58	34.080	1.70	34.087					1.19	34.077	1.30	34.078	1.69	34.079	1.56	34.079				
300m	1.15	34.080	1.05	34.079					1.00	34.076	1.21	34.077	1.18	34.078						
400m	0.76	34.077	0.72	34.076																
500m	0.49	34.076	0.54	34.075																
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 3-47

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199503		199503		199503		199503		199503		199503		199503		199503		199503		199503		
Station No	SR3E		SR4S		SR4E		SR5S		SR5E		SRR		SR0S		SR6E		SR8E		SR9E		
Latitude:N	43-15.9		43-17.2		43-16.6		43-16.3		43-16.7		43-17.3		43-14.6		43-10.1		43-13.7		43-15.4		
Longitude:E	141-21.0		141-21.9		141-21.5		141-20.1		141-20.8		141-20.9		141-18.0		141-12.7		141-18.2		141-20.0		
Date	1995/03/06		1995/03/06		1995/03/06		1995/03/06		1995/03/06		1995/03/06		1995/03/07		1995/03/07		1995/03/07		1995/03/07		
Time(JST)	12:52		13:10		13:40		14:00		15:00		15:15		00:00		00:00		00:00		00:00		
Weather																					
Air Temp.																					
Bar																					
Wind Dir																					
Wind Spd/F	S		S		S		S		S		S		S		S		S		S		
Transparency																					
Depth	10		15		8		15		13		14		19		9		14		13		
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	3.1	33.11*	2.9	29.67*	2.5	20.88*	3.4	32.63*	2.8	30.80*	3.0	29.53*	3.9	33.53*	4.2	32.14*	3.8	33.71*	3.5	33.15*	
10m			4.66	33.974			3.16	33.424	3.54	33.234	4.81	34.044	3.73	33.604			3.92	33.684	4.73	34.044	
20m																					
30m																					
50m																					
75m																					
100m																					
125m																					
150m																					
200m																					
250m																					
300m																					
400m																					
500m																					
600m																					
700m																					
800m																					
900m																					
1000m																					

Table 3-48

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199503		199503		199503		199503		199503		199503		199503		199503		199503		199503	
Station No	SR7E		SR8S		SR9S		SR0E		J47		J46		J45		J44		J43		J42	
Latitude:N	43-10.6		43-14.2		43-14.9		43-14.0		42-30.3		42-30.0		42-30.2		42-30.1		42-30.2		42-30.3	
Longitude:E	141-12.9		141-19.0		141-19.6		141-17.7		137-30.5		138- 0.0		138-20.5		138-40.5		139- 0.5		139-20.5	
Date	1995/03/07		1995/03/07		1995/03/07		1995/03/07		1995/03/14		1995/03/14		1995/03/14		1995/03/14		1995/03/14		1995/03/14	
Time(JST)	11:10		12:34		12:42		14:19		00:14		03:22		05:37		07:49		09:53		12:03	
Weather									C		B		BC		C		BC		B	
Air Temp.									3.5		0.4		3.8		0.5		6.4		7.5	
Bar									1023.4		1023.4		1024.7		1026.2		1026.9		1027.0	
Wind Dir									NNW		NNW		N		NNE		NNE		NNW	
Wind Spd/F	S		S		S		S		S 4		S 4		S 6		S 4		S 3		S 4	
Transparency															10		6		9	
Depth	13		13		13		21										3594		3200	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	3.7	33.42*	3.7	33.46*	3.5	32.86*	4.2	0.22*	4.3	34.174	4.2	34.176	4.7	34.181	5.9	34.162	6.3	34.183	6.8	34.166
10m	4.81	34.404	4.46	34.024	4.71	34.034	4.26	33.894	4.30	34.167	4.12	34.167	4.73	34.165	5.83	34.155	6.15	34.165	6.25	34.156
20m							4.79	34.084	4.30	34.167	4.08	34.168	4.73	34.165	5.83	34.155	5.54	34.157	5.29	34.169
30m									3.82	34.176	4.04	34.168	4.73	34.165	5.83	34.155	5.49	34.154	4.89	34.166
50m									3.06	34.151	4.00	34.172	4.28	34.173	5.73	34.158	3.66	34.149	4.29	34.139
75m									2.61	34.147	3.87	34.175	2.81	34.120	4.57	34.142	2.41	34.092	3.46	34.113
100m									1.90	34.125	3.08	34.148	1.88	34.094	3.11	34.090	1.86	34.087	2.39	34.081
125m									1.77	34.122	1.88	34.105	1.62	34.090	2.27	34.089	1.45	34.080	1.74	34.077
150m									1.64	34.116	1.57	34.094	1.38	34.088	1.85	34.080	1.30	34.083	1.38	34.074
200m									1.29	34.097	1.17	34.083	1.12	34.084	1.22	34.077	1.07	34.084	1.11	34.076
250m									1.13	34.092	0.97	34.079	0.94	34.083	0.98	34.079	0.89	34.082	0.89	34.079
300m									0.94	34.086	0.79	34.080	0.80	34.083	0.85	34.079	0.76	34.081	0.73	34.079
400m									0.62	34.080	0.59	34.079	0.58	34.080	0.60	34.080	0.58	34.079	0.51	34.079
500m									0.49	34.079	0.46	34.079	0.47	34.079	0.47	34.078	0.46	34.077	0.43	34.078
600m									0.38	34.077	0.39	34.078	0.36	34.077	0.39	34.076	0.37	34.076	0.35	34.077
700m																				
800m																				
900m																				
1000m																				

Table 3-49

Table 3 Results of serial oceanographic observations. Hokkaido Central Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199503																			
Station No	J41																			
Latitude:N	42-30.0																			
Longitude:E	139-40.0																			
Date	1995/03/14																			
Time(JST)	14:21																			
Weather	B																			
Air Temp.	9.8																			
Bar																				
Wind Dir	NNW																			
Wind Spd/F	S 6																			
Transparency	10																			
Depth	2000																			
Equipment	CTD																			
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	8.6	34.140																		
10m	8.46	34.127																		
20m	8.35	34.127																		
30m	8.29	34.125																		
50m	8.14	34.121																		
75m	7.45	34.164																		
100m	6.28	34.156																		
125m	5.11	34.146																		
150m	4.16	34.128																		
200m	2.44	34.089																		
250m	1.40	34.076																		
300m	1.06	34.074																		
400m	0.73	34.073																		
500m	0.52	34.073																		
600m	0.40	34.073																		
700m																				
800m																				
900m																				
1000m																				

Table 3-50



Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199404		199404	
Station No	P64		P63		P62		P61		P51		P52		P53		P54		P55		P56	
Latitude:N	41-50.8		42- 0.0		42-10.1		42-20.4		42-10.1		42- 0.1		41-50.6		41-40.2		41-30.2		41-20.2	
Longitude:E	141-20.4		141-20.3		141-20.2		141-20.4		142-30.3		142-20.5		142- 9.7		142- 0.3		141-50.4		141-40.4	
Date	1994/04/14		1994/04/14		1994/04/14		1994/04/14		1994/04/15		1994/04/15		1994/04/15		1994/04/15		1994/04/15		1994/04/15	
Time(JST)	14:35		16:03		17:27		18:52		00:43		02:25		04:45		07:45		10:10		12:50	
Weather	C		BC		C		C		C		C		C		BC		BC		BC	
Air Temp.	6.0		5.0		4.0		3.0		1.5		2.0		3.0		6.0		6.0		8.0	
Bar	1006.5		1006.0		1006.5		1008.0		1010.5		1011.0		1012.0		1013.0		1015.5		1015.5	
Wind Dir	WSW		WSW		W		SW		WSW		WSW		SW		WSW		WNW		WNW	
Wind Spd/F	F 5		F 3		F 2		F 4		F 4		F 3		F 2		F 4		F 4		F 3	
Transparency	6		5		4								7		7		10			
Depth	298		317		370		232		124								960		770	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	3.8	33.501	3.2	33.054	3.0	32.919	3.4	32.858	2.4	32.717	2.0	32.896	2.6	32.918	3.1	33.045	3.5	33.064	8.0	34.070
10m	3.77	33.095	2.70	32.943	2.57	32.816	3.11	32.775	2.19	32.597	1.75	32.800	2.33	32.841	2.58	32.941	3.21	33.159	7.08	33.847
20m	3.86	33.178	2.69	32.944	2.57	32.948	3.06	32.780	1.47	32.676	1.75	32.801	2.33	32.840	2.58	32.943	5.74	33.654	7.19	33.869
30m	4.35	33.297	2.51	32.932	2.51	33.078	2.62	32.874	1.09	32.809	1.71	32.797	2.32	32.852	2.55	32.941	6.08	33.691	7.41	33.912
50m	6.24	33.669	2.02	33.088	2.24	33.165	1.87	33.065	0.61	32.924	1.84	33.098	1.71	32.901	2.46	32.938	6.15	33.700	7.46	33.928
75m	7.20	33.887	2.97	33.263	2.76	33.263	2.44	33.207	0.80	33.064	2.66	33.240	1.54	33.089	3.58	33.312	6.30	33.751	7.45	33.963
100m	4.98	33.551	3.63	33.364	2.91	33.308	3.29	33.310	1.45	33.300	1.07	33.133	1.87	33.186	4.68	33.485	6.66	33.850	6.92	33.871
125m	4.02	33.469	2.94	33.315	3.23	33.405	2.85	33.350			1.15	33.195	1.74	33.186	3.56	33.338	7.09	33.960	6.56	33.797
150m	3.87	33.466	2.61	33.390	2.52	33.341	3.52	33.408			1.12	33.232	1.39	33.194	2.89	33.339	6.80	33.928	6.49	33.793
200m	3.77	33.483	2.50	33.361	2.45	33.390	2.40	33.409			1.21	33.298	1.36	33.232	3.49	33.474	5.79	33.739	6.48	33.819
250m	3.10	33.445	2.46	33.439	2.42	33.442					2.22	33.405	1.42	33.263	1.90	33.297	4.20	33.587	6.44	33.817
300m			2.29	33.515	2.31	33.511					1.60	33.413	2.48	33.455	1.65	33.320	1.59	33.319	7.04	33.955
400m											2.50	33.655	2.56	33.677	2.35	33.553	2.35	33.559	2.35	33.569
500m											2.81	33.819	2.87	33.829	2.71	33.748	2.72	33.752	2.77	33.776
600m															3.01	33.894	3.02	33.917	3.06	33.940
700m																				
800m																				
900m																				
1000m																				

Table 4-1

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199404		199404	
Station No	P66		P65		HKD10		HKD11		HKD12		HKD13		HKD14		HKD15		HKD16		HKD17	
Latitude:N	41-32.2		41-40.2		42- 9.9		42-14.9		42-19.9		42-19.9		42-19.9		42-25.0		42-25.0		42-25.1	
Longitude:E	141-19.0		141-23.2		140-50.1		140-49.9		140-49.8		140-45.1		140-40.1		140-44.9		140-40.2		140-35.1	
Date	1994/04/15		1994/04/15		1994/04/19		1994/04/19		1994/04/20		1994/04/20		1994/04/20		1994/04/20		1994/04/20		1994/04/20	
Time(JST)	15:56		17:28		02:42		23:27		00:12		00:27		01:22		02:13		02:47		03:23	
Weather	B		B		B		B		B		B		B		B		B		B	
Air Temp.	9.0		7.0		3.5		3.0		2.5		2.0		2.0		1.5		1.5		1.5	
Bar	1015.0		1016.0		1020.5		1021.0		1021.0		1021.5		1021.0		1021.0		1021.5		1021.5	
Wind Dir	W		WSW		WNW		NW		N		NNW		N		NNE		CALM		N	
Wind Spd/F	F 4		F 4		S 1		S 3		S 2		S 1		S 1		S 1		S 0		S 1	
Transparency	9		9																	
Depth	241		233		91		69		48		60		78		59		77		92	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	10.9	<i>N.D.</i>	7.1	33.873	4.2	33.006	4.1	32.919	4.3	32.844	4.3	32.861	4.8	32.997	4.6	32.995	4.8	32.977	4.5	33.053
10m	8.10	33.925	6.85	33.793	4.30	32.782	4.10	32.867	4.53	32.839	4.26	32.892	4.23	32.916	4.40	32.967	4.57	32.942	4.58	32.974
20m	8.10	33.937	6.92	33.820	4.19	32.899	3.78	32.947	4.36	33.015	3.72	32.889	4.07	32.934	4.16	33.018	4.28	32.990	4.49	33.010
30m	8.06	33.953	7.11	33.922	4.11	33.019	3.57	33.007	3.92	33.061	4.03	33.024	3.75	33.037	3.27	33.193	3.78	33.027	3.68	33.111
50m	8.06	33.959	7.24	33.929	3.05	33.340	2.99	33.371			2.96	33.314	2.48	33.143	2.96	33.362	3.08	33.346	2.92	33.363
75m	8.06	33.961	7.26	33.954	3.06	33.431													3.09	33.544
100m	8.05	33.967	7.13	33.940																
125m	8.05	33.971	7.00	33.932																
150m	8.04	33.970	6.87	33.911																
200m	7.87	33.985	3.04	33.555																
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-2

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199405		199405		199405		199405	
Station No	HKD18		HKD19		HKD20		HKD21		HKD22		HKD23		HKG15		HKG14		HKG13		HKG12	
Latitude:N	42-25.1		42-20.1		42-19.9		42-15.1		42-14.9		42-14.9		42- 0.0		42- 5.0		42-10.0		42-12.5	
Longitude:E	140-30.1		140-30.0		140-34.7		140-35.1		140-39.8		140-44.9		141- 0.0		141- 0.0		141- 0.0		141- 0.0	
Date	1994/04/20		1994/04/20		1994/04/20		1994/04/20		1994/04/20		1994/04/20		1994/05/10		1994/05/10		1994/05/10		1994/05/10	
Time(JST)	03:58		04:40		05:12		05:54		06:26		06:59		05:10		06:10		07:16		07:45	
Weather	B		B		B		B		B		B		C		BC		BC		BC	
Air Temp.	1.5		1.5		1.2		2.5		2.5		2.0		6.3		6.5		6.6		6.5	
Bar	1021.5		1021.5		1021.5		1022.0		1021.5		1021.5		1012.0		1012.0		1012.0		1012.0	
Wind Dir	WSW		CALM		CALM		W		WSW		NW		S		E		NNE		NE	
Wind Spd/F	S 1		S 0		S 0		S 2		S 1		S 1		F 1		F 1		F 1		F 1	
Transparency					16		10		8		10		12		10		10		10	
Depth	92		94		94		92		88		80		88		83		76		72	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	4.6	33.014	4.7	33.014	4.7	33.006	4.6	32.882	4.6	32.908	4.3	32.956	6.6	32.258	6.3	32.077	6.1	32.447	6.4	32.460
10m	4.50	32.975	4.55	32.996	4.46	32.984	4.48	32.842	4.34	32.882	4.13	32.918	5.51	32.185	5.73	32.189	6.07	32.384	5.78	32.430
20m	4.31	32.970	4.51	32.996	4.43	32.985	4.40	32.953	4.14	32.906	3.95	32.917	3.51	32.485	4.32	32.619	4.50	32.476	4.81	32.558
30m	3.93	33.045	3.94	33.140	4.16	32.992	3.90	32.982	3.99	33.043	3.80	32.952	2.01	32.665	2.39	32.816	2.64	32.742	2.99	32.718
50m	2.91	33.430	3.03	33.280	3.26	33.236	3.00	33.348	3.16	33.312	2.90	33.363	2.82	33.096	1.21	32.950	1.13	32.913	1.61	32.924
75m	3.05	33.530	2.95	33.486	2.95	33.472	3.03	33.518	3.08	33.523	2.86	33.402			1.54	33.042				
100m																				
125m																				
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-3

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199405		199405		199405	
Station No	HKG20		HKG21		HKG29		HKG27		HKG36		HKG35		HKG38		HKG37		HKG34		HKG33	
Latitude:N	42-10.0		42- 6.0		42-11.0		42-15.0		42-13.0		42-15.0		42-20.0		42-20.0		42-20.0		42-25.0	
Longitude:E	140-50.0		140-50.0		140-40.0		140-40.0		140-31.0		140-31.0		140-22.0		140-25.0		140-30.0		140-30.0	
Date	1994/05/10		1994/05/10		1994/05/10		1994/05/10		1994/05/10		1994/05/10		1994/05/10		1994/05/10		1994/05/10		1994/05/10	
Time(JST)	09:00		09:42		11:05		11:45		12:50		13:26		14:33		15:06		15:47		16:37	
Weather	C		C		BC		BC		C		C		C		C		BC		BC	
Air Temp.	6.5		6.5		8.5		9.5		9.8		11.2		11.0		10.8		10.6		10.6	
Bar	1012.0		1012.0		1012.0				1009.2		1009.2		1009.0		1008.0		1008.0		1008.0	
Wind Dir	NW		NW		NW		NW		ENE		ENE		ENE		E		E		E	
Wind Spd/F	F 2		F 2		F 2		F 2		F 2		F 2		F 2		F 2		F 2		F 2	
Transparency	12		10		12		10		10		9		10		8		9		9	
Depth	88		68		88		89		78		84		48		65		93		93	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	6.5	32.527	7.6	32.345	7.6	32.469	7.6	32.024	10.0	32.466	8.9	32.540	9.2	31.904	8.8	32.485	8.9	32.488	7.8	32.168
10m	6.94	32.571	6.95	32.500	6.48	32.536	5.67	32.322	6.68	32.538	7.29	32.536	6.83	32.289	7.35	32.389	6.96	32.481	6.79	32.363
20m	6.20	32.571	6.04	32.528	4.95	32.797	4.44	32.550	5.67	32.698	6.04	32.675	5.94	32.738	6.29	32.597	5.49	32.748	6.19	32.699
30m	5.01	32.859	4.55	32.854	4.56	32.925	5.00	32.856	4.76	32.856	5.01	32.820	5.82	32.818	5.80	32.807	5.46	32.831	4.85	32.933
50m	3.74	33.084	4.03	33.006	3.74	33.044	3.67	33.147	3.81	33.032	3.84	32.990			4.68	32.979	3.37	33.131	3.20	33.217
75m	3.01	33.438			3.05	33.322					2.98	33.386					2.95	33.426		
100m																				
125m																				
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-4

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199405		199405		199405	
Station No	HKG32		HKG31		HKG26		HKG25		HKG24		HKG22		HKG16		HKG18		HKG19		HKG10	
Latitude:N	42-30.0		42-31.5		42-20.0		42-27.5		42-30.0		42-33.0		42-25.0		42-20.0		42-15.0		42-17.5	
Longitude:E	140-30.0		140-30.0		140-40.0		140-40.0		140-40.0		140-40.0		140-50.0		140-50.0		140-50.0		141- 0.0	
Date	1994/05/10		1994/05/10		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11	
Time(JST)	17:33		17:55		04:47		05:55		06:33		07:03		08:30		09:23		10:11		11:15	
Weather	C		C		C		C		C		C		R		C		BC		BC	
Air Temp.	10.0		10.0		8.0		8.4		9.4		9.2		10.0		10.0		10.0		10.0	
Bar	1007.0		1007.0		1006.0		1006.0		1005.0		1005.0		1005.0		1005.0		1005.0		1005.0	
Wind Dir	E		SW		SSW		SSW		SSW		S		S		S		S		SE	
Wind Spd/F	F 2		F 2		F 2		F 2		F 2		F 2		F 2		F 2		F 2		F 2	
Transparency	8		8		8		10		8		7		10		12		10		8	
Depth	65		60		77		74		65		50		40		45		67		40	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	8.3	31.811	9.1	31.716	8.2	32.449	7.5	32.308	8.0	32.182	8.0	26.795	7.8	32.078	7.6	32.301	7.5	32.027	8.2	32.048
10m	5.62	32.453	5.64	32.473	7.53	32.454	7.22	32.488	6.96	32.432	5.70	32.456	7.16	32.415	5.94	32.464	6.00	32.045	4.43	32.568
20m	5.53	32.529	5.60	32.534	6.04	32.668	6.21	32.638	6.08	32.673	5.96	32.672	5.89	32.738	5.07	32.561	4.48	32.540	3.83	32.775
30m	5.68	32.667	5.77	32.692	5.91	32.764	5.84	32.720	5.11	32.823	5.35	32.794	4.93	32.633	4.95	32.701	3.72	32.658	2.56	32.863
50m	3.11	33.314	3.15	33.265	4.09	33.035	3.77	33.090	3.21	33.184							1.85	32.870		
75m																				
100m																				
125m																				
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-5

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199405		199405		199406	
Station No	HKG09		HKG08		HKG07		HKG06		HKG01		HKG02		HKG03		HKG04		HKG05		P64	
Latitude:N	42-15.0		42-20.0		42-22.5		42-24.0		42-34.5		42-33.5		42-32.5		42-30.0		42-25.0		41-50.3	
Longitude:E	141-10.0		141-10.0		141-10.0		141-10.0		141-30.0		141-30.0		141-30.0		141-30.0		141-30.0		141-19.3	
Date	1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/23	
Time(JST)	12:24		13:20		13:54		14:25		16:47		17:07		17:30		18:03		18:48		13:51	
Weather	BC		BC		BC		BC		B		B		B		B		B		C	
Air Temp.	10.0		11.2		11.2		12.2		16.0		16.0		15.6		15.0		14.6		13.7	
Bar	1006.0		1005.0		1006.0		1005.0		1006.0		1006.0		1006.0		1006.0		1006.0		1016.5	
Wind Dir	W		W		W		W		S		S		S		S		S		NW	
Wind Spd/F	F 2		F 2		F 2		F 2		F 2		F 2		F 2		F 2		F 2		S 3	
Transparency	10		10		13		6		2		3		3		9				8	
Depth	96		73		59		39		32		48		56		76		100		282	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	6.9	32.455	7.6	32.421	8.4	32.184	9.1	30.866	8.8	29.003	7.9	30.193	8.3	29.674	6.4	32.322	5.8	32.496	12.3	33.625
10m	5.76	32.361	6.13	32.350	5.77	32.194	4.41	32.551	5.40	31.654	5.32	32.198	5.09	32.502	5.40	32.443	5.08	32.427	9.24	33.418
20m	4.52	32.625	4.24	32.780	4.48	32.599	3.45	32.689	2.88	32.622	3.09	32.687	3.91	32.613	3.58	32.579	4.25	32.685	9.25	33.857
30m	4.24	32.770	1.67	32.797	3.16	32.708	2.35	32.776			2.04	32.692	2.98	32.682	3.60	32.910	2.99	32.695	8.53	33.823
50m	1.09	32.833	1.49	32.834	1.69	32.859							1.08	32.959	1.79	32.799	1.32	32.777	8.64	34.005
75m	1.13	32.957															1.16	32.848	8.61	34.039
100m																			8.42	34.032
125m																			6.22	33.714
150m																			4.20	33.574
200m																			2.82	33.536
250m																			2.53	33.536
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-6

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	P65		P66		P56		P55		P54		P53		P52		P51		P61		HH01	
Latitude:N	41-40.3		41-30.1		41-20.2		41-29.9		41-40.2		41-50.4		42- 0.0		42-10.0		42-20.2		42-15.3	
Longitude:E	141-19.7		141-19.7		141-40.2		141-49.6		141-59.5		142- 9.9		142-19.4		142-29.9		141-19.1		141-10.1	
Date	1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/24		1994/05/24		1994/05/24		1994/05/24		1994/05/24		1994/05/24	
Time(JST)	15:12		16:35		18:49		20:49		00:08		01:58		04:00		05:55		11:48		12:57	
Weather	C		C		C		C		B		B		BC		BC		BC		BC	
Air Temp.	12.0		14.0		12.0		11.0		9.0		9.0		9.0		9.0		18.0		15.0	
Bar	1017.0		1016.5		1017.5		1018.5		1018.5		1018.0		1018.0		1018.5		1018.5		1018.5	
Wind Dir	W		NW		SE		CALM		SW		W		SE		NNE		NE		CALM	
Wind Spd/F	S 4		S 4		S 1		S 0		S 2		S 2		S 2		S 2		S 2		S 0	
Transparency	10		9												5		12		13	
Depth	231		243		744		933		1045		1082		1018		123		210		96	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	8.0	33.014	11.3	33.927	11.6	33.977	10.0	33.845	8.8	33.273	8.5	33.167	10.2	33.439	9.6	32.001	9.2	32.319	10.8	32.335
10m	10.20	33.831	11.32	33.900	11.28	33.941	10.23	33.982	9.12	33.685	7.81	33.133	9.72	33.790	5.70	32.438	6.50	32.664	7.81	32.363
20m	10.55	33.979	11.20	33.906	11.10	33.940	9.98	33.960	9.39	33.869	8.13	33.499	9.87	33.883	4.14	32.615	5.11	32.841	5.01	32.556
30m	10.69	34.057	10.91	33.929	10.93	33.953	9.63	33.936	9.06	33.945	8.56	33.873	9.67	33.972	3.06	32.678	7.06	33.513	2.91	32.776
50m	10.09	34.124	10.53	34.013	10.77	33.969	9.60	33.957	8.99	34.013	9.30	34.022	9.69	34.043	2.86	32.998	7.84	33.840	1.27	32.883
75m	9.82	34.133	10.23	34.059	10.57	33.992	9.67	34.013	8.62	33.973	8.92	33.994	9.35	34.032	4.71	33.482	6.18	33.615	1.32	32.961
100m	9.43	34.101	10.21	34.053	10.54	33.991	9.70	34.055	7.98	33.932	8.83	33.987	8.49	33.952	3.28	33.469	5.45	33.633		
125m	8.52	34.002	9.65	34.110	10.44	33.979	9.63	34.054	6.94	33.812	8.09	33.858	6.25	33.704			4.25	33.448		
150m	6.55	33.836	9.51	34.112	10.29	33.961	9.50	34.062	5.88	33.746	6.47	33.747	5.51	33.702			3.91	33.530		
200m	5.13	33.699	9.07	34.139	9.75	33.929	6.98	33.872	3.63	33.513	4.94	33.645	3.71	33.518			2.20	33.507		
250m					9.54	33.945	4.46	33.615	4.16	33.667	3.59	33.625	2.57	33.472						
300m					4.77	33.628	2.93	33.454	2.40	33.551	2.34	33.604	1.52	33.427						
400m					2.73	33.746	3.00	33.747	4.25	33.935	2.55	33.746	2.40	33.649						
500m					3.28	33.886	4.34	34.027	2.93	33.866	3.03	33.923	2.89	33.838						
600m					3.02	33.933	3.10	33.992	3.46	34.050	3.11	34.093	2.94	33.990						
700m																				
800m																				
900m																				
1000m																				

Table 4-7

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	P62		P63		HTP11		HTP12		HTP13		HTP14		HTP15		HTP16		HTP17		HTP18	
Latitude:N	42-10.1		42- 0.1		42- 0.0		42- 5.0		42-10.1		42-10.0		42-14.9		42-14.8		42-14.9		42-14.9	
Longitude:E	141-20.0		141-20.1		141- 0.2		140-59.9		140-59.8		140-50.2		140-49.8		140-45.2		140-40.2		140-35.0	
Date	1994/05/24		1994/05/24		1994/05/24		1994/05/24		1994/05/24		1994/05/24		1994/05/24		1994/05/24		1994/05/24		1994/05/24	
Time(JST)	14:05		15:30		17:27		18:09		18:49		19:44		20:30		21:03		21:38		22:13	
Weather	BC		BC		BC		BC		BC		BC		B		B		B		B	
Air Temp.	19.0		18.5		15.5		16.0		15.5		15.0		14.5		12.0		13.5		13.0	
Bar	1018.0		1017.5		1017.5		1018.0		1018.0		1019.0		1019.0		1019.5		1019.5		1019.5	
Wind Dir	CALM		CALM		CALM		CALM		CALM		CALM		CALM		CALM		CALM		CALM	
Wind Spd/F	S 0		S 0		S 0		S 0		S 0		S 0		S 0		S 0		S 0		S 0	
Transparency	10		7		10		10													
Depth	365		313		88		84		81		90		69		80		88		92	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	10.4	33.288	10.5	33.560	13.7	32.492	12.7	32.297	12.5	32.266	10.5	32.287	12.1	32.275	11.6	32.116	11.6	32.119	11.0	32.301
10m	8.62	33.302	8.54	33.633	7.20	32.401	8.28	32.193	8.16	32.181	8.81	32.280	8.63	32.254	8.98	32.252	8.26	31.946	8.49	32.130
20m	8.14	33.411	9.39	33.890	7.16	33.094	5.80	32.620	6.70	32.454	6.98	32.400	7.98	32.334	7.77	32.275	7.90	32.339	6.94	32.018
30m	8.35	33.749	9.00	34.002	7.44	33.731	4.72	32.869	6.73	33.019	3.02	32.735	5.21	32.697	6.27	32.522	5.33	32.669	5.00	32.612
50m	6.15	33.559	8.30	33.929	7.84	33.907	7.55	33.829	4.79	33.598	1.61	32.936	2.20	32.914	3.51	32.962	2.54	32.774	2.41	32.883
75m	6.12	33.734	6.77	33.763	6.96	33.829	4.76	33.610			4.75	33.655			2.85	33.236	3.11	33.304	3.02	33.329
100m	4.89	33.570	4.80	33.596																
125m	4.90	33.597	5.36	33.736																
150m	4.42	33.581	4.26	33.612																
200m	3.17	33.498	2.78	33.500																
250m	2.71	33.630	2.97	33.599																
300m	2.39	33.598	2.59	33.612																
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-8



Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	HTP19		HTP20		HTP22		HTP23		HTP24		HTP25		HTP26		HTP27		HTP28		HTP30	
Latitude:N	42-14.8		42-17.4		42-19.8		42-24.9		42-25.0		42-22.6		42-20.1		42-24.9		42-27.4		42-20.1	
Longitude:E	140-30.3		140-32.3		140-30.2		140-29.9		140-34.8		140-37.4		140-39.9		140-40.0		140-42.4		140-41.0	
Date	1994/05/24		1994/05/24		1994/05/25		1994/05/25		1994/05/25		1994/05/25		1994/05/25		1994/05/25		1994/05/25		1994/05/25	
Time(JST)	22:46		23:13		00:24		01:25		01:52		02:28		02:55		03:40		04:10		05:22	
Weather	B		B		B		B		B		B		B		B		B		BC	
Air Temp.	12.5		12.0		11.0		11.0		10.0		10.0		10.0		10.0		10.0		12.0	
Bar	1019.5		1019.5		1019.5		1019.5		1019.5		1019.5		1019.5		1019.5		1019.5		1019.5	
Wind Dir	CALM		CALM		CALM		CALM		CALM		CALM		CALM		CALM		CALM		CALM	
Wind Spd/F	S 0		S 0		S 0		S 0		S 0		S 0		S 0		S 0		S 0		F 0	
Transparency																			9	
Depth	84		94		94		92		92		88		79		77		66		59	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	10.8	32.243	11.5	32.156	10.3	32.243	10.8	32.304	9.8	32.139	11.0	32.149	10.2	32.113	10.2	32.147	11.1	32.290	10.3	32.023
10m	8.51	32.198	8.42	32.050	8.17	32.016	8.45	32.093	8.54	32.061	8.81	32.063	8.02	31.838	8.44	32.175	9.19	32.284	7.97	31.970
20m	7.27	32.422	6.26	32.156	6.94	32.369	6.70	32.497	6.41	32.503	6.12	32.234	8.06	32.142	6.91	32.435	6.92	32.454	6.59	32.204
30m	4.80	32.777	5.39	32.736	5.14	32.711	5.67	32.823	5.25	32.831	5.64	32.672	5.88	32.396	5.39	32.606	5.31	32.795	5.99	32.677
50m	2.97	32.872	3.89	33.077	3.78	33.049	3.79	33.048	4.12	33.005	4.01	32.841	2.84	32.824	4.06	33.020	3.69	33.120	4.02	32.966
75m	3.03	33.411	2.95	33.404	2.95	33.397	2.99	33.363	3.01	33.342	3.01	33.412								
100m																				
125m																				
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-9

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	HTP29		HTP31		HTP32		HTP21		HKG11		HKG12		HKG13		HKG14		HKG15		HKG16	
Latitude:N	42-25.2		42-19.9		42-15.2		42-19.9		42-34.5		42-33.6		42-32.7		42-30.0		42-25.2		42-23.9	
Longitude:E	140-45.0		140-49.7		140-59.7		140-34.8		141-30.0		141-30.0		141-29.9		141-30.0		141-30.1		141- 9.9	
Date	1994/05/25		1994/05/25		1994/05/25		1994/05/25		1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31	
Time(JST)	05:38		05:54		06:58		23:43		04:27		04:50		05:14		05:50		06:41		08:46	
Weather	B		B		B		B		F		F		B		B		B		B	
Air Temp.	10.5		12.0		13.0		12.0		7.0		7.0		10.0		10.0		12.0		12.5	
Bar	1019.5		1019.5		1020.5		1019.5		1006.0		1007.0		1007.0		1007.0		1008.0		1008.5	
Wind Dir	CALM		CALM		CALM		CALM		N		CALM		SSW		SW		SW		SSW	
Wind Spd/F	S 0		S 0		S 0		S 0		F 1		S 0		F 1		F 1		F 1		F 1	
Transparency	11		9		4				2		2		7		6		17		3	
Depth	58		47		68		94		32		48		58		76		128		39	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	11.3	32.283	13.1	32.217	8.8	32.030	11.5	32.156	10.2	24.766	10.6	28.842	9.3	31.854	9.0	32.004	10.5	32.984	11.7	28.753
10m	9.25	32.263	8.66	32.284	6.71	32.042	8.35	32.151	8.40	31.189	8.14	32.311	8.21	32.193	7.57	32.306	9.90	33.253	7.90	32.371
20m	7.44	32.355	7.21	32.405	6.08	32.693	6.48	32.174	7.68	31.967	7.69	32.489	7.43	32.369	7.63	32.556	7.89	33.343	7.37	32.528
30m	5.69	32.714	4.83	32.912	4.04	32.539	5.66	32.611			7.56	32.522	7.52	32.556	8.35	33.082	2.44	32.883	7.21	32.582
50m	3.98	33.032			1.70	32.963	4.21	32.962					2.74	32.869	2.89	32.796	4.83	33.448		
75m							3.00	33.360									4.69	33.487		
100m																	4.18	33.504		
125m																				
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-10

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	HKG17		HKG18		HKG19		HKG20		HKG21		HKG22		HKG23		HKG24		HKG25		HKG26	
Latitude:N	42-22.5		42-20.0		42-15.0		42-17.5		42-15.0		42-20.0		42-25.1		42-27.7		42-27.6		42-24.9	
Longitude:E	141-10.0		141-10.0		141-10.0		141- 0.0		140-50.0		140-50.0		140-50.0		140-40.1		140-42.4		140-40.1	
Date	1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31	
Time(JST)	09:15		09:50		10:43		12:00		15:57		16:50		17:50		19:15		19:45		20:17	
Weather	B		B		B		B		C		C		C		C		C		C	
Air Temp.	13.0		13.0		13.5		19.0		18.0		16.5		16.5		15.0		14.0		13.8	
Bar	1008.8		1009.0		1009.2		1009.0		1008.0		1008.0		1007.0		1008.0		1008.0		1008.3	
Wind Dir	S		SW		W		SSW		W		CALM		CALM		CALM		CALM		CALM	
Wind Spd/F	F 2		F 2		F 1		F 1		F 1		S 0		S 0		S 0		S 0		S 0	
Transparency	3		12		12		3		7		7		7		6					
Depth	57		73		97		21		67		47		40		73		66		76	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	11.7	28.395	12.1	28.040	13.7	30.432	14.4	28.348	16.5	30.595	12.7	31.623	12.9	31.701	11.9	31.886	11.8	31.765	11.3	31.743
10m	7.51	32.547	8.33	32.799	8.72	32.841	8.59	32.024	10.79	31.796	10.45	31.775	10.23	31.841	10.12	31.969	10.54	31.956	11.09	31.779
20m	7.44	32.594	7.98	32.764	9.20	33.342			10.11	32.060	9.70	31.888	9.43	31.958	8.74	32.242	8.84	32.031	9.28	32.012
30m	7.31	32.649	5.22	32.654	4.26	32.652			8.44	32.107			7.94	32.132	6.17	32.476	6.88	32.228	7.59	32.234
50m	5.40	32.621	2.66	32.763	4.68	33.200			2.99	32.857			4.47	32.826	4.71	32.853	4.78	32.864		
75m					3.55	33.363														
100m																				
125m																				
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-11

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	HKG27		HKG28		HKG29		HKG30		HKH11		HKH12		HKH13		HKH14		HKH15		HKH16	
Latitude:N	42-22.5		42-20.0		42-17.5		42-14.9		42- 0.0		42- 5.0		42-10.0		42-10.0		42-15.0		42-20.0	
Longitude:E	140-37.6		140-35.1		140-32.6		140-30.2		141- 0.0		141- 0.0		141- 0.0		140-50.0		140-40.0		140-40.0	
Date	1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/06/06		1994/06/06		1994/06/06		1994/06/06		1994/06/06		1994/06/06	
Time(JST)	20:51		21:28		22:02		22:36		13:47		14:37		15:33		16:36		17:51		18:39	
Weather	C		C		C		C		B		B		B		B		B		B	
Air Temp.	14.0		14.5		14.5		14.2		14.5		14.5		13.0		12.8		15.5		16.2	
Bar	1008.7		1008.5		1008.2		1007.7		1018.0		1017.0		1017.0		1016.6		1016.7		1017.0	
Wind Dir	S		SW		S		E		E		E		SSE		SE		E		E	
Wind Spd/F	F 1		F 1		F 1		F 1		F 2		F 2		F 2		F 2		F 2		F 1	
Transparency									8		11		8		9		9		9	
Depth	86		93		95		85		88		84		81		89		88		78	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	12.6	31.218	13.0	30.076	12.0	31.765	12.0	32.050	14.1	31.985	12.4	32.104	12.3	31.903	14.0	31.834	13.8	31.728	14.2	31.617
10m	10.35	31.721	9.91	31.875	9.02	32.067	10.43	32.128	8.32	32.244	9.61	33.004	9.08	32.539	9.16	32.083	9.95	31.877	11.13	31.747
20m	8.24	32.055	7.72	32.375	7.40	32.304	7.81	32.334	7.60	32.586	8.94	33.058	7.90	33.019	7.43	32.371	9.23	32.162	8.57	32.199
30m	7.45	32.291	6.32	32.491	6.15	32.623	5.21	32.585	6.69	32.884	6.58	32.830	5.86	33.066	6.96	32.733	6.86	32.466	5.56	32.467
50m	4.58	32.921	3.94	32.956	3.29	32.901	3.98	33.017	2.30	32.791	4.19	33.241	5.30	33.449	2.96	32.804	4.17	32.764	4.13	33.014
75m	3.05	33.363	3.05	33.331	3.02	33.346	3.21	33.248	2.58	33.163	3.01	33.327			2.94	33.194	3.13	33.256		
100m																				
125m																				
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-12

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	HKH17		HKH18		HKH19		HKH20		HKH21		HKH22		HKH23		HKH24		HKH25		HKH26	
Latitude:N	42-27.5		42-30.0		42-33.0		42-31.5		42-30.0		42-25.6		42-20.0		42-20.0		42-20.2		42-15.0	
Longitude:E	140-40.0		140-40.0		140-40.0		140-30.0		140-30.0		140-30.3		140-30.0		140-24.7		140-22.2		140-30.0	
Date	1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07	
Time(JST)	04:16		04:52		05:33		06:37		07:11		08:05		08:57		09:41		10:09		11:20	
Weather	B		B		B		C		C		BC		C		BC		BC		BC	
Air Temp.	10.2		11.0		11.0		14.0		14.8		15.8		17.0		18.0		18.0		18.0	
Bar	1018.0		1018.2		1018.5		1018.3		1018.4				1017.5		1017.0		1019.0		1016.5	
Wind Dir	NNW		NNW		NNW		CALM		E		CALM		CALM		SE		SE		F	
Wind Spd/F	F 1		F 1		F 1		S 0		F 1		S 0		S 0		F 1		F 1		F 2	
Transparency	8		8		8		8		8		10		7		11		6		8	
Depth	73		64		46		57		64		91		93		65		47		84	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	13.8	31.684	14.2	30.817	14.5	29.730	14.0	31.585	14.1	31.608	14.6	31.691	14.6	31.502	16.3	31.787	15.4	31.164	15.0	31.725
10m	10.76	32.077	10.54	32.044	9.45	32.084	10.80	32.032	11.34	31.853	10.60	31.895	11.34	31.824	11.18	31.989	10.77	31.955	10.17	32.124
20m	8.13	32.201	7.16	32.298	7.23	32.352	8.59	32.188	8.50	32.227	8.70	32.125	8.55	32.144	8.25	32.208	8.32	32.196	8.87	32.172
30m	6.23	32.496	5.81	32.565	5.59	32.727	5.65	32.709	5.83	32.642	6.83	32.435	6.45	32.438	6.29	32.572	5.93	32.690	6.45	32.544
50m	4.25	33.000	3.83	33.075			4.14	32.982	3.92	33.025	4.15	32.989	4.11	33.025	4.21	33.013			3.83	33.075
75m													3.07	33.340					3.16	33.307
100m																				
125m																				
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-13

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	HKH27		HKH28		HKH29		HSR11		HSR12		HSR13		HSR14		HSR15		HSR16		HSR17	
Latitude:N	42-13.3		42-11.2		42- 7.0		41- 0.0		41- 0.0		41- 0.0		40-30.0		40-30.0		40-30.0		40- 0.0	
Longitude:E	140-31.0		140-39.8		140-50.0		139- 0.0		138-30.0		138- 0.0		138- 0.0		138-30.0		139- 0.0		138-30.0	
Date	1994/06/07		1994/06/07		1994/06/07		1994/06/09		1994/06/10		1994/06/10		1994/06/10		1994/06/10		1994/06/11		1994/06/11	
Time(JST)	11:53		13:00		14:21		20:18		06:22		09:22		13:01		19:33		05:54		10:58	
Weather	BC		B		C		C		C		C		C		C		C		B	
Air Temp.	16.0		16.0		16.5		16.0		14.3		16.0		16.0		12.0		13.8		20.0	
Bar	1016.5		1015.0		1015.0		1003.0		1005.0		1006.0		1007.0		1009.0		1013.0		1014.0	
Wind Dir	E		SSE		ESE		CALM		WNW		NW		NW		CALM		SW		SSW	
Wind Spd/F	F 2		F 3		F 2		F 0		F 2		F 2		S 3		S 0		F 2		S 5	
Transparency	8		9		7				18		14		17				18		15	
Depth	81		88		77				3000											
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	15.1	31.627	14.4	31.754	13.4	31.939	16.4	33.795	15.3	33.971	15.2	33.924	15.5	33.884	16.0	33.958	15.6	34.385	18.6	34.399
10m	10.08	32.105	10.65	31.832	10.06	31.952	12.42	33.662	12.33	33.830	11.84	33.465	13.04	33.778	14.32	33.876	16.63	34.455	17.45	34.387
20m	7.66	32.282	8.23	32.236	7.78	32.558	9.24	33.920	9.37	33.886	9.03	33.950	11.65	33.757	12.34	33.876	13.10	34.149	15.23	34.271
30m	7.60	32.867	7.42	32.660	7.47	32.701	6.96	33.924	5.13	33.978	6.21	33.980	8.11	33.858	10.25	33.944	12.21	34.474	13.30	34.206
50m	3.89	33.019	3.33	32.733	3.66	32.903	3.57	34.020	3.07	34.066	3.52	34.046	4.16	34.016	4.61	34.016	10.07	34.309	11.17	34.420
75m	3.15	33.325	3.13	33.298			2.50	34.043	1.91	34.054	2.36	34.069	2.88	34.035	2.69	34.054	6.48	34.096	10.44	34.369
100m							1.97	34.056	1.56	34.062	1.76	34.063	2.25	34.048	2.05	34.063	4.40	34.050	9.06	34.248
125m							1.67	34.055	1.32	34.061	1.61	34.079	1.75	34.058	1.66	34.062	2.57	34.024	8.14	34.183
150m							1.37	34.062	1.21	34.064	1.32	34.068	1.54	34.051	1.42	34.060	1.85	34.040	6.80	34.118
200m							1.11	34.068	1.12	34.071	1.18	34.073	1.17	34.053	1.18	34.066	1.32	34.061	3.84	34.058
250m							0.93	34.066	0.89	34.070	0.93	34.069	1.12	34.063	0.96	34.064	1.21	34.068	2.41	34.058
300m							0.73	34.065	0.67	34.064	0.75	34.067	0.99	34.067	0.80	34.064	1.15	34.070	1.54	34.058
400m							0.52	34.065	0.49	34.066	0.55	34.069	0.64	34.066	0.57	34.065	0.86	34.069	0.79	34.057
500m							0.42	34.063	0.40	34.065	0.43	34.066	0.48	34.066	0.43	34.064	0.55	34.064	0.56	34.063
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-14

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	HSR18		HSR19		HSR20		HSR21		HSR22		HSR23		HSR24		HSR25		HSR26		HSR27	
Latitude:N	40- 0.0		40- 0.0		40-42.2		40-50.0		41- 0.0		41- 0.0		41- 0.0		41-14.4		41-30.0		41-39.3	
Longitude:E	139- 0.0		139-30.0		139-32.7		139-50.0		139-59.9		139-50.0		139-30.0		139-50.1		139-50.0		140-37.5	
Date	1994/06/11		1994/06/12		1994/06/14		1994/06/15		1994/06/15		1994/06/15		1994/06/15		1994/06/15		1994/06/16		1994/06/16	
Time(JST)	19:05		06:11		18:20		05:06		07:06		08:17		10:20		18:25		05:26		18:18	
Weather	BC		B		BC		BC		B		B		C		C		C		BC	
Air Temp.	16.0		16.8		16.0		16.0		17.0		19.0		17.0		16.0		17.0		19.0	
Bar	1015.0		1012.7		1003.5		1006.0		1006.5		1007.0		1008.0		1010.0		1012.0		1009.0	
Wind Dir	CALM		E		NE		N		NW		W		W		WSW		CALM		SW	
Wind Spd/F	F 0		F 2		F 5		F 3		F 3		F 2		S 6		S 4		S 0		S 4	
Transparency	15		16				19		19		21		18				21		11	
Depth			1000				1317		521						1062		1345		86	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	18.8	33.684	18.1	33.923	17.2	34.375	17.5	34.014	17.5	33.191	17.4	33.303	17.5	34.325	16.7	33.358	16.8	34.041	15.8	33.980
10m	15.65	34.015	16.50	33.941	16.95	34.319	16.70	34.191	17.34	33.176	16.87	33.363	17.34	34.360	16.32	33.342	15.42	34.151	14.27	34.009
20m	14.32	34.139	14.57	34.173	16.55	34.250	14.27	34.094	14.73	33.919	14.22	34.064	16.84	34.318	14.08	34.092	13.53	34.316	12.60	34.140
30m	13.11	34.223	13.77	34.267	13.68	33.993	13.29	34.417	14.39	34.050	13.48	34.138	12.98	33.921	13.13	34.217	12.76	34.438	11.43	34.167
50m	10.45	34.154	11.82	34.288	9.30	33.843	11.76	34.506	13.31	34.182	12.21	34.248	9.24	34.083	11.56	34.219	10.94	34.339	9.71	34.160
75m	9.66	34.116	10.79	34.308	5.06	34.002	10.51	34.368	11.64	34.340	10.65	34.297	5.84	34.077	10.55	34.285	10.00	34.329	8.97	34.179
100m	9.40	34.087	10.35	34.292	4.14	34.000	10.26	34.344	10.41	34.214	10.38	34.353	4.31	34.046	10.10	34.253	8.88	34.232		
125m	9.27	34.081	9.87	34.254	3.17	34.052	9.81	34.298	10.16	34.310	9.66	34.295	2.64	34.050	9.79	34.241	6.99	34.115		
150m	9.33	34.147	9.32	34.222	2.09	34.055	8.88	34.211	9.47	34.260	8.79	34.235	2.09	34.050	9.13	34.216	6.29	34.104		
200m	8.21	34.114	7.82	34.141	1.43	34.034	6.61	34.048	5.77	34.052	5.68	34.055	1.51	34.057	5.38	34.044	3.77	34.044		
250m	6.42	34.084	5.95	34.067	1.11	34.053	3.45	34.050	1.86	34.059	2.70	34.053	1.02	34.058	2.48	34.058	2.27	34.026		
300m	4.24	34.026	3.41	34.033	0.90	34.057	1.71	34.051	1.28	34.058	1.70	34.058	0.79	34.059	1.68	34.056	1.38	34.053		
400m	1.53	34.058	1.28	34.053	0.61	34.059	0.66	34.057	0.62	34.059	0.72	34.059	0.51	34.061	0.68	34.055	0.94	34.060		
500m	0.81	34.061	0.60	34.055	0.40	34.059	0.45	34.059	0.42	34.059	0.51	34.060	0.39	34.061	0.42	34.060	0.63	34.060		
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-15

