



Title	2. The "Ushio Maru" Cruise 188, 189 and 190 in February - March 2010
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**THE " USHIO MARU "**

**CRUISE 188**

**CRUISE 189**

**CRUISE 190**

**IN FEBRUARY - MARCH 2010**

## 1. Cruise Itinerary

### Cruise 188

Departure from Hakodate	Feb.	2,	2010
Start hydrographic research (US10028)		2	
Arrival at Usujiri		2	
Departure from Usujiri		3	
Arrival at Usujiri		3	
Departure from Usujiri		4	
Finish hydrographic research (US10046)		4	
Arrival at and departure from Usujiri		4	
Return to Hakodate		5	

Total coverage 188.5 miles

### Cruise 189

Departure from Hakodate	Feb.	15,	2010
Start hydrographic research (US10047)		15	
Arrival at Hakodate		17	
Departure from Hakodate		18	
Arrival at Fukushima		18	
Departure from Fukushima		19	
Finish hydrographic research (US10092)		19	
Return to Hakodate		20	

Total coverage 439.9 miles

### Cruise 190

Departure from Hakodate	Feb.	26,	2010
Start hydrographic research (US10093)		26	
Arrival at Usujiri		26	
Departure from Usujiri		27	
Retrieval Sediment trap system		27	
Arrival at Mori		27	
Departure from Mori		28	
Set Sediment trap system		28	
Arrival at and departure from Usujiri		28	
Finish hydrographic research (US10115)		28	
Return to Hakodate	Mar.	1	

Total coverage 234.0 miles

## 2. Vessel Personnel

Captain:		Professor	Toshimi Meguro
Crew:	Chief Officer	Assistant Professor	Osamu Kimura
	Second Officer	Assistant Professor	Naoto Kobayashi
	And 13 men		

### Cruise 188

Research Staff:	Associate Professor	(Laboratory of Marine Bioresource Science)	Tetsuya Takatsu
Graduate Students:	Chair of Marine Bioresource Science:		4 persons
Under Graduate Students:	Department of Marine Biological Science:		1 person

### Cruise 189

Research Staff:	Associate Professor	(Laboratory of Marine Bioresource Science)	Tetsuya Takatsu
Guest Scientist (Domestic):		(JAMSTEC)	Yasushi Yoshikawa
		(Marine Works Japan.LTD)	Kenichi Katayama
Graduate Students:	Chair of Marine Bioresource Science:		3 persons
Under Graduate Students:	Department of Marine Biological Science:		1 person

### Cruise 190

Research Staff:	Associate Professor	(Laboratory of Marine Bioresource Science)	Tetsuya Takatsu
	Assistant Professor	(Laboratory of Marine Environmental Science)	Hiroji Onishi
Guest Scientist (Domestic):		(Ehime University)	Michinobu Kuwae
Graduate Students:	Chair of Marine Bioresource Science:		3 persons
	Chair of Marine Environmental Science:		4 persons
Under Graduate Students:	Department of Marine Biological Science:		1 person
	Department of Applied Marine Science:		1 person

### 3. Data on Temperature, Salinity and Computed Dynamic Depth Anomaly

Hydrographic work on deck and the data processing were made by the deck officers, crews, research staff and cadets of the “Ushio Maru”. Temperature and salinity were measured by CTD (Seabird SBE9Plus and SBE-19). Dynamic computations were made using a desk-top computer aboard the “Ushio Maru”.

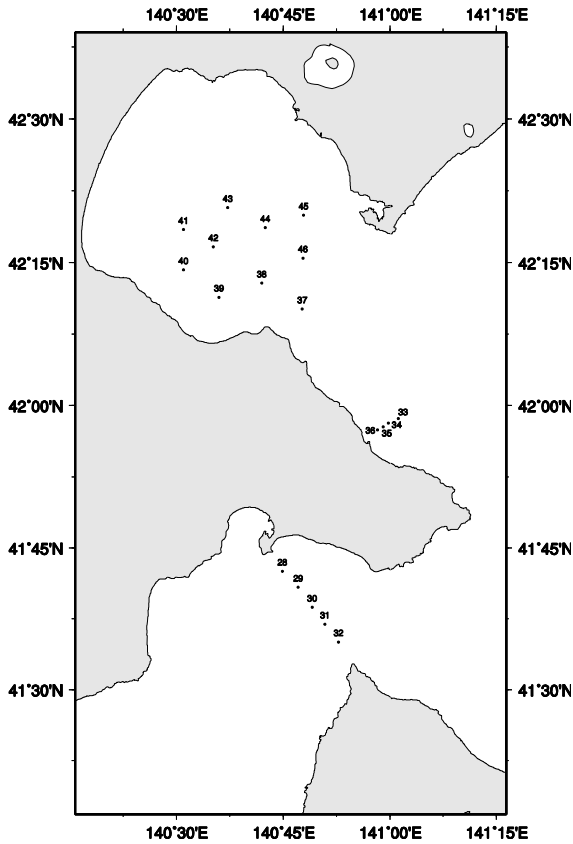


Figure 1: Oceanographic stations (Cruise 188)