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	HKD11		HKD12		HKD13		HKD14		HKD15		HKD16		HKD17		HKD18		HKD19		HKD20	
Latitude:N	41-59.9		42- 4.9		42- 9.8		42-10.0		42-14.8		42-15.0		42-11.3		42-11.2		42-15.0		42-15.0	
Longitude:E	141- 0.1		140-59.9		140-59.9		140-50.2		140-50.0		140-45.2		140-40.0		140-39.9		140-35.2		140-30.2	
Date	1994/06/28		1994/06/28		1994/06/28		1994/06/28		1994/06/28		1994/06/28		1994/06/28		1994/06/28		1994/06/28		1994/06/28	
Time(JST)	15:32		16:17		17:01		18:01		18:45		19:20		20:10		20:50		21:25		21:59	
Weather	B		B		B		B		B		B		B		B		B		B	
Air Temp.	12.0		12.0		12.0		12.0		12.0		12.0		12.0		12.0		12.0		12.0	
Bar	1014.0		1014.0		1014.0		1014.0		1014.5		1014.5		1015.0		1015.0		1015.0		1015.0	
Wind Dir	ESE		SE		ESE		ESE		CALM		E		E		E		E		ESE	
Wind Spd/F	S 5		S 8		S 4		S 5		S 0		S 8		S 5		S 8		S 9		S 7	
Transparency	10		8		10		10		11											
Depth	87		83		81		90		69		80		90		88		92		86	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	15.3	32.49*	14.7	32.59*	13.9	32.63*	14.4	32.16*	16.1	32.86*	16.5	31.70*	15.6	31.83*	15.0	31.83*	16.2*	31.67*	15.0	31.75*
10m	14.79	32.858	14.49	32.786	12.65	33.212	13.69	32.519	13.41	32.274	11.43	32.083	12.67	32.549	14.58	31.327	14.91	31.513	14.68	32.047
20m	12.94	33.536	11.81	33.368	9.81	32.994	8.04	32.274	11.98	33.071	8.98	32.311	8.68	32.252	10.75	32.605	9.88	32.048	11.19	32.786
30m	9.68	33.637	7.62	33.201	4.87	32.564	7.08	32.602	8.22	32.939	5.92	32.652	7.24	32.612	6.83	32.468	8.78	32.446	7.38	32.565
50m	7.48	33.523	6.38	33.399	3.28	32.661	4.60	32.925	5.68	33.077	5.29	33.193	4.81	32.876	4.04	32.848	4.87	32.806	4.51	32.858
75m	6.54	33.549	6.39	33.521	5.08	33.169	3.14	33.161			3.05	33.398	3.30	33.244	3.03	33.301	3.18	33.273	3.10	33.158
100m																				
125m																				
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-16



Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	HKD21		HKD22		HKD23		HKD24		HKD25		HKD26		HKD27		HKD28		HKD29		HKD30	
Latitude:N	42-15.1		42-20.1		42-25.0		42-29.7		42-29.7		42-25.1		42-25.1		42-25.1		42-20.2		42-20.0	
Longitude:E	140-30.1		140-29.3		140-30.0		140-29.9		140-29.9		140-45.0		140-40.1		140-35.1		140-34.9		140-39.9	
Date	1994/06/28		1994/06/28		1994/06/29		1994/06/29		1994/06/29		1994/06/29		1994/06/29		1994/06/29		1994/06/29		1994/06/29	
Time(JST)	22:45		23:20		00:15		00:58		02:09		03:09		03:46		04:24		05:18		06:05	
Weather	B		B		B		B		B		B		BC		C		C		C	
Air Temp.	11.5		11.5		11.5		11.5		12.0		12.0		11.5		11.5		12.0		12.0	
Bar	1015.0		1015.0		1015.0		1015.0		1015.0		1015.0		1015.0		1015.0		1015.0		1015.0	
Wind Dir	ESE		ESE		ESE		ESE		ESE		ESE		ESE		ESE		ESE		ESE	
Wind Spd/F	S 8		S 8		S 8		S 5		S 4		S 7		S 8		S 5		S 7		S 4	
Transparency																			12	
Depth	93		70		92		66		64		57		76		90		94		77	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	15.3	31.65*	15.5	31.89*	16.4	31.762	16.0	31.85*	16.3	31.72*	15.9	31.75*	16.0	31.73*	15.7	31.71*	15.8	31.72*	16.1	31.72*
10m	16.22	31.641	15.00	31.893	16.27	31.797	15.90	31.888	16.33	31.722	16.02	31.745	16.19	31.731	15.71	31.710	15.85	31.715	15.61	31.679
20m	13.53	32.664	9.08	32.121	11.17	32.181	11.01	32.270	14.91	31.915	12.13	32.271	13.53	31.855	14.68	32.147	14.03	32.761	9.78	32.157
30m	7.89	32.367	7.84	32.601	7.39	32.649	7.85	32.554	9.47	32.144	9.02	32.527	9.78	32.144	11.51	32.632	10.19	32.443	9.13	32.579
50m	4.62	32.865	4.14	32.870	4.47	32.837	4.98	32.836	5.30	32.782	6.14	33.066	5.44	32.774	5.16	32.806	4.41	32.794	6.74	33.154
75m	3.19	33.262			2.95	33.161									3.13	33.289	3.25	33.263		
100m																				
125m																				
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-17

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199407		199407		199407	
Station No	HKD31		HKD32		HKD33		HKD34		HKD35		HKD36		HKD37		HSR11		HSR12		HSR13	
Latitude:N	42-20.1		42-20.1		42-15.2		42-19.9		42-24.0		42-34.6		42-30.1		41-40.1		41-49.8		41-53.1	
Longitude:E	140-44.9		140-49.9		140-59.8		141- 9.1		141- 9.9		141-30.0		141-30.0		141-20.0		141-20.1		141-12.3	
Date	1994/06/29		1994/06/29		1994/06/29		1994/06/29		1994/06/29		1994/06/29		1994/06/29		1994/07/11		1994/07/11		1994/07/11	
Time(JST)	06:47		07:31		09:00		10:27		11:05		13:37		14:26		13:45		15:04		18:46	
Weather	C		C		C		C		C		C		C		C		C		BC	
Air Temp.	12.5		13.5		14.0		16.0		15.5		17.5		16.0		15.5		16.0		15.5	
Bar	1015.0		1015.5		1016.0		1015.5		1016.0		1015.5		1015.5		1004.5		1004.5		1005.0	
Wind Dir	ESE		ESE		ESE		SE		SE		SE		SE		WNW		W		WNW	
Wind Spd/F	S 5		S 6		S 6		S 3		S 3		S 2		S 2		F 2		F 1		F 2	
Transparency	12		11		11		10		12		5		14		11		11			
Depth	60		46		68		70		37		31		74		231		285		214	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	15.8	31.92*	15.2	32.37*	14.4	32.14*	15.5	33.03*	15.3	31.87*	15.0	31.83*	14.3	32.06*	15.9	34.139	15.9	32.654	14.4	32.571
10m	13.86	32.368	14.97	32.375	12.13	32.606	15.34	33.040	12.20	32.210	11.49	32.657	13.73	32.162	15.03	33.944	15.63	32.689	12.55	32.748
20m	12.93	33.006	12.81	33.210	11.99	33.295	13.13	33.431	10.47	32.971	9.99	32.865	11.27	32.378	13.71	33.979	15.53	32.685	10.28	33.053
30m	7.73	32.840	11.55	33.112	8.62	32.862	10.49	33.289	8.12	32.823			9.98	33.019	13.43	34.029	11.14	33.546	10.07	33.127
50m	5.40	32.973			5.51	32.864	5.13	32.727					7.23	32.906	12.58	34.136	8.31	33.737	8.09	33.393
75m															11.17	34.118	8.91	34.004	8.75	33.872
100m															9.95	34.158	7.84	33.896	8.22	33.892
125m															9.81	34.226	7.19	33.869	7.89	33.923
150m															9.41	34.195	6.52	33.812	7.01	33.803
200m															7.22	33.910	5.36	33.641	6.03	33.711
250m																	3.40	33.488		
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-18

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199407		199407		199407		199407		199407		199407		199407		199407		199407		199407	
Station No	HSR14		HSR15		HSR16		HSR17		HSR18		HSR19		HSR20		HSR21		HSR22		HSR23	
Latitude:N	41-59.0		42- 9.8		42-19.9		42-10.3		42- 1.0		41-59.4		41-49.9		41-40.0		41-30.0		41-20.3	
Longitude:E	141-19.5		141-20.1		141-20.0		142-29.8		142-21.7		142-38.6		142-10.1		142- 0.0		141-50.0		141-40.0	
Date	1994/07/12		1994/07/12		1994/07/12		1994/07/12		1994/07/12		1994/07/12		1994/07/13		1994/07/13		1994/07/13		1994/07/13	
Time(JST)	01:30		03:18		04:40		11:00		13:20		18:40		02:50		04:56		07:51		08:40	
Weather	BC		BC		C		BC		BC		BC		C		BC		BC		B	
Air Temp.	14.0		14.0		14.0		14.5		15.0		16.0		14.0		12.0		19.0		20.0	
Bar	1006.5		1006.5		1006.5		1007.0		1007.0		1008.0		1012.0		1013.0		1013.0		1012.0	
Wind Dir	NW		W		WNW		NW		WNW		WNW		NW		CALM		CALM		NNW	
Wind Spd/F	F 4		F 3		F 2		F 3		F 3		F 3		F 2		S 0		S 0		F 1	
Transparency									12				12		17		12			
Depth	310		364		247		120		900		640		1000		1056		949		768	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	15.0	33.066	14.7	33.179	15.1	33.278	15.2	33.419	15.6	34.021	14.9	33.362	13.6	34.049	16.5	33.186	15.3	33.139	16.0	32.983
10m	14.63	33.019	14.72	33.294	14.77	33.309	14.25	33.352	15.03	34.031	14.53	33.312	12.79	34.237	12.83	33.870	15.05	33.113	14.79	33.085
20m	11.04	33.905	11.67	33.264	14.49	33.334	14.04	33.431	11.60	33.791	14.58	33.499	12.28	34.193	13.17	34.169	14.93	33.130	14.74	33.754
30m	10.09	33.909	10.36	33.714	11.64	33.449	14.00	33.488	10.34	33.925	14.40	33.448	12.05	34.203	12.58	34.278	7.49	32.512	13.92	34.115
50m	9.83	34.015	8.89	33.827	9.93	33.887	10.97	34.029	9.90	33.991	12.07	33.982	11.63	34.272	10.96	34.134	11.41	34.088	13.20	34.119
75m	9.02	33.996	7.94	33.777	8.93	33.970	10.41	34.089	9.71	34.087	11.14	34.165	10.91	34.252	10.50	34.123	10.44	34.129	11.38	33.852
100m	8.34	33.961	7.80	33.852	8.29	33.945	9.65	34.060	9.62	34.207	10.56	34.133	10.58	34.215	9.99	34.040	10.08	34.169	7.87	33.617
125m	7.71	33.900	6.77	33.746	8.06	33.905			8.55	34.009	10.24	34.149	10.15	34.195	9.86	34.136	7.80	33.760	9.98	34.162
150m	6.82	33.817	6.05	33.684	7.53	33.883			7.26	33.858	8.48	33.955	9.14	34.072	9.22	34.069	7.01	33.873	9.05	33.987
200m	5.58	33.738	3.95	33.505	4.95	33.606			5.03	33.614	5.75	33.687	6.50	33.781	7.83	33.927	3.59	33.432	5.29	33.619
250m	3.62	33.533	2.81	33.453					2.47	33.402	2.87	33.430	3.77	33.495	2.59	33.322	2.42	33.412	3.34	33.482
300m	2.42	33.483	2.10	33.469					2.15	33.481	2.23	33.485	2.06	33.407	2.53	33.407	2.22	33.463	1.19	33.316
400m									1.99	33.595	2.63	33.709	2.32	33.576	2.24	33.543	1.71	33.528	2.09	33.599
500m									2.61	33.786	3.02	33.895	2.80	33.799	2.55	33.698	2.41	33.728	3.03	33.853
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-19

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199407		199407		199407		199407		199408		199408		199408		199408		199408		199408	
Station No	HSR24		HSR25		HSR26		HSR27		P64		P65		P66		P56		P55		P54	
Latitude:N	41-12.0		41-30.0		41-39.1		41-15.5		41-50.1		41-40.1		41-30.2		41-20.2		41-30.0		41-40.4	
Longitude:E	141-31.2		141-20.0		140-36.7		139-50.2		141-20.0		141-20.1		141-20.0		141-40.1		141-50.0		142- 0.1	
Date	1994/07/13		1994/07/14		1994/07/18		1994/07/20		1994/07/26		1994/07/26		1994/07/26		1994/07/26		1994/07/26		1994/07/27	
Time(JST)	18:25		03:59		18:50		18:50		13:50		15:14		16:40		19:40		21:50		00:02	
Weather	BC		BC		B		B		F		F		F		F		BC		BC	
Air Temp.	15.0		16.5		22.0		25.0		24.5		22.5		22.5		20.0		18.5		19.0	
Bar	1012.0		1010.0		1010.0		1009.0		1007.0		1006.5		1006.0		1007.0		1006.0		1006.0	
Wind Dir	SSW		CALM		S		E		CALM		NE		CALM		S		SW		CALM	
Wind Spd/F	F 2		S 0		F 1		F 1		S 0		S 2		F 0		S 1		S 2		F 0	
Transparency									11		11		9							
Depth	522		240		75		800		284		231		244		764				1053	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	16.7	34.149	16.4	34.237	21.3	34.296	24.6	34.497	19.0	32.709	19.4	34.013	19.2	33.644	20.4	33.645	20.3	33.423	19.4	33.290
10m	15.11	34.159	15.32	34.209	17.39	34.013	22.46	34.246	15.63	33.074	16.76	34.143	17.70	34.251	18.68	33.518	17.42	33.320	16.83	33.851
20m	15.07	34.172	14.99	34.234	16.18	34.141	18.93	34.341	14.48	33.364	14.11	34.241	17.13	34.217	15.67	33.497	16.33	33.661	15.93	34.127
30m	15.07	34.180	14.47	34.213	14.33	34.203	16.47	34.468	11.82	33.243	13.77	34.276	15.37	34.222	14.65	33.814	15.33	33.802	15.61	34.229
50m	14.90	34.195	13.81	34.277	11.45	34.325	14.60	34.537	11.12	34.076	13.36	34.322	14.90	34.279	13.22	33.990	13.29	34.093	14.67	34.269
75m	13.78	34.235	13.41	34.282			12.53	34.522	10.37	34.115	10.88	34.157	13.41	34.281	10.71	34.069	10.89	34.094	11.86	33.804
100m	13.35	34.248	12.95	34.318			10.14	34.360	8.79	33.865	9.69	34.153	12.20	34.342	10.41	34.153	10.44	34.140	6.96	33.185
125m	12.72	34.249	12.07	34.347			8.63	34.187	7.85	33.850	8.88	34.069	12.08	34.335	8.74	33.870	9.71	34.061	10.07	34.066
150m	12.15	34.204	10.91	34.345			6.83	34.111	6.52	33.752	6.82	33.870	11.50	34.287	7.67	33.829	6.93	33.696	9.89	34.096
200m	10.34	34.120	10.88	34.352			4.00	34.049	3.85	33.500	4.18	33.593	10.67	34.292	4.90	33.514	5.75	33.647	8.02	33.942
250m	4.63	33.565					2.20	34.049	2.47	33.490					4.19	33.533	3.50	33.451	4.66	33.573
300m	2.55	33.480					1.48	34.062							2.80	33.438	2.48	33.422	3.38	33.463
400m	2.45	33.654					1.08	34.072							2.31	33.599	2.02	33.516	2.43	33.618
500m	2.98	33.897					0.73	34.061									2.60	33.731	2.72	33.788
600m																	3.05	33.913	3.10	33.967
700m																				
800m																				
900m																				
1000m																				

Table 4-20

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199407		199407		199407		199407		199408		199408		199408	
Station No	P53		P52		P51		HKD11		HKD12		HKD13		HKD14		P61		P62		P63	
Latitude:N	41-50.1		42- 1.1		42-10.1		42-34.7		42-30.0		42-24.1		42-20.0		42-20.1		42-10.2		42- 0.0	
Longitude:E	142-10.2		142-20.2		142-30.2		141-29.7		141-30.0		141-10.2		141-10.2		141-20.0		141-20.0		141-19.9	
Date	1994/07/27		1994/07/27		1994/07/27		1994/07/27		1994/07/27		1994/07/27		1994/07/27		1994/07/27		1994/07/27		1994/07/27	
Time(JST)	01:50		03:54		05:47		11:59		12:40		14:35		15:10		16:10		17:29		18:51	
Weather	F		C		F		C		C		BC		BC		BC		BC		BC	
Air Temp.	18.0		18.0		18.0		27.5		27.0		25.0		25.0		25.0		24.0		23.0	
Bar	1006.0		1005.0		1005.5		1005.0		1004.0		1004.0		1003.5		1003.0		1004.0		1004.0	
Wind Dir	CALM		N		W		CALM		SE		SE		W		W		W		SW	
Wind Spd/F	F 0		S 1		S 1		F 0		F 1		F 1		S 7		S 5		S 5		S 3	
Transparency					15		4		12		4		7		14		10		11	
Depth	1078		996		123		26		75		37		72		240		357		308	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	19.7	34.000	19.0	33.244	19.3	33.415	22.5	32.229	19.9	33.211	20.0	32.570	22.0	32.570	22.1	33.130	21.5	33.013	21.0	33.330
10m	17.49	34.187	15.40	33.264	18.57	33.618	19.32	32.919	18.68	32.967	17.64	32.990	15.65	33.122	16.31	33.169	14.24	33.299	16.32	33.275
20m	15.98	34.247	10.50	33.772	14.57	33.689	14.04	33.336	13.90	33.475	14.43	33.248	13.22	33.449	12.78	33.478	11.64	33.658	12.76	33.336
30m	14.72	34.315	10.99	34.000	12.57	33.867			11.27	33.654	11.72	33.414	12.02	33.551	11.21	33.860	10.90	34.016	10.91	33.679
50m	13.40	34.312	10.94	34.219	9.44	33.707			10.39	34.017			9.48	33.970	10.03	34.094	10.21	34.101	10.30	34.047
75m	12.28	34.254	10.41	34.219	5.09	33.087									9.98	34.189	9.15	34.034	9.57	34.088
100m	11.89	34.306	10.15	34.201	5.70	33.526									8.71	34.002	8.32	33.976	8.97	34.064
125m	11.30	34.252	9.47	34.117											7.71	33.869	7.98	33.947	8.29	34.046
150m	10.43	34.213	8.11	33.942											6.69	33.794	7.85	33.923	6.45	33.711
200m	9.76	34.132	4.00	33.453											4.13	33.549	3.37	33.416	3.54	33.457
250m	3.55	33.485	2.80	33.457													1.55	33.363	2.60	33.509
300m	1.97	33.373	2.53	33.523													2.04	33.480	2.30	33.548
400m	2.41	33.646	2.18	33.637																
500m	2.66	33.810	2.58	33.811																
600m	3.13	33.985	3.22	34.051																
700m																				
800m																				
900m																				
1000m																				

Table 4-21

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199407		199407		199407		199407		199407		199407		199407		199407		199407		199407	
Station No	HKD15		HKD16		HKD17		HKD18		HKD19		HKD20		HKD21		HKD22		HKD23		HKD24	
Latitude:N	42- 0.0		42-10.0		42-14.9		42-19.9		42-20.0		42-19.9		42-24.9		42-24.9		42-25.0		42-25.1	
Longitude:E	141- 0.1		140-50.0		140-49.9		140-49.9		140-45.0		140-40.1		140-44.9		140-40.2		140-35.1		140-30.3	
Date	1994/07/27		1994/07/27		1994/07/27		1994/07/28		1994/07/28		1994/07/28		1994/07/28		1994/07/28		1994/07/28		1994/07/28	
Time(JST)	21:05		22:58		23:50		00:44		01:00		01:56		03:00		03:38		04:19		05:00	
Weather	C		BC		B		B		B		B		BC		C		C		C	
Air Temp.	22.5		22.0		21.0		20.5		21.0		21.0		21.0		20.5		20.0		20.0	
Bar	1005.5		1006.0		1006.0		1006.0		1006.0		1006.0		1006.0		1006.5		1006.5		1006.5	
Wind Dir	W		NW		WNW		NW		WNW		CALM		CALM		SE		SE		SE	
Wind Spd/F	S 2		S 3		S 2		S 3		S 2		F 0		F 0		S 2		S 2		S 1	
Transparency																				
Depth	88		90		68		47		59		76		57		78		91		92	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	20.9	32.832	22.0	31.873	22.0	31.676	24.5	31.886	21.3	31.821	21.3	31.801	21.4	31.952	21.3	31.843	21.2	31.779	21.4	31.789
10m	14.97	33.215	18.32	31.766	16.60	31.964	16.03	32.100	16.35	31.937	17.94	31.511	16.18	31.977	16.40	31.885	18.00	31.613	19.29	32.017
20m	14.57	33.312	15.06	32.919	13.10	33.058	13.08	33.009	15.25	32.213	15.89	32.027	14.50	32.474	14.56	32.460	14.94	32.329	14.61	32.359
30m	12.42	33.033	12.83	33.430	10.03	32.824	11.03	33.183	13.25	32.635	14.46	32.560	14.06	33.039	13.78	32.688	13.75	32.681	12.50	32.737
50m	7.69	33.384	9.56	33.566	7.41	33.509			6.52	32.808	8.39	32.810	5.98	32.774	7.24	32.798	7.02	32.919	5.93	32.851
75m	7.93	33.802	6.59	33.665													4.21	33.329	4.86	33.514
100m																				
125m																				
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-22

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199407		199407		199407		199407		199407		199408		199408		199408		199408		199408			
Station No	HKD25		HKD26		HKD27		HKD28		HKD29		HSR01		HKG020		HKG001		HKG002		HKG003			
Latitude:N	42-20.2		42-20.0		42-15.2		42-15.2		42-15.2		41-40.0		42-15.1		41-51.9		42- 0.1		42- 5.1			
Longitude:E	140-30.2		140-34.9		140-34.9		140-39.8		140-45.1		140-40.0		140-49.8		141- 9.0		141-14.8		141-19.9			
Date	1994/07/28		1994/07/28		1994/07/28		1994/07/28		1994/07/28		1994/08/01		1994/08/23		1994/08/23		1994/08/23		1994/08/23			
Time(JST)	05:53		06:30		07:17		07:55		08:36		16:55		01:33		08:25		09:24		10:24			
Weather	C		C		C		C		C		C		C		C		C		C			
Air Temp.	22.0		22.0		21.0		22.0		23.0		21.7											
Bar	1006.5		1007.0		1007.5		1007.5		1007.5		1009.8											
Wind Dir	S		SE		SE		E		NNE		SSW											
Wind Spd/F	S 1		F 1		S 2		F 1		S 2		F 2		S		S		S		S			
Transparency	12		11		10		15		12													
Depth	92		94		90		87		78		119											
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD			
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S		
0m	21.5	31.827	21.5	31.811	21.4	31.807	21.6	31.837	21.5	32.095	22.4	34.031	22.7	32.29*	21.6	32.95*	20.2	33.59*	21.2	33.74*		
10m	20.55	31.757	20.71	31.743	20.98	31.761	18.45	31.672	16.30	31.952	20.04	34.080	20.85	33.207	20.22	33.427	19.92	33.842	20.87	33.793		
20m	16.32	31.972	15.88	32.008	16.29	31.929	15.98	32.023	15.07	32.268	15.92	34.274	17.95	33.726	17.52	33.656	18.40	34.125	19.85	33.835		
30m	13.80	32.639	14.76	32.277	13.92	32.629	14.45	32.380	12.35	32.765	14.06	34.305	11.54	33.270	14.35	34.111	13.92	34.235	16.17	34.217		
50m	7.33	32.996	7.49	32.831	7.20	32.804	6.51	32.880	7.25	33.296	11.10	34.311	9.05	33.480	11.73	34.143	11.86	34.156	12.66	34.175		
75m	4.19	33.397	5.44	33.348	3.45	33.311	7.21	33.810	6.90	33.769	10.16	34.310			9.50	33.920	9.91	33.935	10.69	34.121		
100m											9.67	34.282			9.25	33.941	9.75	34.067	10.02	34.138		
125m															9.75	34.095	9.02	33.995	8.35	33.962		
150m															9.01	34.050	8.45	33.920	6.61	33.776		
200m																	8.34	33.967	4.08	33.553		
250m																				2.42	33.453	
300m																					2.36	33.511
400m																						
500m																						
600m																						
700m																						
800m																						
900m																						
1000m																						

Table 4-23

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408		
Station No	HKG004		HKG005		HKG006		HKG007		HKG008		HKG009		HKG010		HKG011		HKG012		HKG013		
Latitude:N	42- 9.9		42-15.1		42-10.1		42- 5.7		42- 0.1		41-57.6		42- 2.4		42- 5.0		42-10.0		42-15.0		
Longitude:E	141-24.9		141-20.0		141-15.0		141-10.0		141- 5.0		141- 2.6		140-57.6		140-59.9		141- 4.9		141- 9.9		
Date	1994/08/23		1994/08/23		1994/08/23		1994/08/23		1994/08/23		1994/08/23		1994/08/23		1994/08/23		1994/08/23		1994/08/23		
Time(JST)	11:28		12:45		13:51		16:00		17:00		17:31		18:28		18:57		19:49		20:42		
Weather																					
Air Temp.																					
Bar																					
Wind Dir																					
Wind Spd/F	S		S		S		S		S		S		S		S		S		S		
Transparency																					
Depth																					
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	21.7	33.72*	21.9	33.62*	20.4	33.76*	21.2	33.59*	22.6	32.22*	21.9	32.26*	22.9	32.14*	22.3	32.47*	20.4	33.54*	21.4	33.54*	
10m	19.25	33.757	20.58	34.152	19.99	33.729	20.07	33.821	20.29	33.522	20.97	33.119	20.82	33.186	19.35	33.797	18.31	33.987	19.70	33.800	
20m	15.92	34.086	16.89	34.181	18.80	33.717	17.02	34.238	17.28	33.853	18.26	33.822	14.88	33.320	17.53	33.923	15.58	34.227	19.10	33.865	
30m	13.74	34.154	14.27	34.111	17.01	34.246	15.01	34.343	13.15	34.168	13.20	34.072	12.67	34.078	13.54	34.175	10.07	33.398	17.54	34.023	
50m	11.54	34.196	11.79	34.092	12.18	34.084	10.61	34.051	11.40	34.166	12.06	34.085	9.90	33.920	9.33	33.762	9.24	33.454	12.40	34.133	
75m	10.13	34.081	11.67	34.195	9.67	33.822	9.87	34.047	9.98	34.039	11.14	33.899			9.25	33.864	9.53	33.692	9.29	33.838	
100m	8.62	33.976	10.56	34.205	10.52	34.150	9.68	34.105	9.01	33.953	9.26	33.734									
125m	7.81	33.913	9.99	34.142	10.53	34.204					7.18	N.D.									
150m	6.54	33.784	8.88	34.029	9.60	34.099															
200m	4.01	33.552	7.49	33.899	8.15	33.955															
250m	2.50	33.473	4.95	33.624	4.24	33.568															
300m	2.29	33.544	2.66	33.461																	
400m	2.65	33.743	2.33	33.527																	
500m																					
600m																					
700m																					
800m																					
900m																					
1000m																					

Table 4-24



Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408		
Station No	HKG014		HKG015		HKG016		HKG017		HKG018		HKG019		HKG021		HKG022		HKG023		HKG024		
Latitude:N	42-17.7		42-15.1		42-10.1		42- 7.6		42-10.6		42-12.5		42-17.6		42-25.0		42-20.0		42-15.2		
Longitude:E	141- 5.0		141- 0.0		140-55.1		140-52.7		140-46.0		140-47.2		140-52.3		140-49.9		140-45.0		140-40.0		
Date	1994/08/23		1994/08/23		1994/08/23		1994/08/23		1994/08/24		1994/08/24		1994/08/24		1994/08/24		1994/08/24		1994/08/24		
Time(JST)	21:25		22:06		22:59		23:37		00:34		00:59		02:06		03:12		04:02		04:54		
Weather																					
Air Temp.																					
Bar																					
Wind Dir																					
Wind Spd/F	S		S		S		S		S		S		S		S		S		S		
Transparency																					
Depth																					
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	21.2	33.21*	22.6	32.68*	23.0	32.15*	22.7	32.15*	22.8	32.14*	23.0	32.14*	22.8	32.12*	23.5	32.05*	22.9	32.12*	22.6	32.15*	
10m	19.63	33.738	19.05	33.697	20.71	33.461	18.95	32.644	19.68	32.422	21.15	32.776	20.19	33.315	21.00	32.426	22.08	32.172	22.27	32.150	
20m	16.21	34.186	14.71	33.578	18.08	33.839	13.68	33.115	13.41	32.891	12.81	33.041	18.31	33.875	15.30	33.226	21.06	32.768	20.95	32.421	
30m	14.60	34.317	11.52	33.395	12.41	33.630	10.89	33.261	9.98	33.043	8.91	32.978	12.76	33.381	11.60	33.310	12.91	33.000	13.36	32.961	
50m	9.67	33.604	10.87	33.914	9.15	33.609	9.32	33.547	7.01	33.172	6.35	33.004	9.91	33.652			8.74	33.457	7.50	33.037	
75m							4.52	33.462	4.98	33.499	4.48	33.478							4.85	33.567	
100m																					
125m																					
150m																					
200m																					
250m																					
300m																					
400m																					
500m																					
600m																					
700m																					
800m																					
900m																					
1000m																					

Table 4-25

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408		
Station No	HKG025		HKG026		HKG027		HKG028		HKG029		HKG030		HKG031		HKG032		HKG033		HKG034		
Latitude:N	42-10.1		42-15.1		42-17.5		42-20.1		42-22.6		42-25.0		42-27.3		42-30.1		42-25.2		42-20.2		
Longitude:E	140-34.9		140-30.2		140-32.5		140-34.9		140-37.6		140-40.1		140-42.3		140-35.0		140-30.2		140-25.0		
Date	1994/08/24		1994/08/24		1994/08/24		1994/08/24		1994/08/24		1994/08/24		1994/08/24		1994/08/24		1994/08/24		1994/08/24		
Time(JST)	05:46		06:34		07:02		07:29		08:03		08:31		08:57		09:50		10:43		11:38		
Weather																					
Air Temp.																					
Bar																					
Wind Dir																					
Wind Spd/F	S		S		S		S		S		S		S		S		S		S		
Transparency																					
Depth																					
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	22.6	32.12*	22.3	32.12*	22.6	32.14*	22.6	32.09*	22.6	32.09*	22.7	32.09*	22.7	32.12*	21.8	32.66*	23.0	32.11*	22.1	32.40*	
10m	22.16	32.214	22.20	32.147	22.34	32.132	22.57	32.094	22.58	32.088	21.21	32.651	21.66	32.519	19.37	32.875	20.27	32.782	21.33	32.669	
20m	19.40	33.057	19.37	32.794	19.86	33.061	20.33	32.997	20.49	33.204	20.38	33.335	19.76	33.188	16.31	32.955	15.46	33.167	17.59	32.921	
30m	13.08	33.115	13.78	33.290	13.28	32.919	15.12	33.035	14.52	33.008	14.80	33.036	13.68	32.873	12.07	33.066	12.03	33.278	12.29	33.173	
50m	7.36	33.160	7.38	33.130	7.84	33.151	8.05	33.302	9.27	33.508	9.56	33.673	9.69	33.749	9.85	33.766	7.50	33.301	8.45	33.570	
75m			5.98	33.489	5.30	33.455	5.30	33.485	6.01	33.581							5.23	33.562			
100m																					
125m																					
150m																					
200m																					
250m																					
300m																					
400m																					
500m																					
600m																					
700m																					
800m																					
900m																					
1000m																					

Table 4-26

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408	
Station No	HSR001		HSR002		HSR003		HSR003		HSR004		HSR005		HSR006		HSR007		HSR008		HSR009	
Latitude:N	41-50.0		41-54.1		42- 0.1		42-10.5		42-20.0		42-10.1		42- 0.2		41-59.5		41-50.0		41-40.2	
Longitude:E	141-19.9		141- 9.6		141-20.0		141-19.5		141-20.0		142-29.9		142-20.3		142-35.7		142-10.1		142- 0.2	
Date	1994/08/29		1994/08/29		1994/08/30		1994/08/30		1994/08/30		1994/08/30		1994/08/30		1994/08/30		1994/08/31		1994/08/31	
Time(JST)	18:26		19:46		01:13		02:46		04:20		11:16		13:01		18:28		06:01		08:43	
Weather	C		C		C		C		C		C		C		C		C		C	
Air Temp.	23.0		22.0		20.0		22.1		20.7		24.0		22.0		21.0		20.7		22.0	
Bar	1018.0		1018.5		1017.0		1017.0		1018.2		1018.0		1017.0		1017.5		1014.7		1014.0	
Wind Dir	ENE		CALM		ESE		ESE		NE		SE		SE		ESE		ESE		ESE	
Wind Spd/F	F		S 0		S 5		F 1		F 2		S 3		S 2		S 2		F 2		F 2	
Transparency													14						15	
Depth	284		178		308		352		240		121		1002		720		1000		1049	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	22.4	33.604	22.2	32.698	21.4	33.785	22.1	33.380	22.3	33.460	22.8	34.209	22.4	33.995	22.0	33.912	22.8	34.162	22.4	34.108
10m	18.57	33.197	22.02	33.068	20.40	33.846	17.70	33.998	20.34	33.862	21.16	34.159	21.26	34.122	20.56	34.029	22.39	34.202	21.57	34.186
20m	17.41	34.210	20.08	33.830	15.44	33.821	14.72	34.135	17.01	34.044	16.54	34.210	17.03	34.019	16.31	34.354	21.96	34.215	21.02	34.228
30m	15.16	34.128	17.71	33.830	12.90	33.960	12.23	34.151	13.73	34.046	15.48	34.331	14.74	34.286	14.43	34.252	21.70	34.221	20.62	34.237
50m	9.99	33.695	9.77	33.743	11.59	34.104	10.33	34.042	11.44	34.221	12.20	34.278	12.67	34.328	11.55	34.173	21.69	34.224	18.97	34.229
75m	8.95	33.757	9.11	33.899	9.56	33.982	9.70	34.090	10.06	34.088	11.39	34.269	10.51	34.158	10.59	34.141	16.82	34.302	16.46	34.288
100m	10.46	34.205	7.60	33.709	9.13	34.081	8.91	34.023	8.79	33.930	10.20	34.165	9.34	34.101	9.42	34.048	12.51	34.332	14.04	34.260
125m	10.06	34.202	6.63	33.790	7.93	33.953	8.52	33.992	8.71	34.011			8.27	33.996	8.92	34.031	12.22	34.314	13.13	34.312
150m	9.31	34.105	4.99	33.627	5.94	33.719	7.62	33.918	7.90	33.932			6.93	33.846	8.23	33.979	11.11	34.194	12.56	34.285
200m	5.28	33.761			3.59	33.483	4.94	33.633	6.47	33.794			3.10	33.522	5.35	33.676	9.14	34.083	11.07	34.200
250m	2.53	33.473			2.53	33.455	2.71	33.461					2.18	33.525	3.14	33.495	6.07	33.727	10.18	34.157
300m					2.43	33.475	2.44	33.507					2.26	33.579	2.65	33.583	2.28	33.404	7.63	33.882
400m													2.83	33.821	2.93	33.859	2.39	33.612	2.60	33.466
500m													3.11	33.963	3.13	33.971	2.97	33.889	2.27	33.590
600m															3.14	34.147	3.24	34.084	2.97	33.880
700m																				
800m																				
900m																				
1000m																				

Table 4-27

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199804		199408		199410		199410		199410		199410			
Station No	HSR010		HSR011		HSR012		HSR013		HSR014		HSR015		P66		P65		P64		P63			
Latitude:N	41-30.2		41-20.4		41-10.0		41-29.8		41-39.9		41-39.7		41-30.0		41-40.0		41-50.0		41-59.9			
Longitude:E	141-50.1		141-39.9		141-30.0		141-20.1		141-20.2		140-37.8		141-19.8		141-20.4		141-20.0		141-20.0			
Date	1994/08/31		1994/08/31		1994/08/31		1994/09/01		1994/09/01		1994/09/01		1994/10/06		1994/10/06		1994/10/06		1994/10/06			
Time(JST)	11:14		13:28		18:46		08:25		10:02		19:04		12:08		13:41		15:25		16:55			
Weather	R		BC		BC		B		BC		B		R		R		C		C			
Air Temp.	22.0		22.0		21.0		27.0		26.0		23.0		15.0		16.0		15.0		15.0			
Bar	1013.0		1011.0		1012.0		1011.0		1011.5		1011.0		1015.0		1014.0		1013.5		1014.5			
Wind Dir	S		SW		WSW		W		WS		HNE		SW		SW		WSW		W			
Wind Spd/F	F 2		F 3		F 3		F 2		F 2		F 2		S 5		S 9		S 7		S 7			
Transparency	15		16				15		15						11		11					
Depth	938		780		496		236		230		92		240		232		286		310			
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD			
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S		
0m	22.6	34.167	22.8	34.125	22.8	34.155	23.3	34.193	24.5	33.872	25.4	33.905	20.8	33.738	21.7	33.601	18.9	33.843	18.4	33.952		
10m	22.33	34.199	21.80	34.133	22.54	34.071	22.72	34.149	23.76	33.905	23.75	34.099	21.12	33.769	21.99	33.672	19.12	33.833	18.53	33.965		
20m	21.33	34.194	20.58	34.171	21.57	34.219	22.08	34.171	21.00	34.208	21.99	34.197	20.92	33.793	21.11	33.840	19.08	33.831	18.24	34.020		
30m	20.69	34.206	20.18	34.248	20.72	34.248	21.03	34.245	20.88	34.223	18.96	34.303	20.91	33.795	20.60	33.848	18.71	33.859	17.27	34.141		
50m	19.31	34.172	19.52	34.203	18.84	34.249	17.71	34.139	20.27	34.250	15.24	34.386	18.70	34.075	17.91	33.966	14.56	34.223	14.12	34.286		
75m	15.85	34.293	17.90	34.234	14.71	34.026	14.79	34.380	16.18	34.361	11.09	34.350	16.63	34.248	14.76	34.079	11.07	34.170	12.38	34.335		
100m	14.78	34.353	15.96	34.315	12.49	33.965	13.10	34.382	15.18	34.388			13.70	34.442	11.39	34.200	10.48	34.169	10.23	34.090		
125m	13.39	34.285	13.40	34.027	11.29	34.094	11.92	34.356	13.35	34.322			13.11	34.441			9.54	34.115	9.19	34.067		
150m	12.65	34.286	12.16	34.127	10.90	34.173	11.11	34.332	9.96	34.205			12.58	34.429			7.96	33.950	7.46	33.889		
200m	11.45	34.247	8.22	33.762	7.17	33.768	10.43	34.313	3.22	33.498			12.48	34.419			5.47	33.685	3.65	33.516		
250m	10.04	34.149	5.90	33.670	5.40	33.604														2.63	33.468	
300m	9.01	34.088	4.36	33.542	3.01	33.458															2.37	33.520
400m	2.94	33.478	2.23	33.561	2.52	33.676																
500m	2.52	33.681	3.00	33.888																		
600m	2.95	33.853	3.22	34.078																		
700m																						
800m																						
900m																						
1000m																						

Table 4-28

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199410		199410		199410		199410		199410		199410		199410		199410		199410	
Station No	P62		P61		HSR001		HW001		HW003		HW002		HW011		HW010		HW004		HW006	
Latitude:N	42-10.0		42-20.1		41-40.3		41-20.0		41-30.4		41-30.1		41-30.1		41-39.9		41-40.0		41-50.0	
Longitude:E	141-20.1		141-19.9		140-38.2		139-40.0		139-31.2		139-39.9		139-54.9		139-55.0		139-40.1		139-30.1	
Date	1994/10/06		1994/10/06		1994/10/17		1994/10/24		1994/10/24		1994/10/24		1994/10/24		1994/10/25		1994/10/25		1994/10/25	
Time(JST)	18:31		20:02		18:18		17:36		20:36		21:49		23:34		01:11		03:04		05:05	
Weather	C		C		C		B		B		BC		BC		BC		BC		B	
Air Temp.	15.0		15.0		8.0		9.0				8.7		8.9		8.5		8.5		8.0	
Bar	1015.0		1015.0		1015.5		1030.0		1030.5		1031.0						1030.5		1030.0	
Wind Dir	SW		SW		NW		WNW		NNW		N		E		E		CALM		CALM	
Wind Spd/F	S 2		S 6		S 3		S 1		S 1		S 1		S 2		S 1		F 0		F 0	
Transparency																				
Depth	364		238		92		533						260		1000		1428		602	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	19.4	33.841	19.2	33.794	17.4	33.972	18.4	33.606	17.3	33.945	18.0	33.779	19.2	33.697	16.6	33.755	18.9	33.661	17.8	33.699
10m	19.49	33.824	19.39	33.778	18.45	33.903	20.90	33.509	20.20	33.621	20.06	33.656	19.68	33.692	19.00	33.744	20.07	33.657	19.85	33.679
20m	19.50	33.828	19.39	33.784	18.43	33.906	20.89	33.508	20.21	33.631	20.07	33.655	19.65	33.709	18.74	33.789	20.08	33.657	19.71	33.711
30m	19.29	33.804	18.23	33.845	18.38	33.908	20.70	33.492	19.97	33.680	20.02	33.670	19.47	33.768	18.01	33.864	20.04	33.663	19.69	33.719
50m	15.36	34.183	17.11	34.084	16.57	34.124	20.35	33.786	18.56	34.160	17.78	34.281	16.53	34.377	15.91	34.399	17.22	34.298	17.09	34.387
75m	12.69	34.241	12.95	34.294	15.39	34.201	16.66	34.366	14.96	34.491	15.25	34.447	14.51	34.528	15.03	34.477	14.82	34.483	13.84	34.512
100m	11.57	34.228	11.19	34.186			14.53	34.524	13.16	34.559	12.99	34.545	12.22	34.507	12.74	34.511	12.97	34.529	11.43	34.460
125m	10.35	34.173	10.15	34.141			12.05	34.526	9.43	34.332	11.44	34.470	10.30	34.377	9.15	34.305	11.05	34.433	8.12	34.242
150m	9.28	34.085	9.13	34.064			9.51	34.326	6.63	34.177	10.05	34.353	8.46	34.256	7.72	34.216	9.25	34.305	5.55	34.119
200m	5.94	33.738	6.59	33.811			5.59	34.123	3.09	34.070	6.14	34.148	6.86	34.193	5.84	34.130	4.55	34.085	2.70	34.066
250m	3.24	33.486					3.49	34.078	2.13	34.057	2.22	34.055	3.41	34.076	3.30	34.064	2.01	34.060	1.66	34.062
300m	2.56	33.505					1.21	34.062	1.39	34.058	1.52	34.058			1.80	34.061	1.46	34.061	1.23	34.064
400m							0.76	34.060	0.77	34.061	0.84	34.062			1.06	34.064	0.95	34.063	0.76	34.062
500m							0.59	34.059	0.49	34.059	0.56	34.060			0.80	34.063	0.59	34.061	0.59	34.060
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-29

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199410		199410		199410		199410		199411		199411		199412		199412		199412	
Station No	HW005		HW009		HW008		HW007		HW012		HSR001		HSR002		P64		P65		P66	
Latitude:N	41-50.2		41-50.2		42- 0.0		41-59.9		41-20.2		41-50.8		41-39.7		41-50.0		41-40.1		41-30.1	
Longitude:E	139-44.7		140- 0.0		139-59.8		139-39.9		139-54.9		141-13.0		140-40.2		141-19.9		141-20.2		141-20.1	
Date	1994/10/25		1994/10/25		1994/10/25		1994/10/25		1994/10/26		1994/11/15		1994/11/17		1994/11/29		1994/11/29		1994/11/29	
Time(JST)	06:39		08:17		09:47		11:46		14:49		18:34		17:31		14:14		15:35		17:03	
Weather	B		B		B		B		BC		C		BC		BC		BC		BC	
Air Temp.	9.0		9.5		14.6		13.4		16.0		1.5		7.5		8.0		6.0		6.0	
Bar	1030.0		1031.6		1031.2		1030.4				1036.0		1029.5		1018.0		1019.0		1021.0	
Wind Dir	NE		E		E		CALM		CALM		NW		W		NW		NW		NW	
Wind Spd/F	S 1		S 2		S 1		F 0		F 0		S 4		S 2		S 3		S 5		S 2	
Transparency	17		15		17		17		15						12					
Depth	1360		872		670				134		190		120		285		233		242	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	17.6	33.782	17.8	33.797	17.4	33.821	18.2	33.778	20.3	33.672	12.9	34.194	14.8	34.07*	12.5	34.080	14.0	34.156	14.7	33.973
10m	19.47	33.722	18.54	33.813	17.92	33.849	18.51	33.797	20.84	33.611	13.50	34.056	14.86	34.072	12.63	34.055	14.30	34.038	14.98	33.961
20m	19.47	33.722	18.43	33.830	17.88	33.851	18.50	33.802	20.83	33.612	13.51	34.056	14.83	34.074	12.56	34.052	14.09	34.050	14.97	33.962
30m	19.47	33.723	18.33	33.835	17.88	33.852	18.33	33.846	20.80	33.615	13.51	34.056	14.70	34.090	12.29	34.035	14.06	34.049	14.97	33.963
50m	18.03	34.282	16.75	33.979	17.87	33.855	18.21	33.864	19.60	33.865	13.51	34.056	14.02	34.158	11.63	34.034	13.95	34.043	14.93	33.971
75m	14.40	34.538	13.46	34.417	14.69	34.362	13.34	34.444	15.81	34.414	12.46	34.108	13.14	34.316	10.82	34.089	12.83	34.029	14.93	33.973
100m	8.33	34.207	10.36	34.384	11.09	34.408	8.56	34.255	13.89	34.531	10.47	34.126	13.06	34.313	9.61	34.017	11.12	34.008	13.62	34.138
125m	4.74	34.098	8.16	34.234	9.14	34.294	6.44	34.159	10.11	34.370	8.76	33.995			8.56	33.950	6.58	33.762	13.25	34.190
150m	3.30	34.072	6.42	34.172	7.84	34.219	4.92	34.103			7.47	33.878			5.18	33.652	5.13	33.627	13.11	34.186
200m	1.93	34.062	4.73	34.103	4.17	34.099	2.88	34.062							3.01	33.521	3.16	33.543	11.92	34.260
250m	1.33	34.063	3.17	34.072	2.41	34.064	1.78	34.059												
300m	1.07	34.063	1.70	34.065	1.34	34.065	1.35	34.062												
400m	0.62	34.060	0.82	34.062	0.75	34.060	0.88	34.063												
500m	0.52	34.060	0.59	34.060	0.48	34.059	0.58	34.060												
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-30

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199412		199412		199412		199412		199412		199412		199412		199412		199502		199502	
Station No	P56		P55		P54		P53		P52		P61		P62		P63		P66		P65	
Latitude:N	41-20.4		41-30.0		41-40.2		41-50.2		41-59.0		42-20.2		42-10.2		42- 0.1		41-30.1		41-40.0	
Longitude:E	141-40.2		141-49.9		142- 0.1		142- 9.9		142-18.8		141-20.0		141-20.0		141-20.0		141-20.0		141-20.0	
Date	1994/12/07		1994/12/07		1994/12/07		1994/12/07		1994/12/08		1994/12/08		1994/12/08		1994/12/08		1995/02/23		1995/02/23	
Time(JST)	15:42		17:31		19:45		22:01		00:48		07:58		09:26		10:56		14:07		15:29	
Weather	C		C		C		BC		B		BC		BC		BC		C		C	
Air Temp.	4.0		4.0		4.0		2.0		2.0		3.0		3.0		3.0		2.0		1.0	
Bar	1009.0		1009.5		1011.0		1012.5		1015.0		1020.0		1020.5		1020.0		1020.0		1020.0	
Wind Dir	N		NNW		N		NNW		NNW		WNW		W		WNW		NW		N	
Wind Spd/F	S 2		S 4		S 5		S 8		S 10		S 3		S 8		S 5		S 5		S 1	
Transparency											18		11		16		16		14	
Depth	757						1081				239		362		309		246		234	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	13.6	34.021	13.8	34.010	13.7	33.971	11.2	33.980	10.9	33.957	11.5	34.012	11.9	34.012	12.5	34.034	6.2	33.557	4.1	33.092
10m	13.82	34.028	14.00	33.988	13.94	33.982	10.82	34.010	11.34	33.986	11.96	34.027	12.19	34.062	12.69	34.014	7.37	33.921	4.05	33.087
20m	13.82	34.028	14.01	33.987	13.94	33.983	10.81	34.010	11.35	33.985	11.94	34.028	12.19	34.063	12.69	34.014	7.72	34.055	6.79	33.691
30m	13.82	34.028	14.02	33.988	13.96	33.982	10.81	34.009	11.33	33.987	11.92	34.029	12.18	34.063	12.69	34.013	7.73	34.074	7.79	33.922
50m	13.80	34.029	14.00	33.991	13.85	33.987	10.81	34.008	10.96	34.024	11.83	34.044	12.19	34.062	12.67	34.012	7.71	34.084	8.09	34.020
75m	13.80	34.029	13.99	33.995	13.26	34.009	10.81	34.010	10.94	34.029	10.43	33.989	12.16	34.063	11.81	33.978	7.71	34.087	8.09	34.052
100m	13.77	34.028	13.98	34.001	13.14	34.011	10.78	34.014	10.71	34.011	7.62	33.878	12.05	34.056	10.17	34.002	7.70	34.092	5.32	33.707
125m	13.67	34.025	13.92	33.995	12.63	34.003	10.62	34.033	10.68	34.007	4.26	33.562	11.24	34.042	9.05	33.977	7.70	34.093	4.57	33.663
150m	13.64	34.022	13.52	33.994	11.53	34.063	8.50	33.936	9.29	33.988	3.97	33.536	9.71	34.029	7.42	33.843	7.70	34.096	4.18	33.640
200m	10.65	33.993	11.04	34.302	7.64	33.830	5.69	33.694	3.79	33.554	3.04	33.526	4.63	33.597	3.81	33.566	7.71	34.096	4.16	33.639
250m	8.63	34.101	6.89	33.945	3.06	33.491	3.16	33.519	2.93	33.563			2.86	33.547	2.69	33.543				
300m	5.49	33.857	3.37	33.598	2.73	33.545	2.73	33.612	2.77	33.643			2.69	33.666						
400m	2.73	33.706	2.69	33.696	2.94	33.767	2.93	33.755												
500m	3.23	33.981	3.15	33.914	3.20	33.949														
600m	3.23	34.141	3.25	34.048	3.20	34.072														
700m																				
800m																				
900m																				
1000m																				

Table 4-31

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199502		199502		199502		199502		199503		199503		199503		199503		199503		199503	
Station No	P64		P63		P62		P61		HAD17		HAD16		HAD15		HAD14		HAD13		HAD12	
Latitude:N	41-50.2		42- 0.1		42- 9.9		42-19.9		41-23.3		41-20.6		41-18.3		41-15.9		41-13.4		41-10.9	
Longitude:E	141-20.0		141-20.0		141-19.9		141-19.9		140-10.1		140-11.1		140-11.6		140-12.3		140-12.9		140-13.6	
Date	1995/02/23		1995/02/23		1995/02/23		1995/02/23		1995/03/14		1995/03/14		1995/03/14		1995/03/14		1995/03/14		1995/03/14	
Time(JST)	18:30		19:48		21:08		22:37		13:52		14:32		15:03		15:36		16:06		16:34	
Weather	C		S		C		C													
Air Temp.	1.0		0.0		0.0		0.0													
Bar	1020.0		1019.5		1019.0		1018.0													
Wind Dir	CALM		CALM		SE		CALM		E		CALM		CALM		CALM		CALM		NNW	
Wind Spd/F	S 0		S 0		S 1		S 0		S 2		S 0		S 0		S 0		S 0		S 1	
Transparency									10		9		12		15		8		7	
Depth	288		311		359		242		56		113		131		142		125		88	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	3.9	33.018	5.0	33.217	6.6	33.436	4.6	33.151	8.8	34.11*	9.2	34.12*	9.4	34.11*	9.4	34.09*	9.1	34.01*	8.7	33.78*
10m	4.06	33.017	5.06	33.255	6.19	33.480	4.34	33.119	8.40	34.106	8.99	34.114	9.13	34.110	9.16	34.085	9.14	34.072	9.10	34.077
20m	4.66	33.179	5.06	33.255	6.20	33.482	4.35	33.120	8.23	34.100	8.95	34.112	9.05	34.115	9.04	34.087	9.09	34.080	9.06	34.082
30m	4.69	33.189	5.13	33.273	6.20	33.480	4.34	33.119	8.14	34.102	8.90	34.112	9.05	34.115	9.02	34.093	9.05	34.083	9.04	34.084
50m	5.71	33.364	5.11	33.274	6.34	33.507	4.35	33.123	7.95	34.124	8.66	34.117	9.05	34.116	9.02	34.099	9.03	34.084	9.00	34.083
75m	7.02	33.607	4.96	33.268	6.53	33.545			8.35	34.119	9.06	34.116	9.04	34.108	9.00	34.087	8.64	34.043		
100m	7.02	33.613	5.01	33.278	6.53	33.546			8.06	34.125	9.01	34.119	8.80	34.111	8.90	34.075				
125m	6.48	33.556	6.00	33.456	6.57	33.551					8.00	34.145	8.76	34.108						
150m	5.14	33.382	6.89	33.624	6.95	33.627														
200m	6.21	33.694	5.52	33.580	6.97	33.775														
250m	4.51	33.685	4.41	33.646	4.39	33.667														
300m					3.57	33.652														
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-32



Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199503		199503		199503		199503		199503		199503		199503		199503		199503		199503		
Station No	HAD11		HAD47		HAD56		HAD55		HAD54		HAD53		HAD52		HAD51		HAD71		HAD82		
Latitude:N	41- 8.6		41-23.0		41-20.7		41-18.3		41-15.9		41-13.4		41-11.0		41- 8.6		41- 8.6		41-10.7		
Longitude:E	140-14.3		140-10.2		140-11.0		140-11.9		140-12.6		140-12.9		140-13.5		140-14.2		140-14.2		140-13.7		
Date	1995/03/14		1995/03/15		1995/03/15		1995/03/15		1995/03/15		1995/03/15		1995/03/15		1995/03/15		1995/03/15		1995/03/15		
Time(JST)	17:04		02:23		02:57		03:27		04:01		04:31		05:00		05:32		11:46		12:13		
Weather																					
Air Temp.																					
Bar																					
Wind Dir	NW		NNW		CALM		NW		NNW		NNW		SW		SSE		WSW		SW		
Wind Spd/F	S 1		S 1		S 0		S 1		S 1		S 1		S 3		S 2		S 2		S 2		
Transparency																					
Depth	65		71		111				142		126		88		67		65		89		
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	8.5	33.82*	8.3	34.11*	8.4	34.12*	7.8	34.12*	8.4	34.12*	9.0	34.12*	8.8	34.10*	8.6	33.97*	9.4	34.02*	9.6	34.12*	
10m	8.58	33.989	8.88	34.112	9.02	34.124	8.12	34.119	8.91	34.118	9.25	34.122	9.03	34.102	8.97	34.053	9.00	34.067	9.40	34.120	
20m	8.62	34.037	8.84	34.113	8.89	34.120	8.17	34.119	8.92	34.118	9.25	34.123	9.03	34.102	8.90	34.069	9.00	34.077	9.18	34.110	
30m	8.60	34.036	8.63	34.116	8.63	34.119	8.18	34.119	8.87	34.117	9.25	34.123	9.04	34.102	8.77	34.055	8.98	34.076	9.06	34.096	
50m	8.58	34.033	8.35	34.111	7.95	34.130	7.86	34.124	8.48	34.116	9.24	34.121	9.00	34.103	8.63	34.038	8.65	34.039	9.06	34.095	
75m																					
100m																					
125m																					
150m																					
200m																					
250m																					
300m																					
400m																					
500m																					
600m																					
700m																					
800m																					
900m																					
1000m																					

Table 4-33

Table 4 Results of serial oceanographic observations. Hokkaido Hakodate Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199503		199503		199503		199503		199503											
Station No	HAD83		HAD84		HAD85		HAD86		HAD87											
Latitude:N	41-13.4		41-15.8		41-18.2		41-20.5		41-23.1											
Longitude:E	140-13.1		140-12.7		140-11.7		140-11.2		140-10.0											
Date	1995/03/15		1995/03/15		1995/03/15		1995/03/15		1995/03/15											
Time(JST)	12:47		13:16		13:47		14:17		14:48											
Weather																				
Air Temp.																				
Bar																				
Wind Dir	W		W		W		WNW		W											
Wind Spd/F	S 4		S 5		S 5		S 6		S 6											
Transparency	10		11		11		11		8											
Depth	125		142		133		115		69											
Equipment	CTD		CTD		CTD		CTD		CTD											
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	9.4	34.12*	10.5	34.13*	10.0	34.13*	9.8	34.13*	9.2	34.14*										
10m	9.27	34.124	9.52	34.135	9.50	34.132	9.50	34.131	9.26	34.136										
20m	9.21	34.119	9.51	34.134	9.47	34.130	9.38	34.141	9.19	34.136										
30m	9.13	34.108	9.50	34.134	9.45	34.127	9.20	34.140	8.91	34.125										
50m	9.07	34.098	9.43	34.134	9.44	34.134	9.10	34.146	8.61	34.118										
75m	9.03	34.094	9.33	34.135	9.22	34.138	8.15	34.149												
100m	8.99	34.101	9.16	34.115	8.56	34.143	7.29	34.133												
125m			8.86	34.108	7.88	34.136														
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 4-34

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199404		199404	
Station No	PK11		P22		P21		P31		P32		P33		PK21		PK22		P34		PK14	
Latitude:N	42-45.0		42-45.1		42-55.2		42-45.1		42-30.1		42-15.1		42-15.0		41-59.1		42-00.1		41-59.9	
Longitude:E	144-29.9		144-59.1		144-59.9		144-00.1		144-00.1		143-59.9		143-29.9		143-29.1		143-59.1		144-29.9	
Date	1994/04/12		1994/04/12		1994/04/12		1994/04/13		1994/04/13		1994/04/14		1994/04/14		1994/04/14		1994/04/14		1994/04/14	
Time(JST)	11:11		13:14		14:15		20:10		22:07		00:04		02:28		03:56		06:02		08:22	
Weather			F		F		BC		B		BC		B		BC		B		B	
Air Temp.	4.8		5.0		4.3		5.0		3.0		2.7		4.3		3.0		2.5		3.7	
Bar	1015.0		1013.0		1012.0		1002.0		1003.0		1004.7		1003.5		1003.5		1005.0		1005.5	
Wind Dir	SSW		S		E		WSW		SW		SW		SW		SW		SSW		SSW	
Wind Spd/F	F 2		F 1		F 1		F 5		F 5		F 5		F 5		F 6		F 5		F 5	
Transparency	8		8		6												16		18	
Depth	131		168		64		65		496				67		123		1121		1695	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	1.4	33.598	1.4	32.395	2.6	32.137	2.3	31.562	0.8	32.443	0.9	32.803	1.2	32.456	0.9	32.627	0.9	32.894	1.3	32.958
10m	0.27	32.530	0.01	32.531	1.40	32.331	1.24	32.393	0.42	32.590	0.89	32.890	1.01	32.546	0.79	32.696	0.76	33.004	0.89	33.022
20m	0.10	32.565	-0.44	32.643	0.23	32.467	0.73	32.528	-0.07	32.693	0.88	32.889	0.81	32.594	0.78	32.704	0.78	33.010	0.85	33.054
30m	-0.09	32.585	-0.44	32.647	0.05	32.537	0.30	32.579	-0.13	32.745	0.80	32.887	0.80	32.596	0.77	32.713	0.86	33.035	0.85	33.056
50m	-0.26	32.678	-0.37	32.673	-0.05	32.564	0.02	32.756	0.00	32.843	0.67	32.964	0.36	32.762	0.54	32.853	0.87	33.051	0.79	33.074
75m	-0.23	32.717	-0.32	32.713					0.26	32.943	0.99	33.163			0.57	33.003	0.88	33.215	0.86	33.201
100m	0.13	32.817	-0.08	32.791					0.46	33.027	0.75	33.176			0.64	33.021	0.97	33.254	0.96	33.261
125m			0.96	33.278					0.72	33.130	0.76	33.230					0.98	33.259	1.09	33.302
150m			1.15	33.369					1.08	33.254	1.33	33.315					1.04	33.287	1.13	33.332
200m									1.23	33.329	1.07	33.367					1.18	33.352	1.16	33.371
250m									1.28	33.367	1.48	33.443					1.22	33.388	1.21	33.424
300m									1.47	33.442	1.32	33.462					1.21	33.428	1.25	33.457
400m									1.83	33.589	1.41	33.518					1.34	33.495	1.45	33.558
500m											1.60	33.603					1.39	33.555	1.68	33.669
600m											2.09	33.751					1.72	33.667	3.04	33.955
700m																				
800m																				
900m																				
1000m																				

Table 5-1

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199404		199404	
Station No	PK13		PK12		P23		P24		P25		PK05		PK04		PK03		PK02		PK01	
Latitude:N	42-14.1		42-30.0		42-30.0		42-15.2		42-00.2		42-00.1		42-14.1		42-30.0		42-44.1		42-54.8	
Longitude:E	144-29.9		144-30.0		144-59.9		144-59.9		144-59.1		145-30.0		145-30.0		145-29.1		145-29.1		145-30.1	
Date	1994/04/14		1994/04/14		1994/04/14		1994/04/14		1994/04/14		1994/04/14		1994/04/14		1994/04/15		1994/04/15		1994/04/15	
Time(JST)	10:11		11:52		15:00		16:55		18:53		21:06		22:51		00:39		02:21		03:37	
Weather	B		BC		BC		B						B		B		B		B	
Air Temp.	4.0		4.8		3.4		3.7		3.7		4.4		4.0		3.5		3.0		2.2	
Bar	1005.0		1003.0		1003.0		1005.0		1007.0		1009.0		1008.5		1007.5		1007.0		1006.5	
Wind Dir	SW		SW		SW		SW		SW		SW		SW		SW		SW		SW	
Wind Spd/F	F 5		F 5		F 6		F 7		F 6		F 5		F 5		F 5		F 5		F 5	
Transparency	13		8		8															
Depth			1708																157	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	1.5	32.998	1.6	33.117	0.9	32.889	1.2	33.203	1.5	33.216	1.8	33.254	1.7	33.247	1.6	33.219	1.3	33.168	0.4	32.530
10m	1.08	32.980	1.21	33.099	0.57	32.838	1.17	33.117	1.45	33.210	1.69	33.248	1.67	33.243	1.44	33.207	1.13	33.126	0.34	32.522
20m	1.02	32.992	1.21	33.100	0.84	33.033	1.25	33.171	1.46	33.211	1.68	33.250	1.68	33.244	1.44	33.205	1.13	33.125	0.34	32.522
30m	0.96	33.010	1.20	33.102	0.90	33.077	1.32	33.207	1.46	33.207	1.68	33.251	1.68	33.246	1.44	33.207	1.13	33.125	0.37	32.530
50m	0.89	33.128	1.07	33.114	1.04	33.161	1.36	33.224	1.46	33.211	1.65	33.251	1.66	33.245	1.44	33.208	0.91	33.185	0.64	33.117
75m	0.95	33.236	0.92	33.151	0.93	33.168	1.21	33.232	1.40	33.212	1.55	33.250	1.61	33.242	1.35	33.210	1.08	33.299	0.74	33.205
100m	1.02	33.270	0.86	33.215	0.80	33.233	0.95	33.224	1.39	33.241	1.35	33.261	1.46	33.262	1.31	33.252	1.14	33.342	0.74	33.236
125m	1.08	33.311	0.87	33.230	0.91	33.309	1.15	33.297	1.31	33.254	1.32	33.264	1.42	33.350	1.39	33.302	1.15	33.375	0.88	33.275
150m	1.16	33.347	0.96	33.278	1.01	33.346	1.61	33.408	2.24	33.533	1.73	33.405	2.20	33.557	2.14	33.518	1.11	33.399		
200m	1.30	33.425	1.16	33.357	1.16	33.398	2.97	33.660	3.04	33.768	2.45	33.646	2.87	33.745	2.58	33.696	1.36	33.469		
250m	1.32	33.474	1.22	33.426	1.33	33.456	2.44	33.675	3.15	33.859	2.73	33.763	2.86	33.822	2.72	33.775	1.36	33.520		
300m	1.42	33.521	1.27	33.468	1.34	33.519	2.81	33.768	3.06	33.912	2.90	33.856	2.92	33.903	2.93	33.874	1.55	33.577		
400m	1.81	33.637	1.65	33.580	1.85	33.664	3.02	33.959	3.06	34.024	3.01	33.998	3.19	34.070	2.93	33.990	2.21	33.733		
500m	2.02	33.723	2.43	33.764	2.25	33.834	3.01	34.082	3.15	34.140	2.74	34.072	2.96	34.126	3.02	34.113	2.30	33.838		
600m	2.37	33.821	2.70	33.908	2.73	33.977	3.07	34.165	2.99	34.208	3.06	34.213	2.93	34.210	2.86	34.188	2.55	33.949		
700m																				
800m																				
900m																				
1000m																				

Table 5-2

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404	199404	199404	199404	199404	199404	199404	199404	199404	199404											
Station No	P11	P12	P13	P14	P15	P16	PKA24	P17	PK06	P26											
Latitude:N	43-04.9	42-55.3	42-46.1	42-30.1	42-14.9	41-59.1	41-30.2	41-30.1	41-30.0	41-30.0											
Longitude:E	145-44.8	145-49.9	145-53.6	145-59.9	145-59.9	145-59.1	146-30.0	146-00.2	145-29.1	144-59.8											
Date	1994/04/15	1994/04/15	1994/04/15	1994/04/15	1994/04/16	1994/04/16	1994/04/16	1994/04/16	1994/04/16	1994/04/16											
Time(JST)	05:05	06:39	07:58	22:24	01:27	03:17	06:46	09:27	12:27	15:15											
Weather	BC	BC	BC		B	B	BC	BC	C	C											
Air Temp.	2.2	2.7	3.4	3.2	4.3	4.4	11.0	12.8	11.0	10.6											
Bar	1007.0	1008.0	1009.0	1015.0	1015.0	1015.5	1016.5	1017.5	1016.0	1015.5											
Wind Dir	SW	WSW	WSW	SW	WSW	SW	WSW	WSW	WSW	SW											
Wind Spd/F	F 5	F 6	F 5	F 5	F 5	F 4	F 6	F 5	F 5	F 5											
Transparency	11		12				17	14	12	14											
Depth	104	1160																			
Equipment	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD											
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	1.6	32.477	0.3	32.743	0.6	32.893	1.4	33.216	1.9	33.292	1.9	33.288	8.8	34.106	11.8	34.477	8.7	34.071	10.4	34.394	
10m	0.47	32.480	0.17	32.741	0.50	32.889	1.39	33.199	1.79	33.256	1.75	33.251	8.57	34.099	11.62	34.452	8.59	34.042	10.29	34.321	
20m	-0.04	32.547	0.20	32.793	0.52	32.900	1.39	33.198	1.80	33.256	1.76	33.250	8.51	34.089	11.59	34.451	8.59	34.046	10.22	34.318	
30m	-0.12	32.705	0.52	32.974	0.63	32.970	1.39	33.199	1.79	33.257	1.76	33.251	8.42	34.076	11.55	34.449	8.62	34.049	10.14	34.313	
50m	0.42	33.046	0.45	33.047	0.72	33.159	1.39	33.201	1.80	33.258	1.73	33.250	8.31	34.061	11.26	34.420	8.63	34.058	10.01	34.293	
75m	0.51	33.073	0.62	33.130	0.75	33.215	1.33	33.200	1.72	33.264	1.48	33.246	8.11	34.036	10.34	34.276	8.19	33.997	9.67	34.244	
100m			0.66	33.190	0.91	33.283	1.27	33.277	1.71	33.270	1.34	33.258	8.07	34.030	9.66	34.192	7.50	33.905	8.49	34.040	
125m			0.79	33.261	0.94	33.315	1.73	33.410	1.50	33.291	1.40	33.296	7.91	34.016	9.04	34.128	6.62	33.802	6.55	33.781	
150m			0.86	33.284	0.99	33.333	2.16	33.546	1.79	33.470	1.99	33.502	6.81	33.872	8.07	34.033	4.89	33.605	5.31	33.514	
200m			1.14	33.378	1.14	33.402	2.38	33.681	2.28	33.626	2.29	33.637	5.08	33.715	3.84	33.500	4.11	33.622	2.74	33.429	
250m			1.22	33.428	1.25	33.486	2.88	33.780	2.63	33.749	2.24	33.685	5.42	33.852	4.00	33.658	2.51	33.496	4.26	33.697	
300m			1.24	33.447	1.39	33.538	2.91	33.877	2.79	33.827	2.85	33.830	4.91	33.907	3.61	33.668	3.64	33.723	2.94	33.646	
400m			1.53	33.569	1.79	33.665	2.56	33.947	3.00	33.995	2.94	33.974			3.11	33.771	3.47	33.859	3.18	33.833	
500m			1.78	33.648	2.32	33.814	2.72	34.061	3.07	34.112	2.91	34.076			3.56	33.977	3.94	34.040	3.38	33.996	
600m			1.88	33.718	2.60	33.950	2.87	34.176	3.11	34.208	2.89	34.167			3.76	34.124	3.94	34.183	3.30	34.099	
700m																					
800m																					
900m																					
1000m																					

Table 5-3

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199404		199404		
Station No	PK15		P35		PK23		PK31		PKA01		PKA02		PK32		PK24		P36		PK16		
Latitude:N	41-30.1		41-29.1		41-30.0		41-30.0		41-00.0		40-59.1		41-00.1		41-00.1		41-00.1		41-00.1		
Longitude:E	144-30.0		143-59.1		143-30.1		142-59.9		142-00.1		142-29.9		142-59.9		143-30.1		144-00.2		144-29.9		
Date	1994/04/16		1994/04/16		1994/04/16		1994/04/17		1994/04/17		1994/04/17		1994/04/17		1994/04/17		1994/04/17		1994/04/17		
Time(JST)	17:41		20:28		22:43		01:11		06:18		08:24		10:39		13:00		15:15		17:23		
Weather	C						BC		BC				C		C		C		C		
Air Temp.	5.0		4.5		3.5		5.0		9.3		7.0		8.5		6.1		6.0		6.0		
Bar	1015.0		1014.5		1014.4		1013.0		1010.0		1009.0		1008.9		1008.2		1007.7		1007.5		
Wind Dir	SW		SW		SSW		W		SSW		SSW		W		W		W		WNW		
Wind Spd/F	F 3		F 3		F 3		F 4		F 5		F 5		F 6		F 4		F 4		F 5		
Transparency									13		7		11		7		10		7		
Depth									869		1521		1911								
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	2.1	33.249	1.2	32.761	1.6	32.757	2.5	33.047	6.0	33.600	2.5	32.920	4.1	33.348	2.0	32.925	1.6	32.993	5.1	33.440	
10m	2.01	33.227	0.99	32.758	1.30	32.726	2.09	33.016	5.29	33.580	1.89	32.902	3.88	33.318	1.68	32.914	1.33	32.992	5.00	33.438	
20m	1.82	33.223	1.02	32.833	0.99	32.793	2.05	33.021	4.62	33.483	1.09	32.873	3.70	33.311	1.55	32.919	1.29	32.988	5.15	33.473	
30m	1.75	33.225	1.14	32.939	0.86	32.840	1.92	33.019	4.85	33.570	0.90	32.899	3.73	33.348	1.35	32.934	0.82	33.056	6.53	33.731	
50m	1.68	33.225	1.08	33.166	0.78	32.955	1.41	33.047	6.53	33.836	0.67	32.974	3.85	33.385	5.57	33.657	0.80	33.086	7.10	33.839	
75m	1.52	33.216	1.08	33.174	0.88	33.138	1.18	33.141	6.81	33.888	2.47	33.319	2.57	33.349	5.44	33.622	0.90	33.152	5.55	33.650	
100m	1.37	33.221	1.10	33.193	0.95	33.180	0.93	33.181	6.61	33.868	1.75	33.224	1.80	33.300	4.08	33.498	0.88	33.199	3.73	33.466	
125m	1.14	33.251	0.97	33.247	0.98	33.204	1.15	33.233	6.72	33.896	0.98	33.242	1.53	33.283	3.32	33.452	1.20	33.260	3.10	33.432	
150m	1.59	33.400	1.20	33.316	1.07	33.230	1.11	33.257	6.62	33.885	1.02	33.274	1.46	33.303	1.41	33.248	1.00	33.308	2.48	33.406	
200m	2.13	33.594	1.49	33.417	1.23	33.317	1.16	33.296	6.30	33.875	1.15	33.338	2.15	33.448	1.00	33.346	1.61	33.440	3.18	33.566	
250m	2.52	33.700	1.97	33.546	1.20	33.403	1.25	33.335	3.56	33.528	1.58	33.403	2.04	33.522	1.37	33.428	2.70	33.659	3.63	33.725	
300m	2.66	33.766	1.91	33.594	1.31	33.484	1.45	33.405	1.64	33.369	1.49	33.469	2.81	33.686	1.58	33.516	1.65	33.598	2.80	33.686	
400m	3.04	33.938	2.38	33.767	1.56	33.583	1.53	33.510					2.78	33.805	1.60	33.619	2.58	33.825	4.02	34.009	
500m	2.70	34.016	3.06	33.985	1.90	33.674	2.73	33.756					2.87	33.944	2.94	33.889	3.54	34.080	4.26	34.181	
600m	2.70	34.046	3.07	34.113	2.19	33.778	2.66	33.846					3.24	34.101	3.44	34.068	3.36	34.164	3.54	34.207	
700m																					
800m																					
900m																					
1000m																					

Table 5-4

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199404		199404	
Station No	P27		PK07		P18		PKA25		PKA28		PKA29		PKA26		PKA21		PKA18		PKA15	
Latitude:N	41-00.1		40-59.9		41-00.0		40-59.1		40-59.8		40-30.1		40-29.9		40-30.0		40-30.0		40-30.0	
Longitude:E	144-59.9		145-30.0		146-00.2		146-30.0		146-59.7		147-00.0		146-30.1		146-00.1		145-30.3		145-00.1	
Date	1994/04/17		1994/04/17		1994/04/18		1994/04/18		1994/04/18		1994/04/18		1994/04/18		1994/04/18		1994/04/18		1994/04/18	
Time(JST)	19:33		21:45		00:10		02:29		04:43		07:31		11:01		14:37		18:19		20:59	
Weather					BC		BC		C		BC		BC		B		C			
Air Temp.	6.6		6.5		6.4		6.5		6.5		7.3		7.5		7.1		8.1		8.8	
Bar	1009.0		1010.0		1011.0		1010.5		1012.5		1016.5		1018.0		1018.5		1020.5		1020.5	
Wind Dir	WNW		WNW		WNW		WNW		NW		NW		WNW		WNW		WNW		W	
Wind Spd/F	F 7		F 7		F 7		F 7		F 7		F 6		F 6		F 6		F 6		F 4	
Transparency													9		10					
Depth																				
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	9.0	34.125	11.9	34.589	7.2	34.223	10.4	34.406	11.1	34.539	9.3	34.215	5.1	33.517	9.9	34.392	9.2	34.283	11.9	34.614
10m	9.14	34.106	12.70	34.567	9.07	34.151	11.04	34.432	11.27	34.419	9.25	34.186	4.94	33.506	10.09	34.291	9.26	34.191	12.63	34.569
20m	9.19	34.119	12.66	34.563	9.04	34.149	11.05	34.432	11.26	34.417	9.16	34.170	4.92	33.508	10.05	34.293	9.27	34.190	12.57	34.562
30m	9.22	34.125	12.71	34.568	9.04	34.144	11.05	34.433	11.20	34.407	9.19	34.176	5.01	33.525	9.99	34.282	9.27	34.187	12.25	34.517
50m	9.28	34.129	12.49	34.550	7.57	33.952	11.02	34.427	11.18	34.397	8.22	34.050	5.25	33.591	9.64	34.239	9.27	34.187	12.08	34.507
75m	9.26	34.125	11.64	34.487	7.39	33.919	11.03	34.427	11.02	34.384	5.51	33.696	4.62	33.559	9.26	34.188	9.28	34.190	11.28	34.408
100m	8.23	33.993	10.89	34.359	7.17	33.901	10.80	34.406	10.51	34.327	5.11	33.648	3.39	33.438	7.83	33.984	8.52	34.090	11.53	34.474
125m	7.98	33.965	9.24	34.190	7.06	33.899	10.28	34.287	9.06	34.121	4.58	33.583	1.38	33.289	7.04	33.893	7.47	33.949	11.27	34.409
150m	7.43	33.904	8.69	34.135	6.98	33.893	8.88	34.129	8.19	34.008	3.64	33.462	1.18	33.299	6.92	33.883	7.00	33.892	11.03	34.375
200m	4.64	33.600	7.35	33.934	6.96	33.888	6.79	33.856	5.60	33.692	3.88	33.639	1.30	33.355	6.72	33.852	7.00	33.895	7.38	33.920
250m	4.64	33.763	7.01	33.892	6.89	33.879	6.61	33.834	4.44	33.617	1.48	33.477	1.42	33.391	4.77	33.590	6.95	33.890	6.75	33.863
300m	4.93	33.863	6.66	33.841	6.13	33.763	6.35	33.804	2.52	33.496	1.77	33.532	4.09	33.757	4.01	33.615	5.96	33.752	5.87	33.735
400m	3.49	33.853	4.75	33.685	3.61	33.595														
500m	3.62	34.023	2.85	33.676	2.60	33.642														
600m	3.32	34.088	3.39	33.919	3.42	33.873														
700m																				
800m																				
900m																				
1000m																				

Table 5-5

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199404		199404	
Station No	PKA12		PKA09		PKA10		PKA13		PKA16		PKA19		PKA22		PKA27		PKA30		PKA31	
Latitude:N	40-29.1		40-30.0		40-00.1		40-00.2		39-59.1		40-00.1		40-00.0		40-00.0		40-00.0		39-19.1	
Longitude:E	144-19.9		143-39.8		143-39.1		144-19.1		144-59.8		145-30.1		146-00.1		146-29.8		146-59.9		147-00.0	
Date	1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/20	
Time(JST)	00:11		02:59		05:47		08:30		11:16		13:27		15:39		17:58		20:26		00:13	
Weather	BC		C		C		C		C		C		C		BC		BC		B	
Air Temp.	8.6		7.3		8.8		10.8		12.0		11.3		9.0		6.0		5.0		4.6	
Bar	1018.5		1016.5		1015.5		1015.5		1012.0		1011.5		1011.5		1012.0		1013.0		1014.5	
Wind Dir	SSW		SSE		SW		W		WSW		W		W		WNW		WNW		NW	
Wind Spd/F	F 3		F 2		F 4		F 3		F 5		F 4		F 2		F 3		F 3		F 4	
Transparency					20		17		12		12		10							
Depth																				
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	9.1	34.181	6.7	33.814	8.6	34.083	12.6	34.575	9.8	33.779	10.1	34.227	5.9	33.405	4.1	33.247	3.5	33.134	3.6	33.169
10m	9.23	34.139	6.78	33.785	8.52	34.060	12.80	34.563	9.61	34.223	9.95	34.248	4.63	33.487	3.79	33.233	3.49	33.154	3.53	33.179
20m	9.11	34.113	6.78	33.783	8.52	34.057	12.81	34.565	9.61	34.226	9.87	34.278	4.71	33.500	3.40	33.220	3.41	33.209	3.45	33.191
30m	9.04	34.110	6.74	33.791	8.52	34.059	12.81	34.565	9.60	34.229	9.86	34.276	4.84	33.529	3.29	33.209	3.34	33.237	3.29	33.199
50m	8.89	34.081	6.59	33.755	8.53	34.058	12.81	34.566	9.56	34.222	9.80	34.268	5.00	33.557	2.84	33.227	3.16	33.249	2.60	33.211
75m	8.51	34.037	5.87	33.669	8.54	34.061	12.69	34.548	9.46	34.205	9.72	34.255	5.17	33.600	2.45	33.278	2.39	33.302	2.25	33.246
100m	7.16	33.865	5.13	33.703	8.16	34.006	11.76	34.457	8.56	34.083	9.47	34.218	4.50	33.527	2.10	33.291	2.48	33.365	1.96	33.298
125m	5.73	33.688	3.10	33.477	7.02	33.846	11.26	34.419	7.23	33.909	9.11	34.148	1.95	33.258	1.87	33.324	2.00	33.354	1.92	33.358
150m	4.62	33.619	2.35	33.409	5.49	33.666	10.97	34.369	6.98	33.883	7.38	33.924	1.11	33.276	1.81	33.349	1.99	33.409	1.69	33.370
200m	4.81	33.779	1.44	33.348	3.90	33.535	9.33	34.194	6.83	33.868	6.36	33.791	1.36	33.386	2.30	33.562	2.53	33.618	2.54	33.638
250m	4.97	33.871	1.54	33.414	4.55	33.747	6.03	33.719	6.76	33.865	4.72	33.591	1.78	33.500	2.75	33.714	2.72	33.730	2.68	33.747
300m	3.49	33.745	1.77	33.485	5.47	33.962	6.50	33.964	5.69	33.725	3.45	33.502	1.71	33.526	2.90	33.805	2.98	33.835	2.97	33.870
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 5-6



Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199405		199405		199405		199405		199405	
Station No	PKA23		PKA20		PKA17		PKA14		PKA11		P31		P32		P33		P34		P35	
Latitude:N	39-20.0		39-19.9		39-19.1		39-20.1		39-20.1		42-45.2		42-30.1		42-15.1		42-00.0		41-29.9	
Longitude:E	146-20.1		145-40.3		145-00.1		144-19.9		143-39.8		144-00.2		144-00.0		144-00.0		144-00.0		144-00.0	
Date	1994/04/20		1994/04/20		1994/04/20		1994/04/20		1994/04/20		1994/05/10		1994/05/10		1994/05/10		1994/05/10		1994/05/10	
Time(JST)	03:14		06:23		09:30		12:21		15:03		10:50		12:14		13:53		15:41		18:35	
Weather	B		B		B		B		B		C		C		C		C		C	
Air Temp.	4.6		5.8		10.3		10.6		9.5		7.0		8.1		7.7		5.7		6.5	
Bar	1016.5		1019.5		1020.0		1021.0		1018.5		1010.0		1009.0		1009.5		1009.8		1009.5	
Wind Dir	NNE		NNE		NE		SW		SSW		SW		SW		SW		SW		SSW	
Wind Spd/F	F 4		F 4		F 3		F 3		F 3		F 4		F 5		F 5		F 5		F 4	
Transparency			17		19		18		17		4		7		11		7			
Depth													493		936					
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	3.4	33.173	8.5	34.045	12.4	34.580	14.4	34.701	12.0	34.439	4.0	32.017	3.2	32.253	1.7	32.703	2.1	32.811	3.2	32.772
10m	3.38	33.182	8.45	34.059	12.39	34.554	13.91	34.640	11.27	34.349	2.96	32.116	2.84	32.221	1.33	32.709	1.85	32.814	2.77	32.779
20m	3.30	33.193	8.45	34.062	12.32	34.548	13.88	34.641	11.21	34.351	1.02	32.453	1.28	32.590	1.26	32.708	2.07	32.845	2.48	32.808
30m	3.26	33.193	8.39	34.052	12.26	34.544	13.87	34.642	10.89	34.299	0.68	32.559	1.01	32.740	1.18	32.791	1.94	32.844	1.74	32.916
50m	3.07	33.198	8.16	34.011	11.99	34.511	13.85	34.640	9.05	34.052	0.36	32.750	0.90	32.876	0.30	32.980	0.91	33.054	1.26	33.096
75m	2.62	33.215	7.11	33.858	11.85	34.493	12.06	34.452	8.45	33.994			0.64	33.004	0.72	33.119	0.54	33.117	1.07	33.161
100m	2.23	33.262	5.01	33.554	11.62	34.472	11.02	34.328	7.49	33.873			0.78	33.087	0.81	33.183	0.60	33.165	1.03	33.185
125m	2.30	33.311	3.42	33.388	11.49	34.464	9.84	34.209	7.13	33.885			0.79	33.156	0.80	33.239	0.61	33.226	1.09	33.246
150m	1.72	33.330	1.87	33.254	11.48	34.464	8.36	33.997	7.29	33.974			0.75	33.188	0.88	33.294	0.61	33.250	0.89	33.294
200m	2.31	33.542	1.15	33.282	11.45	34.459	6.73	33.869	6.54	33.973			0.93	33.296	0.89	33.331	0.81	33.313	1.04	33.376
250m	2.73	33.702	2.70	33.530	9.16	34.126	6.48	33.991	4.56	33.781			1.13	33.364	1.01	33.358	1.07	33.369	1.40	33.468
300m	2.99	33.842	3.10	33.651	7.46	34.002	2.75	33.498	4.43	33.896			1.26	33.416	1.17	33.412	1.19	33.424	1.65	33.540
400m													1.60	33.576	1.66	33.555	1.44	33.517	1.96	33.684
500m															2.27	33.689	1.97	33.669	2.35	33.837
600m															2.26	33.822	2.24	33.764	2.97	34.015
700m																				
800m																				
900m																				
1000m																				

Table 5-7

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199405		199405		199405	
Station No	P36		PK16		P27		PK07		P18		P17		P16		P15		P14		P13	
Latitude:N	41-00.2		41-00.0		41-00.0		40-59.9		40-59.1		41-29.8		41-59.8		42-14.1		42-29.9		42-45.1	
Longitude:E	143-59.1		144-29.9		144-59.1		145-30.2		146-00.1		146-00.0		146-00.1		145-59.1		145-59.1		145-54.9	
Date	1994/05/10		1994/05/10		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11	
Time(JST)	21:44		23:57		02:10		04:25		06:32		09:21		12:10		13:50		15:29		17:10	
Weather	C		C		C		C		C		C		C		C		C		BC	
Air Temp.	10.9		13.2		13.8		13.7		13.7		9.1		8.6		8.7		7.4		7.5	
Bar	1009.5		1009.5		1008.5		1008.5		1009.5		1008.0		1005.5		1003.5		1002.0		1001.5	
Wind Dir	SW		SW		SSW		SW		SW		SW		SW		SW		SW		SW	
Wind Spd/F	F 5		F 6		F 6		F 6		F 5		F 4		F 5		F 5		F 5		F 5	
Transparency							8		11		5		6		6		11		12	
Depth																				
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	6.6	33.303	11.8	34.347	12.5	33.230	12.5	34.566	12.2	34.460	3.6	32.840	4.4	33.108	4.6	33.092	4.1	33.127	3.5	33.108
10m	6.13	33.188	11.67	34.367	12.44	34.532	12.38	34.528	12.02	34.458	3.23	32.814	4.01	33.107	4.21	33.095	3.74	33.123	3.23	33.129
20m	7.19	33.470	11.85	34.420	12.39	34.527	12.38	34.528	12.01	34.457	3.10	32.833	3.95	33.108	4.15	33.091	3.70	33.131	3.22	33.130
30m	7.52	33.493	11.80	34.441	12.40	34.527	12.38	34.528	11.99	34.453	5.83	33.632	2.29	33.107	2.98	33.149	3.48	33.135	3.22	33.130
50m	5.63	33.583	11.86	34.479	12.26	34.512	12.38	34.528	11.99	34.458	3.97	33.260	1.50	33.154	2.00	33.210	2.10	33.212	1.68	33.129
75m	5.05	33.606	11.56	34.460	12.02	34.496	12.22	34.515	11.82	34.469	5.39	33.633	1.28	33.169	1.62	33.238	1.48	33.229	1.77	33.245
100m	5.66	33.706	9.80	34.146	11.33	34.431	12.10	34.504	11.48	34.444	4.03	33.467	1.31	33.203	1.34	33.241	1.35	33.251	1.59	33.253
125m	3.40	33.394	9.26	34.144	10.92	34.374	10.39	34.311	10.54	34.314	3.02	33.385	1.17	33.274	1.38	33.324	1.55	33.374	1.33	33.265
150m	2.47	33.368	8.35	34.061	10.11	34.258	9.78	34.237	9.04	34.130	1.25	33.248	1.57	33.421	2.10	33.521	2.04	33.503	1.52	33.342
200m	3.52	33.585	5.60	33.706	7.76	33.915	8.50	34.076	7.19	33.907	1.06	33.340	2.38	33.626	2.55	33.684	2.45	33.643	2.02	33.528
250m	4.86	33.849	3.94	33.546	6.51	33.818	6.77	33.855	6.78	33.862	1.36	33.422	2.60	33.734	2.61	33.762	2.59	33.741	2.54	33.672
300m	4.70	33.891	3.45	33.592	5.13	33.734	5.41	33.715	5.19	33.698	1.40	33.478	2.63	33.814	2.70	33.842	2.76	33.835	2.30	33.723
400m	3.22	33.819	3.69	33.765	3.86	33.750	2.72	33.505	2.18	33.490	2.14	33.698	2.66	33.946	3.11	34.015	2.77	33.958	2.83	33.914
500m	3.77	34.017	3.40	33.884	4.32	33.942	1.98	33.627	2.17	33.591	3.42	33.984	2.79	34.080	2.76	34.069	3.06	34.108	3.05	34.065
600m	3.57	34.113	3.71	34.044	4.23	34.100	2.42	33.767	3.40	33.867	4.07	34.177	2.82	34.161	3.27	34.242	3.05	34.206	3.06	34.178
700m																				
800m																				
900m																				
1000m																				

Table 5-8

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199405		199405		199405	
Station No	P12		P11		PK01		PK02		PK03		PK04		PK05		PK06		P26		PK15	
Latitude:N	42-55.0		43-04.1		42-55.1		42-45.1		42-30.1		42-14.1		42-00.1		41-30.0		41-30.0		41-30.0	
Longitude:E	145-49.9		145-45.0		145-30.1		145-30.0		145-30.0		145-30.1		145-29.1		145-30.0		145-00.3		144-30.1	
Date	1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/11		1994/05/12		1994/05/12		1994/05/12		1994/05/12		1994/05/12	
Time(JST)	18:23		19:39		21:04		22:03		23:43		01:28		03:08		06:09		08:33		11:42	
Weather	C		C		C		BC		C		BC		C		C		C		C	
Air Temp.	5.6		5.0		4.3		4.5		4.0		5.3		5.2		5.8		6.5		6.8	
Bar	1002.0		1004.3		1005.0		1005.0		1005.5		1005.0		1005.4		1006.0		1004.7		1004.0	
Wind Dir	SW		W		WSW		W		NW		CALM		SSE		NW		NNW		WNW	
Wind Spd/F	F 5		F 3		F 2		F 2		F 1		F 0		F 1		F 3		F 4		F 2	
Transparency																	14		6	
Depth	1457		104		159															
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	2.9	33.100	2.5	32.290	2.4	32.313	2.3	32.984	2.7	32.988	3.8	33.119	4.4	33.123	3.7	33.061	3.6	33.070	4.2	32.926
10m	2.73	33.119	2.29	32.315	2.26	32.356	2.75	33.031	2.50	33.048	3.82	33.128	4.36	33.116	3.54	33.054	3.20	33.069	3.07	32.994
20m	2.70	33.116	1.50	32.728	1.80	33.041	2.72	33.116	1.98	33.133	3.82	33.128	4.36	33.118	3.54	33.059	2.90	33.097	3.02	33.084
30m	2.68	33.120	1.46	33.081	1.65	33.107	2.69	33.132	1.97	33.159	3.68	33.114	3.03	33.168	3.16	33.073	2.57	33.142	2.83	33.117
50m	1.99	33.115	1.34	33.158	1.16	33.183	2.00	33.113	1.47	33.189	1.64	33.224	2.04	33.212	2.14	33.151	1.81	33.210	2.16	33.248
75m	1.37	33.170	0.88	33.195	0.76	33.198	1.66	33.191	1.49	33.261	1.42	33.240	1.64	33.242	2.00	33.236	1.65	33.227	1.89	33.250
100m	1.90	33.244			0.74	33.200	1.61	33.203	1.67	33.307	1.31	33.273	1.42	33.247	1.76	33.255	1.47	33.248	1.63	33.256
125m	1.49	33.264			0.73	33.204	1.60	33.261	1.66	33.327	1.64	33.401	1.60	33.358	1.39	33.257	1.40	33.303	1.42	33.279
150m	1.42	33.312					1.69	33.309	1.68	33.411	2.26	33.569	1.99	33.522	1.33	33.289	1.63	33.393	1.55	33.395
200m	1.94	33.492					2.09	33.502	2.05	33.600	2.20	33.655	2.80	33.723	2.08	33.537	2.15	33.609	2.05	33.564
250m	2.08	33.587					2.32	33.644	2.59	33.739	2.71	33.787	2.63	33.776	2.36	33.646	2.08	33.671	2.47	33.684
300m	2.31	33.682					2.24	33.681	2.81	33.840	2.88	33.876	2.25	33.850	2.71	33.771	2.64	33.804	2.65	33.778
400m	2.83	33.873					2.48	33.824	2.99	33.984	2.94	34.001	2.85	34.037	2.82	33.898	2.75	33.951	3.08	33.971
500m	2.87	33.988					2.80	33.986	3.10	34.101	2.96	34.118	3.01	34.161	2.94	34.049	3.05	34.085	2.97	34.077
600m	3.01	34.103					2.91	34.103	3.03	34.195	2.91	34.212	2.88	34.212	2.83	34.126	2.94	34.189	2.77	34.138
700m																				
800m																				
900m																				
1000m																				

Table 5-9

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405	199405	199405	199405	199405	199405	199405	199405	199405	199405	199405										
Station No	PK14	P25	P24	PK13	PK12	P23	P22	P21	PK11	SU27											
Latitude:N	41-59.9	42-00.0	42-14.1	42-15.0	42-29.8	42-29.1	42-45.1	42-54.7	42-45.0	42-53.0											
Longitude:E	144-29.9	144-59.1	145-00.0	144-30.3	144-30.0	144-59.9	145-00.0	145-00.0	144-30.1	144-19.2											
Date	1994/05/12	1994/05/12	1994/05/12	1994/05/12	1994/05/12	1994/05/13	1994/05/13	1994/05/13	1994/05/13	1994/05/20											
Time(JST)	14:49	17:07	18:45	20:54	22:41	01:06	02:56	03:58	06:06	10:45											
Weather	B	B	BC	BC	BC	B	BC	B	BC	BC											
Air Temp.	7.0	8.4	6.4	6.8	6.0	4.4	4.2	4.5	4.8	7.7											
Bar	1003.0	1001.5	1003.0	1006.0	1007.5	1008.5	1009.5	1010.0	1012.0	1019.0											
Wind Dir	SW	SW	SW	N	NNE	NNW	N	N	N	SSW											
Wind Spd/F	F 2	F 4	F 3	F 6	F 4	F 4	F 4	F 4	F 4	F 3											
Transparency	5	12							7	5											
Depth							170	69	131												
Equipment	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD										
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S									
0m	4.2	32.535	5.4	33.108	3.7	32.638	3.0	32.344	2.5	32.449	3.2	33.132	2.6	32.275	2.9	32.269	2.4	32.448	4.3	32.66*	
10m	2.58	32.835	4.02	33.109	2.31	32.642	1.11	32.597	2.33	32.444	3.00	33.127	1.08	32.506	2.80	32.275	2.33	32.438	3.20	31.946	
20m	2.47	32.907	3.95	33.111	2.31	33.011	0.71	32.973	1.88	32.456	2.72	33.145	0.58	32.767	0.61	32.449	1.55	32.461	1.41	32.456	
30m	2.22	33.130	3.82	33.098	2.18	33.047	0.47	33.038	0.75	32.598	2.68	33.148	0.27	32.881	0.29	32.653	0.85	32.599	0.92	32.844	
50m	1.96	33.156	1.83	33.206	1.58	33.179	0.34	33.119	0.64	32.903	1.69	33.146	0.21	32.955	0.25	32.755	0.49	32.773	0.80	32.977	
75m	1.57	33.188	1.56	33.233	1.53	33.225	0.66	33.228	0.78	33.123	1.55	33.201	0.37	33.070			0.52	32.966	0.77	33.020	
100m	1.46	33.216	1.39	33.254	1.56	33.273	0.53	33.262	0.73	33.184	1.52	33.228	0.57	33.168			0.66	33.129	0.79	33.040	
125m	1.52	33.284	1.46	33.351	1.51	33.321	0.80	33.307	0.81	33.214	1.67	33.304	0.66	33.214					0.83	33.062	
150m	1.54	33.357	1.86	33.485	1.61	33.388	1.00	33.352	0.69	33.242	1.68	33.337	0.70	33.227					0.83	33.058	
200m	1.52	33.484	2.50	33.698	1.96	33.524	1.15	33.400	1.11	33.340	2.24	33.557									
250m	2.10	33.606	2.74	33.796	2.32	33.667	1.31	33.454	1.24	33.406	2.56	33.685									
300m	2.61	33.769	2.83	33.868	2.67	33.767	1.42	33.505	1.29	33.458	2.64	33.762									
400m	2.68	33.891	3.04	34.015	2.94	33.952	1.78	33.645	1.61	33.560	3.17	33.936									
500m	3.02	34.033	3.18	34.160	2.89	34.062	1.94	33.740	2.10	33.724	2.91	34.000									
600m	2.85	34.111	3.13	34.230	2.94	34.163	2.63	33.920	2.52	33.903	2.92	34.100									
700m																					
800m																					
900m																					
1000m																					

Table 5-10

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199405		199405		199405	
Station No	SU25		SU03		SU24		SU18		SU16		SU19		SU21		SU12		SU15		SU08	
Latitude:N	42-56.4		42-55.5		42-53.4		42-44.5		42-45.3		42-50.2		42-47.0		42-38.2		42-33.8		42-25.7	
Longitude:E	144-19.5		144-11.5		144-13.0		143-58.4		143-56.1		144-00.3		144-01.4		143-43.3		143-45.4		143-31.0	
Date	1994/05/20		1994/05/20		1994/05/20		1994/05/23		1994/05/23		1994/05/23		1994/05/23		1994/05/24		1994/05/24		1994/05/24	
Time(JST)	13:00		14:07		15:25		10:30		12:05		12:46		14:20		11:53		14:35		15:57	
Weather	BC		BC		BC		B		BC		BC		BC		BC		B		B	
Air Temp.	6.9		7.1		7.7		9.0		11.1		12.9		12.0		10.9		12.1		13.4	
Bar	1019.0		1019.0		1019.5		1014.5		1014.0		1014.0		1013.0		1016.0		1015.0		1014.0	
Wind Dir	SSW		WSW				S				SE		NNE		S		SW		SSW	
Wind Spd/F	F 4		F 2		F		F 3		F		F 1		F 1		F 3		F 2		F	
Transparency	5		4		4		5		3		4		5		4		7		7	
Depth																				
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	3.7	31.86*	4.5	30.68*	3.4	31.94*	4.4	31.26*	4.4	31.31*	5.0	31.12*	5.4	30.74*	4.0	31.72*	4.8	32.01*	4.1	32.51*
10m	2.32	32.247	3.00	31.928	1.68	32.413	2.00	32.376	2.11	32.296	1.66	32.414	2.73	32.142	1.12	32.556	3.92	32.070	2.23	32.479
20m	1.93	32.341	1.00	32.622	0.98	32.761	1.08	32.589	1.11	32.562	1.26	32.551	1.47	32.493	1.11	32.563	2.67	32.363	0.94	32.667
30m					0.78	32.911	1.02	32.665	0.83	32.649			0.99	32.666			1.79	32.507		
50m					0.70	32.909	0.83	32.818									0.83	32.671		
75m																				
100m																				
125m																				
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 5-11