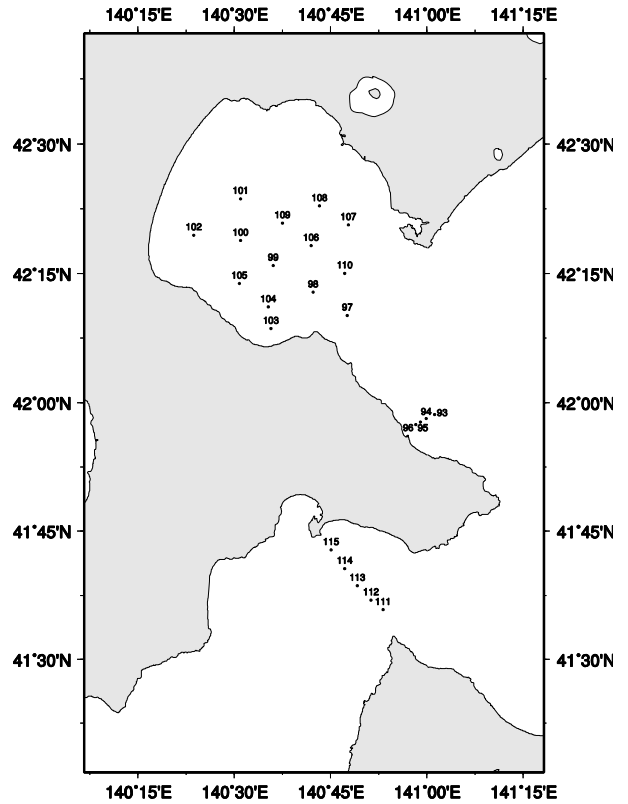


Figure 3: Oceanographic stations (Cruise 190)

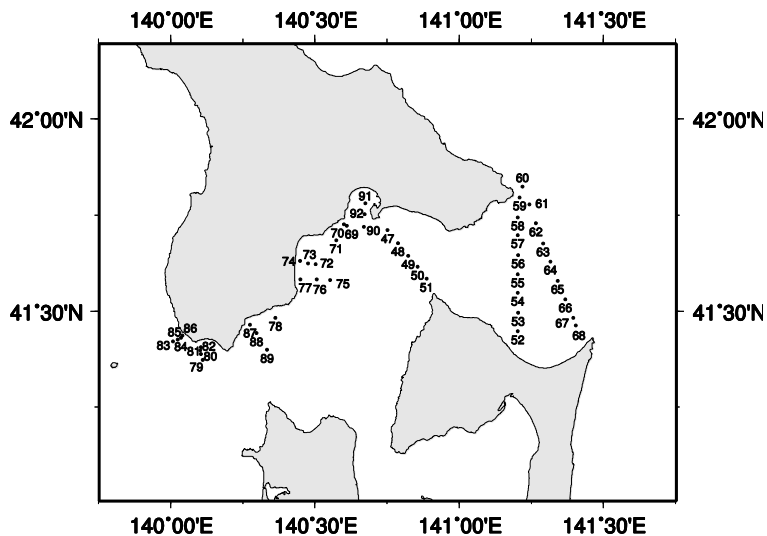


Figure 2: Oceanographic stations (Cruise 189)

Table 1: List of oceanographic stations

Cruise 188												
Station	Lat. (N)*	Long (E)*	Date	S.M.T	Depth	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US10028	41-42.6	140-44.8	2/2	0942-0945	90	NNW-1	NW -1	NNW-3	-3.6	10.0	bc	1014.1
US10029	41-40.9	140-47.0	2/2	1002-1010	218	NW -1	NW -1	NW -3	-3.2	10.0	bc	1014.1
US10030	41-38.8	140-49.0	2/2	1028-1041	356	NW -1	NW -1	NW -3	-3.5	10.2	bc	1014.1
US10031	41-37.0	140-50.8	2/2	1056-1100	86	NW -2	NW -1	NW -4	-2.6	10.2	bc	1013.8
US10032	41-35.1	140-52.7	2/2	1116-1118	34	NW -2	NW -1	NW -4	-2.9	10.2	bc	1013.6
US10033	41-58.7	141-01.1	2/2	1423-1428	99	NW -2	NW -1	NW -4	-4.6	3.1	bc	1011.1
US10034	41-58.2	140-59.7	2/2	1436-1440	90	NW -2	NW -1	NW -4	-4.4	3.2	bc	1011.0
US10035	41-57.8	140-59.0	2/2	1445-1448	86	NW -2	NW -1	NW -4	-4.6	3.2	bc	1011.1
US10036	41-57.5	140-58.2	2/2	1453-1456	81	NW -2	NW -1	NW -4	-4.6	3.1	bc	1011.1
US10037	42-10.2	140-47.6	2/4	0708-0713	94	West-3	WNW-1	West-5	-6.9	3.0	bc	1015.8
US10038	42-12.9	140-41.9	2/4	0817-0822	92	West-3	WNW-1	West-5	-7.4	3.1	bc	1016.2
US10039	42-11.4	140-35.9	2/4	0913-0918	84	West-3	WNW-1	West-5	-7.0	3.4	bc	1016.6
US10040	42-14.3	140-30.9	2/4	1001-1006	85	West-3	WNW-1	West-5	-7.2	3.5	s	1016.5
US10041	42-18.5	140-30.9	2/4	1051-1056	94	West-3	WNW-1	West-5	-6.1	3.6	s	1016.6
US10042	42-16.7	140-35.1	2/4	1129-1133	93	West-3	WNW-1	West-5	-6.5	3.6	s	1016.6
US10043	42-20.8	140-37.1	2/4	1215-1219	87	West-3	West-1	West-5	-6.2	3.7	bc	1016.2
US10044	42-18.7	140-42.4	2/4	1302-1306	67	West-2	West-1	West-4	-5.4	3.2	bc	1016.0
US10045	42-20.0	140-47.8	2/4	1340-1344	58	West-3	West-1	West-6	-4.6	3.3	bc	1015.5
US10046	42-15.5	140-47.7	2/4	1417-1420	72	West-3	West-1	West-5	-5.0	3.1	bc	1015.2