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199406		199406		199406		199406		199406	
Station No	SU11		SU04		SU01		SU05		SU07		P31		PK11		P22		P21		PK02	
Latitude:N	42-22.4		42-11.4		42-13.6		42-18.1		42-17.5		42-45.1		42-44.1		42-45.0		42-54.9		42-44.1	
Longitude:E	143-33.6		143-27.7		143-25.7		143-26.8		143-29.4		144-00.2		144-29.1		144-59.8		145-00.0		145-30.0	
Date	1994/05/24		1994/05/25		1994/05/25		1994/05/25		1994/05/25		1994/05/30		1994/05/30		1994/05/30		1994/05/30		1994/05/30	
Time(JST)	17:56		06:51		08:51		09:21		10:52		10:44		12:48		14:56		15:59		18:21	
Weather	B		B		B		B		B		C		C		C		C		C	
Air Temp.	10.6		9.9		14.5		14.4		11.7		8.6		7.4		7.9		8.1		9.3	
Bar	1014.5		1019.5		1018.5		1018.5		1019.0		1005.0		1004.0		1002.4		1002.0		1001.5	
Wind Dir	E		NNE		S		ESE		ESE		E		E		SSE		SSE		S	
Wind Spd/F	F 2		F 2		F		F 2		F 2		F 3		F 3		F 3		F 2		F 4	
Transparency	10		10		9		5		7		6		7		4		7		5	
Depth											66		131		168		66		1695	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	4.6	32.27*	4.3	32.33*	3.7	32.38*	5.1	32.42*	3.7	32.46*	8.6	30.449	4.7	32.723	4.1	32.635	5.8	32.310	7.7	33.044
10m	3.17	32.510	3.19	32.534	3.29	32.527	2.59	32.512	2.95	32.565	3.52	32.363	4.43	32.677	2.91	32.612	3.39	32.364	6.53	33.040
20m	1.77	32.572	2.06	32.501	1.37	32.616	1.06	32.654	1.90	32.599	3.05	32.464	3.26	32.848	1.71	32.711	2.34	32.498	5.26	33.034
30m	0.92	32.705	1.45	32.586					0.98	32.694	2.33	32.533	1.95	32.980	2.33	33.029	2.25	32.516	3.53	33.039
50m	0.78	32.757	1.12	32.713							1.28	32.669	0.99	33.091	2.27	33.139	0.95	32.775	2.91	33.120
75m													1.10	33.148	1.24	33.184			2.09	33.235
100m													1.01	33.186	1.08	33.246			1.68	33.249
125m															0.90	33.270			1.52	33.286
150m															0.90	33.284			1.52	33.340
200m																			1.95	33.517
250m																			2.34	33.645
300m																			2.53	33.727
400m																			2.77	33.854
500m																			2.90	33.999
600m																			3.11	34.139
700m																				
800m																				
900m																				
1000m																				

Table 5-12

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	PK01		P11		P12		P13		P14		PK03		P23		PK12		P32		PK21	
Latitude:N	42-55.1		43-04.9		42-55.2		42-45.2		42-30.2		42-29.1		42-30.0		42-29.1		42-29.1		42-15.1	
Longitude:E	145-29.9		145-44.8		145-49.9		145-54.8		145-59.9		145-30.0		144-59.8		144-30.2		144-00.2		143-30.1	
Date	1994/05/30		1994/05/30		1994/05/30		1994/05/30		1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31	
Time(JST)	19:31		20:56		22:12		23:34		01:34		04:01		06:40		08:46		10:59		13:38	
Weather	C		R		C		F		F		F		B		B		B		B	
Air Temp.	8.3		6.9		8.1		7.5		7.1		7.1		9.5		9.1		10.3		8.6	
Bar	1001.5		1001.5		1001.0		1001.0		1001.7		1004.0		1005.0		1005.4		1005.0		1005.0	
Wind Dir	S		S		S		SW		WSW		WSW		SW		SW		SSW		SSW	
Wind Spd/F	F 4		F 5		F 4		F 4		F 5		F 3		F 4		F 4		F 4		F 6	
Transparency											7		4		6		5		6	
Depth	150		105														500		69	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	3.8	32.589	4.2	32.621	7.1	32.984	5.5	32.762	4.4	32.835	7.5	33.051	7.2	33.016	4.1	32.578	7.3	30.899	4.5	32.183
10m	3.00	32.659	3.82	32.710	5.83	32.943	4.88	32.719	3.93	32.819	6.35	33.042	6.25	33.010	4.22	32.882	5.34	32.094	3.70	32.242
20m	1.91	32.945	3.34	32.760	2.09	32.862	3.48	32.827	3.46	32.840	5.51	33.071	5.46	33.003	3.92	32.954	3.67	32.738	2.30	32.434
30m	2.52	33.146	2.77	32.846	1.30	32.970	2.38	32.898	2.59	32.878	4.16	33.103	3.42	33.068	3.41	33.005	3.08	32.816	1.31	32.609
50m	0.99	33.116	0.67	33.017	0.84	33.065	0.92	33.044	1.56	33.000	2.71	33.178	2.43	33.138	1.97	33.186	2.18	33.026	1.09	32.662
75m	0.75	33.213	0.69	33.155	0.81	33.170	0.81	33.207	1.03	33.165	1.73	33.234	1.69	33.189	1.74	33.250	1.13	33.070		
100m	0.80	33.252			0.97	33.252	0.99	33.275	1.30	33.283	1.52	33.245	1.55	33.230	1.19	33.264	1.01	33.105		
125m	0.82	33.274			0.96	33.283	0.98	33.308	1.26	33.336	1.37	33.268	1.53	33.270	1.11	33.307	1.09	33.194		
150m					0.98	33.323	1.05	33.351	1.00	33.371	1.60	33.385	1.64	33.355	1.31	33.354	1.39	33.258		
200m					1.20	33.405	1.25	33.429	1.15	33.448	2.33	33.621	2.23	33.578	1.30	33.414	1.13	33.310		
250m					1.30	33.459	1.37	33.504	1.36	33.523	2.60	33.727	2.57	33.726	1.47	33.484	1.56	33.428		
300m					1.44	33.513	1.56	33.569	1.69	33.618	2.87	33.834	2.46	33.767	1.77	33.571	1.40	33.485		
400m					1.63	33.612	2.17	33.732	2.07	33.738	2.91	33.960	2.79	33.928	2.29	33.723	1.83	33.613		
500m					2.41	33.790	2.45	33.840	2.59	33.893	2.98	34.078	2.89	34.057	2.72	33.854				
600m					2.82	33.953	2.72	33.965	2.84	34.007	2.96	34.176	2.94	34.164	2.81	34.029				
700m																				
800m																				
900m																				
1000m																				

Table 5-13

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	P33		PK13		P24		PK04		P15		P16		PK05		P25		PK14		P34	
Latitude:N	42-15.0		42-15.0		42-14.1		42-15.0		42-15.1		42-00.2		42-00.0		42-00.0		41-59.1		41-59.9	
Longitude:E	143-59.9		144-30.0		144-59.7		145-29.6		145-59.8		145-59.1		145-29.9		145-00.3		144-30.3		143-59.1	
Date	1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/06/01		1994/06/01		1994/06/01		1994/06/01		1994/06/01		1994/06/01	
Time(JST)	15:36		17:51		20:05		22:21		00:43		03:10		05:36		07:59		10:22		12:43	
Weather	BC		BC		B		B		B		C		F		F		F		B	
Air Temp.	10.3		9.1		9.1		9.3		9.0		9.0		10.5		9.5		9.0		11.1	
Bar	1006.0		1007.0		1008.0		1009.0		1008.7		1008.0		1008.0		1007.5		1007.0		1005.0	
Wind Dir	SW		SW		SSW		SSW		S		SSE		S		SSE		SE		SW	
Wind Spd/F	F 5		F 4		F 5		F 5		F 3		F 3		F 3		F 3		F 2		F 2	
Transparency	10		6										7		6		8		11	
Depth	927		1605																	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	6.1	32.173	5.9	32.977	7.5	32.953	7.8	33.006	6.3	33.025	6.9	32.831	5.7	32.898	6.1	32.670	6.0	32.305	6.8	32.355
10m	5.60	32.451	5.65	32.909	7.33	32.907	7.59	32.995	7.15	33.027	6.89	32.995	6.22	32.915	6.05	32.848	4.76	32.668	5.16	32.374
20m	4.49	32.633	5.53	32.921	4.29	33.001	5.45	33.030	6.11	33.024	5.64	33.025	5.05	32.926	5.31	32.902	4.06	32.929	4.89	32.404
30m	3.89	33.056	4.52	32.952	3.72	33.060	4.40	33.070	4.82	33.010	4.82	33.031	4.17	32.995	4.29	33.028	3.90	32.944	4.62	32.424
50m	2.10	33.157	2.26	33.130	2.46	33.166	3.35	33.142	3.00	33.154	2.86	33.119	2.75	33.190	1.91	33.207	1.55	33.126	2.17	32.860
75m	1.37	33.162	1.73	33.207	1.67	33.243	1.56	33.227	1.73	33.230	1.83	33.231	1.71	33.241	1.48	33.243	1.24	33.188	2.16	33.149
100m	1.23	33.209	1.63	33.243	1.52	33.268	1.41	33.249	1.50	33.241	1.56	33.247	1.45	33.242	1.35	33.261	1.04	33.275	1.63	33.233
125m	1.05	33.251	1.54	33.296	1.59	33.326	1.35	33.276	1.36	33.268	1.45	33.270	1.40	33.302	1.54	33.359	1.03	33.335	1.47	33.242
150m	1.10	33.297	1.57	33.368	1.79	33.409	1.88	33.467	1.55	33.382	1.47	33.325	1.77	33.436	1.97	33.504	1.16	33.382	1.40	33.282
200m	1.20	33.391	2.13	33.577	2.40	33.628	2.34	33.641	2.18	33.573	2.25	33.593	2.38	33.643	2.41	33.661	1.45	33.453	1.78	33.444
250m	1.42	33.482	2.39	33.682	2.44	33.707	2.56	33.752	2.69	33.715	2.53	33.722	2.59	33.738	2.44	33.724	1.84	33.548	2.09	33.574
300m	1.56	33.552	2.60	33.763	2.66	33.786	2.79	33.849	2.56	33.758	2.60	33.787	2.77	33.831	2.69	33.824	1.93	33.617	2.17	33.662
400m	2.56	33.783	2.42	33.870	2.82	33.959	2.86	34.000	2.87	33.930	2.84	33.939	2.85	33.967	2.80	33.957	2.73	33.821	2.83	33.864
500m	2.58	33.891	2.86	34.027	2.94	34.076	2.96	34.119	2.85	34.030	2.85	34.029	3.00	34.093	2.91	34.088	2.88	33.958	3.13	33.997
600m	3.04	34.066	2.80	34.101	2.98	34.180	2.94	34.198	2.98	34.147	2.87	34.133	2.82	34.153	2.80	34.166	3.07	34.090	3.06	34.097
700m																				
800m																				
900m																				
1000m																				

Table 5-14



Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	PK22		PK31		PK23		P35		PK15		P26		PK06		P17		PKA24		PKA28	
Latitude:N	42-00.0		41-29.9		41-30.1		41-30.0		41-30.0		41-30.0		41-29.1		41-30.0		41-30.0		41-00.0	
Longitude:E	143-30.2		143-00.0		143-29.8		143-59.8		144-30.0		144-59.9		145-30.1		145-59.8		146-29.8		146-59.1	
Date	1994/06/01		1994/06/01		1994/06/01		1994/06/01		1994/06/02		1994/06/02		1994/06/02		1994/06/02		1994/06/02		1994/06/02	
Time(JST)	15:35		18:58		21:07		23:15		01:28		03:49		06:01		08:07		10:17		13:27	
Weather	B		BC		C		BC		C		BC		BC		B		F		C	
Air Temp.	8.8		13.6		12.1		13.3		9.6		8.3		10.3		13.1		14.8		16.5	
Bar	1003.7		1005.5		1006.0		1005.0		1004.7		1005.0		1005.0		1005.5		1005.0		1004.7	
Wind Dir	SW		W		SW		WSW		WSW		SW		SSW		SSW		WSW		WSW	
Wind Spd/F	F 4		F 2		F 3		F 3		F 3		F 3		F 3		F 2		F 2		F 2	
Transparency	9												12		18		17		12	
Depth	125		1162																	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	4.3	32.468	12.0	33.782	10.7	32.649	12.1	33.606	5.4	32.387	6.5	32.528	11.4	33.555	13.3	34.227	13.2	34.023	13.9	34.248
10m	3.97	32.463	10.62	33.712	9.65	33.336	11.18	33.782	5.17	32.396	5.89	32.520	11.36	33.573	13.19	34.310	12.49	33.992	13.23	34.337
20m	3.75	32.464	10.45	33.944	8.73	33.397	10.01	33.727	3.63	32.540	5.46	32.557	10.53	33.687	13.02	34.399	12.80	34.277	12.55	34.371
30m	3.57	32.459	10.43	34.010	7.04	33.116	9.70	33.761	1.62	32.906	3.81	32.629	10.77	33.932	12.60	34.395	11.93	34.171	12.43	34.390
50m	3.20	32.461	9.98	34.025	3.48	32.975	9.62	33.817	1.13	33.174	3.09	32.954	10.94	34.173	11.87	34.375	11.86	34.369	11.78	34.399
75m	0.53	32.881	9.43	34.024	8.00	33.889	9.43	33.933	0.96	33.223	1.33	33.165	3.21	33.112	11.73	34.403	10.72	34.326	11.65	34.446
100m	0.69	33.045	8.98	33.983	7.48	33.866	8.50	33.937	1.04	33.264	1.19	33.182	4.41	33.438	10.61	34.279	9.63	34.190	11.05	34.379
125m			7.96	33.911	6.39	33.750	5.76	33.537	1.04	33.301	1.22	33.234	3.42	33.387	9.77	34.212	9.11	34.134	9.90	34.227
150m			7.04	33.854	3.23	33.398	4.75	33.546	1.13	33.331	1.36	33.298	3.42	33.560	8.51	34.058	8.30	34.041	9.16	34.131
200m			3.80	33.532	3.12	33.496	4.37	33.558	1.15	33.370	1.59	33.423	4.36	33.626	7.13	33.905	6.94	33.879	7.09	33.894
250m			2.35	33.427	2.24	33.567	3.10	33.496	1.25	33.408	1.78	33.518	3.28	33.568	6.88	33.873	6.04	33.759	5.31	33.680
300m			2.57	33.588	2.22	33.616	2.65	33.530	1.30	33.444	2.12	33.622	3.44	33.685	6.11	33.767	3.55	33.483		
400m			3.82	33.906	2.85	33.809	2.11	33.601	1.81	33.572	2.69	33.810	4.14	33.886	3.79	33.663				
500m			2.67	33.833	2.88	33.913	2.95	33.801	2.25	33.716	2.81	33.943	3.09	33.886	3.66	33.833				
600m			3.35	34.048	3.07	34.057	3.87	34.085	3.14	33.911	2.96	34.097	3.06	34.007	3.34	33.919				
700m																				
800m																				
900m																				
1000m																				

Table 5-15

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	PKA25		P18		PK07		P27		PK16		P36		PK24		PK32		PKA02		PKA01	
Latitude:N	40-59.1		41-00.1		41-00.1		41-00.0		41-00.0		41-00.0		41-00.0		41-00.1		41-00.0		40-59.9	
Longitude:E	146-30.2		145-59.9		145-30.2		145-00.2		144-30.0		143-59.1		143-29.8		142-59.9		142-30.2		142-00.3	
Date	1994/06/02		1994/06/02		1994/06/02		1994/06/02		1994/06/03		1994/06/03		1994/06/03		1994/06/03		1994/06/03		1994/06/03	
Time(JST)	15:41		17:52		20:10		22:27		00:40		02:53		05:11		07:28		09:45		11:52	
Weather	C		B		BC		BC		C		BC		C		B		C		BC	
Air Temp.	14.5		14.3		13.8		13.8		11.1		14.1		14.6		14.3		15.3		14.8	
Bar	1004.5		1005.5		1006.0		1006.5		1006.0		1005.5		1006.0		1007.0		1007.0		1007.2	
Wind Dir	NW		CALM		SW		W		S		S		SW		WSW		W		NNE	
Wind Spd/F	F 3		F 0		F 2		F 2		F 3		F 4		F 3		F 3		F 3		F 2	
Transparency	14		14										13		15		15		17	
Depth																			878	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	15.2	34.301	14.6	34.389	14.1	34.307	14.4	34.000	9.7	32.318	13.9	34.392	14.7	34.449	12.6	33.504	12.8	33.705	12.4	33.079
10m	13.75	34.420	13.73	34.371	13.41	34.387	13.91	33.981	7.04	32.706	13.47	34.413	14.49	34.254	11.14	33.536	12.37	33.700	10.28	33.075
20m	13.45	34.442	13.26	34.400	12.99	34.396	12.92	33.989	10.17	33.751	13.13	34.422	13.48	34.417	10.05	33.531	10.66	33.805	9.54	33.207
30m	13.03	34.454	12.95	34.419	12.68	34.409	11.83	33.825	10.29	33.857	12.77	34.450	12.39	34.221	9.28	33.515	10.09	33.774	9.13	33.322
50m	12.65	34.471	12.52	34.438	12.34	34.411	7.20	33.431	9.83	33.910	12.29	34.468	11.94	34.358	9.34	33.904	9.50	34.023	4.14	33.091
75m	12.15	34.480	12.20	34.444	11.41	34.415	4.57	33.462	9.74	34.192	12.08	34.474	11.32	34.371	8.44	33.891	9.23	34.029	2.28	33.211
100m	11.63	34.451	12.02	34.459	9.87	34.229	2.34	33.285	9.04	34.131	11.83	34.469	9.70	34.206	8.17	33.919	9.19	34.031	1.73	33.218
125m	10.29	34.284	11.72	34.455	8.95	34.106	2.04	33.301	7.08	33.851	10.41	34.302	8.85	34.103	6.12	33.708	8.45	33.948	1.49	33.232
150m	8.72	34.093	10.91	34.372	7.55	33.946	1.85	33.312	4.58	33.502	8.89	34.110	7.83	33.978	5.64	33.688	5.96	33.680	1.42	33.254
200m	7.84	33.990	9.09	34.111	6.40	33.804	1.90	33.429	4.59	33.539	7.38	33.940	5.94	33.747	3.64	33.514	3.55	33.487	1.49	33.333
250m	7.17	33.907	7.54	33.929	1.54	33.266	2.39	33.563	3.55	33.585	6.78	33.859	4.25	33.574	2.50	33.416	2.28	33.400	2.28	33.499
300m	6.94	33.881	5.66	33.710	1.88	33.395	3.39	33.768	3.85	33.713	4.66	33.666	2.49	33.454	1.67	33.408	1.44	33.392	2.68	33.622
400m			3.66	33.639	3.87	33.780	4.07	33.994	3.50	33.843	3.39	33.673	3.02	33.685	1.61	33.514				
500m			1.87	33.557	4.29	33.982	3.97	34.113	2.44	33.814	3.54	33.868	3.64	33.897	1.98	33.630				
600m			2.34	33.695	3.49	34.005	3.17	34.092	3.81	34.114	3.66	34.018	2.99	33.928	2.35	33.764				
700m																				
800m																				
900m																				
1000m																				

Table 5-16

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	PKA03		PKA06		PKA09		PKA12		PKA15		PKA18		PKA21		PKA26		PKA29		PKA30	
Latitude:N	40-30.0		40-30.0		40-30.1		40-30.0		40-29.9		40-30.1		40-30.0		40-29.1		40-29.1		39-59.3	
Longitude:E	142-19.1		143-00.1		143-39.8		144-19.8		144-59.1		145-30.1		146-00.1		146-29.8		146-59.8		146-59.7	
Date	1994/06/03		1994/06/03		1994/06/03		1994/06/03		1994/06/04		1994/06/04		1994/06/04		1994/06/04		1994/06/04		1994/06/04	
Time(JST)	14:53		17:55		20:48		23:37		02:28		04:41		06:54		09:08		11:18		13:49	
Weather	C		BC		BC		BC		BC		BC		B		BC		C		C	
Air Temp.	15.1		14.1		12.8		12.6		13.1		12.6		14.1		16.7		16.8		13.1	
Bar	1008.0		1009.2		1011.0		1012.0		1012.0		1013.0		1014.0		1014.5		1014.5		1014.7	
Wind Dir	N		W		WNW		WSW		W		W		W		WSW		SW		SW	
Wind Spd/F	F 3		F 2		F 3		F 4		F 4		F 3		F 4		F 4		F 3		F 2	
Transparency	17		15								12		15		12		14		13	
Depth	859																			
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	14.0	33.610	13.1	33.353	14.1	33.954	12.1	33.262	14.0	33.809	9.9	32.454	13.3	34.144	14.3	34.391	13.9	34.112	8.6	32.527
10m	12.47	33.867	9.53	33.278	12.53	33.807	10.41	33.447	13.73	33.838	8.12	32.329	13.21	34.122	14.00	34.383	13.16	34.125	7.62	32.523
20m	11.93	33.997	9.02	33.367	12.65	33.913	8.63	33.407	12.48	33.955	6.07	32.565	13.15	34.270	13.94	34.384	12.91	34.346	4.92	32.412
30m	11.82	34.136	6.31	33.044	9.12	33.573	8.34	33.442	10.80	33.973	5.82	32.819	12.90	34.437	13.36	34.416	12.71	34.393	4.47	32.477
50m	11.64	34.367	4.02	33.119	8.81	33.984	5.23	33.462	7.72	33.824	4.78	33.008	12.18	34.450	12.55	34.453	12.36	34.472	2.54	32.878
75m	11.12	34.368	3.96	33.386	5.30	33.627	3.36	33.415	7.73	33.951	2.21	32.951	11.45	34.374	12.19	34.489	11.87	34.432	0.87	33.026
100m	9.98	34.236	4.18	33.502	4.27	33.530	3.22	33.444	6.53	33.814	0.83	33.111	10.39	34.292	11.22	34.393	10.09	34.259	0.87	33.114
125m	9.10	34.114	3.36	33.449	2.53	33.349	2.59	33.398	5.31	33.671	0.79	33.173	9.13	34.152	9.71	34.212	8.86	34.106	0.74	33.166
150m	7.58	33.913	3.03	33.475	2.84	33.393	2.78	33.463	5.15	33.716	1.10	33.230	8.70	34.101	8.79	34.104	8.19	34.023	3.24	33.469
200m	4.66	33.607	2.20	33.436	2.98	33.513	3.18	33.605	3.66	33.596	0.99	33.292	7.50	33.950	7.61	33.962	7.06	33.899	3.02	33.448
250m	2.50	33.421	2.08	33.525	2.57	33.599	2.82	33.671	3.90	33.747	1.10	33.352	6.76	33.860	7.00	33.892	5.70	33.729	1.61	33.442
300m	1.61	33.379	2.04	33.601	3.04	33.717	3.00	33.760	3.56	33.771	2.19	33.526	5.80	33.737	6.52	33.825	4.43	33.633	1.76	33.533
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 5-17

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406			
Station No	PKA27		PKA22		PKA19		PKA16		PKA13		PKA10		IK01		IK02		IK03		IK04			
Latitude:N	39-59.1		40-00.1		39-59.1		39-59.1		40-00.0		39-59.1		42-40.0		42-15.0		41-50.0		41-40.0			
Longitude:E	146-30.1		145-59.9		145-29.9		145-00.2		144-20.0		143-40.1		144-00.0		144-00.0		144-00.0		143-35.0			
Date	1994/06/04		1994/06/04		1994/06/04		1994/06/04		1994/06/05		1994/06/05		1994/06/14		1994/06/14		1994/06/14		1994/06/15			
Time(JST)	15:50		17:49		19:51		21:57		00:46		03:39		03:03		12:23		18:28		13:23			
Weather	C		C		R		R		C		R		F		R		R		BC			
Air Temp.	14.3		13.1		13.0		14.3		14.8		15.0		9.8		11.2		10.6		12.1			
Bar	1014.5		1014.7		1016.0		1016.0		1015.4		1015.5		1010.0		1006.0		1000.5		1010.0			
Wind Dir	E		NNE		ENE		E		SE		SSW		SE		NE		NE		NW			
Wind Spd/F	F 2		F 3		F 3		F 2		F 3		F 1		F 3		F 4		F 6		F 1			
Transparency	13		15												10				12			
Depth																						
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S		
0m	13.1	34.309	10.1	32.678	13.9	33.676	14.7	33.604	14.4	33.666	14.5	33.782	6.8	32.269	8.7	32.317	6.7	32.466	9.5	32.459		
10m	13.70	34.287	9.16	32.663	12.80	33.506	12.77	33.794	12.77	33.668	13.14	33.767	4.92	32.33	7.24	32.42	5.79	32.54	5.50	32.50		
20m	12.78	34.364	8.52	32.920	11.46	33.767	11.69	33.920	11.04	33.717	10.92	33.772	3.11	32.52	4.83	32.65	2.65	32.93	1.87	32.97		
30m	12.54	34.379	8.93	33.453	11.14	33.765	11.14	34.026	9.62	33.596	10.02	33.762	2.26	32.59	2.15	32.64	2.17	33.04	1.61	33.04		
50m	11.94	34.414	3.31	33.009	7.87	33.778	7.48	33.784	6.16	33.620	7.85	33.711	1.76	32.74	1.09	33.12	1.31	33.17	1.30	33.14		
75m	11.69	34.418	1.44	33.081	6.01	33.678	5.88	33.608	5.38	33.628	7.38	33.839	1.31	32.90	0.82	33.22	1.06	33.27	1.19	33.18		
100m	10.87	34.360	3.83	33.444	5.17	33.614	3.99	33.423	4.33	33.540	4.77	33.561			1.05	33.29	1.12	33.31	1.16	33.20		
125m	10.27	34.287	3.37	33.431	4.27	33.544	2.87	33.426	3.51	33.491	4.89	33.624			1.09	33.41	1.15	33.37	1.16	33.23		
150m	9.31	34.166	4.97	33.587	3.89	33.553	1.95	33.367	2.74	33.437	4.96	33.693			1.15	33.44	1.23	33.40	1.27	33.31		
200m	6.18	33.724	4.42	33.650	4.11	33.685	2.82	33.547	2.39	33.504	5.68	33.921			1.31	33.50	1.32	33.44	1.20	33.33		
250m	3.71	33.495	1.72	33.433	5.13	33.926	3.17	33.672	2.54	33.644	5.26	33.944			1.37	33.52	1.40	33.51	1.37	33.41		
300m	3.83	33.610	1.52	33.457	4.14	33.875	3.44	33.841	3.25	33.814	4.37	33.911			1.47	33.56	1.51	33.52				
400m																						
500m																						
600m																						
700m																						
800m																						
900m																						
1000m																						

Table 5-18

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406	199406	199406	199406	199406	199406	199406	199406	199406	199406	199406
Station No	IK05	IK06	IK07	IK08	IK09	IK10	IK11	IK12	IK13	IK14	
Latitude:N	41-30.0	41-45.0	42-00.0	41-30.0	41-00.0	41-00.0	41-00.0	41-00.0	41-00.0	41-00.0	
Longitude:E	143-10.0	142-50.0	142-30.0	142-30.0	142-30.0	143-00.0	143-30.0	144-00.0	144-30.0	145-00.0	
Date	1994/06/15	1994/06/16	1994/06/16	1994/06/17	1994/06/17	1994/06/18	1994/06/18	1994/06/18	1994/06/19	1994/06/19	
Time(JST)	18:29	06:52	18:28	06:53	18:28	06:38	09:02	18:28	15:00	18:25	
Weather	BC	BC	B	BC	F	C	C	C	C	C	
Air Temp.	14.1	14.9	16.1	14.3	13.4	11.8	10.2	11.6	11.5	12.4	
Bar	1004.0	1008.0	1007.0	1009.0	1008.0	1009.0	1011.0	1015.0	1018.0	1018.0	
Wind Dir	N	NW	WNW	ENE	E	ENE	ESE	NE	NE	ENE	
Wind Spd/F	F	F 4	F 3	F 3	F 2	F 5	F 4	F 3	F 4	F 4	
Transparency	9	16	12	7	6	9	8	10	12	10	
Depth											
Equipment	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
STND. Dep	T S	T S	T S	T S	T S	T S	T S	T S	T S	T S	T S
0m	8.6 32.025	12.4 33.507	14.4 33.232	14.4 33.649	14.6 33.820	12.7 33.906	9.0 32.279	12.7 33.505	11.8 32.977	15.2 33.932	
10m	7.61 32.03	12.21 33.45	13.49 33.29	13.61 33.52	13.30 33.73	12.49 33.82	7.62 32.21	12.55 33.58	11.60 32.90	15.43 33.86	
20m	6.77 32.59	11.94 33.49	9.10 33.36	12.30 33.65	13.54 34.03	11.94 33.84	7.05 32.18	11.48 33.78	10.56 33.00	15.43 33.86	
30m	7.05 33.22	9.97 33.88	8.94 33.78	10.87 33.71	13.45 34.05	11.77 33.83	3.76 32.63	10.71 33.88	4.01 32.84	12.45 33.83	
50m	4.69 32.92	8.69 33.86	8.39 33.88	9.80 33.92	12.08 34.34	10.89 33.87	2.77 32.89	10.07 33.98	7.37 33.67	10.30 33.95	
75m	7.01 33.61	8.23 33.91	7.32 33.78	8.41 33.83	11.75 34.34	10.20 33.96	1.14 32.86	9.06 33.80	5.54 33.55	8.11 33.85	
100m	6.46 33.40	7.35 33.87	6.00 33.66	8.06 33.90	10.08 34.08	9.60 33.92	2.76 33.09	7.32 33.77	2.86 33.38	6.55 33.66	
125m	1.63 32.97	6.99 33.87	4.97 33.60	7.56 33.88	10.36 34.22	9.18 33.93	5.65 33.57	5.53 33.59	1.57 33.21	5.17 33.54	
150m	0.88 32.94	5.95 33.77	3.07 33.43	5.55 33.62	8.74 33.98	8.38 33.88	5.50 33.58	4.32 33.48	1.81 33.22	3.74 33.42	
200m	3.97 33.45	2.88 33.20	2.46 33.44	3.02 33.41	5.94 33.70	5.60 33.61	3.86 33.56	2.87 33.44	2.31 33.43	3.97 33.57	
250m	3.97 33.58	3.58 33.65	2.18 33.48	2.37 33.41	3.45 33.48	3.10 33.38	2.42 33.55	1.98 33.41	2.83 33.58	3.82 33.67	
300m	2.33 33.59	2.54 33.58	2.34 33.56	2.29 33.49	2.52 33.42	1.86 33.34	2.63 33.64	2.87 33.62	2.55 33.65	3.72 33.70	
400m											
500m											
600m											
700m											
800m											
900m											
1000m											

Table 5-19

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406	199406	199406	199406	199406	199406	199406	199406	199406	199406	199406										
Station No	IK15	IK16	IK17	IK18	IK19	IK20	IK21	IK22	IW01	IW02											
Latitude:N	41-00.0	41-00.0	41-25.0	41-50.0	41-50.0	41-50.0	42-15.0	42-40.0	42-00.0	41-40.0											
Longitude:E	145-30.0	146-00.0	146-00.0	146-00.0	145-30.0	145-00.0	145-00.0	145-00.0	143-58.0	144-00.0											
Date	1994/06/20	1994/06/20	1994/06/21	1994/06/21	1994/06/22	1994/06/22	1994/06/22	1994/06/23	1994/06/28	1994/06/29											
Time(JST)	13:22	18:28	13:20	18:26	13:47	16:03	18:33	05:57	17:51	06:22											
Weather	BC	C	C	R	C	BC	BC	BC	B	C											
Air Temp.	14.0	13.5	13.9	9.4	14.1	12.6	13.7	13.7	12.8	13.2											
Bar	1014.5	1014.0	1012.0	1002.0	1006.0	1007.0	1007.0	1010.0	1014.0	1015.2											
Wind Dir	E	ESE	E	ENE	N	W	W	N	S	S											
Wind Spd/F	F 5	F 6	F 6	F 6	F 4	F 3	F 3	F 3	F 3	F 2											
Transparency	5	5	6	8	12	11	10	12													
Depth																					
Equipment	STD		STD		STD		STD		STD		STD		STD		CTD		CTD		CTD		
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	13.9	34.308	13.2	34.386	13.7	34.226	14.4	33.848	13.4	33.502	11.0	32.864	13.3	33.479	14.1	33.934	14.9	33.82*	14.1	33.47*	
10m	13.83	34.24	13.80	34.31	13.75	34.23	14.80	33.80	13.32	33.52	10.74	32.89	13.19	33.39	14.20	33.83	14.20	33.815	14.12	33.458	
20m	13.78	34.23	13.81	34.31	13.75	34.23	14.74	33.79	13.87	33.67	11.08	32.94	12.86	33.40	13.97	33.79	14.01	33.789	14.10	33.457	
30m	13.78	34.23	13.80	34.30	13.49	34.20	12.47	33.96	8.05	33.59	10.59	32.88	8.83	33.33	13.63	33.75	8.78	33.144	9.34	32.933	
50m	12.70	34.34	13.07	34.34	12.48	34.39	8.88	33.86	6.18	33.53	3.30	33.00	4.83	33.47	4.70	32.73	1.77	33.014	5.70	33.446	
75m	11.98	34.38	12.00	34.32	12.11	34.40	7.33	33.77	3.30	33.25	2.53	33.23	2.78	33.29	1.97	33.07	1.02	33.149	5.13	33.584	
100m	10.80	34.29	10.68	34.26	11.17	34.33	5.88	33.59	1.48	33.17	2.28	33.27	2.64	33.34	1.57	33.16	0.92	33.212	2.88	33.345	
125m	9.78	34.16	9.89	34.18	10.31	34.22	4.51	33.47	1.57	33.25	2.08	33.23	1.91	33.33	1.57	33.19	0.93	33.274	2.90	33.417	
150m	8.86	34.05	8.81	34.03	9.64	34.16	2.75	33.30	4.10	33.59	1.73	33.30	1.45	33.32	1.45	33.21	0.98	33.298	1.77	33.339	
200m	7.34	33.89	7.44	33.88	7.84	33.89	1.63	33.36	3.01	33.52	3.12	33.57	2.35	33.52	1.80	33.40	1.17	33.392	3.20	33.599	
250m	6.69	33.80	6.99	33.85	6.18	33.70	1.98	33.48	3.72	33.71	1.77	33.52	2.44	33.61	2.32	33.56	1.38	33.474	2.78	33.647	
300m	4.78	33.40	6.86	33.82	3.09	33.41	2.21	33.57	3.48	33.74	2.61	33.68	3.31	33.78	2.54	33.65	1.70	33.548	2.31	33.664	
400m																					
500m																					
600m																					
700m																					
800m																					
900m																					
1000m																					

Table 5-20

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	IW03		IW04		IW05		IW06		IW07		IW08		IW09		IW10		IW11		IW12	
Latitude:N	41-20.0		41-00.0		41-00.0		41-00.0		41-01.0		40-40.0		40-20.0		39-59.0		39-40.0		39-20.0	
Longitude:E	144-00.0		144-00.0		143-30.0		143-00.0		142-29.0		142-30.0		142-30.0		142-30.0		142-45.0		143-00.0	
Date	1994/06/29		1994/06/29		1994/06/30		1994/06/30		1994/06/30		1994/07/01		1994/07/01		1994/07/01		1994/07/02		1994/07/02	
Time(JST)	08:47		16:35		09:59		12:44		17:13		07:25		09:57		17:10		07:34		10:28	
Weather	BC		C		C		BC		C		F		F		F		F		F	
Air Temp.	14.0		13.1		15.5		15.5		15.7		16.1		16.3		14.8		15.4		16.4	
Bar	1015.8		1014.9		1012.6		1011.2		1009.5		1010.2		1010.0		1007.9		1003.8		1003.5	
Wind Dir	S		SSE		SSE		SE		SSE		S		S		SE		SSW		SW	
Wind Spd/F	F 3		F 4		F 3		F 4		F 4		F 4		F 5		F 4		F 5		F 5	
Transparency																				
Depth																				
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	13.8	33.44*	12.6	33.23*	12.0	32.71*	14.5	33.78*	14.1	33.91*	14.3	33.84*	12.9	33.14*	12.0	32.77*	12.6	32.87*	14.3	33.34*
10m	13.56	33.427	11.66	33.021	11.78	32.712	14.33	33.777	13.85	33.908	14.09	33.861	12.40	33.162	11.74	32.802	11.55	32.837	14.28	33.377
20m	13.11	33.476	10.57	33.066	9.73	32.686	13.85	33.857	12.69	33.923	14.01	33.908	6.70	32.511	11.73	33.003	8.22	32.780	11.57	33.231
30m	7.25	32.914	10.20	33.633	7.03	32.786	13.35	33.924	12.16	33.937	13.15	33.807	5.69	32.674	8.35	33.732	6.96	32.873	9.50	33.342
50m	3.96	33.076	6.67	33.645	2.43	33.044	11.18	33.855	10.72	34.133	11.57	33.978	9.84	33.923	9.33	34.036	4.16	33.243	7.09	33.667
75m	1.76	33.230	5.20	33.572	3.88	33.401	9.90	33.961	10.40	34.138	10.64	34.099	9.13	34.073	8.83	33.991	3.81	33.364	6.72	33.731
100m	1.47	33.247	4.30	33.524	2.62	33.295	10.01	34.101	10.24	34.137	10.35	34.111	8.93	34.064	7.03	33.761	3.89	33.462	4.04	33.461
125m	1.39	33.276	3.33	33.446	1.45	33.253	9.78	34.125	9.68	34.038	9.97	34.081	8.22	34.018	5.35	33.588	2.58	33.377	4.25	33.532
150m	1.65	33.390	2.81	33.435	2.54	33.409	8.35	33.950	9.38	34.009	9.70	34.094	6.66	33.788	4.86	33.573	2.45	33.404	3.45	33.505
200m	2.19	33.564	2.81	33.572	2.72	33.513	6.88	33.833	8.30	33.938	8.27	33.963	5.37	33.695	2.10	33.444	2.35	33.481	2.49	33.452
250m	2.37	33.666	2.79	33.620	1.97	33.488	4.91	33.666	3.75	33.477	5.05	33.617	2.87	33.485	1.65	33.452	2.14	33.548	2.61	33.563
300m	2.53	33.749	3.04	33.734	2.57	33.655	2.17	33.466	2.39	33.416	3.04	33.442	2.66	33.521	2.58	33.633	2.50	33.653	2.23	33.622
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 5-21

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406		
Station No	IW13		IW14		IW15		IW16		IW17		IW18		IW19		IW20		IW21		IW27		
Latitude:N	39-00.0		39-20.0		39-40.0		40-01.0		40-00.0		40-00.0		40-00.0		40-00.0		40-00.0		40-20.0		
Longitude:E	143-16.0		143-30.0		143-45.0		144-00.0		144-30.0		145-00.0		145-31.0		146-00.0		146-30.0		146-10.0		
Date	1994/07/02		1994/07/03		1994/07/03		1994/07/03		1994/07/04		1994/07/04		1994/07/04		1994/07/05		1994/07/05		1994/07/05		
Time(JST)	17:11		06:59		09:36		17:07		08:12		11:09		17:07		07:20		10:04		12:48		
Weather	BC		B		B		B		BC		BC		BC		R		R		R		
Air Temp.	20.7		18.8		21.2		19.2		16.6		18.4		16.9		15.7		15.2		15.6		
Bar	1003.4		1005.8		1005.2		1003.4		1005.3		1004.5		1003.4		1004.0		1003.5		1002.5		
Wind Dir	SW		WSW		SSW		W		WSW		WSW		W		SSW		SSW		SW		
Wind Spd/F	F 4		F 3		F 3		F 3		F 4		F 4		F 4		F 2		F 3		F 3		
Transparency																					
Depth																					
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	18.2	33.73*	15.0	33.35*	16.2	33.28*	15.8	33.52*	12.7	32.91*	14.6	32.54*	14.0	32.81*	13.8	32.79*	13.8	32.79*	15.1	33.96*	
10m	17.47	33.685	15.18	33.374	15.57	33.673	15.51	33.626	11.92	32.904	13.84	32.743	12.85	32.760	13.50	32.818	11.57	32.699	14.95	34.059	
20m	14.63	33.739	12.39	33.319	12.91	33.535	13.16	33.634	7.70	32.782	8.94	32.738	5.44	32.893	8.53	32.828	8.18	32.815	14.34	34.028	
30m	11.98	33.871	11.53	33.310	10.37	33.602	10.75	33.648	5.11	32.876	4.22	32.975	4.03	33.040	4.27	32.951	4.81	33.040	13.43	34.038	
50m	11.73	34.293	6.85	33.612	8.62	33.818	7.59	33.817	4.38	33.419	2.20	33.150	2.18	33.049	2.77	33.110	2.89	33.131	8.23	33.620	
75m	10.75	34.294	5.38	33.576	6.84	33.769	6.39	33.730	3.26	33.369	1.71	33.233	1.62	33.129	1.88	33.214	1.81	33.205	8.23	33.952	
100m	9.88	34.242	4.87	33.590	6.25	33.664	6.04	33.717	1.94	33.251	1.48	33.256	1.46	33.221	1.66	33.241	1.44	33.234	6.39	33.747	
125m	6.86	33.818	4.14	33.523	4.98	33.619	4.99	33.620	1.21	33.277	1.46	33.316	1.55	33.309	1.46	33.300	1.59	33.316	5.32	33.654	
150m	5.30	33.634	3.04	33.440	3.93	33.528	4.46	33.602	1.20	33.336	1.71	33.418	1.94	33.466	1.82	33.418	1.82	33.421	3.78	33.515	
200m	3.82	33.540	2.90	33.520	3.38	33.550	4.00	33.641	1.22	33.410	1.87	33.523	2.45	33.627	2.31	33.612	2.23	33.601	1.64	33.359	
250m	4.71	33.790	3.35	33.667	3.32	33.637	2.48	33.556	1.46	33.481	2.27	33.648	2.70	33.742	2.86	33.778	2.42	33.680	2.15	33.502	
300m	5.11	33.958	3.02	33.703	3.29	33.762	2.46	33.606	1.68	33.577	2.48	33.752	2.68	33.823	2.34	33.803	2.95	33.817	2.29	33.595	
400m																					
500m																					
600m																					
700m																					
800m																					
900m																					
1000m																					

Table 5-22



Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406	199406	199406	199406	199406	199406	199407	199407	199407	199407
Station No	IW28	IW22	IW23	IW24	IW25	IW26	SM14	SM13	SM12	SM11
Latitude:N	40-40.0	41-01.0	41-20.0	41-40.0	42-01.0	42-20.0	44-00.0	44-30.0	45-00.0	45-30.0
Longitude:E	145-50.0	145-29.0	145-30.0	145-30.0	145-30.0	145-00.0	156-30.0	157-30.0	158-00.0	158-30.0
Date	1994/07/05	1994/07/05	1994/07/06	1994/07/06	1994/07/06	1994/07/07	1994/07/15	1994/07/15	1994/07/16	1994/07/16
Time(JST)	15:29	18:30	06:20	08:47	17:10	08:26	06:05	17:17	09:36	17:11
Weather	C	BC	C	C	C	C	BC	F	R	BC
Air Temp.	16.7	15.3	13.1	13.1	12.9	13.9	13.5	12.2	9.5	9.0
Bar	1002.5	1004.0	1009.4	1010.4	1012.3	1014.5	1008.0	1007.0	1011.0	1013.0
Wind Dir	WNW	NE	NNE	NNE	NE	W	SW	SW	WNW	W
Wind Spd/F	F 2	F 4	F 4	F 3	F 4	F 2	F 5	F 4	F 3	F 3
Transparency							10		20	20
Depth										
Equipment	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD
STND. Dep	T S	T S	T S	T S	T S	T S	T S	T S	T S	T S
0m	16.4 33.89*	16.2 34.32*	15.6 34.37*	15.8 34.36*	13.6 32.75*	13.9 32.71*	11.6 33.119	9.4 32.913	8.9 32.862	8.4 32.842
10m	15.93 34.328	16.13 34.318	15.62 34.364	15.97 34.288	13.63 32.875	12.41 32.592	11.14 33.018	9.15 32.912	8.43 32.904	7.87 32.886
20m	14.72 34.323	15.87 34.316	15.62 34.364	15.88 34.266	13.78 33.384	9.34 32.713	9.58 32.940	8.80 32.869	8.27 32.868	7.84 32.895
30m	13.85 34.358	13.95 34.335	13.90 34.361	14.00 34.170	10.73 33.135	6.05 33.002	5.92 33.054	6.42 32.977	6.41 32.967	6.42 32.919
50m	12.34 34.390	12.99 34.395	13.06 34.402	12.51 34.293	3.48 33.086	3.64 33.119	2.79 33.214	4.40 33.048	2.23 33.093	5.55 32.973
75m	11.66 34.433	11.74 34.429	12.21 34.387	10.72 34.273	2.12 33.131	1.81 33.222	2.05 33.248	2.02 33.143	1.43 33.182	1.86 33.166
100m	10.38 34.277	11.12 34.378	11.62 34.421	9.75 34.189	1.59 33.192	1.52 33.240	1.93 33.295	1.56 33.192	1.69 33.316	1.68 33.185
125m	9.56 34.190	10.08 34.255	10.73 34.345	9.11 34.141	1.69 33.255	1.39 33.270	1.66 33.320	2.01 33.380	2.20 33.490	1.70 33.258
150m	8.68 34.087	9.41 34.177	9.88 34.224	8.18 34.023	1.91 33.321	1.63 33.387	1.91 33.473	3.07 33.725	2.73 33.653	2.31 33.520
200m	7.21 33.912	7.55 33.948	8.09 34.020	6.51 33.814	2.06 33.473	2.34 33.619	2.64 33.659	3.57 33.931	2.96 33.787	3.23 33.824
250m	6.44 33.814	7.00 33.888	7.08 33.898	4.26 33.562	2.23 33.599	2.57 33.728	3.21 33.818	3.56 34.010	3.17 33.915	3.34 33.929
300m	4.71 33.655	6.60 33.832	6.60 33.833	3.21 33.536	2.32 33.660	2.77 33.822	3.02 33.862	3.51 34.087	3.38 34.023	3.35 34.003
400m							3.02 34.009	3.39 34.178	3.30 34.139	3.35 34.151
500m							3.19 34.159	3.20 34.256	3.06 34.205	3.23 34.229
600m							3.18 34.242	2.95 34.291	3.03 34.278	3.04 34.288
700m										
800m										
900m										
1000m										

Table 5-23

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199407		199407		199407		199407		199407		199407		199407		199407		199407		199407	
Station No	SM10		SM09		SM08		SM07		SM06		SM05		SM04		SM03		SM15		SM16	
Latitude:N	46-00.0		46-30.0		46-30.0		46-30.0		46-00.0		45-30.0		45-00.0		44-30.0		43-30.0		43-00.0	
Longitude:E	159-00.0		159-30.0		161-40.0		161-00.0		161-40.0		162-30.0		162-30.0		162-30.0		155-30.0		154-30.0	
Date	1994/07/17		1994/07/17		1994/07/18		1994/07/18		1994/07/19		1994/07/19		1994/07/20		1994/07/20		1994/07/22		1994/07/23	
Time(JST)	09:52		17:11		10:29		17:16		08:55		17:11		09:01		17:09		17:12		10:34	
Weather	BC		C		R		C		C		C		C		C		C		C	
Air Temp.	11.1		9.4		9.5		9.5		10.1		9.7		9.6		10.0		13.5		17.2	
Bar	1015.0		1013.6		1007.0		1003.5		1010.0		1011.0		1013.5		1014.5		1015.0		1014.0	
Wind Dir	ENE		E		NE		SW		ENE		ENE		NE		ENE		S		SE	
Wind Spd/F	F 3		F 3		F 5		F 4		F 1		F 4		F 3		F 4		F 2		F 2	
Transparency	15				16				13				15						16	
Depth																				
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	8.9	32.849	7.7	32.915	8.1	32.846	8.6	32.838	9.6	33.021	9.7	32.924	10.3	32.803	11.4	33.032	14.9	33.191	17.2	33.612
10m	7.52	32.896	7.27	32.920	7.80	32.869	8.22	32.851	8.96	33.009	9.27	32.912	10.14	32.793	11.41	33.021	12.48	33.295	15.55	33.836
20m	7.44	32.913	7.00	32.924	7.52	32.888	7.31	32.927	8.91	33.007	9.14	32.922	9.79	32.980	10.92	33.216	11.60	33.583	12.77	33.869
30m	6.32	32.964	6.36	32.965	6.03	32.955	6.44	32.978	8.46	33.018	8.75	32.945	7.95	33.064	8.24	33.372	11.12	33.484	10.04	33.841
50m	5.04	32.997	3.34	33.028	2.52	33.097	3.43	33.113	4.80	33.230	3.73	33.179	6.99	33.396	6.13	33.485	6.59	33.643	8.16	33.881
75m	2.12	33.131	2.03	33.148	1.96	33.150	2.02	33.174	3.94	33.244	3.01	33.270	5.39	33.479	5.79	33.518	5.44	33.635	7.29	33.882
100m	1.74	33.172	1.79	33.195	1.76	33.209	1.69	33.215	3.35	33.276	2.66	33.268	4.83	33.542	5.36	33.572	4.74	33.594	6.81	33.857
125m	1.87	33.286	2.13	33.448	2.05	33.437	1.78	33.372	3.66	33.364	2.51	33.300	5.17	33.699	5.04	33.580	4.28	33.584	6.10	33.727
150m	2.79	33.655	2.82	33.678	2.75	33.671	2.52	33.617	3.66	33.364	2.65	33.427	4.92	33.735	4.85	33.616	3.81	33.589	5.52	33.727
200m	3.34	33.877	3.34	33.872	3.27	33.872	2.97	33.779	3.68	33.708	2.70	33.562	4.03	33.753	4.65	33.715	4.03	33.742	5.20	33.822
250m	3.44	33.975	3.37	33.957	3.36	33.958	3.15	33.883	3.53	33.765	2.86	33.711	3.76	33.810	4.31	33.803	3.64	33.784	4.65	33.832
300m	3.40	34.036	3.37	34.020	3.41	34.034	3.34	33.988	3.44	33.837	3.03	33.818	3.85	33.914	4.22	33.879	3.63	33.866	3.79	33.812
400m	3.30	34.138	3.29	34.139	3.37	34.155	3.21	34.089	3.47	33.995	3.55	34.023	3.95	34.071	3.79	33.982	3.85	34.032	4.03	33.992
500m	3.17	34.227	3.14	34.223	3.25	34.238	3.20	34.188	3.45	34.117	3.65	34.150	3.58	34.127	3.74	34.093	3.72	34.139	3.83	34.097
600m	3.05	34.287	3.03	34.283	3.08	34.281	3.10	34.272	3.35	34.195	3.25	34.195	3.44	34.221	3.59	34.187	3.49	34.217	3.57	34.185
700m																				
800m																				
900m																				
1000m																				