Cruise 189												
Station	Lat. (N)*	Long (E)*	Date	S.M.T	Depth	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US10047	41-42.8	140-44.9	2/15	0950-0954	86	NW -1	NW -1	NW -2	-0.3	8.8	c	1025.0
US10048	41-40.8	140-47.1	2/15	1012-1020	222	NW -1	NW -1	NW -3	-0.6	8.8	c	1025.1
US10049	41-38.8	140-49.2	2/15	1038-1049	349	NW -1	NW -1	NW -3	-0.2	8.7	c	1025.0
US10050	41-37.1	140-51.2	2/15	1104-1108	101	NW -1	NW -1	NW -3	-0.1	8.7	c	1024.6
US10051	41-35.2	140-53.1	2/15	1126-1128	39	NW -1	NW -1	NW -2	-0.1	8.9	c	1024.6
US10052	41-27.0	141-12.0	2/15	1306-1310	79	WNW-1	NW -1	WNW-3	1.5	8.9	c	1023.0
US10053	41-29.9	141-12.1	2/15	1331-1341	267	WNW-2	NW -1	WNW-4	1.5	8.9	c	1022.4
US10054	41-33.0	141-12.0	2/15	1403-1415	310	WNW-3	NW -1	WNW-5	1.1	8.9	c	1022.0
US10055	41-35.9	141-12.0	2/15	1432-1440	233	WNW-3	NW -1	WNW-5	0.8	8.8	c	1021.6
US10056	41-38.9	141-12.1	2/15	1500-1510	209	WNW-3	NW -1	WNW-5	0.4	15.1	bc	1021.9
US10057	41-42.0	141-12.0	2/15	1530-1540	211	WNW-1	NW -1	WNW-2	0.5	2.0	bc	1022.1
US10058	41-44.8	141-12.0	2/15	1600-1607	174	NNW-2	NW -1	NNW-4	-0.1	1.9	bc	1022.1
US10059	41-47.9	141-12.4	2/15	1630-1634	117	NNW-3	NW -1	NNW-5	-1.0	1.5	bc	1021.8
US10060	41-49.6	141-13.0	2/15	1650-1656	174	NNW-3	NW -1	NNW-5	-0.7	1.8	bc	1021.6
US10061	41-46.8	141-14.4	2/15	1715-1723	201	NW -3	NW -1	NW -5	-1.2	1.7	bc	1022.0
US10062	41-43.9	141-15.8	2/15	1741-1750	231	NNW-3	NW -1	NNW-5	-1.2	2.4	bc	1022.1
US10063	41-40.7	141-17.3	2/15	1810-1819	232	NW -3	NW -1	NW -5	-1.3	1.3	bc	1022.4
US10064	41-37.9	141-18.8	2/15	1838-1846	217	NNW-3	NW -2	NNW-5	-1.3	1.7	bc	1022.5
US10065	41-34.9	141-20.3	2/15	1907-1918	316	NNW-3	NW -2	NNW-5	-1.3	2.8	bc	1022.5
US10066	41-32.0	141-21.9	2/15	1940-1950	260	NNW-3	NW -1	NNW-5	-0.7	8.9	bc	1022.6
US10067	41-29.1	141-23.6	2/15	2010-2014	96	NNW-3	NW -1	NNW-4	-0.5	9.0	bc	1022.6
US10068	41-27.9	141-24.1	2/15	2023-2027	59	NNW-3	NW -1	NNW-4	-1.0	8.9	bc	1022.6
US10069	41-43.5	140-36.5	2/18	0747-0750	39	East-1	East-1	East-3	-0.9	8.1	bc	1020.0
US10070	41-43.7	140-35.9	2/18	0805-0807	21	ESE-1	East-1	ESE-3	-0.2	8.1	bc	1020.0
US10071	41-41.2	140-34.3	2/18	0836-0839	41	ESE-1	East-1	ESE-2	-0.8	8.1	bc	1019.6
US10072	41-37.5	140-30.0	2/18	0919-0921	31	WSW-1	East-1	WSW-2	0.9	8.2	bc	1018.8
US10073	41-37.6	140-28.4	2/18	0938-0940	24	WSW-1	East-1	WSW-2	1.2	7.2	bc	1018.4
US10074	41-38.0	140-26.7	2/18	0958-1000	16	Calm	East-1	Calm	2.0	6.9	bc	1018.0
US10075	41-35.0	140-33.0	2/18	1044-1047	59	SE -1	ESE-1	SE -3	2.0	8.5	bc	1017.2
US10076	41-35.1	140-30.2	2/18	1110-1113	47	SE -1	ESE-1	SE -2	4.0	8.5	bc	1017.2
US10077	41-35.1	140-26.8	2/18	1149-1150	14	ESE-1	ESE-1	ESE-2	4.4	7.7	bc	1016.0
US10078	41-29.1	140-21.6	2/18	1250-1253	70	East-1	SE -1	East-3	4.4	8.3	bc	1014.4
US10079	41-22.5	140-06.5	2/18	1425-1430	114	ENE-3	East-1	ENE-5	3.4	7.3	bc	1012.4
US10080	41-23.4	140-06.1	2/18	1446-1450	98	ENE-3	East-1	ENE-5	3.2	8.0	bc	1011.9
US10081	41-24.0	140-06.0	2/18	1503-1508	85	ENE-3	East-1	ENE-5	3.4	7.8	bc	1011.8
US10082	41-24.5	140-06.1	2/18	1522-1525	54	ENE-3	East-1	ENE-5	3.3	8.2	bc	1011.6
US10083	41-25.4	140-00.3	2/18	1601-1605	105	ENE-3	East-1	ENE-5	3.1	7.0	c	1010.8
US10084	41-25.7	140-01.3	2/18	1621-1624	86	East-3	East-1	East-5	3.3	7.3	o	1010.4
US10085	41-26.0	140-02.0	2/18	1639-1642	54	East-3	East-1	East-5	3.3	6.7	o	1010.1
US10086	41-26.3	140-02.3	2/18	1655-1657	35	East-3	East-1	East-5	3.1	7.1	o	1009.9
US10087	41-28.0	140-16.3	2/19	1206-1208	28	WNW-2	SSW-1	WNW-4	2.6	7.7	o	1011.8
US10088	41-26.7	140-17.7	2/19	1229-1232	66	West-3	SSW-1	West-5	2.2	8.2	s	1011.6
US10089	41-24.1	140-19.9	2/19	1309-1313	95	West-3	SW -1	West-5	1.9	8.1	o	1011.2
US10090	41-43.3	140-40.0	2/19	1536-1539	71	West-3	SSW-1	West-5	2.4	8.2	c	1010.6
US10091	41-47.0	140-40.3	2/19	1612-1614	21	West-3	SSW-1	West-5	1.9	7.1	c	1011.0
US10092	41-45.3	140-40.2	2/19	1634-1637	43	West-3	SSW-1	West-5	1.5	7.2	c	1011.3

Cruise 190												
Station	Lat. (N)*	Long (E)*	Date	S.M.T	Depth	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US10093	41-58.7	141-01.1	2/26	1519-1523	99	NW -3	NW -1	NW -5	3.6	1.2	bc	1011.8
US10094	41-58.2	140-59.8	2/26	1530-1534	91	NW -3	NW -1	NW -5	3.1	1.2	bc	1011.7
US10095	41-57.8	140-58.9	2/26	1540-1544	86	NW -3	NW -1	NW -5	3.2	1.4	bc	1012.0
US10096	41-57.5	140-58.2	2/26	1549-1553	81	NW -3	NW -1	NW -5	3.2	1.5	bc	1012.0
US10097	42-10.2	140-47.5	2/27	0810-0815	94	NW -3	NW -1	NW -5	-1.9	1.2	bc	1019.2
US10098	42-12.9	140-42.2	2/27	0901-0906	92	NW -2	NW -1	NW -4	-1.5	1.3	bc	1019.5
US10099	42-16.0	140-36.0	2/27	1036-1041	93	NW -1	NW -1	NW -3	-0.1	1.5	bc	1019.5
US10100	42-18.9	140-30.9	2/27	1211-1216	95	NNW-2	NW -1	NNW-4	-0.9	1.7	bc	1018.6
US10101	42-23.7	140-30.9	2/27	1340-1344	97	North-3	NNW-1	North-5	-0.8	2.9	bc	1018.1
US10102	42-19.5	140-23.6	2/27	1455-1458	89	West-2	West-1	West-4	-0.5	2.5	bc	1018.0
US10103	42-08.7	140-35.6	2/27	1642-1646	65	NW -1	NW -1	NW -3	0.0	2.7	bc	1018.6

Cruise 190 (continued)

Station	Lat. (N)*	Long (E)*	Date	S.M.T	Depth	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US10104	42-11.2	140-35.2	2/28	0634-0638	82	NW -1	NW -1	NW -2	-1.9	2.1	o	1019.1
US10105	42-13.9	140-30.7	2/28	0744-0748	83	NNE-1	NW -1	NNE-2	-1.8	2.4	o	1019.2
US10106	42-18.3	140-41.9	2/28	0914-0919	68	Calm	NW -1	Calm	-1.3	1.1	o	1019.1
US10107	42-20.7	140-47.7	2/28	0955-0959	54	Calm	SE -1	Calm	-0.8	1.3	o	1018.7
US10108	42-22.9	140-43.2	2/28	1031-1035	59	Calm	SE -1	Calm	-1.7	1.5	s	1019.0
US10109	42-20.9	140-37.4	2/28	1113-1117	87	Calm	SE -1	Calm	0.7	1.5	c	1018.6
US10110	42-15.1	140-47.1	2/28	1339-1343	75	NNW-1	SE -1	NNW-2	-0.5	1.1	bc	1016.8
US10111	41-35.9	140-53.1	2/28	1937-1940	56	West-3	West-1	West-5	2.7	8.3	c	1015.7
US10112	41-37.0	140-51.2	2/28	1954-1958	98	West-3	West-1	West-5	2.8	7.6	c	1016.0
US10113	41-38.7	140-49.1	2/28	2015-2028	350	West-3	West-1	West-5	2.7	7.0	c	1016.1
US10114	41-40.7	140-47.1	2/28	2046-2054	229	West-3	West-1	West-5	2.6	7.7	c	1016.0
US10115	41-42.9	140-45.0	2/28	2113-2118	84	WSW-3	WSW-1	WSW-5	2.9	3.1	c	1015.6