Table 5-24

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199407		199407		199407		199407		199407		199408		199408		199408		199408		199408	
Station No	SM17		SM18		SM19		SM20		SM21		P31		PK11		P22		P21		PK02	
Latitude:N	42-30.0		42-00.0		41-30.0		41-00.0		40-30.0		42-45.0		42-44.8		42-44.9		42-55.0		42-43.9	
Longitude:E	153-30.0		152-30.0		151-30.0		150-30.0		149-30.0		143-59.9		144-30.1		145-00.1		144-59.7		145-28.8	
Date	1994/07/23		1994/07/24		1994/07/24		1994/07/25		1994/07/25		1994/08/01		1994/08/01		1994/08/01		1994/08/01		1994/08/01	
Time(JST)	17:10		10:18		17:15		10:41		17:11		10:44		12:53		14:57		15:58		18:20	
Weather	C		BC		BC		C		C		F		B		BC		BC		F	
Air Temp.	17.4		20.1		19.8		19.6		19.9		19.7		22.8		23.2		21.6		20.6	
Bar	1012.0		1008.0		1005.0		1009.0		1010.0		1007.0		1006.0		1005.5		1005.5		1006.0	
Wind Dir	E		NE		NE		NNE		S		S		CALM		SSW		CALM		SSW	
Wind Spd/F	F 1		F 3		F 5		F 3		F 2		F 1		F 0		F 3		F 0		F 1	
Transparency			20				21				11		8		10		6			
Depth											64		131		169		65		1738	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	17.8	33.250	18.2	33.620	20.0	33.550	19.6	33.274	20.3	33.243	13.1	33.161	13.8	33.145	13.4	33.002	13.0	33.189	20.1	33.090
10m	13.23	33.393	16.00	33.590	17.04	33.548	16.53	33.217	19.32	33.270	10.81	33.155	9.15	33.298	9.02	33.026	10.41	33.217	14.68	33.122
20m	11.80	33.415	15.17	33.760	14.62	33.542	13.25	33.245	11.91	34.037	8.59	33.037	7.43	33.304	6.18	33.076	8.87	33.181	8.89	32.914
30m	9.65	33.350	12.29	33.625	8.95	33.184	9.47	33.278	8.34	33.367	8.27	33.110	7.11	33.327	4.80	33.045	8.57	33.262	6.25	32.978
50m	7.16	33.611	9.55	34.038	5.96	33.545	4.67	33.366	3.80	33.261	7.75	33.167	6.55	33.359	3.55	33.052	8.17	33.313	3.17	33.085
75m	6.48	33.768	7.22	33.864	7.38	33.864	3.82	33.424	6.30	33.798			5.17	33.271	2.51	33.111			1.99	33.147
100m	5.37	33.665	5.48	33.640	6.10	33.734	3.64	33.458	5.42	33.625			3.47	33.205	3.61	33.327			1.59	33.235
125m	4.03	33.501	4.62	33.582	5.57	33.733	3.09	33.441	3.55	33.512					3.75	33.370			1.53	33.290
150m	3.39	33.472	3.75	33.538	4.42	33.629	2.95	33.466	2.84	33.459					2.88	33.305			1.37	33.314
200m	3.14	33.566	2.92	33.534	2.01	33.440	3.33	33.598	3.26	33.612									2.33	33.486
250m	3.34	33.703	3.33	33.719	2.83	33.634	2.95	33.673	2.67	33.620									2.32	33.588
300m	3.22	33.773	3.68	33.816	4.25	33.884	3.21	33.788	3.79	33.873									2.59	33.680
400m	3.45	33.943	3.95	34.017	4.34	34.050	3.42	33.951	3.23	33.953									2.80	33.843
500m	3.52	34.076	3.46	34.074	3.83	34.098	3.00	34.037	4.06	34.214									3.23	34.011
600m	3.57	34.204	3.42	34.176	3.90	34.268	3.36	34.194	3.27	34.201									3.19	34.111
700m																				
800m																				
900m																				
1000m																				

Table 5-25

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408	
Station No	PK01		P11		P12		P13		P14		PK03		P23		PK12		P32		P33	
Latitude:N	42-54.8		43-04.1		42-55.0		42-45.1		42-29.7		42-29.1		42-29.1		42-30.0		42-29.9		42-14.1	
Longitude:E	145-29.9		145-44.7		145-50.1		145-54.9		145-59.1		145-30.2		145-00.3		144-30.1		143-59.8		143-59.8	
Date	1994/08/01		1994/08/01		1994/08/01		1994/08/01		1994/08/02		1994/08/02		1994/08/02		1994/08/02		1994/08/02		1994/08/02	
Time(JST)	19:40		21:08		22:27		23:53		02:04		04:57		07:10		09:19		11:29		13:04	
Weather	F		F		F		F		F		F		C		BC		BC		BC	
Air Temp.	16.3		18.2		20.7		21.3		21.0		20.7		19.2		23.3		23.5		22.2	
Bar	1007.0		1007.0		1007.0		1006.0		1005.5		1006.0		1007.0		1007.0		1006.5		1006.0	
Wind Dir	SSE		SE		E		SSE		SSE		E		ENE		NE		ESE		SSE	
Wind Spd/F	F 2		F 3		F 2		F 2		F 2		F 2		F 2		F 2		F 3		F 1	
Transparency											24		10		14		16		18	
Depth	159		102		1451		2427								1366		483		934	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	14.4	33.067	15.9	33.390	20.8	33.126	20.5	33.196	21.9	33.533	19.7	33.024	14.6	32.948	19.1	33.100	20.1	33.127	18.9	33.165
10m	9.21	33.291	12.31	33.520	17.22	33.104	18.41	33.166	19.74	33.736	15.47	33.069	9.88	32.958	11.09	32.916	16.83	33.096	17.13	33.122
20m	6.86	33.386	10.52	33.555	9.37	32.951	11.44	32.899	15.31	33.753	13.93	33.384	6.47	32.908	7.43	33.135	13.85	33.059	13.02	33.361
30m	5.48	33.308	9.77	33.537	6.78	33.143	8.84	33.020	13.34	33.871	9.78	33.175	4.32	33.030	5.92	33.202	8.44	32.906	9.90	33.515
50m	5.17	33.374	8.29	33.456	5.23	33.365	3.96	33.072	9.95	33.934	4.60	33.241	2.88	33.078	5.24	33.291	4.64	33.278	4.30	33.239
75m	4.50	33.360	7.18	33.458	3.58	33.329	2.23	33.136	8.07	33.893	2.44	33.210	1.96	33.172	5.27	33.423	4.17	33.315	2.26	33.133
100m	4.26	33.360			2.34	33.314	1.78	33.220	6.19	33.708	1.73	33.238	1.64	33.199	1.51	33.125	3.28	33.275	2.97	33.325
125m	3.70	33.356			2.26	33.341	1.49	33.240	5.68	33.689	1.64	33.261	1.36	33.212	3.27	33.369	3.04	33.279	1.46	33.191
150m					2.20	33.380	1.44	33.282	3.92	33.517	1.46	33.300	1.38	33.247	1.11	33.210	2.45	33.271	1.57	33.240
200m					2.18	33.483	2.08	33.486	3.67	33.583	2.15	33.547	1.39	33.341	1.96	33.367	1.73	33.359	1.03	33.258
250m					2.72	33.621	2.53	33.639	2.90	33.559	2.27	33.628	1.44	33.403	1.29	33.390	1.66	33.435	2.02	33.423
300m					3.07	33.739	2.70	33.721	4.19	33.796	2.45	33.704	1.67	33.480	1.81	33.502	1.93	33.525	2.44	33.512
400m					3.11	33.880	2.83	33.860	4.00	33.918	2.80	33.865	2.53	33.754	2.79	33.725	2.46	33.742	2.11	33.619
500m					3.08	34.001	3.04	33.992	3.81	34.018	3.24	34.032	2.69	33.900	2.85	33.867			2.86	33.879
600m					3.00	34.090	3.01	34.108	3.17	34.040	3.40	34.153	3.31	34.107	3.32	34.066			3.08	34.037
700m					2.96	34.183	2.97	34.211	3.16	34.161										
800m					2.91	34.251	2.81	34.295	2.99	34.221										
900m					2.85	34.316	2.77	34.356	3.13	34.311										
1000m					2.73	34.366	2.77	34.408	2.97	34.360										

Table 5-26

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408	
Station No	PK13		P24		PK04		P15		P16		PK05		P25		PK14		P34		PK23	
Latitude:N	42-15.0		42-15.0		42-15.1		42-15.2		42-00.1		42-00.0		42-00.1		42-00.0		42-00.0		41-29.9	
Longitude:E	144-30.2		144-59.6		145-29.6		145-59.7		145-59.9		145-29.7		145-00.1		144-30.1		144-00.1		143-29.1	
Date	1994/08/02		1994/08/02		1994/08/02		1994/08/02		1994/08/02		1994/08/03		1994/08/03		1994/08/03		1994/08/03		1994/08/03	
Time(JST)	15:13		17:21		19:28		21:38		23:48		02:21		04:34		06:51		09:16		13:21	
Weather	C		C		C		C		C		R		C		C		C		F	
Air Temp.	23.2		22.7		23.0		22.8		22.1		22.5		22.7		21.8		20.5		19.7	
Bar	1005.5		1005.5		1006.5		1007.0		1006.5		1005.5		1004.0		1003.0		1002.5		1003.0	
Wind Dir	SSE		S		S		SSE		S		ESE		E		E		E		NNW	
Wind Spd/F	F 2		F 3		F 4		F 3		F 2		F 3		F 5		F 5		F 5		F 5	
Transparency	20		21										21		19		13			
Depth	1610		603														1116		1439	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	21.4	33.165	21.1	33.270	22.4	33.710	22.2	33.670	21.4	33.320	21.2	33.386	22.1	33.529	18.8	33.163	20.4	33.605	17.1	32.996
10m	18.19	33.052	18.13	33.255	18.30	33.776	19.36	33.888	18.65	33.381	18.86	33.188	17.75	33.426	14.30	32.913	16.75	33.806	16.69	32.988
20m	11.21	33.135	11.44	33.162	14.40	33.575	12.39	33.441	12.57	33.067	15.12	33.445	13.22	33.618	9.87	33.051	13.93	34.372	8.94	32.978
30m	8.64	33.293	7.18	33.009	10.13	33.213	12.63	34.183	10.69	33.246	9.03	32.894	10.96	33.931	6.29	32.860	12.10	34.294	5.36	33.113
50m	4.99	33.239	3.47	33.001	10.61	34.270	10.60	34.132	5.53	33.318	6.90	33.550	10.37	34.168	5.99	33.616	10.94	34.283	2.52	33.220
75m	3.79	33.387	1.63	33.130	8.66	34.035	9.74	34.197	7.53	33.913	5.60	33.536	8.48	33.961	4.24	33.421	8.99	34.107	2.68	33.278
100m	3.64	33.451	1.54	33.223	7.23	33.875	8.31	33.970	5.37	33.635	3.33	33.391	6.88	33.798	3.39	33.387	1.93	33.202	1.63	33.302
125m	2.51	33.339	1.36	33.254	5.26	33.653	5.55	33.570	4.08	33.496	2.10	33.289	5.89	33.725	2.78	33.369	1.71	33.237	1.29	33.322
150m	2.32	33.379	1.06	33.279	3.60	33.497	1.96	33.181	3.76	33.495	2.25	33.366	4.79	33.631	1.65	33.232	1.15	33.232	1.48	33.358
200m	1.85	33.423	1.61	33.431	2.71	33.476	1.53	33.304	2.63	33.420	2.54	33.482	3.51	33.656	1.12	33.324	0.93	33.286	1.67	33.439
250m	2.58	33.600	2.19	33.554	3.57	33.690	1.49	33.370	2.62	33.511	2.51	33.581	3.43	33.653	1.44	33.422	1.26	33.367	1.69	33.473
300m	2.72	33.696	1.99	33.587	4.31	33.849	2.19	33.520	2.28	33.489	2.39	33.638	4.35	33.855	1.89	33.531	1.40	33.429	2.02	33.553
400m	3.01	33.855	1.90	33.690	4.43	34.044	2.34	33.659	2.48	33.710	3.34	33.882	4.22	34.004	2.45	33.732	1.84	33.565	2.19	33.664
500m	2.92	33.969	3.04	33.952	3.92	34.080	3.00	33.872	2.82	33.878	3.15	33.991	3.87	34.098	3.07	33.951	2.59	33.778	2.97	33.868
600m	3.15	34.097	3.44	34.100	3.40	34.139	3.27	34.028	2.96	34.005	3.51	34.138	3.17	34.109	3.22	34.115	3.15	33.997	2.92	33.999
700m							3.22	34.133	3.07	34.132	3.32	34.218	3.06	34.194	3.00	34.188	3.05	34.090		
800m							2.94	34.194	3.19	34.245	3.22	34.287	3.02	34.277	2.95	34.254	3.02	34.207		
900m							2.91	34.272	3.14	34.310	2.93	34.326	2.92	34.333	2.89	34.316	2.88	34.280		
1000m							2.95	34.352	2.94	34.335	2.80	34.369	2.79	34.379	2.72	34.365	2.80	34.325		

Table 5-27

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408	199408	199408	199408	199408	199408	199408	199408	199408	199408										
Station No	P35	PK15	P26	PK06	P17	P18	PK07	P27	PK16	P36										
Latitude:N	41-30.0	41-29.9	41-29.9	41-30.0	41-30.1	41-00.4	41-00.0	41-00.0	40-59.1	41-00.1										
Longitude:E	144-00.0	144-29.6	144-59.7	145-29.9	146-00.2	146-00.2	145-30.7	145-00.1	144-29.9	143-59.8										
Date	1994/08/03	1994/08/03	1994/08/03	1994/08/03	1994/08/04	1994/08/04	1994/08/04	1994/08/04	1994/08/04	1994/08/04										
Time(JST)	15:47	18:08	20:32	23:27	01:51	05:24	07:59	10:35	12:58	15:08										
Weather	F	F	C	C	C	C	C	BC	BC	BC										
Air Temp.	20.8	19.7	21.0	21.7	21.7	21.8	23.1	23.7	23.5	22.2										
Bar	1003.0	1003.0	1003.5	1003.5	1003.0	1005.0	1005.5	1005.5	1005.5	1005.0										
Wind Dir	NW	NW	WNW	WNW	W	WSW	WSW	WSW	SW	WSW										
Wind Spd/F	F 5	F 5	F 5	F 4	F 5	F 4	F 4	F 4	F 4	F 3										
Transparency	16					20	27	25	19	17										
Depth	1610																			
Equipment	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD										
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S		
0m	20.7	33.814	21.8	33.050	21.4	33.212	21.8	33.158	21.2	33.449	21.1	32.846	21.3	32.918	21.4	32.874	21.6	32.866	19.9	33.036
10m	20.57	33.775	20.29	33.046	20.26	33.208	12.46	32.710	21.20	33.396	20.90	32.850	20.92	32.897	20.47	32.841	17.13	32.835	17.61	32.847
20m	14.30	34.195	11.97	33.113	9.27	32.935	7.54	32.976	10.71	32.921	10.32	32.733	11.58	32.772	11.86	32.779	10.24	33.120	6.28	32.894
30m	12.36	34.210	8.91	33.363	5.38	33.046	4.27	33.018	7.15	33.085	5.50	32.998	6.41	32.908	5.73	32.907	5.70	33.032	4.80	33.131
50m	10.30	34.131	4.80	33.371	2.95	33.193	2.63	33.124	4.59	33.227	3.17	33.164	2.48	33.030	2.53	33.126	3.23	33.374	4.76	33.244
75m	9.38	34.157	2.51	33.265	1.92	33.252	1.85	33.206	4.19	33.414	1.92	33.210	1.69	33.143	1.75	33.194	2.74	33.313	3.12	33.359
100m	8.69	34.090	2.81	33.348	1.96	33.288	1.62	33.239	3.05	33.369	1.67	33.248	1.55	33.216	1.70	33.242	2.61	33.337	2.56	33.352
125m	7.35	33.915	1.78	33.296	1.59	33.315	1.49	33.278	2.71	33.383	1.45	33.293	1.43	33.282	1.57	33.309	1.80	33.314	1.50	33.281
150m	6.49	33.869	1.75	33.373	1.80	33.415	1.73	33.401	2.20	33.357	1.58	33.366	1.66	33.391	1.86	33.457	1.80	33.411	1.32	33.310
200m	2.65	33.472	2.14	33.545	2.24	33.574	2.21	33.572	2.42	33.504	1.83	33.521	2.38	33.627	2.35	33.622	2.21	33.566	1.33	33.395
250m	2.11	33.501	4.70	33.972	2.52	33.700	2.52	33.702	4.38	33.845	2.38	33.634	2.66	33.748	2.70	33.763	2.20	33.630	1.76	33.503
300m	1.85	33.523	3.54	33.910	2.54	33.770	2.75	33.803	4.52	33.912	2.72	33.771	2.84	33.840	2.87	33.856	2.56	33.743	2.03	33.588
400m	2.86	33.799	2.86	33.886	3.31	33.993	2.87	33.934	4.13	34.009	2.95	33.912	2.98	33.988	3.11	34.003	3.07	33.950	2.81	33.815
500m	2.90	33.920	2.99	34.015	3.18	34.112	3.17	34.094	3.75	34.078	2.97	34.035	3.08	34.115	3.27	34.139	3.08	34.055	3.19	33.934
600m	3.10	34.075	2.99	34.137	3.14	34.192	3.08	34.169	3.75	34.189	3.16	34.159	3.14	34.219	3.08	34.200	3.05	34.161	3.15	34.065
700m									3.65	34.281	2.95	34.234								
800m									3.29	34.313	2.99	34.314								
900m									3.14	34.376	2.95	34.387								
1000m									2.97	34.416	2.70	34.413								

Table 5-28

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408	
Station No	PK24		PK31		PK22		PK21		IW01		IW02		IW03		IW04		IW05		IW06	
Latitude:N	41-00.1		41-29.8		42-00.0		42-15.1		42-00.5		41-45.0		41-24.5		41-39.6		41-50.8		42-00.0	
Longitude:E	143-30.1		142-59.9		143-29.8		143-29.7		144-58.0		144-14.9		143-29.8		143-00.1		142-30.3		142-00.1	
Date	1994/08/04		1994/08/04		1994/08/05		1994/08/05		1994/08/23		1994/08/24		1994/08/24		1994/08/25		1994/08/25		1994/08/26	
Time(JST)	17:18		20:56		00:39		02:07		17:11		07:51		17:08		07:58		17:09		09:14	
Weather	BC		BC		C		B		C		BC		BC		BC		C		C	
Air Temp.	21.5		22.2		17.8		19.5		23.0		19.8		21.2		20.1		21.0		22.6	
Bar	1005.5		1007.0		1006.5		1007.0		1011.5		1014.0		1013.8		1015.2		1013.9		1014.0	
Wind Dir	SW		WNW		WSW		NNW		S		NNW		E		ENE		ESE		SE	
Wind Spd/F	F 3		F 2		F 2		F 1		F 1		F 3		F 3		F 4		F 5		F 4	
Transparency	16														15				16	
Depth					119		63													
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	18.8	33.288	21.3	33.288	14.9	32.884	16.3	32.085	21.7	32.98*	21.8	33.29*	19.3	33.18*	20.5	33.98*	21.0	34.19*	20.9	33.76*
10m	14.52	33.416	20.06	33.587	11.20	33.037	11.73	32.958	21.32	32.985	18.66	33.287	15.42	33.144	20.86	33.978	20.80	34.167	20.52	34.000
20m	12.58	34.291	16.01	34.234	7.25	33.294	8.97	33.149	8.01	32.835	15.12	33.255	9.93	33.192	20.82	34.064	19.07	34.198	16.35	34.024
30m	11.21	34.204	13.87	34.252	5.98	33.260	8.23	33.186	4.22	33.113	9.84	33.275	6.97	33.206	19.61	34.177	17.81	34.212	13.36	34.078
50m	9.99	34.110	12.34	34.316	5.38	33.245	7.01	33.181	3.92	33.474	4.99	33.266	5.46	33.490	19.05	34.275	16.23	34.298	11.82	34.112
75m	9.28	34.071	10.95	34.199	4.96	33.259			3.38	33.432	3.00	33.263	2.95	33.290	14.17	34.014	14.62	34.248	10.57	34.152
100m	7.53	33.873	10.02	34.142	4.26	33.274			3.66	33.516	3.52	33.389	2.26	33.283	12.17	34.181	13.65	34.310	9.20	34.030
125m	6.06	33.720	9.48	34.105					3.38	33.503	2.44	33.348	1.86	33.298	11.42	34.146	12.87	34.298	7.96	33.934
150m	4.25	33.537	8.45	33.983					3.75	33.619	2.58	33.413	1.47	33.297	8.81	34.055	11.69	34.239	5.94	33.698
200m	3.10	33.482	3.20	33.364					2.04	33.518	1.54	33.375	1.81	33.421			10.59	34.242	3.08	33.503
250m	2.57	33.492	1.60	33.237					2.20	33.574	2.42	33.625	1.87	33.500			7.12	33.811	2.36	33.481
300m	2.21	33.543	3.01	33.469					2.64	33.699	1.52	33.524	2.72	33.685			3.15	33.449	2.29	33.571
400m	2.52	33.706	2.53	33.698																
500m	3.09	33.903	3.03	33.911																
600m	3.25	34.043	3.16	34.054																
700m																				
800m																				
900m																				
1000m																				

Table 5-29

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408	
Station No	IW07		IW08		IW09		IW10		IW11		IW12		IW13		IW14		IW15		IW16	
Latitude:N	42-13.8		41-38.4		41-09.4		41-00.0		40-50.1		40-40.1		40-30.7		40-45.0		41-00.8		41-39.9	
Longitude:E	141-35.2		141-40.9		141-49.8		142-19.7		142-49.3		143-19.8		143-49.7		144-54.7		145-59.8		145-15.2	
Date	1994/08/26		1994/08/27		1994/08/27		1994/08/28		1994/08/28		1994/08/29		1994/08/29		1994/08/30		1994/08/30		1994/08/31	
Time(JST)	17:16		14:26		18:08		08:47		17:08		08:59		17:07		10:20		17:08		09:41	
Weather	C		C		C		BC		BC		BC		BC		C		C		C	
Air Temp.	22.1		25.1		24.4		23.5		24.5		23.1		26.2		21.2		23.9		23.9	
Bar	1012.2		1010.0		1011.5		1016.7		1016.7		1018.6		1016.5		1017.5		1016.1		1014.4	
Wind Dir	ESE		S		WSW		SSW		WSW		SW		-		N		ENE		SE	
Wind Spd/F	F 4		F 3		F 3		F 2		F 2		F 2		F		F 1		F 2		F 4	
Transparency			18								16				14					
Depth																				
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	21.5	33.79*	23.8	34.29*	22.0	34.20*	22.1	34.17*	19.9	33.32*	21.4	33.05*	22.7	33.16*	22.2	33.21*	23.7	33.25*	22.9	33.13*
10m	21.29	33.793	21.85	34.307	21.37	34.192	21.61	34.188	18.66	33.400	18.90	33.065	20.20	33.220	18.67	33.234	23.30	33.241	22.72	33.177
20m	17.44	34.082	19.80	34.341	20.91	34.226	20.36	34.267	16.88	33.284	14.18	33.170	11.69	33.473	8.92	33.085	14.93	33.134	12.44	32.806
30m	13.46	33.986	19.01	34.298	20.10	34.229	20.13	34.264	14.03	33.267	8.24	33.373	9.85	33.739	7.99	33.580	12.01	33.452	6.25	32.966
50m	11.47	34.180	15.74	34.053	18.44	34.182	19.22	34.258	10.38	33.479	4.81	33.285	9.26	34.003	7.09	33.703	8.08	33.844	2.92	33.060
75m	10.51	34.181	12.91	34.331	15.97	34.271	16.34	34.276	11.00	33.851	3.12	33.307	6.86	33.766	4.30	33.474	6.32	33.720	1.93	33.166
100m	9.87	34.133	12.47	34.356	13.80	34.265	14.58	34.292	9.37	34.065	3.38	33.398	4.37	33.513	2.64	33.340	4.86	33.591	1.60	33.215
125m	8.80	34.033	12.38	34.354	13.07	34.306	13.41	34.268	8.10	33.926	2.19	33.306	3.35	33.447	2.36	33.393	4.79	33.730	1.50	33.296
150m	7.66	33.919	11.70	34.279	12.29	34.271	11.84	34.151	3.35	33.460	1.84	33.320	2.97	33.417	2.32	33.423	4.05	33.604	1.70	33.392
200m	4.63	33.561	10.78	34.316	11.09	34.213	10.97	34.210	2.35	33.463	2.19	33.471	2.31	33.447	2.12	33.488	4.37	33.756	2.34	33.606
250m	3.23	33.493	9.33	34.151	10.13	34.151	9.73	34.121	2.23	33.526	2.43	33.576	2.03	33.490	2.36	33.601	4.30	33.812	2.55	33.703
300m	2.10	33.447	3.59	33.444	7.75	33.916	7.08	33.848	2.21	33.593	2.38	33.587	1.91	33.533	2.61	33.703	4.04	33.914	2.74	33.794
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 5-30



Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408	199409	199409	199409	199409	199409	199409	199409	199409	199409
Station No	IW17	IK01	IK05	IK04	IK03	IK02	IK10	SM01	SM02	SM03
Latitude:N	42-19.4	42-40.0	41-30.0	41-30.0	41-30.0	42-10.0	42-45.0	42-30.5	42-05.2	41-45.0
Longitude:E	144-29.9	144-10.0	144-00.0	143-30.0	143-00.0	143-40.0	145-00.0	144-59.3	145-24.6	145-44.1
Date	1994/08/31	1994/09/05	1994/09/06	1994/09/07	1994/09/07	1994/09/08	1994/09/21	1994/09/27	1994/09/28	1994/09/28
Time(JST)	17:06	17:51	17:55	06:29	18:01	17:54	17:56	17:48	10:28	17:45
Weather	F	BC	BC	C	BC	F	C		C	
Air Temp.	20.1	20.4	21.0	20.6	23.3	19.2	15.2	15.1	15.5	14.6
Bar	1010.3	1007.5	1006.5	1009.5	1013.0	1008.5	1015.0	1018.0	1015.0	1015.5
Wind Dir	S	SSW	S	W	W	NE	NE	NE	NNW	NNW
Wind Spd/F	F 3	F 2	F 3	F 5	F 3	F	F 3	F 3	F 3	F 3
Transparency				13					11	
Depth										
Equipment	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD
STND. Dep	T S	T S	T S	T S	T S	T S	T S	T S	T S	T S
0m	17.2 32.92*	18.3 33.03*	18.9 32.96*	17.6 33.06*	23.5 33.98*	18.2 33.10*	16.7 32.96*	14.6 33.28*	15.7 33.55*	15.9 33.10*
10m	11.88 32.836	17.56 33.135	16.69 32.903	17.45 33.058	22.64 34.121	14.84 33.289	16.64 32.946	14.47 33.170	15.45 32.897	15.86 32.954
20m	9.79 33.383	13.88 33.041	10.36 33.070	13.95 33.117	22.59 34.127	12.98 33.422	16.64 32.946	14.53 33.228	14.47 32.963	15.80 32.958
30m	8.15 33.285	11.65 33.321	8.23 33.293	10.54 33.078	20.76 34.127	12.32 33.449	16.62 32.948	11.41 33.085	8.94 32.966	6.12 32.750
50m	5.23 33.220	9.83 33.417	3.46 33.067	6.74 33.275	17.23 34.257	10.43 33.393	10.12 33.296	5.20 33.249	3.63 33.270	3.11 33.099
75m	2.44 33.087	7.07 33.296	1.74 33.121	8.63 33.976	15.36 34.322	7.19 33.329	5.16 33.121	2.80 33.239	2.77 33.287	2.85 33.295
100m	1.66 33.122	4.80 33.231	2.03 33.236	6.50 33.761	13.79 34.310	5.73 33.288	3.65 33.240	2.19 33.302	2.07 33.293	2.05 33.272
125m	1.67 33.220	2.36 33.152	1.57 33.274	4.41 33.553	12.68 34.301	4.52 33.281	3.07 33.291	2.05 33.334	2.12 33.353	1.95 33.405
150m	1.69 33.255	2.88 33.339	1.90 33.362	3.07 33.490	11.75 34.279	3.91 33.314		1.80 33.352	2.20 33.441	2.08 33.411
200m	1.99 33.415	1.84 33.330	2.32 33.497	2.13 33.459	10.88 34.161	2.39 33.387		2.10 33.468	2.22 33.548	2.27 33.611
250m	2.18 33.543	1.89 33.433	2.17 33.574	2.21 33.524	6.79 33.802	2.36 33.577		2.13 33.543	2.50 33.669	2.87 33.715
300m	2.53 33.652	2.27 33.566	2.35 33.648	2.38 33.595	3.14 33.474			2.32 33.607	2.63 33.747	2.78 33.807
400m										
500m										
600m										
700m										
800m										
900m										
1000m										

Table 5-31

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199410		199410		199410		199410		199410		199410		199410		199410		199410	
Station No	P31		PK11		P22		P21		PK02		PK01		P11		P12		P13		P14	
Latitude:N	42-45.1		42-45.2		42-44.9		42-55.1		42-45.0		42-54.1		43-05.1		42-54.9		42-45.2		42-30.1	
Longitude:E	143-59.8		144-29.6		144-59.8		144-59.1		145-29.8		145-29.9		145-44.8		145-49.9		145-55.0		146-00.0	
Date	1994/10/02		1994/10/02		1994/10/02		1994/10/02		1994/10/02		1994/10/02		1994/10/02		1994/10/02		1994/10/03		1994/10/03	
Time(JST)	11:13		13:16		15:20		16:18		18:28		19:48		21:19		22:32		00:00		01:53	
Weather	C		B		B		BC		BC		BC		BC		B		B			
Air Temp.	18.1		19.0		18.5		17.2		15.1		15.1		14.8		14.8		15.1		14.8	
Bar	1013.0		1012.0		1012.5		1012.5		1014.0		1015.0		1015.0		1014.5		1015.0		1015.0	
Wind Dir	SW		S		SSW		SSW		SSW		SW		SW		SW		WSW		W	
Wind Spd/F	F 1		F 3		F 3		F 3		F 4		F 3		F 3		F 3		F 2		F 3	
Transparency	5		10		9		7													
Depth	62		128		166		63				155		101		1490		1012			
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	16.9	32.515	16.5	33.075	16.2	33.188	15.9	33.222	14.8	33.308	14.1	33.105	15.2	33.460	15.3	33.604	15.3	33.016	14.6	33.028
10m	15.89	33.066	15.77	33.084	15.53	33.224	15.53	33.210	14.69	33.352	14.54	33.127	14.99	33.483	15.36	33.210	15.30	33.011	14.51	33.026
20m	15.78	33.116	15.36	33.148	15.51	33.236	15.43	33.217	14.80	33.449	13.50	33.254	14.28	33.460	15.17	33.216	14.39	32.976	14.37	33.026
30m	15.52	33.136	14.87	33.221	15.29	33.243	15.29	33.203	14.43	33.447	12.86	33.211	13.40	33.386	14.08	33.199	13.59	32.947	12.17	32.962
50m	12.41	33.201	11.54	33.232	8.75	33.254	11.56	33.246	7.84	33.437	8.36	33.199	6.48	33.125	4.81	33.317	4.83	33.072	3.62	33.071
75m			5.20	33.225	5.51	33.274			4.96	33.432	2.50	33.302	3.11	33.203	3.68	33.418	2.56	33.217	2.35	33.174
100m			2.75	33.315	3.74	33.372			4.26	33.493	2.09	33.319			2.37	33.312	2.14	33.264	2.15	33.256
125m					2.34	33.395			3.65	33.480	2.00	33.406			2.51	33.443	1.66	33.274	1.97	33.324
150m					2.20	33.445			3.60	33.554					2.34	33.437	1.87	33.382	1.94	33.401
200m									3.00	33.575					3.03	33.601	2.51	33.614	2.50	33.629
250m									2.41	33.595					2.82	33.638	2.89	33.760	2.77	33.749
300m									2.31	33.666					2.67	33.687	2.97	33.841	3.10	33.852
400m									2.52	33.764					3.15	33.889	3.12	33.981	3.70	34.057
500m									2.80	33.884					3.07	33.995	3.08	34.070	3.14	34.082
600m									3.15	34.055					3.12	34.082	3.42	34.216	3.05	34.163
700m															3.13	34.195	3.10	34.264	2.97	34.231
800m															2.91	34.241	2.87	34.319	2.89	34.301
900m															2.91	34.317	2.74	34.335	2.77	34.342
1000m															2.71	34.352	2.71	34.378	2.62	34.381

Table 5-32

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410	199410	199410	199410	199410	199410	199410	199410	199410	199410	199410
Station No	PK03	P23	PK12	P32	PK21	P33	PK13	P24	PK04	P15	
Latitude:N	42-30.0	42-30.0	42-30.0	42-30.0	42-15.0	42-15.0	42-15.0	42-15.0	42-15.0	42-15.0	42-15.0
Longitude:E	145-30.0	145-00.0	144-30.0	144-00.0	143-30.0	144-00.0	144-30.0	145-00.0	145-30.0	146-00.0	
Date	1994/10/03	1994/10/03	1994/10/03	1994/10/03	1994/10/03	1994/10/03	1994/10/03	1994/10/03	1994/10/04	1994/10/04	
Time(JST)	07:15	09:48	12:12	14:32	17:14	19:15	21:35	23:51	02:09	04:36	
Weather	BC	B	B	B	BC	BC	B	B		BC	
Air Temp.	15.0	16.2	16.7	16.3	16.1	15.6	14.8	14.1	13.8	13.6	
Bar	1018.2	1019.5	1019.0	1020.0	1021.0	1022.5	1022.5	1023.0	1023.5	1024.0	
Wind Dir	N	NNW	W	S	SSE	SSW	SSE	SSW	S	N	
Wind Spd/F	F 4	F 3	F 1	F 2	F 3	F 4	F 2	F 2	F 2	F 1	
Transparency		12	10	5							
Depth											
Equipment	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
STND. Dep	T S	T S	T S	T S	T S	T S	T S	T S	T S	T S	T S
0m	14.1 33.327	15.6 33.386	15.6 33.234	17.5 32.693	16.8 32.038	16.9 32.710	15.5 33.172	15.5 33.133	14.9 33.409	15.2 31.654	
10m	14.52 33.31	15.34 33.35	14.86 33.22	16.36 32.79	16.04 32.85	16.49 32.83	15.50 33.13	15.44 33.16	14.98 33.36	15.24 32.88	
20m	14.46 33.35	14.22 33.34	14.87 33.25	15.91 33.16	15.82 32.94	16.03 32.92	15.41 33.13	14.96 33.04	14.81 33.41	14.95 32.96	
30m	13.88 33.26	13.27 33.15	14.32 33.20	13.69 33.29	15.04 33.02	15.72 33.03	15.02 33.15	11.80 33.02	14.61 33.42	9.65 33.13	
50m	7.11 33.36	7.55 33.07	6.42 33.24	6.92 33.30	11.12 33.21	8.17 32.68	5.95 33.39	5.70 33.43	7.93 33.66	3.30 33.14	
75m	5.19 33.53	4.22 33.20	4.64 33.39	4.01 33.39		4.70 33.37	3.90 33.27	2.62 33.20	5.21 33.49	1.82 33.17	
100m	3.92 33.34	2.98 33.24	3.47 33.35	2.10 33.30		3.02 33.25	2.66 33.31	1.98 33.32	3.24 33.32	1.65 33.22	
125m	3.22 33.47	2.69 33.35	3.04 33.36	2.33 33.37		2.75 33.34	2.09 33.32	2.32 33.42	2.76 33.37	1.66 33.30	
150m	2.61 33.36	2.62 33.39	2.63 33.34	2.02 33.41		2.23 33.29	2.27 33.40	1.92 33.41	2.55 33.40	2.04 33.43	
200m	2.50 33.51	1.87 33.40	2.58 33.46	2.04 33.45		2.27 33.44	2.37 33.53	2.15 33.50	2.40 33.51	2.54 33.59	
250m	2.35 33.61	2.28 33.48	2.40 33.53	2.16 33.53		2.94 33.57	2.51 33.60	2.41 33.58	2.51 33.62	2.76 33.70	
300m	2.45 33.69	2.08 33.49	3.09 33.68	2.43 33.65		2.55 33.65	2.56 33.69	2.46 33.64	2.85 33.72	2.69 33.74	
400m	3.08 33.93	2.29 33.64	2.91 33.79	3.02 33.86		2.89 33.81	3.12 33.88	2.62 33.74	3.32 33.92	3.18 33.95	
500m	3.20 34.06	2.79 33.84	3.17 33.99			3.87 34.10	3.22 34.01	2.85 33.89	3.31 34.09	3.32 34.10	
600m	3.11 34.14	3.32 34.02	3.26 34.10			3.31 34.16	3.26 34.16	3.04 34.02	3.32 34.19	3.52 34.25	
700m	2.99 34.23									3.02 34.28	
800m										2.94 34.34	
900m										2.92 34.40	
1000m											

Table 5-33

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199410		199410		199410		199410		199410		199410		199410		199410		199410	
Station No	P16		PK05		P25		PK14		P34		PK22		P35		PK15		P26		PK06	
Latitude:N	42-00.0		42-00.0		42-00.0		42-00.0		42-00.0		42-00.0		41-30.0		41-30.0		41-30.0		41-30.0	
Longitude:E	146-00.0		145-30.0		145-00.0		144-30.0		144-00.0		143-30.0		144-00.0		144-30.0		145-00.0		145-30.0	
Date	1994/10/04		1994/10/04		1994/10/04		1994/10/04		1994/10/04		1994/10/04		1994/10/04		1994/10/05		1994/10/05		1994/10/05	
Time(JST)	07:05		09:42		12:09		14:49		17:23		19:51		23:25		02:01		04:35		06:58	
Weather	B		B		BC		C		C		C		C				C		C	
Air Temp.	14.3		17.5		15.8		15.6		14.8		15.3		15.8		16.0		16.1		16.2	
Bar	1024.5		1024.5		1023.5		1022.5		1022.0		1021.0		1019.0		1018.5		1018.5		1018.5	
Wind Dir	ENE		E		SE		ESE		E		ESE		SE		SE		SE		SSE	
Wind Spd/F	F 1		F 2		F 2		F 4		F 4		F 4		F 4		F 4		F 5		F 5	
Transparency	17		19		10		12												11	
Depth											120									
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	15.6	32.984	15.4	32.960	15.6	33.043	15.4	32.904	16.4	32.905	16.5	32.944	15.6	32.886	15.3	32.944	16.0	33.209	15.6	32.964
10m	15.61	32.92	15.57	32.90	15.06	33.00	15.28	32.90	16.54	32.88	16.49	32.86	15.55	32.82	15.17	32.87	15.97	32.88	15.55	32.82
20m	15.40	32.89	15.55	32.89	14.69	32.96	15.13	32.92	15.73	33.00	16.43	32.86	15.53	32.81	14.64	32.82	15.97	32.89	14.90	32.63
30m	13.60	33.00	14.90	32.74	14.78	33.09	14.80	32.84	14.69	33.09	16.27	33.00	14.23	32.64	5.48	32.96	11.52	32.51	5.20	33.05
50m	5.26	33.26	3.12	33.14	4.98	33.30	4.37	33.28	6.50	33.18	15.41	33.12	6.09	33.27	3.18	33.23	2.63	33.08	2.32	33.15
75m	3.88	33.26	1.97	33.20	3.29	33.31	2.76	33.31	4.75	33.34	8.87	33.30	3.43	33.26	3.71	33.36	1.77	33.17	2.08	33.17
100m	3.00	33.36	1.77	33.20	2.25	33.28	2.38	33.36	3.12	33.26	6.30	33.52	2.44	33.25	2.71	33.33	1.62	33.21	1.65	33.18
125m	2.95	33.40	1.59	33.25	2.41	33.44	2.03	33.33	2.85	33.32			2.46	33.34	2.16	33.32	1.62	33.28	1.74	33.31
150m	2.19	33.38	1.75	33.34	2.32	33.39	2.07	33.44	2.33	33.31			2.32	33.37	2.86	33.46	2.03	33.44	2.09	33.44
200m	2.28	33.51	2.30	33.53	2.30	33.49	2.28	33.55	2.71	33.47			2.43	33.48	2.77	33.54	2.54	33.59	2.50	33.58
250m	2.52	33.61	2.56	33.67	2.81	33.64	2.56	33.67	2.33	33.55			2.42	33.55	2.96	33.66	2.74	33.74	2.85	33.75
300m	2.66	33.71	2.81	33.76	2.81	33.71	2.63	33.74	2.75	33.66			2.68	33.66	2.71	33.72	2.89	33.80	3.08	33.82
400m	3.03	33.91	3.25	33.95	3.09	33.89	3.19	33.94	2.80	33.78			3.03	33.85	2.91	33.87	3.12	33.96	3.21	33.98
500m	3.30	34.06	3.11	34.05	3.53	34.08	3.59	34.10	3.17	33.95			3.08	33.94	3.41	34.07	3.23	34.09	3.20	34.08
600m	3.21	34.20	3.20	34.21	3.55	34.21	3.24	34.19	3.48	34.14			3.26	34.14	3.11	34.18	3.10	34.21	3.13	34.18
700m	3.11	34.29	3.12	34.30	3.09	34.25	3.07	34.25	3.44	34.23			3.13	34.23	3.11	34.27	3.00	34.28		
800m	3.04	34.35	2.91	34.32	3.00	34.31	3.22	34.35	3.01	34.28										
900m	2.80	34.38	2.83	34.38	2.84	34.35	2.89	34.35	2.95	34.34										
1000m																				

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Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410	199410	199410	199410	199410	199410	199410	199410	199410	199410	199410
Station No	P17	P18	PK07	P27	PK16	P36	IK06	IK01	IK07	IK08	
Latitude:N	41-30.0	41-00.0	41-00.0	41-00.0	41-00.0	41-00.0	43-00.0	44-09.0	44-10.0	44-20.0	
Longitude:E	146-00.0	146-00.0	145-30.0	145-00.0	144-30.0	144-00.0	145-40.0	145-21.0	144-50.0	144-20.0	
Date	1994/10/05	1994/10/05	1994/10/05	1994/10/05	1994/10/05	1994/10/05	1994/10/11	1994/10/12	1994/10/13	1994/10/15	
Time(JST)	09:22	12:55	15:57	18:25	20:44	23:32	17:54	17:40	17:55	16:48	
Weather	C	C	R	R	C	C	BC	C	B	BC	
Air Temp.	16.7	19.2	17.6	17.1	16.7	16.2	14.9	15.1	17.6	11.6	
Bar	1017.5	1015.0	1014.5	1014.5	1014.5	1014.0	1019.0	1015.2	997.0	992.5	
Wind Dir	SE	SE	SE	E	WNW	WNW	SSW	SSW	SW	SE	
Wind Spd/F	F 5	F 5	F 1	F 3	F 2	F 1	F 2	F 3	F 4	F 3	
Transparency	14	15	15								
Depth											
Equipment	STD	STD	STD	STD	STD	STD	STD	CTD	CTD	CTD	CTD
STND. Dep	T S	T S	T S	T S	T S	T S	T S	T S	T S	T S	T S
0m	15.9 32.972	20.0 33.852	19.8 33.173	15.5 32.882	15.8 32.881	16.3 32.687	13.5 33.01*	15.1 33.14*	15.6 33.65*	11.7 32.01*	
10m	15.79 32.87	20.14 33.80	19.80 33.29	15.40 32.82	15.80 32.92	15.93 32.82	12.79 32.977	15.04 33.164	17.06 33.743	11.55 32.005	
20m	15.79 32.88	15.15 32.87	19.41 33.49	15.14 32.80	14.76 32.88	14.00 33.19	12.05 32.914	15.14 33.225	17.09 33.789	11.57 32.064	
30m	15.01 32.65		17.38 33.95	12.19 32.80	7.25 33.05	13.11 33.25	10.65 32.636	15.11 33.216	17.05 33.807	11.41 32.766	
50m	3.69 33.01		14.24 34.13	5.76 33.38	4.23 33.20	8.57 33.35	6.34 33.095	15.37 33.410	16.39 33.743	4.82 32.793	
75m	2.11 33.16		7.05 33.35	4.53 33.44	3.74 33.40	6.87 33.51	3.84 33.223	14.19 33.616	12.38 33.868	1.08 33.187	
100m	1.65 33.20		4.14 33.30	3.33 33.35	2.28 33.31	5.88 33.41	3.59 33.233	13.35 33.584	10.36 33.933	0.75 33.276	
125m	1.58 33.26		2.53 33.23	2.91 33.35	2.77 33.44	3.74 33.37		9.31 33.674	9.10 33.912	0.71 33.318	
150m	1.80 33.36		2.27 33.27	2.51 33.36	2.73 33.49	3.15 33.38		6.60 33.716	6.45 33.637	0.91 33.345	
200m	2.34 33.55		2.37 33.38	2.33 33.43	2.20 33.51	2.46 33.38		4.06 33.592	2.24 33.373	0.86 33.348	
250m	2.58 33.67		2.54 33.53	2.43 33.56	2.72 33.66	2.54 33.48			0.62 33.314		
300m	2.79 33.76		2.95 33.62	2.68 33.66	2.50 33.67	2.37 33.58			0.80 33.388		
400m	3.15 33.93		2.85 33.79	3.12 33.84	3.02 33.86	2.75 33.75					
500m	3.21 34.05		3.19 33.97	3.08 33.98	3.19 33.99	3.18 33.94					
600m	3.18 34.13		3.19 34.08	3.15 34.11	3.20 34.11	3.26 34.06					
700m	3.10 34.24			3.09 34.25							
800m	2.96 34.32										
900m	2.81 34.35										
1000m											

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Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410	199410	199410	199410	199410	199410	199410	199410	199410	199410	199410									
Station No	IK02	IK03	IK05	IK04	SM01	SM02	SM03	SM04	SM05	SM06										
Latitude:N	44-00.0	44-01.0	42-42.0	42-40.0	42-30.9	42-15.2	41-59.1	41-45.2	41-29.2	41-05.1										
Longitude:E	145-14.0	145-14.0	144-58.0	144-00.0	144-29.7	144-14.9	143-59.5	143-59.9	144-00.0	142-14.5										
Date	1994/10/17	1994/10/18	1994/10/19	1994/10/20	1994/10/25	1994/10/26	1994/10/26	1994/10/27	1994/10/27	1994/10/28										
Time(JST)	16:38	17:37	16:21	16:46	18:11	08:25	18:09	08:02	18:10	18:36										
Weather	C	BC	BC	BC	C	BC	BC	C	C	C										
Air Temp.	8.1	10.8	13.5	10.0	10.3	12.3	12.0	13.0	13.5	17.8										
Bar	1007.0	1018.5	1015.5	1011.0	1029.2	1028.5	1026.0	1023.0	1021.5	1015.0										
Wind Dir	WNW	W	SSW	NW	SSW		ESE	S	WSW	SE										
Wind Spd/F	F 3	F 3	F 5	F 6	F 3	F	F 3	F 4	F 2	F 4										
Transparency																				
Depth																				
Equipment	CTD		CTD		CTD		CTD		CTD		CTD									
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S								
0m	14.0	33.32*	14.6	33.34*	11.4	32.96*	12.5	33.24*	10.3	32.697	12.6	33.393	12.1	33.144	11.4	33.008	12.8	33.179	19.0	33.970
10m	14.83	33.284	14.81	33.270	11.17	32.976	12.56	33.204	10.18	32.691	12.64	33.423	11.86	33.124	11.25	33.000	11.59	33.114	19.00	34.014
20m	14.93	33.302	14.85	33.281	11.33	33.071	12.56	33.207	10.22	32.776	12.79	33.492	11.70	33.127	10.32	33.099	11.41	33.117	19.01	34.014
30m	15.01	33.334	14.87	33.291	10.87	33.100	12.56	33.207	10.96	33.033	12.58	33.453	10.07	33.349	7.06	33.220	9.62	33.063	19.01	34.014
50m	15.10	33.411	14.85	33.318	8.27	33.137	11.79	33.224	8.56	33.306	5.85	33.330	5.11	33.347	4.25	33.425	3.93	33.269	19.00	34.013
75m	14.81	33.587	14.74	33.404	6.11	32.433	8.89	33.105	4.37	33.403	2.97	33.283	3.83	33.379	3.14	33.369	2.73	33.332	19.01	34.015
100m	13.67	33.573	12.66	33.567	4.62	33.435	8.64	33.164	2.98	33.319	2.41	33.240	2.99	33.361	2.60	33.382	2.23	33.369	17.12	34.272
125m	10.73	33.647	11.03	33.654	3.53	33.415			2.56	33.340	2.02	33.330	2.71	33.361	2.30	33.384	2.07	33.394	15.09	34.304
150m	8.47	33.657	8.00	33.685	2.32	33.391			2.55	33.383	2.17	33.401	2.43	33.388	2.12	33.396	2.08	33.425	13.55	34.282
200m	4.09	33.601	6.15	33.689	2.03	33.409			2.29	33.440	2.34	33.483	2.27	33.431	2.13	33.458	2.04	33.502	11.67	34.256
250m									1.95	33.470	2.47	33.571	2.29	33.515	2.07	33.487	2.08	33.547	10.35	34.175
300m									2.23	33.556	2.38	33.617	2.31	33.588	2.11	33.522	2.24	33.598	8.87	34.045
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 5-36

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199410		199410		199410		199412		199412		199412		199412		199412		199412	
Station No	SM07		SM08		SM09		SM10		P22		P21		P11		P12		P13		P14	
Latitude:N	40-45.1		40-29.1		40-15.1		39-59.4		42-45.4		42-55.3		43-05.2		42-54.8		42-45.3		42-30.2	
Longitude:E	142-15.1		142-29.4		142-30.0		142-30.2		144-59.1		144-59.9		145-44.7		145-49.1		145-54.8		145-59.6	
Date	1994/10/29		1994/10/29		1994/10/30		1994/10/30		1994/12/06		1994/12/06		1994/12/06		1994/12/06		1994/12/06		1994/12/06	
Time(JST)	09:46		18:11		08:57		18:11		11:52		12:55		16:01		17:37		20:12		23:26	
Weather	C		C		BC		C		B		B		B		BC		BC		C	
Air Temp.	18.2		16.6		16.5		15.9		5.4		5.0		3.0		3.7		4.1		4.9	
Bar	1006.5		1007.5		1013.3		1013.0		1002.0		1002.0		1004.0		1004.4		1006.5		1006.5	
Wind Dir	NNW		NNW		WNW		N		WNW		SW		NW		WNW		NW		WNW	
Wind Spd/F	F 4		F 2		F 4		F 4		F 5		F 5		F 5		F 6		F 5		F 4	
Transparency	11				15				14		63				1157				1000	
Depth									156		63				1157				1000	
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	16.7	33.701	16.5	33.572	16.6	33.529	16.6	33.513	8.6	33.073	8.7	33.130	7.9	33.100	7.7	33.123	7.6	33.189	7.5	33.165
10m	15.46	33.488	16.36	33.576	16.55	33.512	16.58	33.509	8.66	33.058	8.16	33.130	8.00	33.095	7.87	33.120	7.63	33.185	7.57	33.151
20m	12.22	33.037	16.35	33.582	16.52	33.674	16.13	33.497	8.66	33.059	8.15	33.132	8.01	33.092	7.88	33.120	7.62	33.186	7.56	33.153
30m	11.35	33.028	16.12	33.564	16.03	33.635	16.02	33.572	8.66	33.059	8.03	33.143	8.01	33.093	7.86	33.120	7.62	33.179	7.57	33.155
50m	11.07	33.058	14.27	33.933	14.68	33.689	14.14	33.622	8.65	33.060	7.41	33.193	7.92	33.096	7.85	33.126	7.65	33.187	7.51	33.152
75m	7.63	33.298	11.56	34.110	11.64	34.062	9.72	33.897	7.59	33.291			6.40	33.207	7.23	33.147	3.03	33.138	3.69	33.306
100m	5.93	33.299	9.83	34.101	9.16	33.960	7.00	33.760	5.39	33.456					6.77	33.617	2.46	33.281	2.95	33.343
125m	7.46	33.725	7.37	33.815	7.11	33.771	5.27	33.645	4.59	33.510					4.75	33.520	2.73	33.351	2.42	33.329
150m	5.63	33.603	5.16	33.604	3.88	33.496	3.90	33.557							4.22	33.532	2.37	33.335	2.25	33.389
200m	3.55	33.502	3.72	33.555	2.36	33.417	2.59	33.476							3.70	33.559	2.59	33.470	2.23	33.525
250m	3.25	33.520	2.83	33.541	2.48	33.534	2.56	33.596							2.69	33.542	2.81	33.605	3.07	33.699
300m	2.24	33.508	2.36	33.588	2.45	33.618	3.05	33.724							3.17	33.660	3.00	33.694	3.04	33.780
400m															3.87	33.881	3.45	33.904	3.16	33.934
500m															3.89	34.024	3.19	33.997	3.40	34.091
600m															3.88	34.151	3.18	34.110	3.18	34.161
700m															3.37	34.190	3.14	34.203	3.06	34.250
800m															3.14	34.230	3.24	34.311	2.87	34.291
900m															2.95	34.273	3.07	34.367	2.82	34.357
1000m															2.82	34.332	2.93	34.396		

Table 5-37

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199412	199412	199412	199412	199412	199412	199412	199412	199412	199412
Station No	P15	P16	P17	P18	PK07	P27	PK16	PK15	P26	PK06
Latitude:N	42-15.1	41-59.9	41-30.2	41-00.4	41-00.0	41-00.1	41-00.1	41-29.7	41-29.9	41-29.1
Longitude:E	146-00.0	146-00.4	145-59.9	146-00.0	145-30.0	144-59.7	144-30.0	144-30.3	144-59.1	145-30.1
Date	1994/12/07	1994/12/07	1994/12/07	1994/12/07	1994/12/07	1994/12/07	1994/12/07	1994/12/07	1994/12/08	1994/12/08
Time(JST)	02:23	05:29	08:36	11:47	14:38	17:05	19:43	23:13	01:34	03:56
Weather	C	S	C	B	BC	C	C	C	C	C
Air Temp.	5.0	3.5	5.9	6.6	6.1	6.1	7.8	5.3	4.6	4.5
Bar	1006.2	1008.0	1009.5	1008.0	1007.5	1006.9	1006.0	1008.5	1010.7	1011.7
Wind Dir	NNW	NW	NW	WNW	NW	NNE	NE	NNE	NNW	NNW
Wind Spd/F	F 5	F 5	F 5	F 6	F 4	F 3	F 5	F 4	F 4	F 5
Transparency			19	10	16					
Depth										
Equipment	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD
STND. Dep	T S	T S	T S	T S	T S	T S	T S	T S	T S	T S
0m	7.0 33.129	7.0 33.132	9.3 33.495	8.9 33.457	9.6 33.659	8.2 33.203	15.8 34.346	12.1 34.008	8.2 33.361	10.7 33.900
10m	7.19 33.105	7.48 33.110	9.54 33.484	9.09 33.436	10.04 33.633	8.32 33.219	15.92 34.332	12.29 34.008	8.57 33.339	10.98 33.860
20m	7.19 33.106	7.48 33.110	9.54 33.485	9.10 33.434	10.05 33.634	8.32 33.227	15.51 34.267	12.29 34.008	8.58 33.336	10.98 33.861
30m	7.19 33.108	7.49 33.110	9.55 33.489	9.10 33.438	10.05 33.635	8.37 33.267	15.26 34.230	12.30 34.008	8.58 33.341	10.97 33.857
50m	7.19 33.107	7.40 33.105	9.53 33.484	10.55 34.082	10.04 33.639	8.52 33.334	14.92 34.179	12.29 34.005	8.60 33.348	11.06 33.878
75m	2.70 33.169	2.64 33.223	10.03 34.110	8.60 34.014	8.83 34.022	8.55 33.348	14.75 34.153	11.62 33.917	3.40 33.314	11.08 33.890
100m	2.24 33.246	1.97 33.243	7.03 33.793	5.54 33.641	5.96 33.700	8.50 33.359	14.73 34.151	11.20 33.885	2.48 33.316	8.19 33.950
125m	1.92 33.283	1.95 33.323	6.03 33.768	3.98 33.524	4.31 33.529	5.66 33.362	14.60 34.144	10.62 34.115	2.43 33.377	5.97 33.737
150m	1.89 33.351	1.99 33.427	3.66 33.547	3.63 33.557	3.20 33.450	3.27 33.316	14.55 34.164	8.64 33.993	4.33 33.667	4.32 33.557
200m	2.37 33.570	2.52 33.633	3.27 33.589	2.67 33.519	2.33 33.446	2.45 33.488	12.08 34.389	2.75 33.356	2.29 33.520	3.31 33.542
250m	2.68 33.705	2.74 33.745	2.72 33.585	2.17 33.506	2.04 33.471	2.56 33.577	9.61 34.111	2.32 33.424	2.32 33.571	2.31 33.490
300m	2.87 33.777	2.94 33.840	2.65 33.662	2.39 33.599	2.13 33.522	2.52 33.637	6.42 33.807	5.08 33.923	2.93 33.725	2.30 33.554
400m	3.15 33.947	3.24 34.006	3.22 33.856	2.75 33.727	2.48 33.666	2.83 33.775	2.13 33.433	2.76 33.767	3.72 33.939	2.94 33.747
500m	3.14 34.079	3.18 34.106	3.29 33.992	2.97 33.879	2.81 33.797	3.12 33.905	2.44 33.606	3.06 33.937	3.97 34.091	3.05 33.878
600m	3.18 34.183	3.17 34.196	3.36 34.102	3.23 34.028	3.10 33.949	3.36 34.055	2.93 33.808	3.20 34.064	3.92 34.195	3.30 34.046
700m	3.04 34.247	3.00 34.250	3.23 34.191	3.21 34.153						
800m	3.07 34.321	2.94 34.317	3.10 34.264	3.10 34.242						
900m	2.91 34.363	2.82 34.360	2.90 34.314	2.95 34.302						
1000m	2.79 34.392	2.86 34.417	2.77 34.360	2.91 34.380						

Table 5-38



Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199412	199412	199412	199412	199412	199412	199412	199412	199412	199412	199412
Station No	PK05	P25	PK14	PK13	P24	PK04	PK03	PK02	PK01	P23	
Latitude:N	42-00.1	42-00.1	42-00.0	42-14.1	42-15.1	42-14.8	42-29.9	42-44.8	42-55.0	42-30.1	
Longitude:E	145-30.1	145-00.2	144-30.0	144-30.0	144-59.9	145-29.9	145-29.9	145-30.0	145-30.0	144-59.1	
Date	1994/12/08	1994/12/08	1994/12/08	1994/12/08	1994/12/08	1994/12/08	1994/12/08	1994/12/08	1994/12/08	1994/12/09	
Time(JST)	07:03	09:33	12:00	14:29	16:54	19:13	20:55	22:39	23:59	02:52	
Weather	BC	C	B	B	BC	B	C	C	BC	C	
Air Temp.	3.5	4.3	5.3	5.9	5.0	5.6	6.1	6.3	5.1	6.1	
Bar	1015.0	1017.0	1015.5	1014.7	1015.0	1015.0	1014.0	1014.0	1013.0	1011.2	
Wind Dir	NNW	NNW	S	SSW	SW	WSW	WSW	WSW	WNW	WSW	
Wind Spd/F	F 4	F 3	F 1	F 3	F 4	F 3	F 3	F 4	F 3	F 3	
Transparency	11	16	16	23							
Depth											
Equipment	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD
STND. Dep	T S	T S	T S	T S	T S	T S	T S	T S	T S	T S	T S
0m	8.7 33.379	8.2 33.347	7.8 33.139	8.6 33.036	7.7 33.131	7.6 33.172	8.9 33.397	8.8 33.431	7.9 33.066	7.3 33.119	
10m	8.80 33.356	8.32 33.320	7.68 33.142	8.66 33.046	7.77 33.128	7.66 33.167	8.95 33.381	9.00 33.426	7.90 33.050	7.34 33.093	
20m	8.80 33.356	8.31 33.318	7.71 33.162	8.61 33.068	7.82 33.133	7.67 33.164	8.95 33.388	9.00 33.424	7.90 33.054	7.36 33.092	
30m	8.78 33.355	8.32 33.320	7.74 33.175	8.37 33.073	8.38 33.265	7.66 33.165	8.96 33.383	8.95 33.422	7.91 33.054	7.36 33.091	
50m	8.78 33.353	8.31 33.318	7.80 33.183	8.30 33.087	8.66 33.325	7.67 33.166	8.96 33.385	8.70 33.379	7.90 33.055	7.36 33.093	
75m	3.59 33.283	6.70 33.734	7.58 33.320	8.12 33.104	8.53 33.300	4.45 33.348	8.18 33.594	6.26 33.350	7.73 33.037	7.14 33.120	
100m	2.75 33.339	4.63 33.570	6.51 33.731	7.66 33.121	5.16 33.517	2.60 33.287	6.03 33.535	3.66 33.367	7.34 33.117	5.62 33.225	
125m	2.42 33.374	4.92 33.725	4.34 33.574	5.10 33.315	3.39 33.397	3.10 33.449	4.73 33.563	3.41 33.405	6.63 33.168	4.02 33.370	
150m	2.41 33.434	4.08 33.620	3.40 33.506	5.88 33.672	2.48 33.372	2.66 33.444	4.03 33.530	2.35 33.324		3.12 33.325	
200m	3.30 33.655	3.26 33.603	2.67 33.564	5.06 33.698	2.44 33.464	3.09 33.580	2.70 33.516	1.95 33.365		2.95 33.458	
250m	3.28 33.731	2.96 33.660	3.13 33.678	4.72 33.772	2.85 33.624	2.97 33.654	2.34 33.580	1.93 33.448		3.67 33.661	
300m	3.06 33.781	3.60 33.787	3.23 33.731	3.59 33.712	3.24 33.746	2.84 33.730	2.61 33.699	2.25 33.548		3.46 33.699	
400m	3.91 34.046	3.26 33.862	3.45 33.871	3.06 33.788	3.93 33.971	3.18 33.935	3.15 33.917	3.19 33.811		4.28 33.983	
500m	3.27 34.066	3.49 34.044	3.10 33.952	3.53 33.968	3.21 34.012	3.44 34.079	3.33 34.092	4.01 34.062		3.33 33.983	
600m	3.13 34.164	3.60 34.189	3.24 34.076	3.27 34.062		3.43 34.188	3.27 34.227	3.24 34.046		3.19 34.072	
700m	3.24 34.253	3.34 34.236	3.19 34.167								
800m	3.09 34.320	3.11 34.280	3.09 34.253								
900m	2.83 34.332	2.94 34.333	2.91 34.312								
1000m	2.73 34.379	2.79 34.378	2.82 34.354								

Table 5-39

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199412		199412		199412		199412		199412		199412		199412		199412		199412		199412	
Station No	PK12		PK11		P31		P32		P33		P34		P35		P36		PK24		PK23	
Latitude:N	42-30.2		42-45.1		42-45.1		42-30.1		42-15.1		41-59.9		41-29.9		41-00.4		41-00.3		41-29.1	
Longitude:E	144-29.8		144-29.8		144-00.2		144-00.0		143-59.1		143-59.1		144-00.3		144-00.2		143-30.2		143-30.2	
Date	1994/12/09		1994/12/09		1994/12/12		1994/12/12		1994/12/12		1994/12/12		1994/12/12		1994/12/12		1994/12/13		1994/12/13	
Time(JST)	05:16		06:51		10:55		12:12		13:43		15:30		18:43		21:41		00:03		03:07	
Weather	C		C		BC		C		C		C		C		R		C		C	
Air Temp.	7.5		8.3		1.6		2.4		3.5		3.0		4.3		7.5		8.3		3.7	
Bar	1007.2		1005.5		1014.0		1013.5		1013.5		1013.0		1013.0		1011.0		1009.0		1009.5	
Wind Dir	SSW		SSW		NNE		NNW		NNE		NW		NNE		ENE		E		NNW	
Wind Spd/F	F 5		F 5		F 3		F 1		F 1		F 2		F 2		F 3		F 4		F 5	
Transparency					18		21		21		20									
Depth							491		932		1120									
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	8.5	33.040	7.9	33.080	7.4	33.152	7.7	33.085	8.0	33.099	7.6	33.120	13.3	34.247	15.6	34.378	15.0	34.391	8.3	33.259
10m	8.56	33.037	7.98	33.080	7.57	33.124	7.70	33.106	8.19	33.096	7.68	33.112	13.61	34.228	15.73	34.375	15.23	34.386	8.49	33.264
20m	8.57	33.035	7.91	33.082	7.57	33.126	7.65	33.110	8.18	33.091	7.68	33.111	9.81	33.473	15.71	34.367	15.23	34.387	8.48	33.256
30m	8.58	33.040	7.80	33.100	7.57	33.125	7.64	33.112	8.19	33.095	7.67	33.111	9.55	33.472	15.66	34.358	15.24	34.386	8.57	33.274
50m	8.40	33.075	7.78	33.178	7.57	33.156	7.62	33.113	8.18	33.096	7.59	33.109	7.97	33.236	15.58	34.343	15.25	34.387	9.12	33.431
75m	7.14	33.243	7.59	33.163			7.62	33.114	8.16	33.110	7.35	33.139	7.38	33.196	15.37	34.308	15.27	34.392	10.84	33.852
100m	5.38	33.245	7.26	33.164			7.58	33.126	7.35	33.191	7.08	33.161	6.24	33.351	15.16	34.293	15.45	34.452	10.86	33.887
125m	4.99	33.257					7.48	33.156	5.68	33.316	5.49	33.570	4.91	33.501	14.36	34.381	13.24	34.070	10.76	34.068
150m	4.73	33.283					6.79	33.287	4.76	33.288	4.38	33.556	4.10	33.505	13.25	34.450	13.84	34.467	8.69	33.957
200m	3.26	33.379					5.35	33.570	3.71	33.416	3.49	33.551	3.38	33.538	11.51	34.331	11.79	34.361	6.67	33.847
250m	3.02	33.459					3.74	33.518	4.17	33.628	4.10	33.756	2.90	33.527	9.43	34.137	9.26	34.107	5.52	33.793
300m	2.31	33.417					2.95	33.549	2.72	33.565	3.96	33.784	2.50	33.548	6.90	33.862	6.34	33.855	4.94	33.827
400m	2.97	33.626					3.01	33.707	2.65	33.671	3.29	33.857	3.69	33.822	4.47	33.798	5.03	33.860	4.39	33.940
500m	3.32	33.881							3.49	33.920	3.26	33.990	2.98	33.893	4.67	33.980	4.50	33.955	2.99	33.848
600m	3.28	33.991							3.13	33.988	3.45	34.103	3.21	34.033	4.25	34.075	4.22	34.082	3.17	33.981
700m											3.13	34.164								
800m											3.05	34.243								
900m											2.95	34.297								
1000m											2.84	34.342								

Table 5-40

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199412		199412		199502		199502		199502		199502		199502		199502		199502		199502		
Station No	PK22		PK21		P31		PK11		P22		P21		PK02		PK01		P11		P12		
Latitude:N	42-00.2		42-15.1		42-44.1		42-44.1		42-44.1		42-54.1		42-45.0		42-55.0		43-04.9		42-55.2		
Longitude:E	143-29.9		143-29.1		143-59.7		144-29.6		144-59.7		144-59.9		145-29.9		145-29.9		145-45.0		145-49.9		
Date	1994/12/13		1994/12/13		1995/02/13		1995/02/13		1995/02/13		1995/02/13		1995/02/13		1995/02/13		1995/02/13		1995/02/13		
Time(JST)	06:21		07:45		11:03		13:07		15:16		16:18		18:36		19:51		21:25		22:35		
Weather	C		BC		B		C		C		C		C		C		C		C		
Air Temp.	2.7		2.9		0.1		0.0		-0.8		-1.2		-1.0		-2.0		-3.0		-3.0		
Bar	1010.0		1010.0		1009.2		1008.0		1008.0		1008.5		1008.5		1009.0		1009.0		1008.5		
Wind Dir	SW		NNE		CALM		NE		ENE		ENE		NNE		NE		NNE		NNE		
Wind Spd/F	F 2		F 2		F 0		F 3		F 3		F 4		F 3		F 1		F 1		F 1		
Transparency			15		9		11		15		9										
Depth							133												1259		
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	
0m	7.7	33.111	7.8	33.072	0.1	32.191	0.1	32.085	1.4	32.942	0.1	32.172	1.5	33.196	0.5	32.760	0.0	32.541	1.3	33.142	
10m	7.98	33.107	7.76	33.061	-0.04	32.225	-0.08	32.154	1.38	32.951	-0.11	32.190	1.56	33.164	0.55	32.770	-0.04	32.553	1.34	33.138	
20m	7.98	33.107	7.72	33.075	0.04	32.265	0.40	32.454	1.40	32.963	0.00	32.241	1.57	33.163	0.58	32.783	0.07	32.582	1.35	33.146	
30m	7.99	33.109	7.73	33.074	0.24	32.312	0.91	32.729	1.40	32.960	0.20	32.360	1.57	33.163	0.64	32.804	0.09	32.600	1.36	33.146	
50m	8.09	33.126	7.74	33.122	0.44	32.465	1.34	32.859	1.49	32.996	0.48	32.463	1.57	33.163	0.90	32.884	1.30	32.998	1.36	33.158	
75m	7.87	33.234					1.43	32.891	1.66	33.028			1.55	33.164	1.09	32.932	1.39	33.035	1.40	33.186	
100m	6.61	33.354					1.71	33.012	1.62	33.032			1.98	33.322	1.13	32.947	1.37	33.035	1.42	33.193	
125m													1.72	33.062						1.66	33.269
150m									1.76	33.084			1.79	33.489						1.71	33.292
200m													1.99	33.527						1.61	33.370
250m													2.03	33.563						1.53	33.409
300m													2.11	33.619						1.67	33.480
400m													2.44	33.704						2.11	33.611
500m													2.43	33.770						2.47	33.751
600m													2.52	33.880						2.97	33.930
700m																				2.79	34.047
800m																				2.85	34.155
900m																				2.77	34.235
1000m																				2.64	34.290

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Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199502	199502	199502	199502	199502	199502	199502	199502	199502	199502										
Station No	P13	P14	PK03	P23	PK12	P32	P33	PK13	P24	PK04										
Latitude:N	42-45.0	42-30.1	42-30.2	42-29.1	42-30.1	42-30.2	42-15.5	42-14.1	42-14.9	42-14.9										
Longitude:E	145-54.9	145-59.8	145-29.1	144-59.9	144-29.1	144-00.0	144-00.0	144-29.6	144-59.7	145-30.0										
Date	1995/02/13	1995/02/14	1995/02/14	1995/02/14	1995/02/14	1995/02/14	1995/02/14	1995/02/14	1995/02/14	1995/02/14										
Time(JST)	23:56	01:57	04:36	06:47	09:01	11:10	12:36	14:48	17:03	19:22										
Weather	C	C	C	C	BC	C	BC	BC	BC	BC										
Air Temp.	-2.5	-1.5	-0.7	0.5	0.5	0.0	0.6	0.5	0.0	0.4										
Bar	1008.0	1008.2	1007.5	1007.0	1008.5	1009.0	1008.2	1018.2	1009.0	1010.0										
Wind Dir	CALM	S	SSE	CALM	CALM	CALM	NNE	CALM	WSW	W										
Wind Spd/F	F 0	F 2	F 4	F 0	F 0	F 0	F 1	F 0	F 2	F 3										
Transparency				18	16	19	21	26												
Depth	999						928													
Equipment	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD										
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S		
0m	1.3	33.024	1.3	33.100	1.5	33.120	1.1	32.918	1.6	33.129	1.7	33.092	1.8	33.095	1.9	33.047	1.6	33.188	1.5	33.173
10m	1.26	33.030	1.42	33.105	1.58	33.098	1.15	32.913	1.56	33.127	1.64	33.088	1.68	33.093	1.64	33.048	1.58	33.174	1.58	33.177
20m	1.29	33.033	1.48	33.119	1.58	33.097	1.42	32.967	1.57	33.128	1.61	33.089	1.67	33.102	1.62	33.048	1.56	33.175	1.58	33.176
30m	1.42	33.076	1.51	33.120	1.60	33.104	1.45	32.971	1.58	33.133	1.63	33.096	1.66	33.115	1.62	33.055	1.51	33.176	1.55	33.173
50m	1.74	33.219	1.57	33.133	1.64	33.110	1.59	33.021	1.54	33.151	1.69	33.130	1.43	33.174	1.70	33.069	1.52	33.178	1.53	33.173
75m	1.74	33.269	1.58	33.138	1.90	33.157	1.69	33.067	1.40	33.173	1.67	33.194	1.36	33.189	1.80	33.100	1.62	33.189	1.62	33.197
100m	1.80	33.292	1.60	33.143	2.04	33.214	1.80	33.178	1.62	33.233	1.68	33.226	1.43	33.214	1.76	33.117	1.54	33.192	2.19	33.322
125m	1.76	33.316	2.18	33.332	2.19	33.293	1.52	33.207	1.92	33.312	1.70	33.246	1.86	33.322	2.07	33.221	1.96	33.309	2.04	33.394
150m	2.03	33.387	2.32	33.461	2.32	33.427	1.93	33.303	1.96	33.334	1.68	33.282	1.97	33.392	1.84	33.252	1.78	33.356	2.18	33.445
200m	2.06	33.414	2.45	33.580	2.56	33.585	2.01	33.416	2.04	33.399	1.93	33.358	2.08	33.462	1.96	33.350	1.67	33.427	2.21	33.521
250m	2.01	33.472	2.91	33.720	2.81	33.705	2.10	33.505	2.10	33.478	1.91	33.416	2.11	33.523	1.93	33.424	2.30	33.556	2.43	33.661
300m	1.88	33.482	2.95	33.807	2.70	33.760	2.10	33.546	2.10	33.524	1.98	33.463	2.20	33.582	2.09	33.495	2.57	33.662	2.82	33.781
400m	2.20	33.641	3.06	33.972	2.51	33.820	2.18	33.637	2.15	33.605	2.27	33.606	2.32	33.685	2.12	33.586	2.59	33.766	3.15	33.968
500m	2.53	33.786	3.07	34.077	2.68	33.923	2.33	33.738	2.32	33.723			2.87	33.892	2.34	33.701	2.51	33.883	2.99	34.054
600m	2.90	33.946	3.20	34.196	2.94	34.070	2.88	33.938	2.90	33.921			2.72	33.957	2.87	33.912	3.01	34.065	3.15	34.160
700m	3.02	34.086	2.91	34.249																
800m	2.86	34.198	2.62	34.289																
900m	2.81	34.278	2.56	34.334																
1000m			2.65	34.398																

Table 5-42

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199502		199502		199502		199502		199502		199502		199502		199502		199502		199502	
Station No	P15		P16		PK05		P25		PK14		P34		P35		PK15		P26		PK06	
Latitude:N	42-15.1		42-00.0		42-00.1		42-00.1		41-59.1		42-00.0		41-30.3		41-30.0		41-29.9		41-29.8	
Longitude:E	146-00.1		145-59.9		145-30.3		145-00.0		144-30.0		143-59.8		143-59.9		144-29.5		144-59.9		145-30.0	
Date	1995/02/14		1995/02/14		1995/02/15		1995/02/15		1995/02/15		1995/02/15		1995/02/15		1995/02/15		1995/02/15		1995/02/15	
Time(JST)	21:41		23:25		01:51		04:23		07:05		09:34		12:49		15:07		17:22		19:42	
Weather	BC		BC		BC		BC		B		B		BC		BC		C		S	
Air Temp.	0.7		0.9		0.5		0.3		0.3		1.3		2.0		3.2		3.0		3.2	
Bar	1010.5		1011.5		1011.0		1011.5		1012.0		1012.5		1012.0		1012.0		1012.5		1013.5	
Wind Dir	SW		W		WSW		W		W		W		SW		S		S		S	
Wind Spd/F	F 2		F 4		F 5		F 4		F 3		F 3		F 3		F 2		F 4		F 5	
Transparency									31		12		25		21					
Depth											1122									
Equipment	CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD		CTD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	1.5	33.088	1.8	33.193	1.4	33.157	1.4	33.226	1.4	32.939	1.5	33.039	1.5	32.934	4.1	33.377	4.4	33.52*	5.1	33.555
10m	1.48	33.090	1.76	33.198	1.43	33.159	1.46	33.173	1.54	32.983	1.81	33.221	1.27	32.967	3.89	33.379	4.54	33.486	5.20	33.549
20m	1.49	33.088	1.77	33.200	1.48	33.159	1.46	33.173	1.63	33.043	1.92	33.218	1.63	33.099	3.77	33.386	4.46	33.483	5.17	33.546
30m	1.49	33.088	1.77	33.202	1.50	33.169	1.46	33.174	1.69	33.059	1.76	33.206	1.95	33.238	2.16	33.181	4.42	33.480	5.18	33.546
50m	1.45	33.100	1.80	33.213	1.52	33.168	1.47	33.175	1.70	33.080	1.55	33.211	2.09	33.289	1.60	33.179	4.26	33.466	5.16	33.545
75m	1.35	33.129	1.90	33.238	1.51	33.182	1.47	33.175	1.71	33.111	1.56	33.227	2.06	33.334	1.48	33.168	3.98	33.421	5.16	33.547
100m	2.21	33.251	2.23	33.292	1.86	33.240	1.65	33.205	1.90	33.169	1.54	33.243	2.24	33.398	1.86	33.240	3.30	33.340	5.08	33.538
125m	1.78	33.325	2.32	33.347	2.08	33.329	2.10	33.377	1.96	33.235	1.79	33.293	2.15	33.446	2.15	33.315	2.61	33.310	4.74	33.482
150m	2.39	33.478	2.38	33.481	2.29	33.450	1.91	33.403	1.94	33.256	1.91	33.364	2.13	33.476	1.99	33.376	2.91	33.408	3.65	33.359
200m	2.84	33.660	2.36	33.581	2.41	33.577	1.93	33.473	2.01	33.347	2.07	33.440	2.24	33.525	1.89	33.490	2.43	33.486	3.43	33.480
250m	3.03	33.781	2.61	33.700	2.35	33.659	2.07	33.560	2.00	33.389	2.11	33.484	2.24	33.601	2.23	33.612	2.45	33.592	2.95	33.571
300m	2.34	33.767	2.52	33.751	2.87	33.793	2.09	33.628	2.06	33.426	2.18	33.539	2.29	33.661	2.74	33.748	2.64	33.700	2.58	33.620
400m	2.67	33.943	2.84	33.948	3.00	33.934	2.28	33.786	2.20	33.584	2.49	33.698	2.42	33.772	3.04	33.889	3.14	33.922	3.34	33.873
500m	2.72	34.048	3.15	34.110	2.83	34.050	2.65	33.942	2.37	33.729	2.90	33.871	2.61	33.884	3.08	34.032	3.89	34.144	3.24	34.003
600m	3.00	34.190	2.90	34.181	2.73	34.112	2.98	34.065	2.77	33.890	3.00	34.000	2.66	33.969	3.00	34.142	3.26	34.163	3.66	34.205
700m	2.86	34.243	2.81	34.261	2.76	34.217	2.91	34.176	2.95	34.046	3.09	34.125								
800m	2.97	34.352	2.81	34.316	2.61	34.279	2.88	34.252	3.12	34.186	3.12	34.224								
900m	2.68	34.375	2.66	34.357	2.61	34.343	2.68	34.310	2.88	34.261	2.93	34.321								
1000m	2.70	34.423	2.56	34.398	2.58	34.387	2.58	34.341	2.71	34.330	2.85	34.353								

Table 5-43

Table 5 Results of serial oceanographic observations. Hokkaido Kushiro Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199502	199502	199502	199502	199502	199502	199502	199502	199502	199502	199502
Station No	P17	P18	PK07	P27	PK16	P36	PK24	PK23	PK22	PK21	
Latitude:N	41-30.0	41-00.3	40-59.9	41-00.2	41-00.1	41-00.0	41-00.0	41-29.9	41-59.9	42-14.1	
Longitude:E	146-00.1	145-59.9	145-30.2	145-00.2	144-29.9	143-59.8	143-30.0	143-29.8	143-30.0	143-30.0	
Date	1995/02/15	1995/02/16	1995/02/16	1995/02/16	1995/02/16	1995/02/16	1995/02/16	1995/02/16	1995/02/16	1995/02/16	
Time(JST)	21:53	00:57	03:25	05:40	07:56	10:06	12:13	14:57	17:45	19:14	
Weather	C	R	BC	C	C	C	C	BC	C	C	
Air Temp.	3.2	1.9	1.3	1.0	1.3	1.7	1.4	0.9	-0.4	1.0	
Bar	1014.0	1004.5	1014.0	1014.0	1014.0	1014.0	1012.0	1012.0	1012.0	1013.0	
Wind Dir	S	W	NNW	NW	CALM	NNE	NNE	NE	NE	N	
Wind Spd/F	F 5	F 3	F 3	F 1	F 0	F 2	F 2	F 3	F 4	F 3	
Transparency					27	21	25	15			
Depth											
Equipment	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD	CTD
STND. Dep	T S	T S	T S	T S	T S	T S	T S	T S	T S	T S	T S
0m	4.6 33.51*	3.8 33.760	3.1 33.279	2.0 33.089	3.5 33.400	1.5 33.150	1.6 33.137	0.4 32.245	0.3 32.342	0.0 32.117	
10m	4.59 33.491	3.79 33.365	3.25 33.309	2.07 33.087	3.59 33.368	1.46 33.145	1.54 33.139	0.10 32.246	0.23 32.325	-0.06 32.112	
20m	4.47 33.474	3.79 33.366	3.54 33.344	1.99 33.127	3.63 33.379	1.46 33.148	1.53 33.143	0.23 32.355	0.35 32.408	-0.04 32.136	
30m	4.16 33.446	3.79 33.365	3.48 33.342	1.83 33.188	3.59 33.376	1.48 33.161	1.53 33.143	0.44 32.488	0.48 32.467	0.07 32.189	
50m	3.99 33.422	3.78 33.368	3.44 33.338	1.97 33.249	3.47 33.357	1.57 33.177	1.54 33.151	1.50 33.041	0.79 32.639	0.30 32.324	
75m	3.12 33.339	4.14 33.450	3.42 33.333	1.70 33.235	3.16 33.317	1.74 33.227	1.70 33.202	1.74 33.168	1.01 32.718		
100m	2.47 33.285	3.76 33.377	3.10 33.304	1.72 33.246	2.69 33.272	1.95 33.314	1.89 33.264	1.57 33.187	1.32 32.860		
125m	2.24 33.279	2.78 33.287	3.46 33.383	2.18 33.326	2.87 33.322	2.03 33.385	1.75 33.301	1.58 33.221			
150m	3.64 33.514	3.24 33.516	4.40 33.619	3.25 33.518	2.63 33.310	2.02 33.422	1.91 33.356	1.61 33.238			
200m	2.49 33.512	2.72 33.586	3.61 33.660	2.17 33.429	2.49 33.479	2.16 33.521	2.04 33.452	2.10 33.370			
250m	2.46 33.591	2.62 33.686	3.47 33.776	2.29 33.545	2.42 33.601	2.28 33.626	2.00 33.524	2.22 33.448			
300m	2.84 33.724	2.88 33.802	3.41 33.850	2.30 33.606	3.06 33.767	2.66 33.744	2.16 33.608	2.39 33.548			
400m	3.76 33.973	3.18 33.976	3.71 34.030	3.16 33.883	3.61 33.983	2.64 33.878	2.56 33.752	2.48 33.635			
500m	3.75 34.126	3.27 34.110	3.55 34.142	3.29 34.045	3.25 34.058	2.96 34.038	2.98 33.946	2.84 33.788			
600m	3.48 34.227	3.22 34.196	3.45 34.236	3.11 34.141	3.54 34.218	2.86 34.099	3.11 34.087	3.06 33.964			
700m	3.37 34.311	3.04 34.265									
800m	3.19 34.356	2.86 34.321									
900m	2.98 34.393	2.78 34.374									
1000m	2.80 34.425	2.66 34.411									

Table 5-44

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199404		199404	
Station No	WJR001		WJR002		WJR003		WJR004		WJR005		WJR006		WJR007		WJR008		WJR009		WJR010	
Latitude:N	47-48.0		47-54.0		48- 2.0		50- 0.0		50- 0.0		49-40.0		49-20.0		49- 0.0		48-40.0		48-22.0	
Longitude:E	141-19.0		141-24.0		141-13.0		141-45.0		141-20.0		141-49.0		141-20.0		141-35.0		141-15.0		141-36.0	
Date	1994/04/16		1994/04/16		1994/04/16		1994/04/17		1994/04/17		1994/04/17		1994/04/18		1994/04/18		1994/04/18		1994/04/18	
Time(JST)	07:50		10:10		15:35		16:50		18:35		21:25		00:10		02:35		05:20		08:40	
Weather	BC		BC		BC		BC		BC		BC		C		BC		BC		BC	
Air Temp.																			2.0	
Bar									1008.0		1010.0		1011.8		1011.2		1012.7		1014.0	
Wind Dir																				
Wind Spd/F	S		S		S		S		S		S		S		S		S		S	
Transparency																				
Depth	215		106		472		166		151		166		251		135		418		94	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	3.0	34.054	2.8	34.046	1.9	33.845	-0.6	32.330	-0.3	33.928	-0.6	32.627	-0.3	33.120	0.4	33.553	0.2	33.350	1.3	33.985
10m	2.63	34.01	2.43	33.96	1.30	33.82	-0.66	33.24	-0.36	32.87	-0.61	32.56	-0.27	33.08	0.57	33.51	0.13	33.28	1.19	33.94
20m	2.60	34.00	2.38	33.97	1.23	33.84	-0.54	32.86	-0.71	33.14	-0.93	32.90	-0.22	33.10	0.61	33.54	0.19	33.30	1.19	33.93
30m	2.53	34.00	2.29	33.96	1.26	33.88	-0.52	32.97	-0.52	33.26	-0.63	32.27	-0.16	33.23	0.86	33.76	1.05	33.67	1.17	33.93
50m	2.50	34.00	2.23	33.96	1.27	33.94	-0.89	33.11	-0.03	33.61	-0.15	33.44	-0.11	33.50	1.12	33.94	1.54	33.95	1.15	33.94
75m	2.48	34.03	1.88	34.06	1.24	33.98	0.47	33.73	0.59	33.85	0.57	33.81	0.32	33.72	1.11	33.98	1.50	34.00	1.03	33.98
100m	2.44	34.09	1.83	34.05	1.39	34.03	0.82	33.92	0.95	33.98	1.02	33.95	0.69	33.83	1.06	34.05	1.42	34.03		
125m	2.10	34.10			1.46	34.03	1.34	34.05	0.81	34.04	1.22	34.01	0.77	33.90	0.89	34.06	1.42	34.02		
150m	2.09	34.10			1.41	34.03	0.91	34.04			0.99	34.04	1.11	33.97			1.41	34.03		
200m	2.08	34.08			1.12	34.06							1.03	34.03			1.57	34.05		
250m					1.11	34.08											1.80	34.08		
300m					0.70	34.10											1.58	34.08		
400m					0.47	34.10											0.71	34.09		
500m					0.42	N.D.														
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-1

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199404		199404	
Station No	WJR011		WJR012		WJR013		WJR014		WJR015		WJR016		WJR017		WJR018		WJR019		WJR020	
Latitude:N	48- 9.5		48- 8.6		48- 0.0		48- 0.0		47-50.0		47-50.0		47-40.0		47-40.0		47-30.0		47-56.8	
Longitude:E	141-23.2		141-24.2		141-40.0		141-10.0		141-40.0		141-12.0		141-30.0		141-20.0		141-35.0		141-17.6	
Date	1994/04/18		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/19		1994/04/20	
Time(JST)	16:20		10:10		11:40		13:45		16:20		18:10		19:45		20:35		22:15		07:15	
Weather	BC		BC		B				B		B		BC		BC		BC		BC	
Air Temp.	4.0		3.0		5.0		3.0		8.0		3.0		2.0		2.0		2.0		2.0	
Bar	1013.5		1015.0		1015.0		1016.0		1016.5		1018.0		1020.0		1020.0		1020.0		1016.5	
Wind Dir																				
Wind Spd/F	F		F		F		F		F		F		F		F		F		F	
Transparency																				
Depth	246		236		64		591		56		605		126		618		321		224	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	1.7	33.905	1.6	33.852	1.5	34.012	1.7	33.874	1.6	34.031	2.5	34.046	2.4	34.015	3.3	34.163	2.9	34.136	2.6	34.061
10m	1.37	33.87	1.50	33.79	1.31	33.98	1.51	33.79	1.53	33.97	2.81	33.99	2.60	33.97	3.60	34.10	3.30	34.05	2.71	34.03
20m	1.30	33.86	1.76	33.90	1.23	33.96	1.03	33.80	1.33	33.96	2.76	34.00	2.50	33.96	3.42	34.10	3.21	34.06	2.72	34.01
30m	1.25	33.87	2.02	33.95	1.17	33.97	1.13	33.94	1.28	33.96	2.68	34.00	2.49	33.97	3.39	34.11	2.89	34.02	2.71	34.01
50m	1.25	33.94	1.59	33.96	1.16	33.97	1.15	33.94			2.65	34.02	2.51	34.01	3.33	34.09	2.71	34.02	2.63	34.00
75m	1.12	33.96	1.90	34.05			1.19	33.99			2.54	34.02	2.95	34.09	3.30	34.10	2.67	34.02	2.58	34.02
100m	1.04	34.01	1.92	34.07			1.38	34.02			2.34	34.04	2.73	34.07	2.53	34.08	2.57	34.07	2.40	34.06
125m	1.33	34.04	1.77	34.09			1.42	34.02			2.41	34.08			2.34	34.11	2.33	34.08	1.98	34.07
150m	1.65	34.10	1.74	34.09			1.44	34.03			2.17	34.08			2.22	34.10	2.25	34.08	1.95	34.11
200m	1.56	34.10	1.58	34.09			1.04	34.06			1.62	34.11			1.45	34.09	1.48	34.10	1.48	34.10
250m							1.07	34.01			1.18	34.10			1.05	34.10	1.31	34.10		
300m							0.76	34.08			0.87	34.11			0.93	34.10	0.93	34.12		
400m							0.46	34.12			0.34	34.10			0.43	34.11				
500m							0.34	34.10			0.27	34.11			0.21	34.10				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-2



Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199404		199404		199404		199404		199404		199404		199404		199404		199405		199405	
Station No	WJR021		WJR022		WJR023		WJR024		WJR025		WJR026		WJR027		WJR028		WEB001		WEB002	
Latitude:N	47- 0.0		46-50.0		46-50.0		46-40.0		46-40.0		46-35.0		46-35.0		46-35.8		45-25.1		44-52.0	
Longitude:E	141-40.0		141-30.2		141-20.0		141-30.0		141- 7.0		141-29.0		141-10.2		141-23.1		142-48.3		144- 0.8	
Date	1994/04/20		1994/04/20		1994/04/21		1994/04/21		1994/04/21		1994/04/21		1994/04/21		1994/04/21		1994/05/23		1994/05/24	
Time(JST)	22:10		23:30		00:35		02:00		04:00		05:40		08:00		09:45		15:17		08:45	
Weather	BC		B		B		B		B		B		B		BC		BC		BC	
Air Temp.	3.0		3.0		3.2		3.5		3.0				6.0		6.0		10.0		17.0	
Bar	1016.5		1017.0		1017.0		1016.0		1016.0				1016.0		1015.0		1013.0		1014.0	
Wind Dir																	NW		S	
Wind Spd/F	F		F		F		F		F		F		F		F		F 2		F 2	
Transparency																			8	
Depth	258		415		608		298		593		314		260		245		120		190	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	3.2	34.128	3.7	32.204	3.4	34.172	3.0	34.195	4.1	34.204	4.5	34.180	4.5	34.195	4.5	34.203	4.8	32.631	5.3	32.579
10m	3.61	34.07	3.98	34.14	3.57	34.12	3.76	34.16	4.13	34.13	4.27	34.10	4.45	34.15	3.95	34.14	2.99	32.54	3.08	32.55
20m	3.67	34.09	3.81	34.13	3.47	34.12	3.69	34.16	4.00	34.13	4.00	34.13	4.13	34.15	3.80	34.14	1.90	32.58	1.34	32.56
30m	3.61	34.12	3.69	34.08	3.48	34.12	3.61	34.16	3.91	34.14	3.92	34.15	3.85	34.12	3.56	34.14	0.14	33.13	-0.31	32.71
50m	3.42	34.12	3.49	34.12	3.24	34.11	3.27	34.15	3.59	34.13	3.85	34.15	3.44	34.14	3.32	34.15	-1.21	33.17	-1.47	32.85
75m	3.36	34.12	3.35	34.12	3.21	34.09	3.20	34.14	3.48	34.13	3.80	34.13	3.02	34.13	2.89	34.13	3.71	33.68	-1.73	33.01
100m	3.14	34.15	3.17	34.12	2.48	34.10	2.97	34.15	3.09	34.14	3.47	34.13	2.45	34.12	2.10	34.14	4.69	33.97	-1.73	33.01
125m	3.42	34.12	3.91	34.14	2.25	34.13	2.60	34.14	2.83	34.11	3.07	34.15	1.97	34.12	1.62	34.11			-1.14	33.15
150m	1.83	34.12	2.57	34.13	1.82	34.11	2.26	34.13	2.34	34.13	2.85	34.15	1.38	34.11	1.34	34.12			-0.98	33.21
200m	1.26	34.11	1.47	34.11	1.18	34.11	1.41	34.11	1.40	34.10	1.94	34.13	1.06	34.10	1.19	34.12				
250m	1.08	34.11	0.87	34.09	0.73	34.11	2.66	34.11	0.76	34.09	1.57	34.14								
300m			0.61	34.11	0.55	34.10	0.34	34.10	0.60	34.10										
400m			0.21	34.10	0.30	34.11			0.40	34.10										
500m					0.21	34.10			0.27	34.11										
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-3

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199405		199405		199405	
Station No	WEB003		WEB004		WEB005		WEB006		WEB007		WEB008		WEB009		J11		J12		J13	
Latitude:N	44-40.4		44-26.0		44-35.6		44-54.1		45- 4.4		45-24.3		45-31.8		45-30.0		45-30.0		45-30.0	
Longitude:E	144- 1.5		144- 4.8		144- 3.0		143-22.8		143-15.0		142-55.0		142-52.4		141-40.0		141-25.0		141-10.0	
Date	1994/05/24		1994/05/24		1994/05/25		1994/05/25		1994/05/25		1994/05/26		1994/05/26		1994/05/30		1994/05/30		1994/05/30	
Time(JST)	11:30		13:23		08:45		13:50		16:16		08:53		11:17		09:41		11:08		12:34	
Weather	BC		BC		BC		BC		BC		BC		C		C		C		C	
Air Temp.	17.0		18.0		14.5		15.0		14.5		14.0		18.0		18.0		18.5		14.5	
Bar	1014.0		1014.5		1017.5		1016.0		1016.0		1012.0		1011.5		1003.5		1002.0		1001.2	
Wind Dir	SW		SE		S		E		NNW		SW		E		ENE		ENE		SSW	
Wind Spd/F	F 1		F 1		F 1		F 1		F 1		F 2		F 1		F 1		F 1		F 2	
Transparency															4		10		9	
Depth	193		211		199		146		141		120		118		54		112		128	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	7.9	32.558	8.6	32.522	8.5	32.556	N.D.	N.D.	7.4	32.786	7.4	32.380	8.5	32.264	12.9	31.298	10.7	33.937	9.0	33.937
10m	2.86	32.54	2.49	32.62	2.86	32.48	3.95	32.53	3.37	32.80	4.47	32.32	3.79	32.19	11.06	32.79	9.10	33.95	8.60	33.98
20m	1.06	32.62	1.60	32.76	1.92	32.78	1.85	32.58	1.18	32.99	2.25	32.54	1.82	32.35	10.68	32.97	8.86	34.01	8.44	34.00
30m	-0.31	32.82	0.65	32.89	1.11	32.84	-0.63	32.58	-0.35	32.96	1.24	32.45	0.59	32.50	9.73	33.51	8.87	33.99	8.40	34.02
50m	-1.42	33.00	-1.28	33.00	0.10	33.10	-1.66	32.93	1.93	33.66	-1.76	33.00	-1.21	32.95	9.65	33.62	8.77	33.99	8.30	34.02
75m	-1.36	33.09	-1.49	33.12	-0.24	33.20	0.99	33.29	4.43	34.01	2.91	33.69	-1.71	33.05			8.70	34.01	7.88	34.03
100m	-1.23	33.15	-0.94	33.19	-0.13	33.24	3.65	33.76	4.35	33.99	3.96	33.95	0.25	33.40			8.00	34.02	5.89	34.08
125m	-1.04	33.17	-0.58	33.24	-0.44	33.25	2.90	33.79	4.14	33.98									4.39	34.12
150m	-0.75	33.26	-0.32	33.30	-0.08	33.32														
200m			2.67	33.89																
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-4