(\*): Fixed position by Global Positioning System

Table 2: Oceanographic data

STATION US10028				STATION US10029				STATION US10030			
LATITUDE 41-42.6 N				LATITUDE 41-40.9 N				LATITUDE 41-38.8 N			
LONGITUDE 140-44.8 E				LONGITUDE 140-47.0 E				LONGITUDE 140-49.0 E			
DEPTH (m) 90				DEPTH (m) 218				DEPTH (m) 356			
Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T
5	10.327	34.012	26.124	5	10.047	34.007	26.169	5	10.585	33.978	26.053
10	10.332	34.014	26.126	10	10.047	34.007	26.169	10	10.587	33.979	26.053
20	10.334	34.016	26.127	20	10.040	34.006	26.169	20	10.591	33.979	26.053
30	10.316	34.020	26.133	30	10.036	34.004	26.168	30	10.594	33.982	26.055
40	10.238	34.022	26.148	40	10.020	34.004	26.171	40	10.550	33.995	26.072
50	10.203	34.022	26.154	50	10.017	34.003	26.171	50	10.524	33.996	26.078
75	10.132	34.015	26.160	75	9.977	34.003	26.177	75	10.478	34.002	26.090
				100	9.913	34.000	26.185	100	10.370	33.993	26.102
				125	9.764	34.001	26.211	125	10.214	33.976	26.116
				150	9.663	34.005	26.231	150	10.168	33.975	26.123
				175	9.504	34.008	26.260	175	10.165	33.975	26.124
				200	9.454	34.033	26.288	200	10.081	33.996	26.154
								250	10.112	33.985	26.140
								300	9.930	34.016	26.195
STATION US10031				STATION US10032				STATION US10033			
LATITUDE 41-37.0 N				LATITUDE 41-35.1 N				LATITUDE 41-58.7 N			
LONGITUDE 140-50.8 E				LONGITUDE 140-52.7 E				LONGITUDE 141-01.1 E			
DEPTH (m) 86				DEPTH (m) 34				DEPTH (m) 99			
Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T
5	10.562	33.986	26.063	5	10.510	33.957	26.050	5	3.554	33.023	26.257
10	10.571	33.986	26.062	10	10.509	33.972	26.062	10	3.554	33.025	26.258
20	10.567	33.989	26.065	20	10.495	33.982	26.072	20	3.554	33.023	26.257
30	10.564	33.989	26.065	30	10.467	33.985	26.079	30	3.549	33.023	26.257
40	10.534	33.990	26.072					40	3.549	33.022	26.256
50	10.537	33.991	26.072					50	3.551	33.020	26.255
75	10.479	33.991	26.082					75	3.568	33.023	26.255
STATION US10034				STATION US10035				STATION US10036			
LATITUDE 41-58.2 N				LATITUDE 41-57.8 N				LATITUDE 41-57.5 N			
LONGITUDE 140-59.7 E				LONGITUDE 140-59.0 E				LONGITUDE 140-58.2 E			
DEPTH (m) 90				DEPTH (m) 86				DEPTH (m) 81			
Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T
5	3.559	33.013	26.248	5	3.548	33.022	26.257	5	3.385	33.001	26.255
10	3.563	33.025	26.258	10	3.548	33.024	26.258	10	3.408	33.004	26.255
20	3.563	33.025	26.258	20	3.554	33.024	26.258	20	3.414	33.002	26.253
30	3.560	33.024	26.257	30	3.554	33.024	26.257	30	3.408	33.003	26.254
40	3.560	33.024	26.257	40	3.552	33.023	26.257	40	3.424	33.009	26.258
50	3.559	33.023	26.257	50	3.545	33.021	26.256	50	3.446	33.009	26.255
75	3.567	33.023	26.256	75	3.519	33.020	26.258	75	3.883	33.184	26.353
STATION US10037				STATION US10038				STATION US10039			
LATITUDE 42-10.2 N				LATITUDE 42-12.9 N				LATITUDE 42-11.4 N			
LONGITUDE 140-47.6 E				LONGITUDE 140-41.9 E				LONGITUDE 140-35.9 E			
DEPTH (m) 94				DEPTH (m) 92				DEPTH (m) 84			
Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T
5	3.389	33.084	26.321	5	3.548	33.132	26.344	5	3.792	33.193	26.370
10	3.400	33.077	26.314	10	3.534	33.130	26.344	10	3.798	33.217	26.388
20	3.405	33.068	26.307	20	3.555	33.133	26.345	20	3.801	33.216	26.387
30	3.407	33.065	26.304	30	3.569	33.133	26.343	30	3.816	33.219	26.388
40	3.406	33.064	26.303	40	3.552	33.130	26.342	40	3.830	33.215	26.383
50	3.407	33.065	26.304	50	3.552	33.130	26.342	50	3.836	33.214	26.382
75	3.407	33.066	26.305	75	3.612	33.145	26.348	75	4.072	33.249	26.386

STATION		US10040	
LATITUDE	42-14.3	N	
LONGITUDE	140-30.9	E	
DEPTH (m)	85		
Press.	Temp.	Salinity	Sigma-T
5	3.882	33.064	26.258
10	3.889	33.209	26.373
20	3.887	33.221	26.383
30	3.892	33.221	26.381
40	3.890	33.222	26.383
50	3.881	33.222	26.384
75	3.901	33.224	26.383

STATION		US10041	
LATITUDE	42-18.5	N	
LONGITUDE	140-30.9	E	
DEPTH (m)	94		
Press.	Temp.	Salinity	Sigma-T
5	4.002	33.193	26.349
10	4.009	33.229	26.377
20	4.008	33.229	26.377
30	4.006	33.229	26.377
40	3.995	33.227	26.377
50	3.994	33.230	26.379
75	4.038	33.238	26.381