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199405		199405		199405	
Station No	JW01		JW02		JW03		J14		J15		J16		J17		J18		JW15		JW16	
Latitude:N	45-45.0		45-45.0		45-45.0		45-30.0		45-30.0		45-30.0		45-30.0		45-30.0		45- 0.0		45- 0.0	
Longitude:E	141-20.0		141-10.0		141- 0.0		140-53.0		140-40.0		140-20.0		140- 0.0		139-40.0		140-20.0		140- 0.0	
Date	1994/05/30		1994/05/30		1994/05/30		1994/05/30		1994/05/30		1994/05/30		1994/05/31		1994/05/31		1994/05/31		1994/05/31	
Time(JST)	14:43		15:49		17:01		19:31		20:58		23:12		00:50		03:13		07:18		08:51	
Weather	R		R		C		F		F		F		D		D		F		C	
Air Temp.	14.5		12.0		12.0		11.0		10.5		10.0		8.5		8.0		10.5		9.5	
Bar	1000.5		999.0		999.5		1000.0		1000.0		1000.0		1000.3		1001.0		1003.0		1003.5	
Wind Dir	S		SSW		S		SSW		SW		NW		SW		SW		WSW		SW	
Wind Spd/F	F 1		F 2		F 2		F 3		F 1		F 1		F 2		F 2		F 2		F 2	
Transparency	9		9		13												11		12	
Depth	129		122		505		468		544		398		597		832		167		286	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	9.2	33.986	9.2	33.760	8.7	33.908	9.3	33.873	8.3	33.840	7.5	33.985	7.4	34.072	7.4	33.930	8.5	33.991	8.3	34.004
10m	8.29	34.01	8.42	34.02	8.40	34.01	9.01	33.99	8.04	34.00	7.39	34.00	7.34	34.04	7.10	33.97	8.52	34.00	8.41	33.98
20m	8.26	34.01	8.35	34.01	8.33	34.00	8.92	33.98	7.72	33.99	7.35	34.00	7.31	34.04	7.03	34.01	8.53	34.00	8.32	33.99
30m	8.01	34.01	7.96	34.03	8.21	34.01	8.70	34.00	7.02	34.04	7.23	34.01	5.33	33.94	5.68	34.07	8.22	34.00	7.89	34.02
50m	6.91	34.03	7.42	34.09	6.82	34.06	7.97	34.08	5.53	34.05	4.70	34.09	3.56	34.11	3.73	34.10	6.62	34.06	6.64	34.05
75m	6.06	34.04	6.74	34.07	5.63	34.07	7.36	34.09	4.93	34.09	3.89	34.10	2.91	34.11	2.97	34.11	5.60	34.08	4.91	34.09
100m	5.54	34.09	6.42	34.04	5.07	34.10	5.95	34.08	4.40	34.09	2.85	34.10	2.45	34.10	2.26	34.11	5.09	34.10	4.19	34.11
125m	5.43	34.09			4.84	34.11	5.42	34.08	3.99	34.10	2.23	34.08	1.88	34.09	1.83	34.11	4.85	34.10	3.41	34.11
150m					4.59	34.12	5.09	34.11	3.38	34.12	1.86	34.08	1.50	34.10	1.51	34.11	4.56	34.11	2.44	34.09
200m					3.78	34.11	4.38	34.11	2.26	34.12	1.33	34.08	1.30	34.10	1.13	34.11			1.96	34.09
250m					2.11	34.12	3.14	34.08	1.50	34.11	0.90	34.10	0.88	34.10	0.86	34.11			1.54	34.10
300m					1.34	34.11	1.27	34.10	1.10	34.11	0.71	34.09	0.66	34.10	0.63	34.10				
400m					0.89	34.11	0.76	34.11	0.59	34.10			0.46	34.12	0.43	34.11				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-5

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199405		199405		199405		199405		199405		199405		199405		199406		199406		199406	
Station No	J27		J26		J25		J24		J23		J22		J21		JW11		JW12		JW13	
Latitude:N	44-30.0		44-30.0		44-30.0		44-30.0		44-30.0		44-30.0		44-30.0		45- 0.0		45- 0.0		45- 0.0	
Longitude:E	139-30.0		140- 0.0		140-20.0		140-40.0		141- 0.0		141-15.0		141-30.0		141-30.0		141-15.0		141- 0.0	
Date	1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/05/31		1994/06/01		1994/06/01		1994/06/01	
Time(JST)	12:36		14:52		16:32		18:04		19:53		21:19		22:38		01:33		02:49		04:10	
Weather	C		BC		C		C		R		C		R		R		C		C	
Air Temp.	12.0		12.8		14.0		14.0		13.0		13.0		13.0		12.6		12.0		12.0	
Bar	1003.6		1003.7		1003.5		1003.5		1005.5		1006.0		1006.0		1004.2		1003.8		1004.0	
Wind Dir	S		SSW		SSW		SW		SW		SW		ESE		SE		ESE		SE	
Wind Spd/F	F 3		F 4		F 4		F 4		F 4		F 2		F 2		F 3		F 3		F 3	
Transparency	10		11		11		12													
Depth	508		581		243		143		208		117		77		65		85		108	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	9.0	34.008	10.1	34.004	10.3	34.019	10.9	34.050	10.9	33.880	10.9	33.927	11.4	33.982	10.8	33.960	10.8	34.177	10.7	34.181
10m	8.40	33.99	9.56	34.00	10.25	34.00	10.89	34.03	10.99	33.89	11.03	33.99	11.40	33.84	10.57	33.78	10.59	33.98	10.75	34.05
20m	8.08	34.00	9.15	34.00	9.93	34.03	10.53	33.99	10.81	33.96	10.94	33.99	11.41	33.84	10.46	33.83	10.35	33.98	10.59	34.05
30m	6.78	34.03	9.08	33.98	9.58	34.02	9.51	34.04	10.24	33.89	10.65	33.97	11.16	33.81	10.12	33.80	9.99	34.01	9.93	33.96
50m	3.55	34.12	7.69	34.11	8.33	34.11	8.95	34.10	9.96	34.03	10.02	34.02	9.55	33.98	9.56	33.83	9.42	34.04	9.31	34.06
75m	2.69	34.10	5.83	34.09	6.85	34.12	8.41	34.14	8.56	33.99	9.08	34.04					7.72	34.03	8.65	34.08
100m	2.14	34.10	5.07	34.10	5.75	34.11	8.03	34.12	8.09	34.02	8.06	34.08							7.76	34.08
125m	1.67	34.11	4.35	34.07	4.84	34.10	7.15	34.15	7.63	34.09										
150m	1.49	34.10	3.64	34.09	4.23	34.11			5.45	34.11										
200m	1.02	34.12	2.04	34.09	3.91	34.10			4.76	34.10										
250m	0.77	34.10	1.34	34.10																
300m	0.60	34.10	1.00	34.11																
400m	0.38	34.11	0.59	34.12																
500m			0.43	34.11																
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-6

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	JW14		S4		S3		S2		S1		O15		OA10		O14		O13		O12	
Latitude:N	45- 0.0		45-40.0		45-37.0		45-34.0		45-31.0		45-30.0		45-30.0		45-30.0		45-20.5		45-12.5	
Longitude:E	140-40.0		142- 0.0		142- 0.0		142- 0.0		142- 0.0		142-10.0		142-30.0		142-50.0		142-40.7		142-32.5	
Date	1994/06/01		1994/06/06		1994/06/06		1994/06/06		1994/06/06		1994/06/06		1994/06/06		1994/06/06		1994/06/06		1994/06/06	
Time(JST)	05:55		12:08		12:31		12:53		13:14		13:53		15:19		16:57		18:25		19:47	
Weather	C		C		C		BC		BC		BC		BC		B		BC		BC	
Air Temp.	12.0		14.0		13.0		13.0		13.0		16.0		14.0		15.0		10.0		9.2	
Bar	1003.0		1017.0		1016.5		1016.0		1016.0		1015.5		1015.0		1014.6		1015.5		1015.5	
Wind Dir	SSE		WSW		W		W		WNW		WNW		WNW		WNW		W		SE	
Wind Spd/F	F 3		F 3		F 3		F 3		F 3		F 3		F 3		F 3		F 2		F 2	
Transparency	10		8		10		10		8		12		7		9		9			
Depth	370		54		49		41		26		35		82		118		98		62	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	8.9	34.176	8.5	<i>N.D.</i>	8.5	<i>N.D.</i>	9.8	<i>N.D.</i>	11.4	<i>N.D.</i>	9.0	<i>N.D.</i>	7.5	<i>N.D.</i>	7.8	<i>N.D.</i>	7.4	<i>N.D.</i>	7.4	<i>N.D.</i>
10m	8.84	33.98	7.96	33.92	7.92	34.06	9.26	33.96	10.75	33.52	8.23	34.00	4.98	31.96	7.57	32.27	6.46	32.70	7.63	33.99
20m	8.53	34.00	7.29	34.04	7.65	34.04	9.27	33.97	10.45	33.68	8.22	33.99	5.93	33.79	1.33	32.31	5.00	33.48	7.60	34.02
30m	8.43	34.02	6.94	34.04	7.61	34.04	9.16	33.98			8.22	33.98	5.52	33.89	-1.01	32.86	4.54	33.75	7.63	34.02
50m	8.18	34.03	6.72	34.05							5.72	34.01	-1.58	33.10	5.75	34.07	7.62	34.02		
75m	7.04	34.06									5.73	34.02	3.59	33.65	5.77	34.05				
100m	5.23	34.10												4.41	33.84					
125m	5.04	34.11																		
150m	4.81	34.11																		
200m	4.18	34.12																		
250m	3.12	34.11																		
300m	0.87	34.10																		
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-7

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	O11		OA02		OA03		OA04		OA05		O26		O25		O2f		O24		O2e	
Latitude:N	45- 9.0		44-52.0		45- 0.0		45-10.0		45-20.0		45-10.0		45- 0.1		44-55.0		44-50.0		44-47.5	
Longitude:E	142-30.0		142-52.0		143- 0.0		143-10.0		143-20.0		143-50.0		143-40.5		143-35.0		143-30.0		143-27.5	
Date	1994/06/06		1994/06/06		1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07	
Time(JST)	20:24		22:44		00:00		01:32		02:54		05:22		06:58		07:51		08:39		09:41	
Weather	F		BC		BC		BC		BC		B		B		B		B		B	
Air Temp.	10.0		9.0		9.5		10.0		9.0		10.0		16.0		18.5		14.0		14.5	
Bar	1015.5		1016.0		1015.5		1015.5		1015.5		1015.2		1015.3		1015.0		1014.5		1014.0	
Wind Dir	SE		ESE		SSE		S		SSW		S		SE		SE		ESE		ESE	
Wind Spd/F	F 2		F 1		F 2		F 1		F 1		F 1		F 1		F 1		F 1		F 2	
Transparency											9		10		10		14		10	
Depth	46		83		130		133		144		337		173		162		150		148	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	9.2	<i>N.D.</i>	7.5	<i>N.D.</i>	8.2	<i>N.D.</i>	7.6	<i>N.D.</i>	7.6	<i>N.D.</i>	6.6	<i>N.D.</i>	8.3	<i>N.D.</i>	8.2	<i>N.D.</i>	9.4	<i>N.D.</i>	9.7	<i>N.D.</i>
10m	9.23	33.91	7.00	33.68	6.02	32.72	6.59	32.32	6.81	32.20	4.86	32.18	6.78	32.52	6.03	32.40	4.52	32.71	4.36	32.56
20m	9.23	33.91	7.30	33.94	-0.95	32.88	3.45	32.45	3.08	32.47	1.40	32.37	3.48	32.55	2.07	32.58	2.94	32.79	1.87	32.62
30m	9.23	33.92	7.41	33.99	-0.52	33.06	1.06	32.66	0.53	32.64	0.07	32.60	1.39	32.60	-0.87	32.79	0.84	32.93	-0.59	32.87
50m			7.41	33.99	4.84	33.80	-1.65	32.96	-1.53	33.01	-1.05	32.94	-1.56	32.96	-1.43	32.99	-1.19	32.99	-1.39	33.07
75m			7.30	34.00	5.43	33.97	-1.77	33.06	-1.77	33.08	-1.21	33.09	-1.67	33.06	-1.56	33.05	-1.41	33.11	-1.19	33.11
100m					4.99	34.05	-1.72	33.12	-1.72	33.12	-1.29	33.16	-1.50	33.12	-1.24	33.12	-0.43	33.19	0.56	33.34
125m					5.03	34.06	0.98	33.51	-1.72	33.12	-1.23	33.20	-1.25	33.18	-0.31	33.18	2.11	33.50	4.12	33.95
150m											-1.06	33.23	0.08	33.37	3.89	33.87				
200m											-0.82	33.28								
250m											-0.36	33.33								
300m											-0.16	33.37								
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-8

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	O2d		O2c		O23		O2b		O22		OA11		OA12		OA13		OA14		O35	
Latitude:N	44-45.0		44-42.5		44-40.0		44-37.5		44-35.0		44-20.0		44-25.5		44-30.0		44-40.0		44-50.0	
Longitude:E	143-25.0		143-22.5		143-20.0		143-17.5		143-15.0		143-40.0		143-42.5		143-50.0		144- 0.0		144-20.0	
Date	1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07		1994/06/07	
Time(JST)	10:12		10:46		11:16		11:53		12:30		14:50		15:23		16:33		18:06		20:09	
Weather	BC		BC		BC		BC		BC		BC		BC		BC		BC		BC	
Air Temp.	15.0		14.0		14.0		14.0		14.5		17.5		15.5		20.0		14.5		13.0	
Bar	1013.5		1013.0		1013.0		1012.5		1012.0		1011.0		1010.5		1009.5		1009.5		1010.0	
Wind Dir	SE		SE		SE		ESE		E		E		E		ESE		ESE		SE	
Wind Spd/F	F 2		F 2		F 2		F 2		F 2		F 2		F 2		F 2		F 1		F 2	
Transparency	10		7		7		7		9		5		5		8		8			
Depth	139		128		113		90		72		61		91		163		189		154	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	9.5	<i>N.D.</i>	9.3	<i>N.D.</i>	9.2	<i>N.D.</i>	11.6	<i>N.D.</i>	12.5	<i>N.D.</i>	10.5	<i>N.D.</i>	9.5	<i>N.D.</i>	9.3	<i>N.D.</i>	9.5	<i>N.D.</i>	9.4	<i>N.D.</i>
10m	4.89	32.49	4.91	33.32	6.35	33.51	8.47	33.94	10.26	33.59	9.37	33.86	8.00	33.96	2.17	32.76	6.24	32.74	5.54	32.45
20m	2.45	33.21	6.88	33.99	5.87	33.78	7.89	33.94	9.99	33.71	8.45	33.83	7.92	33.97	0.42	32.97	1.03	33.09	2.81	32.66
30m	-1.41	33.02	6.71	33.98	5.31	33.91	7.57	33.98	9.73	33.80	8.09	33.94	7.70	33.97	4.76	33.79	-1.24	33.03	0.53	32.78
50m	5.63	33.95	6.49	33.99	5.46	33.99	7.17	34.00	9.19	33.82	7.89	34.00	7.24	33.97	5.97	34.01	-1.42	33.07	-1.03	33.03
75m	3.75	33.76	5.78	34.00	5.27	33.97	6.24	33.98			6.62	33.99	5.32	33.89	-1.28	33.14	-1.18	33.12		
100m	4.52	33.87	5.21	34.03	5.17	34.00							5.78	34.03	-0.94	33.21	-1.09	33.16		
125m	4.99	33.96	5.20	34.03									5.45	33.99	-0.82	33.22	-0.54	33.25		
150m													5.23	33.98	0.06	33.28				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-9

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	O36		O46		O45		O44		O43		O42		O41		OA24		OA23		OA22	
Latitude:N	45- 8.0		45-10.0		45- 0.0		44-50.0		44-40.0		44-30.0		44-22.0		44-30.0		44-20.0		44-10.0	
Longitude:E	144-20.0		145-20.0		145-20.0		145-20.0		145-20.0		145-20.0		145-20.0		144-50.0		144-50.0		144-50.0	
Date	1994/06/07		1994/06/08		1994/06/08		1994/06/08		1994/06/08		1994/06/08		1994/06/08		1994/06/08		1994/06/08		1994/06/08	
Time(JST)	22:00		02:12		03:32		04:45		06:06		07:37		09:01		11:32		13:48		15:15	
Weather	BC		BC		BC		BC		BC		BC		BC		BC		BC		BC	
Air Temp.	12.0		10.0		10.0		13.5		12.5		13.0		13.0		19.0		15.0		17.0	
Bar	1010.0		1009.0		1010.0		1010.0		1010.2		1010.0		1009.0		1008.5		1007.0		1006.0	
Wind Dir	SSE		SSE		S		S		S		SSE		SE		ESE		ENE		NE	
Wind Spd/F	F 2		F 2		F 2		F 1		F 2		F 2		F 2		F 1		F 2		F 2	
Transparency							8		9		9		13		13		10		7	
Depth	800												139		9991		1093		593	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	8.1	<i>N.D.</i>	7.6	<i>N.D.</i>	7.9	<i>N.D.</i>	8.4	<i>N.D.</i>	7.9	<i>N.D.</i>	7.2	<i>N.D.</i>	8.2	<i>N.D.</i>	13.0	<i>N.D.</i>	11.0	<i>N.D.</i>	12.5	<i>N.D.</i>
10m	3.82	32.08	5.03	32.27	7.80	32.70	7.53	33.19	5.63	32.10	7.13	32.89	8.05	33.61	5.75	32.42	4.27	32.59	10.04	33.48
20m	2.29	32.25	2.29	32.39	4.04	32.78	0.08	32.91	-0.02	32.57	5.64	32.79	8.14	33.64	4.66	32.65	4.13	32.65	9.15	33.69
30m	0.22	32.56	0.55	32.59	-0.29	32.65	0.04	33.02	-0.37	32.85	3.79	32.97	8.18	33.71	0.45	32.55	0.32	32.75	8.23	33.95
50m	-1.05	32.90	-1.26	32.95	-1.07	33.01	-0.66	33.10	-1.02	32.97	2.65	33.16	6.82	33.78	-1.17	32.94	-1.42	33.07	7.75	33.96
75m	-1.06	33.07	-1.03	33.06	-1.35	33.08	1.05	33.31	-1.15	33.08	2.27	33.27	6.49	33.89	-1.51	33.06	-1.38	33.14	3.57	33.60
100m	-0.92	33.17	-1.20	33.13	-1.50	33.10	-0.20	33.29	-0.63	33.16	1.99	33.44	5.78	33.83	-1.38	33.10	-1.32	33.15	2.08	33.41
125m	-0.57	33.25	-0.63	33.21	-1.05	33.18	0.04	33.31	-0.64	33.22	2.43	33.55	4.56	33.71	-1.29	33.16	-1.23	33.20	4.01	33.78
150m	-0.26	33.29	-0.83	33.19	-0.41	33.28	0.17	33.36	-0.44	33.26	2.42	33.61			-0.98	33.21	-0.98	33.21	4.61	33.83
200m	-0.28	33.34	0.29	33.37	-0.18	33.34	0.82	33.45	0.37	33.38	2.75	33.73			0.02	33.33	-0.55	33.29	4.27	33.81
250m	0.19	33.42	0.53	33.46	0.41	33.42	1.97	33.58	0.57	33.45	3.19	33.82			0.31	33.40	-0.12	33.35	3.35	33.73
300m	0.54	33.48	0.67	33.48	0.32	33.46	1.68	33.60	0.73	33.52	2.96	33.82			0.49	33.46	0.12	33.40	3.38	33.78
400m	0.53	33.58	0.92	33.59	1.02	33.59	1.64	33.69	0.86	33.60	2.64	33.80			0.67	33.53	0.54	33.50	2.71	33.75
500m	1.17	33.70	1.61	33.79	1.42	33.74	1.99	33.78			2.19	33.80			1.19	33.68	1.21	33.69	2.31	33.77
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-10



Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199406		199406		199406		199406		199406		199406		199406	
Station No	OA21		O31		OA20		O32		O33		O34		WEB001		WEB002		WEB003		WEB004	
Latitude:N	44- 5.1		44- 2.2		44- 5.0		44-10.0		44-20.0		44-30.0		44-44.7		44-44.4		44-44.1		44-44.4	
Longitude:E	144-50.4		144-20.4		144-20.0		144-20.0		144-20.0		144-20.0		141-36.7		141-32.4		141-24.8		141-15.4	
Date	1994/06/08		1994/06/08		1994/06/08		1994/06/08		1994/06/08		1994/06/08		1994/06/27		1994/06/27		1994/06/28		1994/06/28	
Time(JST)	16:14		18:45		19:11		19:58		21:20		22:35		15:30		16:11		00:00		12:25	
Weather	BC		BC		BC		BC		BC		BC		BC		BC		BC		B	
Air Temp.	18.0		18.0		18.0		17.5		15.0		14.0						14.0		15.0	
Bar	1005.5		1005.8		1005.5		1005.5		1005.5		1005.0		1010.0		1010.0		1014.0		1013.5	
Wind Dir	NE		ESE		SE		SE		SSE		S		NE		NE		N		N	
Wind Spd/F	F 2		F 2		F 2		F 2		F 2		F 3		S 10		S 11		F 2		F 2	
Transparency	9		5														2		2	
Depth	232		35		36		112		268		750		71		82		91		101	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	12.3	<i>N.D.</i>	15.9	<i>N.D.</i>	15.9	<i>N.D.</i>	13.9	<i>N.D.</i>	9.4	<i>N.D.</i>	10.8	<i>N.D.</i>	14.1	33.760	13.8	33.810	13.7	33.810	14.3	33.830
10m	10.30	33.44	11.43	33.20	11.30	33.24	9.28	33.86	3.91	32.28	5.23	32.55	14.23	33.76	13.89	33.83	13.41	33.80	13.96	33.84
20m	9.96	33.57	9.22	33.48	10.87	33.58	9.04	33.90	3.99	32.49	3.94	32.53	11.20	33.94	12.44	33.92	13.28	33.66	13.93	33.83
30m	9.57	33.62	8.45	33.76	9.14	33.85	8.88	33.95	1.25	32.65	1.47	32.67	9.65	33.98	10.15	34.03	11.26	33.93	12.54	33.96
50m	8.31	33.96					8.01	33.97	-1.18	32.98	-1.04	32.93	8.64	33.93	8.68	34.06	9.23	34.04	9.67	34.06
75m	7.62	33.99					6.56	33.97	-1.45	33.09	-1.43	33.06			7.43	34.05	7.84	34.05	8.30	34.13
100m	7.12	33.99					6.18	33.94	-1.20	33.15	-1.45	33.09								
125m	6.74	33.96							-0.94	33.20	-1.37	33.14								
150m	6.30	33.96							-0.38	33.27	-1.12	33.18								
200m	5.55	33.89							0.44	33.39	-0.72	33.24								
250m									2.72	33.76	1.18	33.44								
300m											0.17	33.39								
400m											0.49	33.49								
500m											0.90	33.60								
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-11

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199406		199406		199406		199407		199407		199407		199407		199407		199407		199407	
Station No	WEB005		WEB006		WEB007		WEB001		WEB002		WEB003		WEB004		WEB005		WEB006		WEB007	
Latitude:N	44-46.4		44-46.2		44-44.2		45-13.1		45-10.6		45- 8.9		45- 9.6		44-54.3		44-58.8		44-55.4	
Longitude:E	141- 5.0		140-58.5		140-55.0		140-45.0		140-44.3		140-40.8		140-42.8		140-30.5		140-30.7		140-27.2	
Date	1994/06/29		1994/06/29		1994/06/30		1994/07/06		1994/07/06		1994/07/07		1994/07/07		1994/07/08		1994/07/08		1994/07/09	
Time(JST)	11:12		12:47		10:40		15:23		16:24		12:07		12:55		12:22		13:41		08:47	
Weather	BC		BC		R		C		C		R		R		C		C		C	
Air Temp.			17.0		15.0		16.5		15.5		16.5		16.0		20.0		21.5		17.5	
Bar			1011.5		1010.0		1011.0		1011.0		1009.5		1009.0		1010.5		1010.0		1012.0	
Wind Dir			SSW		S		ENE		NE		SSE		SSE		CALM		E		SE	
Wind Spd/F	S		S 3		S 3		F 4		F 4		F 2		S 3		S 0		F 1		F 3	
Transparency			3		3															
Depth	116		139		152		476		426		395		400		289		313		183	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	14.5	33.980	15.0	33.810	15.1	33.840	15.3	33.830	15.6	33.920	16.1	33.860	16.1	33.860	16.1	33.870	16.3	33.830	16.0	33.790
10m	14.18	34.02	14.52	33.95	15.14	33.83	15.21	33.85	15.80	33.92	16.13	33.87	16.24	33.86	15.84	33.84	15.08	33.65	16.02	33.81
20m	13.82	33.99	13.96	33.98	14.94	33.91	14.84	33.86	13.34	33.75	14.85	33.67	14.98	33.47	15.09	33.83	12.37	33.87	14.45	33.57
30m	12.48	33.84	13.93	33.96	12.48	33.89	11.33	33.99	10.42	34.10	10.38	34.21	10.03	34.01	13.61	33.80	10.85	33.85	12.66	33.82
50m	9.31	34.04	9.53	34.08	8.90	34.11	7.83	34.11	8.32	34.17	8.11	34.15	8.15	34.15	10.38	33.97	9.94	34.02	10.31	33.97
75m	7.94	34.08	7.12	34.11	7.15	34.06	5.44	34.07	6.00	34.13	6.84	34.12	6.62	34.08	8.86	34.05	8.95	34.03	9.27	34.03
100m	6.22	34.08	6.00	34.12	6.01	34.09	4.73	34.11	4.91	34.10	5.73	34.10	5.43	34.10	8.35	34.08	8.57	34.07	8.80	34.06
125m			5.12	34.11	5.14	34.09	4.13	34.11	4.35	34.11	4.99	34.11	4.51	34.09	7.88	34.09	7.94	34.11	8.52	34.06
150m							3.55	34.10	3.91	34.09	4.33	34.12	4.07	34.10	7.30	34.12	5.47	34.11	6.83	33.97
200m							2.38	34.11	2.54	34.07	2.85	34.11	2.89	34.10	4.99	34.13	3.72	34.11		
250m							1.54	34.10	1.60	34.10	2.27	34.10	2.16	34.09	2.00	34.12	1.90	34.11		
300m							1.12	34.10	1.15	34.09	1.30	34.11	1.23	34.09			1.18	34.09		
400m							0.63	34.10	0.58	34.09										
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-12

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199407		199407		199407		199407		199407		199407		199407		199407		199407		199407	
Station No	WEB008		WEB009		WEB010		WEB011		WEB012		WEB013		WEB014		WSU001		WSU002		WSU003	
Latitude:N	44-56.1		44-53.5		44-55.2		44-49.8		44-48.6		44-57.0		44-57.6		45-30.0		45- 1.0		45-13.6	
Longitude:E	140-27.4		140-25.9		140-26.6		140-24.0		140-22.8		140-27.7		140-29.1		142-47.0		143-18.7		143-18.8	
Date	1994/07/09		1994/07/11		1994/07/11		1994/07/12		1994/07/12		1994/07/13		1994/07/13		1994/07/25		1994/07/26		1994/07/26	
Time(JST)	09:26		13:25		13:58		10:31		11:02		10:45		11:10		16:20		08:30		10:00	
Weather	BC		R		R		BC		BC		C		R		R		C		C	
Air Temp.	19.0		16.5		16.5		16.5		17.5		17.5		17.5		13.5		17.5		18.0	
Bar	1012.0		1001.0		1001.0		1008.0		1008.0		1009.0		1009.0		1009.0		1004.0		1003.5	
Wind Dir	SSE		ENE		ENE		NW		NW		SSW		SSW		E		S		S	
Wind Spd/F	F 3		F 3		F 3		F 2		F 2		F 3		F 3		F 4		F 1		F 1	
Transparency																			2	
Depth	198		140		155		131		93		228		289		119		147		142	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	16.1	33.840	15.7	33.700	15.9	33.530	100.0	<i>N.D.</i>	16.4	33.820	16.4	33.750	16.4	33.750	<i>N.D.</i>	<i>N.D.</i>	<i>N.D.</i>	<i>N.D.</i>	<i>N.D.</i>	<i>N.D.</i>
10m	15.98	33.83	15.80	33.70	15.90	33.71	16.04	33.83	16.15	33.87	16.43	33.74	16.30	33.74	14.43	31.90	13.01	31.01	15.12	32.20
20m	15.19	33.57	15.88	33.78	15.90	33.73	15.93	33.88	13.17	33.82	15.75	33.81	14.51	33.65	5.87	32.04	0.22	32.82	3.72	32.58
30m	12.25	33.88	12.93	33.84	15.31	33.70	12.23	33.91	11.90	33.96	10.99	33.88	10.92	33.91	0.66	32.60	-0.83	32.96	0.72	32.68
50m	9.96	33.98	10.94	33.94	10.46	33.90	10.19	34.02	10.60	34.01	10.18	33.98	10.09	33.98	-1.10	32.92	-1.47	33.03	-0.38	33.04
75m	9.16	34.03	10.12	34.03	9.79	33.99	9.08	34.20	9.62	34.23	9.43	34.03	9.33	34.04	-1.06	33.12	1.13	33.31	1.10	33.36
100m	8.85	34.05	9.12	34.06	9.04	34.11	7.02	34.11			8.76	34.05	8.89	34.02	-0.08	33.35	1.54	33.37	2.16	33.49
125m	8.74	34.04	8.31	34.04	8.16	34.09	6.26	34.11			8.16	34.07	8.12	34.08			0.79	33.41	3.07	33.84
150m	6.15	33.96			7.30	34.12					7.52	34.10	7.26	34.11						
200m											2.60	34.08	2.99	34.07						
250m													1.65	34.02						
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-13

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199407		199407		199407		199407		199408		199408		199408		199408		199408		199408	
Station No	WSU004		WSU005		WSU006		WSU007		J11		J12		J13		J14		J15		J16	
Latitude:N	45-22.4		44-31.4		44-40.1		44-57.4		45-30.0		45-30.0		45-30.0		45-30.0		45-30.0		45-30.0	
Longitude:E	143-13.4		144- 3.9		144- 3.5		143-59.0		141-40.0		141-25.0		141-10.0		140-53.0		140-40.0		140-20.0	
Date	1994/07/26		1994/07/27		1994/07/27		1994/07/27		1994/08/01		1994/08/01		1994/08/01		1994/08/01		1994/08/01		1994/08/01	
Time(JST)	13:30		09:45		12:15		15:40		09:50		11:02		12:08		13:39		14:50		16:39	
Weather	F		F		F		F		C		F		C		F		C		C	
Air Temp.	19.0		18.5		19.0		17.0		23.0		23.5		23.5		22.6		22.6		22.0	
Bar	1003.0		1003.0		1002.0		1003.0		1003.5		1003.0		1003.0		1003.0		1002.7		1002.5	
Wind Dir	CALM		S		SSE		ENE		SSW		SW		SSW		SW		SW		SSW	
Wind Spd/F	S 0		F 1		S 1		F 2		F 3		F 3		F 3		F 2		F 3		F 2	
Transparency	2				3		3		12		15		11		8		11		17	
Depth	132		200		201		200		53		112		127		430		550		398	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	20.0	33.717	19.0	33.866	20.3	33.943	19.9	33.850	20.4	33.850	20.3	33.853
10m	14.74	32.12	6.50	32.40	10.22	31.20	15.04	32.39	19.79	33.64	17.74	33.84	19.96	33.90	18.32	33.73	20.24	33.95	19.06	33.91
20m	1.94	32.47	7.12	33.77	3.07	33.07	5.22	32.68	17.85	33.72	13.17	33.89	16.44	33.88	17.36	33.80	16.23	33.93	16.39	33.99
30m	-0.39	32.79	4.85	33.57	-1.07	33.00	0.79	32.61	11.30	34.00	10.48	33.97	11.78	33.91	13.50	33.67	11.68	33.97	9.94	34.06
50m	-0.98	32.94	0.19	33.29	-1.24	33.11	-0.90	33.00	9.23	34.08	8.26	34.10	9.53	33.98	10.26	34.05	9.54	34.02	6.56	34.11
75m	-1.02	33.11	0.63	33.33	-0.25	33.19	-1.24	33.09			7.51	34.08	8.16	34.02	8.51	34.08	7.93	34.11	4.70	34.08
100m	2.83	33.61	0.32	33.30	0.37	33.29	0.34	33.26			5.83	34.09	6.43	34.05	7.14	34.12	6.21	34.09	3.69	34.08
125m			0.47	33.36	0.68	33.36	0.84	33.33					5.53	34.08	6.19	34.12	5.10	34.11	2.96	34.09
150m			3.55	33.71	0.92	33.47	1.28	33.41							4.86	34.10	4.35	34.06	2.53	34.09
200m															3.31	34.09	3.20	34.09	1.79	34.10
250m															1.94	34.06	2.28	34.08	1.23	34.10
300m															1.13	34.09	1.57	34.11	0.82	34.09
400m															0.48	34.09	0.77	34.09		
500m																	0.54	34.08		
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-14

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408	
Station No	J17		J18		JW15		JW16		J27		J26		J25		J24		J23		J22	
Latitude:N	45-30.0		45-30.0		45- 0.0		45- 0.0		44-30.0		44-30.0		44-30.0		44-30.0		44-30.0		44-30.0	
Longitude:E	140- 0.0		139-40.0		140-20.0		140- 0.0		139-30.0		140- 0.0		140-20.0		140-40.0		141- 0.0		141-15.0	
Date	1994/08/01		1994/08/01		1994/08/02		1994/08/02		1994/08/02		1994/08/02		1994/08/02		1994/08/02		1994/08/02		1994/08/02	
Time(JST)	18:12		19:58		00:03		02:02		05:42		07:54		09:35		11:05		12:27		13:33	
Weather	BC		BC		F		F		F		F		C		F		C		C	
Air Temp.	21.0		20.5		21.5		21.2		20.5		21.5		24.0		24.0		24.5		24.5	
Bar	1002.5		1003.0		1004.2		1003.2		1004.0		1005.5		1005.0		1005.0		1004.6		1004.0	
Wind Dir	SSW		SSW		SW		SSW		SW		SW		SSW		SSW		SSW		SSW	
Wind Spd/F	F 2		F 2		F 3		F 4		F 3		F 3		F 2		F 2		F 3		F 2	
Transparency	15								13		17		10		13		7		11	
Depth	602		845		157		250		510		578		252		142		198		117	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	19.7	33.620	19.3	33.599	21.0	33.995	20.9	33.938	20.2	33.737	20.9	33.844	22.1	34.072	22.0	33.827	21.9	33.777	22.0	34.095
10m	17.35	33.16	16.35	33.46	17.10	33.94	20.76	33.93	18.66	33.73	20.68	33.77	20.73	33.89	19.91	33.79	20.94	33.77	21.40	34.10
20m	11.41	33.48	8.17	33.99	16.06	33.94	15.93	33.65	14.79	33.58	16.44	33.92	17.82	34.17	17.09	34.03	17.18	34.04	17.75	34.08
30m	6.53	33.99	6.10	33.94	12.07	33.89	10.83	34.18	9.30	34.04	10.64	33.97	13.70	34.18	16.79	34.01	17.00	34.04	15.39	34.13
50m	3.90	34.06	3.42	34.12	9.12	34.15	7.76	34.16	6.01	34.10	6.81	34.13	10.84	34.37	14.29	34.12	13.86	34.12	10.29	34.02
75m	2.83	34.08	2.65	34.13	8.05	34.15	6.14	34.13	4.08	34.11	5.49	34.10	7.62	34.16	9.47	34.21	10.35	34.32	8.64	34.18
100m	2.27	34.12	2.18	34.09	6.78	34.10	4.97	34.09	3.07	34.09	4.99	34.10	5.72	34.11	7.78	34.15	8.34	34.14	7.36	34.15
125m	1.87	34.11	1.81	34.11	5.37	34.07	4.28	34.08	2.44	34.08	4.68	34.11	5.11	34.12	6.87	34.12	7.24	34.15		
150m	1.57	34.09	1.61	34.09	4.19	34.09	3.53	34.11	1.97	34.09	4.07	34.10	4.61	34.09			5.78	34.09		
200m	1.13	34.09	1.10	34.08			3.18	34.09	1.33	34.08	2.52	34.10	2.97	34.10						
250m	0.83	34.09	0.79	34.09					1.02	34.09	1.44	34.10								
300m	0.66	34.08	0.63	34.10					0.90	34.09	1.03	34.09								
400m	0.45	34.08	0.45	34.11					0.53	34.08	0.57	34.10								
500m	0.35	34.09	0.35	34.09					0.38	34.10	0.38	34.10								
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-15

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408	
Station No	J21		JW11		JW12		JW13		JW14		JW03		JW02		JW01		S4		S3	
Latitude:N	44-30.0		45- 0.0		45- 0.0		45- 0.0		45- 0.0		45-45.0		45-45.0		45-45.0		45-40.0		45-37.0	
Longitude:E	141-30.0		141-30.0		141-15.0		141- 0.0		140-40.0		141- 0.0		141-10.0		141-20.0		142- 0.0		142- 0.0	
Date	1994/08/02		1994/08/02		1994/08/02		1994/08/02		1994/08/02		1994/08/03		1994/08/03		1994/08/03		1994/08/03		1994/08/03	
Time(JST)	14:35		17:22		18:26		19:28		20:54		01:34		02:30		03:17		05:57		06:20	
Weather	BC		BC		BC		F		F		F		F		F		F		F	
Air Temp.	27.0		24.5		23.0		22.0		22.0		20.0		19.8		19.0		19.0		18.5	
Bar	1003.6		1003.5		1003.0		1004.0		1004.5		1004.5		1004.5		1004.7		1006.0		1006.0	
Wind Dir	S		SSE		SSE		NNE		CALM		ESE		ESE		ESE		ESE		ESE	
Wind Spd/F	F 1		F 1		F 1		F 1		F 0		F 2		F 2		F 2		F 3		F 3	
Transparency	11		22		16												12		16	
Depth	78		64		84		98		370		495		122		126		58		44	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	22.8	34.128	20.6	33.841	21.1	33.846	21.4	33.997	21.2	33.939	20.3	33.924	18.3	33.842	18.9	33.832	18.0	33.686	18.2	33.764
10m	21.70	34.13	18.81	33.98	18.04	33.82	18.42	33.90	18.78	33.86	19.99	33.93	18.20	33.74	18.91	33.83	17.31	33.60	18.23	33.74
20m	18.12	34.14	16.60	34.01	14.89	33.90	16.58	34.03	16.76	33.88	16.19	33.91	16.01	33.80	16.64	33.90	12.47	33.82	11.29	33.68
30m	16.53	34.10	13.83	33.85	11.69	33.93	14.99	33.78	13.75	33.83	12.09	34.17	12.45	33.90	14.77	33.61	7.76	34.12	8.73	34.10
50m	10.82	34.09	9.93	34.08	9.47	34.05	9.47	34.00	8.54	34.10	8.88	34.16	9.19	33.97	10.18	34.01	7.61	34.13		
75m	8.54	34.15			7.99	34.04	7.92	34.17	7.01	34.10	7.33	34.14	7.64	34.06	8.10	34.02				
100m									5.83	34.11	5.55	34.09	6.33	34.08	7.20	34.09				
125m									5.16	34.11	4.56	34.07								
150m									4.65	34.11	3.62	34.08								
200m									2.67	34.07	2.67	34.07								
250m									1.44	34.10	1.76	34.09								
300m									0.92	34.09	1.08	34.10								
400m											0.61	34.09								
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-16

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408	
Station No	S2		S1		O15		OA10		O14		O13		OA04		OA05		O26		O25	
Latitude:N	45-34.0		45-31.0		45-30.0		45-30.0		45-30.0		45-20.0		45-10.0		45-20.0		45-10.0		45- 0.0	
Longitude:E	142- 0.0		142- 1.2		142-10.0		142-30.0		142-50.0		142-40.0		143-10.0		143-20.0		143-50.0		143-40.0	
Date	1994/08/03		1994/08/03		1994/08/03		1994/08/03		1994/08/03		1994/08/03		1994/08/03		1994/08/03		1994/08/03		1994/08/03	
Time(JST)	06:42		07:01		07:35		08:48		10:14		11:28		13:39		14:52		17:05		18:35	
Weather	F		F		F		F		F		F		B		B		B		BC	
Air Temp.	19.0		19.0		19.0		18.5		20.0		21.0		24.2		26.0		27.0		22.0	
Bar	1005.5		1005.5		1005.5		1006.0		1005.0		1005.0		1003.2		1002.6		1002.0		1002.0	
Wind Dir	ESE		SE		SE		ESE		ESE		CALM		E		ESE		SE		WNW	
Wind Spd/F	F 3		F 3		F 2		F 1		F 1		F 0		F 1		F 1		F 2		F 1	
Transparency	15		14		12		6		10		13		12		12		12		8	
Depth	46		34		35		83		118		96		132		142		331		171	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	18.4	33.779	16.2	33.814	18.7	33.664	10.5	31.754	18.7	31.835	9.7	33.784	19.4	32.496	18.6	32.133	19.6	32.057	20.5	32.533
10m	17.17	33.87	15.67	33.84	17.20	33.84	3.07	33.01	13.62	31.82	6.26	33.95	14.06	31.73	15.55	32.15	15.16	32.00	11.18	32.42
20m	10.58	33.75	15.05	33.99	11.36	33.99	2.14	33.38	4.04	32.32	6.19	34.04	2.65	32.55	5.16	32.25	4.46	32.42	3.94	32.53
30m	10.01	34.03	12.24	34.00	11.36	33.99	2.22	33.53	0.76	32.69	6.14	34.05	-0.20	32.79	0.64	32.73	0.19	32.72	0.43	32.85
50m							4.58	33.99	-0.86	32.96	6.03	34.05	-1.19	33.01	-0.97	32.97	-1.21	33.04	-1.01	33.09
75m							4.51	33.99	-1.13	33.04	5.88	34.03	-1.38	33.14	-0.91	33.11	-1.35	33.14	-1.04	33.14
100m									2.25	33.54			2.22	33.54	0.90	33.35	-1.36	33.19	-0.75	33.23
125m													3.02	33.82	1.45	33.54	-1.20	33.22	-0.10	33.27
150m																	-0.41	33.30	2.87	33.69
200m																	-0.46	33.34		
250m																	-0.27	33.37		
300m																	0.47	33.51		
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-17

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408	
Station No	O35		O36		O46		O45		O44		O43		O42		O41		OA24		OA23	
Latitude:N	44-50.0		45- 8.0		45-10.0		45- 0.0		44-50.0		44-40.0		44-30.0		44-20.0		44-30.0		44-20.0	
Longitude:E	144-20.0		144-20.0		145-20.0		145-20.0		145-20.0		145-20.0		145-20.0		145-20.0		144-50.0		144-50.0	
Date	1994/08/03		1994/08/03		1994/08/04		1994/08/04		1994/08/04		1994/08/04		1994/08/04		1994/08/04		1994/08/04		1994/08/04	
Time(JST)	21:26		23:16		03:20		04:30		05:38		06:46		08:26		09:53		12:13		14:31	
Weather	BC		BC		BC		BC		BC		BC		BC		BC		BC		BC	
Air Temp.	21.0		20.0		18.5		18.5		21.0		22.0		20.0		21.0		26.0		27.0	
Bar	1002.0		1002.0		1000.5		1001.0		1001.0		1001.0		1001.0		1001.0		1000.0		999.6	
Wind Dir	ESE		NNE		SW		SW		S		SW		SE		SE		S		CALM	
Wind Spd/F	F 2		F 1		F 2		F 2		F 2		F 2		F 1		F 1		F 1		F 0	
Transparency							10		13		12		8		7		11		14	
Depth	153		798				9991		9991		9991								1088	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	20.0	32.182	19.8	32.262	17.5	32.849	17.0	32.651	18.3	32.446	17.4	32.278	17.4	33.749	18.3	N.D.	19.6	32.201	20.9	32.239
10m	12.07	32.05	12.63	32.09	11.45	32.98	13.03	33.47	13.90	32.43	8.19	32.61	15.31	33.81	16.39	33.79	13.71	32.17	18.60	31.89
20m	1.98	32.71	4.59	32.15	2.38	32.79	2.57	33.06	5.00	33.24	2.17	32.66	14.66	33.74	14.53	33.83	5.18	32.62	5.49	32.26
30m	-0.73	32.94	2.84	33.12	3.61	33.16	2.31	33.18	3.45	33.31	3.06	33.09	13.06	33.85	13.92	33.82	2.08	32.86	0.37	32.78
50m	-1.39	33.05	1.00	33.17	3.00	33.42	-0.34	33.19	-0.22	33.13	-0.86	33.09	7.53	33.75	12.34	33.87	-0.21	33.09	-0.84	33.00
75m	-1.19	33.17	-0.29	33.15	2.37	33.43	1.54	33.38	0.92	33.32	-0.64	33.16	6.36	33.88	10.70	33.89	-0.47	33.17	-0.86	33.10
100m	-1.17	33.22	-0.48	33.21	1.74	33.40	0.96	33.34	0.24	33.35	-0.74	33.21	6.11	33.86	8.78	33.87	-0.28	33.24	-0.80	33.19
125m	0.18	33.36	-0.14	33.24	0.73	33.37	0.61	33.38	0.54	33.35	1.00	33.38	5.52	33.82	7.84	33.82	0.31	33.32	-0.56	33.28
150m			-0.03	33.31	0.45	33.39	1.97	33.60	0.93	33.43	1.27	33.42	5.06	33.79	6.93	33.80	0.18	33.32	-0.38	33.29
200m			0.36	33.39	0.96	33.45	0.83	33.49	0.82	33.47	0.41	33.40	2.43	33.59	5.43	33.76	1.08	33.47	0.09	33.37
250m			0.88	33.48	0.69	33.47	3.07	33.77	0.82	33.49	0.81	33.48	3.20	33.69			1.15	33.50	0.18	33.41
300m			1.16	33.54	1.63	33.61	3.18	33.80	1.67	33.62	1.28	33.59	0.92	33.51			0.79	33.50	0.88	33.53
400m			1.02	33.59	1.29	33.63	2.17	33.74	1.53	33.68	1.15	33.62	0.64	33.55			1.17	33.59	1.06	33.61
500m			1.37	33.76	1.52	33.76	1.86	33.78	1.36	33.75	1.28	33.71	1.29	33.68			1.35	33.74	1.31	33.73
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-18



Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199408		199408		199408	
Station No	OA22		OA21		O31		OA20		O32		O33		O34		OA14		OA13		OA12	
Latitude:N	44-10.0		44- 2.0		44- 2.0		44- 5.0		44-10.0		44-20.0		44-30.0		44-40.0		44-30.0		44-22.6	
Longitude:E	144-50.0		144-50.0		144-20.0		144-20.0		144-20.0		144-20.0		144- 0.0		143-50.0		143-50.0		143-42.6	
Date	1994/08/04		1994/08/04		1994/08/04		1994/08/04		1994/08/04		1994/08/04		1994/08/04		1994/08/05		1994/08/05		1994/08/05	
Time(JST)	15:45		16:45		18:50		19:10		19:44		20:57		22:08		00:00		01:16		02:15	
Weather	BC		BC		BC		BC		BC		BC		BC		BC		BC		BC	
Air Temp.	27.5		26.5		23.0		23.0		22.0		20.0		20.0		20.0		20.0		18.5	
Bar	999.5		1000.0		1002.0		1003.0		1003.0		1005.0		1005.5		1007.0		1007.8		1007.2	
Wind Dir	NNE		NNE		ENE		SSE		S		NW		WNW		NW		WNW		W	
Wind Spd/F	F 1		F 2		F 1		F 1		F 1		F 3		F 3		F 2		F 2		F 1	
Transparency	6		10																	
Depth	573		75		34		36		114		266		877		189		164		91	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	14.7	33.248	20.3	33.760	21.7	33.533	19.1	33.728	16.8	33.901	15.9	32.953	18.7	32.366	19.1	32.282	17.3	<i>N.D.</i>	16.8	33.583
10m	5.28	33.02	16.84	33.74	18.04	33.67	17.55	33.75	16.63	33.84	6.32	32.76	10.85	32.17	12.02	32.48	5.33	32.16	15.49	33.65
20m	6.93	33.68	14.89	33.84	17.13	33.75	16.86	33.79	14.46	33.84	1.00	32.90	3.02	32.52	1.31	32.71	0.26	32.88	11.15	33.97
30m	6.42	33.85	14.66	33.86	15.73	33.77	16.48	33.79	10.92	33.95	0.13	33.04	-0.33	32.89	0.96	33.16	2.69	33.26	10.68	33.97
50m	6.27	33.83	13.11	33.91					9.69	34.04	0.72	33.19	-1.12	33.03	-0.09	33.22	2.04	33.42	9.82	34.02
75m	4.75	33.69							9.62	34.03	1.82	33.46	-0.47	33.17	0.96	33.31	2.56	33.50	9.70	34.04
100m	5.25	33.77							9.35	33.99	0.17	33.34	-0.72	33.19	0.50	33.34	5.15	33.95		
125m	4.48	33.69									0.91	<i>N.D.</i>	-0.69	33.20	0.89	33.37	5.06	33.94		
150m	3.59	33.63									1.08	33.46	-0.52	33.27	0.54	33.35	4.84	33.90		
200m	2.44	33.52									2.98	33.69	-0.26	33.34						
250m	-0.15	33.34									1.36	33.57	1.07	33.47						
300m	0.53	33.45											1.17	33.51						
400m	0.76	33.56											0.88	33.58						
500m	1.80	33.75											1.07	33.68						
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-19

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199408		199408		199408		199408		199408		199408		199408		199410		199410		199410	
Station No	O22		O23		O24		OA03		OA02		O11		O12		S4		S3		S2	
Latitude:N	44-35.0		44-40.0		44-50.0		45- 0.0		44-52.5		45- 8.0		45-12.4		45-40.0		45-37.0		45-34.0	
Longitude:E	143-15.0		143-20.0		143-30.0		143- 0.0		142-52.5		142-28.0		142-32.5		142- 0.0		142- 0.0		142- 0.0	
Date	1994/08/05		1994/08/05		1994/08/05		1994/08/05		1994/08/05		1994/08/05		1994/08/05		1994/10/03		1994/10/03		1994/10/03	
Time(JST)	04:44		05:24		06:44		09:08		10:06		12:34		13:12		13:00		13:23		13:46	
Weather	B		F		B		B		B		BC		BC		BC		BC		BC	
Air Temp.	18.0		17.5		20.0		23.0		23.0		25.8		23.5		19.0		18.0		17.0	
Bar	1011.0		1011.5		1012.5		1013.0		1013.0		1012.6		1012.5		1019.5		1019.0		1019.0	
Wind Dir	NNW		NW		NW		CALM		CALM		E		ESE		WSW		NW		NW	
Wind Spd/F	F 1		F 1		F 1		F 0		F 0		F 2		F 2		F 1		F 1		F 1	
Transparency	13		8		12		7		12		10		15		21		16		14	
Depth	73		112		148		128		83		31		60		54		47		45	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	15.8	33.815	13.7	33.194	19.0	32.506	19.6	32.294	19.8	33.613	19.6	33.613	18.2	33.757	18.8	33.830	19.3	33.943	18.9	33.816
10m	15.26	33.84	10.51	33.30	11.43	32.27	12.14	32.75	16.15	33.84	17.90	33.82	16.41	33.89	17.23	33.80	18.01	33.88	18.22	33.83
20m	15.25	33.85	6.38	33.92	3.12	32.72	2.65	33.44	15.23	33.85	17.32	33.82	15.34	33.88	16.55	33.87	13.69	34.09	18.08	33.82
30m	15.14	33.84	6.93	34.05	1.57	32.89	5.86	34.02	14.01	33.87	17.10	33.85	11.80	33.96	13.52	33.96	12.99	34.18	17.98	33.84
50m	10.91	33.81	6.68	34.02	0.10	33.23	5.80	34.03	12.60	33.88			10.43	34.00	10.95	34.24				
75m			5.97	34.02	2.16	33.45	5.65	34.02	8.88	34.05										
100m			5.56	33.97	1.58	33.46	5.56	34.03												
125m					3.64	33.83	5.38	34.02												
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-20

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199410		199410		199410		199410		199410		199410		199410		199410		199410	
Station No	S1		O15		OA10		O14		O13		O12		OA02		OA03		OA04		OA05	
Latitude:N	45-31.0		45-30.0		45-30.0		45-30.0		45-20.0		45-12.5		44-53.0		45- 0.0		45-10.0		45-20.0	
Longitude:E	142- 0.0		142-10.0		142-30.0		142-50.0		142-40.0		142-32.5		142-52.3		143- 0.0		143-10.0		143-20.0	
Date	1994/10/03		1994/10/03		1994/10/03		1994/10/03		1994/10/03		1994/10/03		1994/10/03		1994/10/03		1994/10/04		1994/10/04	
Time(JST)	14:06		14:47		16:02		17:21		18:37		19:41		22:15		23:18		00:45		02:01	
Weather	BC		C		BC		BC		C		BC		BC		BC		BC		BC	
Air Temp.	17.0		20.5		17.0		15.0		15.0		15.0		14.5		13.8		14.0		13.0	
Bar	1019.0		1019.5		1020.0		1020.0		1021.0		1021.0		1021.2		1021.0		1021.0		1021.0	
Wind Dir	W		NW		NW		W		WNW		ESE		S		S		S		S	
Wind Spd/F	F 1		F 2		F 2		F 1		F 1		F 1		F 2		F 2		F 2		F 2	
Transparency	15		16		8															
Depth	25		35		81		118		94		59		88		128		132		142	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	18.5	33.801	18.0	33.889	13.0	32.114	13.3	30.340	13.6	31.023	17.3	33.817	12.5	32.105	12.3	30.727	12.8	32.827	12.8	31.966
10m	18.68	33.75	17.51	33.92	11.46	32.52	12.51	32.22	13.57	31.93	17.54	33.91	13.26	32.31	12.99	32.01	12.79	31.88	12.89	31.95
20m	18.68	33.76	16.92	33.94	10.40	33.21	12.42	32.24	12.77	32.65	17.45	33.91	14.67	33.51	12.45	32.06	8.11	31.34	4.06	31.71
30m			16.67	33.95	9.87	33.41	11.91	32.27	10.86	33.29	17.43	33.89	14.90	33.60	8.52	32.35	0.57	32.65	-0.28	32.84
50m					9.23	34.10	0.03	32.62	10.49	34.00	17.44	33.91	14.90	33.61	9.47	33.83	-0.80	32.93	-1.26	33.04
75m					9.25	34.11	-0.77	32.99	10.35	34.04			14.63	33.70	9.55	33.87	-0.94	33.05	-1.50	33.11
100m							-1.14	33.14							9.02	33.98	-0.12	33.33	-1.10	33.19
125m															9.00	34.01	1.41	33.47	-0.95	33.23
150m																				
200m																				
250m																				
300m																				
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-21

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199410		199410		199410		199410		199410		199410		199410		199410		199410	
Station No	O26		O25		O24		O23		O22		OA12		OA13		OA14		O34		O35	
Latitude:N	45-10.0		45- 0.0		44-50.0		44-40.0		44-35.0		44-22.5		44-30.0		44-40.0		44-30.0		44-50.0	
Longitude:E	143-50.0		143-40.0		143-30.4		143-20.0		143-15.0		143-42.6		143-50.0		144- 0.0		144-20.0		144-20.0	
Date	1994/10/04		1994/10/04		1994/10/04		1994/10/04		1994/10/04		1994/10/04		1994/10/04		1994/10/04		1994/10/04		1994/10/04	
Time(JST)	04:15		05:31		06:48		08:12		08:59		11:07		12:02		13:17		14:59		17:07	
Weather	BC		BC		BC		BC		BC		BC		BC		C		C		BC	
Air Temp.	13.0		13.0		14.0		16.0		17.0		16.5		16.5		19.0		17.0		14.0	
Bar	1022.5		1022.0		1022.0		1021.2		1021.6		1020.8		1020.0		1019.5		1019.5		1019.0	
Wind Dir	S		SSE		SSE		SE		SE		SE		ESE		ESE		E		SSE	
Wind Spd/F	F 2		F 1		F 2		F 2		F 2		F 2		F 2		F 2		F 2		F 3	
Transparency			7		7		11		11		12		9		11		13			
Depth	353		171		148		111		72		89		163		187		860		152	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	12.6	32.421	12.3	32.207	12.4	31.981	13.6	32.332	15.4	33.803	13.6	32.768	13.1	32.330	13.0	32.612	14.4	32.276	13.0	33.042
10m	12.79	32.43	12.45	32.19	12.48	31.96	12.97	32.83	15.56	33.88	15.16	33.71	12.46	32.84	12.26	32.56	14.07	32.23	12.46	32.92
20m	12.63	32.39	7.02	32.35	11.45	31.78	13.47	33.39	15.46	33.85	14.88	33.77	3.71	32.25	10.91	N.D.	6.06	32.76	10.48	33.06
30m	1.79	32.81	0.14	32.92	7.19	32.82	13.04	33.51	15.45	33.87	14.08	33.72	8.55	33.80	2.81	32.93	1.59	32.93	3.22	33.04
50m	-0.28	33.00	-0.77	33.07	7.80	33.87	12.23	33.84	15.37	33.85	13.65	33.89	8.12	33.93	-0.05	33.08	0.09	33.14	0.89	33.23
75m	-0.87	33.13	-1.20	33.12	1.90	33.32	11.42	33.87			13.54	33.90	6.30	33.76	0.61	33.32	0.21	33.23	0.68	33.27
100m	-1.10	33.15	-0.94	33.17	1.04	33.28	10.47	33.95					2.15	33.38	0.69	33.33	0.49	33.28	0.43	33.31
125m	-1.07	33.14	-0.54	33.25	3.13	33.53							2.49	33.49	0.37	33.36	0.35	33.32	0.45	33.34
150m	-1.05	33.15	-0.46	33.26									2.05	33.50	0.82	33.44	0.43	33.33		
200m	-0.80	33.21															0.57	33.40		
250m	-0.27	33.30															1.44	33.50		
300m	0.01	33.35															1.23	33.53		
400m																	0.96	33.61		
500m																	1.28	33.69		
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-22

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199410		199410		199410		199410		199410		199410		199410		199410		199410	
Station No	O36		O46		O45		O44		O43		OA23		OA22		OA21		O31		OA20	
Latitude:N	45- 8.0		45-10.0		45- 0.0		44-50.0		44-40.0		44-20.0		44-10.0		44- 2.0		44- 2.0		44- 5.0	
Longitude:E	144-20.0		145-20.0		145-20.0		145-20.0		145-20.0		144-50.0		144-50.0		144-50.0		144-21.3		144-20.0	
Date	1994/10/04		1994/10/05		1994/10/05		1994/10/05		1994/10/05		1994/10/05		1994/10/05		1994/10/05		1994/10/05		1994/10/05	
Time(JST)	19:20		00:25		02:18		04:08		06:05		10:08		11:36		12:43		14:50		17:56	
Weather	BC		C		BC		BC		C		R		R		R		C		C	
Air Temp.	13.5		12.0		12.0		13.0		12.0		14.5		14.8		15.0		15.0		15.0	
Bar	1018.0		1018.0		1017.5		1017.0		1016.0		1013.8		1012.4		1011.0		1011.0		1011.0	
Wind Dir	SE		SSE		SSE		SSE		SSE		S		SSE		SE		S		SSW	
Wind Spd/F	F 3		F 6		F 5		F 5		F 6		F 6		F 5		F 3		F 2		F 2	
Transparency									10		10		7		11		7			
Depth	803												593		77		40		36	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	12.0	33.088	12.3	33.066	12.9	33.240	11.8	32.786	13.2	32.891	13.2	32.652	15.3	33.168	16.0	33.554	14.7	32.668	14.8	32.457
10m	11.22	32.96	12.40	33.02	13.12	33.18	11.75	32.72	12.55	32.80	13.28	32.61	15.47	33.13	16.00	33.52	14.87	32.71	15.01	32.89
20m	10.18	33.09	12.38	33.00	13.05	33.16	9.02	32.92	6.48	33.19	11.11	32.86	15.49	33.15	16.00	33.73	15.36	33.13	15.23	33.14
30m	4.03	33.21	9.59	32.98	9.14	32.87	7.46	33.05	3.02	33.25	4.06	33.14	15.59	33.32	16.02	33.75	14.59	33.31	15.34	33.74
50m	2.34	33.22	1.01	32.95	1.96	33.26	3.85	33.47	2.11	33.38	0.58	33.15	13.07	32.99	15.58	33.83				
75m	0.47	33.17	0.32	33.19	0.94	33.24	2.42	33.47	1.74	33.40	0.67	33.26	8.93	33.91	13.16	33.76				
100m	0.06	33.23	1.38	33.28	1.18	33.33	2.08	33.49	1.53	33.40	0.83	33.28	2.69	33.19						
125m	0.22	33.28	1.07	33.32	1.35	33.38	1.74	33.49	1.39	33.37	0.80	33.36	-0.20	33.14						
150m	0.24	33.29	0.56	33.33	1.70	33.44	1.45	33.50	1.03	33.43	0.69	33.40	1.91	33.37						
200m	0.41	33.36	0.67	33.41	0.67	33.42	1.16	33.51	1.15	33.48	0.63	33.40	2.02	33.44						
250m	0.68	33.44	1.18	33.48	0.80	33.45	1.34	33.58	1.12	33.51	0.81	33.46	0.20	33.32						
300m	0.82	33.49	1.38	33.55	0.91	33.50	1.65	33.63	1.53	33.57	0.96	33.52	1.42	33.50						
400m	1.04	33.59	1.07	33.59	1.03	33.58	1.41	33.66	2.04	33.71	1.71	33.68	1.85	33.65						
500m	1.31	33.71	1.38	33.73	1.37	33.70	1.58	33.80												
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199410		199410		199410		199410		199410		199410		199410		199410		199410	
Station No	O32		O33		J11		J12		J13		J14		J15		J16		J17		J18	
Latitude:N	44-10.0		44-20.0		45-30.0		45-30.0		45-30.0		45-30.0		45-30.0		45-30.0		45-30.0		45-30.0	
Longitude:E	144-20.0		144-20.0		141-40.0		141-25.0		141-10.0		140-53.0		140-40.0		140-20.0		140- 0.0		139-40.0	
Date	1994/10/05		1994/10/05		1994/10/11		1994/10/11		1994/10/11		1994/10/11		1994/10/11		1994/10/11		1994/10/11		1994/10/11	
Time(JST)	18:38		19:50		10:47		12:04		13:08		14:41		15:51		17:51		19:29		21:23	
Weather	BC		BC		BC		B		B		B		B		B		B		BC	
Air Temp.	15.0		15.0		16.0		15.5		15.0		14.0		13.5		12.0		12.0		12.0	
Bar	1011.0		1011.5		1019.2		1018.0		1017.0		1015.5		1015.0		1014.5		1016.0		1015.8	
Wind Dir	S		S		WSW		ESE		WSW		WSW		SW		SW		SW		SW	
Wind Spd/F	F 2		F 1		F 4		F 3		F 3		F 3		F 4		F 4		F 3		F 3	
Transparency					13		20		18		15		16							
Depth	112		266		52		112		127		430		560		399		595		840	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	15.3	33.252	12.8	32.253	18.5	33.747	17.3	33.963	17.3	33.952	17.7	33.991	15.3	33.977	14.7	34.067	14.2	34.084	14.2	33.924
10m	15.48	33.28	12.89	32.20	18.60	33.62	17.33	33.93	17.40	33.90	17.74	33.92	15.52	33.92	14.89	34.03	14.51	33.98	14.33	33.88
20m	15.14	33.53	8.60	32.86	18.09	33.49	17.32	33.92	17.35	33.89	16.41	33.87	15.52	33.92	14.88	34.03	12.94	33.96	13.26	33.51
30m	14.01	33.36	6.08	32.68	18.14	33.79	17.28	33.92	17.28	33.88	15.94	33.99	13.06	33.99	11.09	33.92	7.11	34.02	5.21	33.94
50m	13.66	33.82	-0.35	32.86	16.16	34.01	15.85	33.97	17.25	33.89	12.59	34.33	9.66	34.26	7.28	34.16	4.83	34.09	3.38	34.10
75m	13.71	33.87	0.04	33.21			9.65	34.14	9.67	34.15	9.54	34.18	7.93	34.20	5.19	34.08	3.66	34.09	2.75	34.08
100m	13.62	33.87	1.64	33.34			8.15	34.18	7.33	34.09	8.27	34.18	5.99	34.11	3.72	34.06	2.81	34.08	2.31	34.09
125m			0.57	33.29					5.64	34.10	7.88	34.18	4.98	34.10	2.89	34.08	2.30	34.07	1.91	34.09
150m			0.59	33.34							6.97	34.15	3.91	34.07	2.27	34.07	1.93	34.07	1.70	34.08
200m			0.11	33.32							3.94	34.07	2.75	34.07	1.77	34.09	1.27	34.08	1.14	34.08
250m			1.45	33.57							1.74	34.05	1.71	34.09	1.27	34.09	0.99	34.09	0.90	34.08
300m											1.13	34.07	1.23	34.09	0.93	34.08	0.76	34.08	0.68	34.08
400m											0.68	34.08	0.57	34.08			0.48	34.09	0.48	34.07
500m													0.31	34.08			0.25	34.07	0.36	34.08
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-24

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199410		199410		199410		199410		199410		199410		199410		199410		199410	
Station No	J27		J26		J25		J24		J23		J22		J21		JW11		JW12		JW13	
Latitude:N	44-30.0		44-30.0		44-30.0		44-30.0		44-30.0		44-30.1		44-30.0		45- 0.0		45- 0.0		45- 0.0	
Longitude:E	139-30.0		140- 0.0		140-20.0		140-40.0		141- 0.0		141-15.0		141-30.0		141-30.0		141-15.0		141- 0.0	
Date	1994/10/12		1994/10/12		1994/10/12		1994/10/12		1994/10/12		1994/10/12		1994/10/12		1994/10/12		1994/10/12		1994/10/12	
Time(JST)	03:21		05:36		07:16		08:42		10:08		11:20		12:24		15:12		16:16		17:19	
Weather	BC		B		BC		BC		BC		BC		C		C		C		C	
Air Temp.	12.5		12.5		14.5		16.0		17.0		17.0		18.0		16.5		15.0		15.0	
Bar	1016.0		1016.0		1015.5		1015.2		1014.6		1013.8		1013.0		1010.0		1009.0		1008.5	
Wind Dir	WSW		W		S		S		S		S		WSW		NE		ENE		E	
Wind Spd/F	F 2		F 1		F 1		F 2		F 3		F 2		F 1		F 2		F 5		F 5	
Transparency					17		14		14		15		17		14		10			
Depth	510		568		240		143		198		116		78		63		84		97	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	14.5	34.028	16.6	34.032	17.8	34.021	18.3	34.009	18.7	33.962	18.9	33.921	19.5	33.844	18.9	33.958	19.2	33.834	18.0	33.921
10m	14.59	34.00	16.84	33.98	18.11	33.99	18.36	33.97	18.57	33.89	19.12	33.89	19.50	33.81	18.98	33.92	19.38	33.80	18.60	33.87
20m	14.55	33.99	16.82	33.98	17.36	33.95	18.31	33.99	18.36	33.91	19.09	33.91	19.47	33.82	18.95	33.93	18.72	33.86	18.56	33.89
30m	7.41	34.13	10.24	34.15	11.56	34.21	16.49	33.98	18.14	33.87	18.92	33.91	19.25	33.87	18.92	33.93	18.58	33.88	18.55	33.88
50m	4.85	34.03	6.99	34.15	9.36	34.29	9.87	34.26	13.12	34.39	18.16	33.94	19.25	33.88	18.85	33.93	18.10	34.02	15.49	34.34
75m	3.35	34.10	4.95	34.11	7.82	34.15	7.14	34.18	10.05	34.30	13.12	34.35	12.32	34.38			10.87	34.23	11.55	34.33
100m	2.26	34.09	3.69	34.10	6.30	34.11	5.57	34.13	8.14	34.21	10.50	34.36								
125m	2.00	34.09	2.85	34.09	4.43	34.10	4.74	34.10	6.11	34.09										
150m	1.71	34.08	2.20	34.08	4.01	34.07			4.80	34.09										
200m	1.17	34.08	1.48	34.10	2.18	34.08														
250m	0.84	34.08	1.04	34.09																
300m	0.65	34.10	0.81	34.08																
400m	0.46	34.07	0.57	34.08																
500m			0.40	34.09																
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-25

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199410		199412		199412		199412		199412		199412		199412		199412		199412		199412	
Station No	JW14		J11		J12		J13		J14		J15		J16		J17		J18		JW15	
Latitude:N	45- 0.0		45-30.0		45-30.0		45-30.0		45-30.0		45-29.9		45-30.0		45-30.0		45-30.0		45- 0.0	
Longitude:E	140-40.0		141-40.0		141-25.0		141-10.0		140-50.0		140-40.1		140-20.1		140- 0.1		139-40.0		140-20.0	
Date	1994/10/12		1994/12/07		1994/12/07		1994/12/07		1994/12/07		1994/12/07		1994/12/07		1994/12/07		1994/12/07		1994/12/08	
Time(JST)	18:40		11:26		12:37		13:44		15:10		16:15		18:04		19:35		21:42		01:45	
Weather	C		S		S		S		S		C		C		C		B		BC	
Air Temp.	15.0		-1.0		0.0		-2.0		-1.5		-0.8		-0.8		-2.0		-2.0		-1.5	
Bar	1007.0		1008.0		1008.5		1008.0		1009.0		1009.8		1011.8		1013.2		1014.0		1014.5	
Wind Dir	E		N		N		NNW		NNE		NNW		NW		NW		WNW		NW	
Wind Spd/F	F 5		F 3		F 2		F 1		F 3		F 3		F 4		F 3		F 3		F 3	
Transparency			6		9		11		12											
Depth	367		55		112		126		433		551		396		595		800		158	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	18.2	33.912	8.8	33.920	9.4	34.130	8.9	34.150	8.8	34.200	8.1	34.180	8.4	34.200	7.8	34.190	5.1	34.000	5.2	34.100
10m	18.50	33.88	9.36	33.92	9.97	34.12	9.91	34.14	9.70	34.20	8.31	34.15	8.78	34.17	8.44	34.16	5.23	33.98	5.87	34.09
20m	18.34	33.83	9.41	33.96	9.97	34.12	9.90	34.14	9.70	34.20	8.14	34.16	8.78	34.17	8.43	34.16	5.34	34.01	5.87	34.09
30m	18.14	33.87	9.47	33.96	9.99	34.12	9.89	34.15	9.66	34.20	7.85	34.15	8.75	34.16	7.81	34.07	5.34	34.01	5.84	34.08
50m	12.10	34.37	9.76	34.08	9.95	34.13	9.84	34.15	9.58	34.20	6.42	34.11	6.95	34.06	5.87	34.04	5.41	34.04	5.81	34.07
75m	10.18	34.33			9.45	34.16	9.69	34.17	6.85	34.11	4.71	34.09	4.83	34.10	3.60	34.09	3.47	34.07	5.68	34.08
100m	8.67	34.25			8.67	34.17	8.43	34.13	6.29	34.09	3.55	34.09	3.91	34.08	2.69	34.09	2.31	34.07	4.58	34.08
125m	7.37	34.16							5.51	34.11	3.09	34.07	3.01	34.07	2.17	34.09	2.06	34.09	3.18	34.10
150m	6.76	34.15							4.23	34.09	2.12	34.08	2.31	34.09	1.81	34.10	1.77	34.10	3.17	34.09
200m	3.31	34.05							2.56	34.09	1.26	34.09	1.47	34.09	1.25	34.08	1.36	34.08		
250m	1.50	34.09							1.56	34.09	0.92	34.08	0.93	34.06	0.95	34.08	0.99	34.09		
300m	0.81	34.08							1.11	34.08	0.69	34.09	0.67	34.09	0.77	34.09	0.83	34.08		
400m									0.80	34.08	0.44	34.08			0.52	34.08	0.50	34.09		
500m											0.29	34.10			0.32	34.09	0.36	34.08		
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-26



Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199412		199412		199412		199412		199412		199412		199412		199412		199412		199412	
Station No	JW16		J27		J26		J25		J24		J23		J22		J21		JW11		JW12	
Latitude:N	45- 0.0		44-29.8		44-30.0		44-30.0		44-30.0		44-30.0		44-30.0		44-30.0		45- 0.0		45- 0.0	
Longitude:E	140- 0.0		139-29.5		140- 0.0		140-20.0		140-40.0		141- 0.0		141-15.0		141-30.0		141-30.0		141-15.0	
Date	1994/12/08		1994/12/08		1994/12/08		1994/12/08		1994/12/08		1994/12/08		1994/12/08		1994/12/08		1994/12/08		1994/12/08	
Time(JST)	03:20		07:00		09:55		11:41		13:05		14:22		15:25		16:28		19:25		20:39	
Weather	BC		BC		BC		BC		C		BC		C		C		BC		C	
Air Temp.	-1.5		-0.5		1.5		3.5		2.5		2.0		1.5		3.0		2.5		1.0	
Bar	1015.5		1017.2		1017.5		1017.0		1016.5		1016.0		1015.0		1013.8		1012.0		1012.0	
Wind Dir	NW		W		WNW		WSW		WSW		WSW		WSW		WSW		W		WSW	
Wind Spd/F	F 3		F 2		F 2		F 2		F 3		F 4		F 4		F 4		F 5		F 4	
Transparency			13		19		17		18		18		17							
Depth	260		570		574		243		145		198		117		77		64		86	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	5.4	34.130	8.4	34.220	10.1	34.230	9.9	34.230	10.6	34.190	10.0	34.220	10.2	34.210	10.3	34.200	9.3	33.870	9.9	34.150
10m	6.18	34.11	8.86	34.20	10.30	34.23	10.15	34.21	11.41	34.17	10.22	34.18	11.08	34.18	10.62	34.19	9.60	33.86	10.08	34.15
20m	6.18	34.11	8.85	34.21	10.24	34.22	10.13	34.21	11.41	34.16	8.77	34.16	11.08	34.19	10.62	34.17	9.61	33.86	10.09	34.14
30m	6.18	34.10	8.85	34.22	9.60	34.19	10.07	34.22	11.41	34.16	8.37	34.19	11.08	34.17	10.61	34.18	10.55	34.16	10.11	34.14
50m	6.19	34.10	8.81	34.21	8.47	34.23	8.78	34.22	11.29	34.15	7.98	34.17	11.01	34.18	10.60	34.16	10.22	34.14	10.14	34.15
75m	6.03	34.06	8.75	34.21	6.71	34.18	7.66	34.14	9.27	34.29	7.34	34.16	10.52	34.20	10.58	34.17			9.69	34.22
100m	4.02	34.10	6.97	34.06	5.42	34.10	6.14	34.14	7.70	34.20	6.66	34.13	8.60	34.19						
125m	3.24	34.09	6.22	34.12	3.88	34.10	4.72	34.11	6.72	34.16	5.70	34.05								
150m	2.26	34.08	5.20	34.13	2.85	34.09	3.83	34.10			4.13	34.06								
200m	2.10	34.10	5.04	34.14	2.05	34.10	2.51	34.09												
250m	1.91	34.08	4.54	34.09	1.48	34.09														
300m			2.67	34.10	1.14	34.08														
400m			1.19	34.09	0.72	34.10														
500m			0.72	34.10	0.53	34.09														
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-27

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199412		199412		199412		199412		199412		199412		199412		199412		199412		199412	
Station No	JW13		JW14		JW03		JW02		JW01		S4		S3		S2		S1		O15	
Latitude:N	45- 0.0		45- 0.0		45-45.0		45-45.0		45-45.0		45-40.0		45-37.0		45-34.0		45-31.0		45-30.0	
Longitude:E	141- 0.0		140-40.0		140-59.9		141-10.0		141-20.0		142- 0.0		142- 0.0		142- 0.0		142- 0.0		142-10.0	
Date	1994/12/08		1994/12/08		1994/12/09		1994/12/09		1994/12/09		1994/12/12		1994/12/12		1994/12/12		1994/12/12		1994/12/12	
Time(JST)	21:53		23:35		04:00		04:56		05:40		11:16		11:39		12:02		12:27		13:15	
Weather	C		C		S		S		S		C		C		C		S		C	
Air Temp.	1.0		0.5		-0.5		-0.5		-0.5		-5.0		-4.5		-4.0		-4.0		-5.0	
Bar	1012.0		1012.0		1006.4		1004.8		1004.2		1015.5		1015.0		1014.0		1014.0		1014.0	
Wind Dir	W		W		N		NNW		N		N		NE		NE		NE		NE	
Wind Spd/F	F 4		F 3		F 1		F 2		F 2		F 2		F 2		F 2		F 2		F 2	
Transparency											12		14		11		11		8	
Depth	99		370		498		122		126		54		44		41		26		36	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	10.3	34.200	7.4	34.190	9.1	34.180	8.4	34.180	9.0	34.170	2.4	31.373	2.8	31.342	3.2	31.927	3.0	31.631	2.5	30.986
10m	10.53	34.19	7.41	34.17	9.51	34.18	8.95	34.17	9.44	34.17	5.67	33.08	5.45	32.91	6.60	33.37	5.49	33.06	3.81	31.84
20m	10.54	34.19	7.40	34.18	9.51	34.19	8.92	34.17	9.45	34.17	7.52	33.99	8.03	33.85	8.75	33.98	5.80	33.29	8.00	33.83
30m	10.42	34.19	7.28	34.17	9.47	34.18	8.92	34.18	9.47	34.16	7.65	34.03	8.04	33.87	8.58	33.94			8.45	33.90
50m	10.16	34.19	7.20	34.16	9.39	34.17	8.87	34.17	9.43	34.16	7.68	34.04								
75m	9.72	34.18	5.40	34.09	9.11	34.17	8.86	34.17	8.72	34.17										
100m			4.27	34.11	8.79	34.17	8.82	34.17	7.94	34.16										
125m			3.65	34.07	6.95	34.13														
150m			2.64	34.08	5.99	34.12														
200m			2.02	34.09	1.47	34.09														
250m			1.38	34.09	1.19	34.09														
300m			0.92	34.09	0.93	34.08														
400m					0.73	34.09														
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-28

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199412		199412		199412		199412		199412		199412		199412		199412		199412		199412	
Station No	OA10		O14		O13		O12		O11		OA02		OA03		OA04		OA05		O26	
Latitude:N	45-30.0		45-30.0		45-20.0		45-12.5		45- 8.3		44-52.5		45- 0.0		45-10.0		45-20.0		45-10.0	
Longitude:E	142-30.0		142-50.0		142-40.0		142-32.5		142-28.4		142-52.5		143- 0.0		143-10.0		143-20.0		143-50.0	
Date	1994/12/12		1994/12/12		1994/12/12		1994/12/12		1994/12/12		1994/12/12		1994/12/12		1994/12/12		1994/12/13		1994/12/13	
Time(JST)	14:40		16:08		17:23		18:18		18:51		21:06		22:03		23:22		00:44		03:05	
Weather	S		S		S		S		S		S		S		S		S		C	
Air Temp.	-5.5		-5.5		-5.0		-4.5		-4.2		-4.0		-3.0		-2.5		-4.0		-3.0	
Bar	1014.0		1014.0		1013.6		1013.5		1012.8		1012.0		1011.0		1010.5		1010.0		1010.5	
Wind Dir	ENE		ENE		E		ESE		ESE		S		SSE		S		E		SW	
Wind Spd/F	F 2		F 2		F 3		F 2		F 2		F 2		F 3		F 3		F 4		F 3	
Transparency	10																			
Depth	82		118		96		61		35		85		129		132		142		350	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	1.5	30.765	1.9	30.294	1.8	30.571	3.1	31.007	3.0	31.185	3.0	30.831	1.9	30.889	1.5	31.289	1.0	30.967	2.1	31.684
10m	2.60	30.86	2.84	30.26	2.26	30.64	3.58	31.01	3.96	31.89	3.23	30.84	2.05	30.90	1.67	31.44	1.48	30.97	2.33	31.70
20m	3.20	30.94	2.84	30.25	2.32	30.69	6.73	32.86	5.47	32.59	3.59	31.03	2.23	31.19	1.68	31.46	1.40	31.02	2.53	31.75
30m	3.71	31.30	2.86	30.31	2.27	30.81	7.87	33.52	5.70	32.74	4.37	31.98	2.49	31.35	1.72	31.47	1.33	31.05	2.94	31.86
50m	6.84	33.22	2.61	30.63	5.08	32.23	7.27	33.48			8.17	33.68	3.13	31.71	1.64	31.86	2.04	31.69	2.22	32.36
75m	6.90	33.92	2.18	31.07	6.89	33.86					8.09	33.72	2.46	32.31	1.75	32.53	1.41	32.49	0.59	32.84
100m			2.81	31.73									9.05	34.00	-0.01	32.96	0.50	32.94	-0.10	33.07
125m													8.95	34.01	0.02	33.10	-0.04	33.00	0.38	33.22
150m																			0.32	33.27
200m																			0.27	33.31
250m																			0.36	33.32
300m																			0.54	33.42
400m																				
500m																				
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-29

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199412		199412		199412		199412		199412		199412		199412		199412		199412		199412	
Station No	O25		O24		O23		O22		OA11		OA12		O34		O35		O36		O46	
Latitude:N	45- 0.0		44-50.0		44-40.0		44-35.0		44-17.5		44-22.5		44-30.0		44-50.0		45- 8.0		45-10.0	
Longitude:E	143-40.0		143-30.0		143-20.0		143-15.0		143-40.5		143-42.5		144-20.0		144-20.0		144-20.0		145-20.0	
Date	1994/12/13		1994/12/13		1994/12/13		1994/12/13		1994/12/13		1994/12/13		1994/12/13		1994/12/13		1994/12/13		1994/12/13	
Time(JST)	04:49		06:12		07:43		08:30		10:40		11:19		13:55		16:17		18:09		22:28	
Weather	C		BC		BC		BC		BC		BC		C		BC		C		BC	
Air Temp.	-3.0		-3.5		-3.5		-3.0		-3.0		-3.0		0.0		-3.5		-4.0		-4.0	
Bar	1009.8		1009.6		1011.5		1011.5		1012.0		1012.0		1010.0		1010.3		1011.0		1010.5	
Wind Dir	W		W		WNW		WNW		WNW		WNW		WNW		NNE		NNE		NNE	
Wind Spd/F	F 3		F 4		F 4		F 3		F 4		F 4		F 4		F 2		F 3		F 4	
Transparency					8		15		13		13		11							
Depth	172		150		116		75		46		90		875		152		796		2000	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	2.2	31.759	1.8	31.241	1.8	31.028	2.6	30.947	3.1	30.825	2.3	30.925	2.8	31.418	1.9	31.812	2.3	31.900	4.6	31.958
10m	2.37	31.74	2.08	31.25	2.12	30.98	2.50	31.02	3.29	30.81	2.33	30.88	2.94	31.26	3.47	31.94	2.57	31.85	4.79	31.92
20m	2.41	31.79	2.37	31.56	2.20	31.04	2.30	31.32	3.33	30.82	2.32	30.90	2.96	31.27	3.78	32.16	2.56	31.86	4.72	31.92
30m	2.52	31.86	2.72	31.64	2.41	31.33	4.18	32.02	2.56	31.12	2.37	30.96	3.37	31.68	3.79	32.32	2.77	31.92	5.76	32.49
50m	5.37	32.55	2.62	31.89	2.54	31.47	6.30	32.94			2.55	31.87	4.79	32.26	0.69	32.91	4.12	32.52	5.15	32.80
75m	-0.24	32.90	1.53	32.45	8.01	33.61			5.43	32.82	5.60	32.74	-0.13	33.10	1.07	33.08	7.93	33.87		
100m	0.17	33.09	0.26	32.85	8.11	33.64					1.19	33.10	-0.40	33.15	-0.29	33.20	7.22	33.81		
125m	-0.26	33.15	0.12	32.89							1.44	33.22	-0.37	33.20	-0.35	33.22	2.92	33.43		
150m	-0.24	33.18									0.61	33.25			-0.16	33.26	1.23	33.28		
200m											0.15	33.25			0.44	33.37	0.48	33.32		
250m											0.11	33.29			0.63	33.41	0.64	33.40		
300m											0.57	33.40			0.91	33.50	0.93	33.47		
400m											0.93	33.54			1.05	33.60	1.21	33.60		
500m											1.33	33.68			1.37	33.68	1.45	33.74		
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-30

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199412		199412		199412		199412		199412		199412		199412		199412		199412		199412	
Station No	O45		O44		O43		O42		O41		OA24		OA23		OA22		OA21		O31	
Latitude:N	45- 0.0		44-50.0		44-40.0		44-30.0		44-22.0		44-30.0		44-20.0		44-10.0		44- 2.0		44- 2.0	
Longitude:E	145-20.0		145-20.0		145-20.0		145-20.0		145-20.0		144-50.0		144-50.0		144-50.0		144-50.0		144-20.0	
Date	1994/12/13		1994/12/14		1994/12/14		1994/12/14		1994/12/14		1994/12/14		1994/12/14		1994/12/14		1994/12/14		1994/12/14	
Time(JST)	23:44		00:55		02:08		03:25		04:29		06:54		09:23		10:36		11:41		13:49	
Weather	C		S		S		S		BC		S		S		BC		BC		BC	
Air Temp.	-3.5		-3.0		-4.0		-4.0		-4.5		-4.0		-4.5		-4.0		-3.0		-3.0	
Bar	1009.5		1009.5		1009.5		1009.0		1008.2		1009.0		1011.0		1010.5		1009.5		1008.5	
Wind Dir	NNE		NE		NE		ENE		NW		ENE		WSW		WSW		WSW		SE	
Wind Spd/F	F 3		F 3		F 2		F 1		F 2		F 2		F 4		F 3		F 2		F 1	
Transparency											12		12		16		9		8	
Depth							1700		284						606		80		34	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	4.8	31.973	4.0	32.024	2.3	31.139	1.8	31.006	2.3	31.020	2.3	31.734	2.8	31.513	2.3	31.192	2.8	30.940	2.8	30.990
10m	4.80	31.93	4.54	32.10	3.60	31.43	2.19	31.02	2.51	30.99	3.72	31.81	3.01	31.42	2.37	31.13	2.88	30.92	3.08	31.01
20m	4.82	31.94	4.31	32.19	4.65	31.86	2.30	31.09	2.57	31.00	4.06	31.94	3.06	31.43	2.21	31.17	2.96	30.94	3.22	31.06
30m	4.62	32.18	4.30	32.21	4.75	31.91	2.55	31.37	2.54	31.02	4.96	32.15	3.41	31.71	2.19	31.23	3.08	30.98	3.54	31.21
50m	6.02	32.74	4.38	32.26	5.62	32.34	3.70	31.81	2.85	31.17	5.21	32.31	4.77	32.36	2.33	31.34	3.03	31.09		
75m	7.46	33.71	7.13	33.73	7.83	33.56	5.28	32.92	4.45	31.69	7.84	33.81	4.99	33.24	5.11	32.52	4.80	31.77		
100m	5.93	33.60	5.29	33.60	7.00	33.79	7.74	33.44	6.37	32.74	5.22	33.59	6.43	33.77	6.11	33.33				
125m	1.80	33.33	1.51	33.26	4.27	33.43	4.33	33.30	7.29	33.19	1.41	33.25	2.72	33.39	6.89	33.51				
150m	1.22	33.30	0.80	33.30	0.95	33.29	5.33	33.53	7.65	33.57	1.46	33.31	0.57	33.24	5.60	33.40				
200m	0.32	33.31	0.58	33.36	0.23	33.28	5.41	33.70	6.74	33.71	0.48	33.31	0.13	33.30	6.29	33.76				
250m	0.71	33.38	0.63	33.39	0.11	33.36	1.24	33.32	4.92	33.61	0.57	33.35	0.36	33.36	4.85	33.64				
300m	0.63	33.43	0.71	33.46	0.56	33.39	0.21	33.30			0.82	33.42	0.57	33.42	1.38	33.32				
400m	0.95	33.56	0.88	33.54	1.05	33.51	0.87	33.46			1.14	33.59	0.83	33.52	0.83	33.46				
500m	1.36	33.69	1.33	33.70	1.36	33.67	1.24	33.63			1.47	33.73								
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-31

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199412		199412		199412		199412		199412		199502		199502		199502		199502		199502	
Station No	OA20		O32		O33		OA14		OA13		J11		J12		J13		J14		J15	
Latitude:N	44- 5.0		44-10.0		44-20.0		44-40.0		44-30.0		45-30.0		45-30.0		45-30.0		45-30.0		45-30.0	
Longitude:E	144-20.1		144-20.0		144-20.0		144- 0.0		143-50.0		141-40.0		141-25.0		141-10.0		140-53.0		140-40.0	
Date	1994/12/14		1994/12/14		1994/12/14		1994/12/14		1994/12/14		1995/02/02		1995/02/02		1995/02/02		1995/02/02		1995/02/02	
Time(JST)	14:10		14:44		15:47		18:24		19:40		10:49		12:00		13:09		14:33		15:44	
Weather	BC		BC		BC		BC		S		BC		BC		BC		S		S	
Air Temp.	-2.0		-2.0		-3.0		-3.5		-4.0		-4.0		-3.0		-5.5		-5.0		-5.0	
Bar	1008.5		1008.5		1008.5		1009.2		1009.8		1030.0		1028.0		1027.6		1027.2		1027.5	
Wind Dir	CALM		CALM		SW		W		WNW		NNE		NNE		NNE		NNE		NNW	
Wind Spd/F	F 0		F 0		F 1		F 3		F 3		F 2		F 2		F 3		F 3		F 6	
Transparency	11		9		8						11		12		20		16		13	
Depth	37		115		267		188		163		55		114		128		406		550	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	2.8	30.865	2.8	30.844	2.4	31.190	2.3	31.759	1.3	31.296	2.4	31.942	4.5	33.195	4.2	34.103	4.1	34.176	5.0	34.187
10m	2.99	30.88	2.91	30.81	2.30	31.21	2.62	31.73	1.67	31.21	3.11	33.80	4.84	34.16	4.38	34.08	5.07	34.15	5.35	34.17
20m	3.00	30.88	2.71	30.89	2.21	31.39	2.83	31.88	1.91	31.31	3.46	33.86	4.84	34.15	4.37	34.09	5.08	34.15	5.35	34.17
30m	3.01	30.90	2.49	30.92	2.53	31.59	2.76	32.15	2.29	31.43	3.64	33.90	4.83	34.16	4.39	34.08	5.09	34.15	5.35	34.18
50m			2.46	31.74	2.78	31.76	0.88	32.90	2.64	31.85	3.82	33.95	4.84	34.16	4.40	34.10	5.09	34.16	5.34	34.18
75m			4.94	32.84	2.80	32.70	0.02	33.06	8.50	33.68			4.84	34.16	4.40	34.10	5.03	34.14	5.34	34.19
100m			5.40	32.97	1.28	33.15	-0.24	33.14	7.07	33.56			4.84	34.17	4.40	34.09	4.99	34.16	5.32	34.18
125m					0.33	33.21	-0.45	33.18	6.95	33.52					4.41	34.08	4.82	34.14	5.27	34.18
150m					0.13	33.22	-0.46	33.20	2.85	33.01							4.64	34.14	3.72	34.13
200m					1.37	33.31											1.96	34.09	2.69	34.07
250m					1.07	33.33											1.15	34.08	1.60	34.08
300m																	1.08	34.08	1.21	34.09
400m																			0.67	34.08
500m																			0.38	34.08
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-32

Table 6 Results of serial oceanographic observations. Hokkaido Wakkanai Fisheries Experimental Station 1994/Apr.-1995/Mar.

Stn-prefix	199502		199502		199502		199502		199502		199502		199502		199502		199502		199502	
Station No	JW13		JW12		JW11		J21		J22		J23		J24		J25		J26		J27	
Latitude:N	45- 0.0		45- 0.0		45- 0.0		44-30.0		44-30.0		44-30.0		44-30.0		44-30.0		44-30.0		44-30.0	
Longitude:E	141- 0.0		141-15.0		141-30.0		141-30.0		141-15.0		141- 0.0		140-40.0		140-20.0		140- 0.0		139-30.0	
Date	1995/02/02		1995/02/02		1995/02/02		1995/02/03		1995/02/03		1995/02/03		1995/02/03		1995/02/03		1995/02/03		1995/02/03	
Time(JST)	19:14		20:21		21:25		00:17		01:22		02:26		03:55		05:21		06:48		09:06	
Weather	BC		S		BC		BC		BC		BC		C		BC		C		C	
Air Temp.	-6.0		-7.0		-7.0		-7.6		-5.2		-5.0		-4.2		-4.0		-3.0		-3.5	
Bar	1028.0		1028.0		1029.0		1029.2		1029.5		1029.0		1029.0		1028.5		1028.0		1028.0	
Wind Dir	NNE		ENE		E		ENE		NE		ENE		NE		NNW		NNW		NW	
Wind Spd/F	F 3		F 2		F 2		F 3		F 3		F 2		F 2		F 3		F 2		F 2	
Transparency																	20		14	
Depth	105		86		65		79		118		202		146		248		568		521	
Equipment	STD		STD		STD		STD		STD		STD		STD		STD		STD		STD	
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	4.3	34.190	4.6	32.548	3.3	33.975	4.9	34.171	4.5	34.173	4.8	34.183	5.5	34.198	3.7	34.151	5.2	34.200	4.9	34.200
10m	5.49	34.21	5.38	34.21	3.90	34.03	5.23	34.18	5.35	34.17	5.91	34.18	5.98	34.19	3.71	34.14	5.39	34.20	5.56	34.20
20m	5.47	34.19	5.39	34.19	3.89	34.03	5.23	34.20	5.35	34.17	5.90	34.18	5.98	34.20	3.67	34.13	5.39	34.19	5.57	34.19
30m	5.47	34.19	5.31	34.19	3.90	34.03	5.23	34.17	5.37	34.17	5.90	34.20	5.99	34.20	3.60	34.13	5.39	34.19	5.56	34.19
50m	5.41	34.19	4.36	34.10	3.91	34.05	5.25	34.17	5.33	34.17	5.91	34.18	6.00	34.20	3.58	34.14	5.39	34.19	5.27	34.19
75m	5.32	34.17	4.22	34.08			5.25	34.18	5.31	34.17	5.92	34.17	5.99	34.20	3.25	34.12	5.38	34.19	4.13	34.16
100m	5.04	34.17							5.30	34.16	5.93	34.16	5.98	34.19	2.66	34.10	5.38	34.20	2.76	34.14
125m											5.93	34.17	5.99	34.19	2.27	34.07	5.39	34.19	2.61	34.13
150m											5.93	34.18			1.95	34.07	5.39	34.20	2.23	34.11
200m															1.45	34.07	4.83	34.18	1.46	34.08
250m																	2.81	34.11	1.13	34.08
300m																	2.08	34.11	0.95	34.09
400m																	1.26	34.08	0.61	34.07
500m																	0.70	34.09	0.41	34.07
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-33

Stn-prefix	199502		199502		199502		199502		199502		199502		199502		199502					
Station No	JW16		JW15		J18		J17		J16		JW03		JW02		JW01					
Latitude:N	45- 0.0		45- 0.0		45-30.0		45-30.0		45-30.0		45-45.0		45-45.0		45-44.6					
Longitude:E	140- 0.0		140-20.0		139-40.0		140- 0.0		140-20.0		141- 0.0		141-10.0		141-20.5					
Date	1995/02/03		1995/02/03		1995/02/03		1995/02/03		1995/02/03		1995/02/04		1995/02/04		1995/02/04					
Time(JST)	12:45		14:30		18:24		19:56		21:38		01:12		02:04		02:56					
Weather	C		BC		BC		BC		C		C		S		C					
Air Temp.	-3.5		1.0		-6.0		-3.0		-3.5		-3.5		-4.0		-4.2					
Bar	1025.2		1024.6		1025.5		1025.5		1025.0		1024.0		1023.2		1022.5					
Wind Dir	W		W		WSW		WSW		WSW		WSW		WSW		NW					
Wind Spd/F	F 2		F 2		F 3		F 2		F 3		F 2		F 3		F 2					
Transparency	15		20																	
Depth	250		144		836		596		399		494		124		140					
Equipment	STD		STD		STD		STD		STD		STD		STD		STD					
STND. Dep	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S	T	S
0m	4.9	34.203	4.8	34.198	4.2	34.183	3.5	<i>N.D.</i>	3.2	34.129	5.0	34.197	1.5	<i>N.D.</i>	2.3	33.882				
10m	5.38	34.19	5.12	34.18	4.43	34.18	4.34	34.17	3.43	34.15	5.30	34.19	3.98	34.06	3.56	33.91				
20m	5.35	34.19	5.11	34.19	4.43	34.17	4.35	34.17	3.42	34.14	5.31	34.19	4.34	34.08	3.56	33.93				
30m	5.34	34.19	5.08	34.20	4.43	34.17	4.35	34.18	3.27	34.10	5.31	34.19	4.30	34.08	3.55	33.93				
50m	5.04	34.20	5.06	34.19	4.43	34.18	4.36	34.18	3.10	34.12	5.31	34.20	4.35	34.10	4.10	34.03				
75m	3.37	34.13	4.80	34.17	3.18	34.12	4.36	34.17	2.85	34.12	5.32	34.19	4.35	34.10	4.29	34.08				
100m	2.98	34.12	3.93	34.14	2.06	34.10	4.37	34.18	2.51	34.10	5.31	34.19	4.34	34.10	4.35	34.09				
125m	2.86	34.12	1.49	34.09	1.81	34.09	4.29	34.17	2.42	34.10	5.21	34.18			4.38	34.10				
150m	2.74	34.13			1.57	34.09	2.49	34.10	2.14	34.07	3.88	34.15								
200m	2.34	34.12			1.06	34.08	1.37	34.07	1.60	34.09	2.43	34.09								
250m					0.92	34.08	1.08	34.08	1.12	34.07	1.64	34.08								
300m					0.68	34.08	0.93	34.08	0.72	34.07	1.18	34.09								
400m					0.46	34.09	0.61	34.07			0.56	34.09								
500m					0.34	34.10	0.47	34.09												
600m																				
700m																				
800m																				
900m																				
1000m																				

Table 6-34



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