STATION		US10042	
LATITUDE	42-16.7	N	
LONGITUDE	140-35.1	E	
DEPTH (m)	93		
Press.	Temp.	Salinity	Sigma-T
5	3.972	33.207	26.362
10	3.977	33.231	26.381
20	3.977	33.231	26.382
30	3.978	33.231	26.382
40	3.979	33.232	26.382
50	3.982	33.230	26.380
75	3.996	33.235	26.383

STATION		US10043	
LATITUDE	42-20.8	N	
LONGITUDE	140-37.1	E	
DEPTH (m)	87		
Press.	Temp.	Salinity	Sigma-T
5	4.073	33.228	26.369
10	4.074	33.249	26.386
20	4.072	33.261	26.396
30	4.074	33.261	26.395
40	4.074	33.260	26.395
50	4.079	33.260	26.394
75	4.080	33.257	26.392

STATION		US10044	
LATITUDE	42-18.7	N	
LONGITUDE	140-42.4	E	
DEPTH (m)	67		
Press.	Temp.	Salinity	Sigma-T
5	3.477	33.099	26.324
10	3.479	33.125	26.345
20	3.474	33.125	26.345
30	3.474	33.124	26.345
40	3.476	33.123	26.344
50	3.480	33.124	26.344

STATION		US10045	
LATITUDE	42-20.0	N	
LONGITUDE	140-47.8	E	
DEPTH (m)	58		
Press.	Temp.	Salinity	Sigma-T
5	3.686	33.178	26.368
10	3.689	33.186	26.374
20	3.695	33.193	26.379
30	3.743	33.206	26.384
40	3.747	33.206	26.384
50	3.733	33.204	26.384

STATION		US10046	
LATITUDE	42-15.5	N	
LONGITUDE	140-47.7	E	
DEPTH (m)	72		
Press.	Temp.	Salinity	Sigma-T
5	3.491	33.110	26.332
10	3.510	33.124	26.342
20	3.515	33.140	26.354
30	3.514	33.140	26.354
40	3.523	33.143	26.355
50	3.529	33.142	26.354

STATION		US10047	
LATITUDE	41-42.8	N	
LONGITUDE	140-44.9	E	
DEPTH (m)	86		
Press.	Temp.	Salinity	Sigma-T
5	9.164	34.050	26.348
10	9.167	34.049	26.347
20	9.171	34.049	26.346
30	9.159	34.050	26.349
40	9.146	34.048	26.350
50	9.088	34.055	26.364
75	8.938	34.062	26.394

STATION		US10048	
LATITUDE	41-40.8	N	
LONGITUDE	140-47.1	E	
DEPTH (m)	222		
Press.	Temp.	Salinity	Sigma-T
5	9.132	34.053	26.355
10	9.133	34.054	26.356
20	9.132	34.054	26.356
30	9.130	34.053	26.356
40	9.128	34.054	26.357
50	9.123	34.052	26.356
75	9.042	34.060	26.375
100	8.992	34.060	26.383
125	8.936	34.061	26.393
150	8.722	34.062	26.427
175	8.522	34.065	26.461
200	8.326	34.071	26.495

STATION		US10049	
LATITUDE	41-38.8	N	
LONGITUDE	140-49.2	E	
DEPTH (m)	349		
Press.	Temp.	Salinity	Sigma-T
5	9.001	34.049	26.373
10	9.006	34.048	26.372
20	9.004	34.048	26.372
30	8.935	34.053	26.387
40	8.878	34.049	26.393
50	8.837	34.058	26.406
75	8.805	34.061	26.414
100	8.785	34.059	26.416
125	8.760	34.061	26.421
150	8.752	34.061	26.422
175	8.749	34.061	26.423
200	8.747	34.061	26.423
250	8.750	34.061	26.422
300	8.739	34.063	26.426

STATION		US10050	
LATITUDE	41-37.1	N	
LONGITUDE	140-51.2	E	
DEPTH (m)	101		
Press.	Temp.	Salinity	Sigma-T
5	9.118	34.039	26.347
10	9.121	34.041	26.348
20	9.121	34.042	26.349
30	9.118	34.043	26.350
40	9.119	34.043	26.350
50	9.095	34.046	26.356
75	9.093	34.042	26.353
100	9.082	34.046	26.358

STATION		US10051	
LATITUDE	41-35.2	N	
LONGITUDE	140-53.1	E	
DEPTH (m)	39		
Press.	Temp.	Salinity	Sigma-T
5	9.301	33.987	26.276
10	9.302	34.032	26.311
20	9.229	34.029	26.321
30	9.213	34.035	26.328

STATION		US10052	
LATITUDE	41-27.0	N	
LONGITUDE	141-12.0	E	
DEPTH (m)	79		
Press.	Temp.	Salinity	Sigma-T
5	9.241	34.010	26.304
10	9.248	34.010	26.303
20	9.248	34.008	26.302
30	9.248	34.008	26.302
40	9.247	34.008	26.302
50	9.249	34.008	26.302
75	9.251	34.007	26.300

STATION		US10053	
LATITUDE	41-29.9	N	
LONGITUDE	141-12.1	E	
DEPTH (m)	267		
Press.	Temp.	Salinity	Sigma-T
5	9.206	34.010	26.310
10	9.208	34.010	26.310
20	9.212	34.010	26.309
30	9.207	34.010	26.310
40	9.208	34.010	26.310
50	9.208	34.009	26.309
75	9.215	34.009	26.307
100	9.224	34.008	26.306
125	9.226	34.008	26.305
150	9.232	34.007	26.304
175	9.237	34.008	26.303
200	9.237	34.007	26.303
250	9.243	34.007	26.302

STATION		US10054	
LATITUDE	41-33.0	N	
LONGITUDE	141-12.0	E	
DEPTH (m)	310		
Press.	Temp.	Salinity	Sigma-T
5	9.240	33.971	26.274
10	9.245	34.021	26.312
20	9.249	34.023	26.313
30	9.252	34.021	26.311
40	9.238	34.019	26.312
50	9.251	34.021	26.311
75	9.250	34.020	26.311
100	9.229	34.017	26.312
125	9.228	34.016	26.311
150	9.218	34.015	26.312
175	9.004	33.987	26.324
200	8.999	33.989	26.327
250	8.951	33.982	26.328
300	8.917	33.977	26.331



STATION		US10055	
LATITUDE	41-35.9	N	
LONGITUDE	141-12.0	E	
DEPTH (m)	233		
Press.	Temp.	Salinity	Sigma-T
5	9.139	33.966	26.286
10	9.154	33.969	26.286
20	9.153	34.004	26.314
30	9.152	34.002	26.312
40	9.151	34.002	26.312
50	9.158	34.002	26.311
75	8.608	33.918	26.332
100	6.834	33.618	26.353
125	6.070	33.712	26.526
150	6.394	33.593	26.391
175	5.334	33.399	26.368
200	5.472	33.443	26.386

STATION		US10056	
LATITUDE	41-38.9	N	
LONGITUDE	141-12.1	E	
DEPTH (m)	209		
Press.	Temp.	Salinity	Sigma-T
5	1.880	32.852	26.259
10	2.037	32.883	26.273
20	2.453	32.978	26.317
30	2.945	33.039	26.325
40	2.981	33.041	26.323
50	3.184	33.093	26.346
75	3.166	33.085	26.342
100	3.146	33.090	26.347
125	3.252	33.110	26.354
150	3.109	33.124	26.378
175	3.088	33.124	26.380
200	3.087	33.125	26.381

STATION		US10057	
LATITUDE	41-42.0	N	
LONGITUDE	141-12.0	E	
DEPTH (m)	211		
Press.	Temp.	Salinity	Sigma-T
5	2.499	32.906	26.255
10	2.999	33.047	26.326
20	2.935	33.064	26.345
30	2.974	33.066	26.344
40	3.015	33.073	26.345
50	3.026	33.076	26.347
75	3.053	33.083	26.350
100	3.031	33.080	26.350
125	3.024	33.084	26.354
150	3.004	33.085	26.356
175	2.976	33.084	26.357
200	3.013	33.105	26.371

STATION		US10058	
LATITUDE	41-44.8	N	
LONGITUDE	141-12.0	E	
DEPTH (m)	174		
Press.	Temp.	Salinity	Sigma-T
5	2.323	32.958	26.311
10	2.788	33.061	26.356
20	3.186	33.088	26.343
30	3.147	33.069	26.331
40	3.095	33.080	26.344
50	3.184	33.105	26.356
75	3.063	33.089	26.354
100	2.965	33.092	26.365
125	2.933	33.089	26.366
150	2.899	33.091	26.371

STATION		US10059	
LATITUDE	41-47.9	N	
LONGITUDE	141-12.4	E	
DEPTH (m)	117		
Press.	Temp.	Salinity	Sigma-T
5	1.876	32.846	26.255
10	1.894	32.854	26.260
20	2.315	32.987	26.335
30	2.531	33.025	26.348
40	2.874	33.082	26.365
50	2.958	33.087	26.361
75	2.928	33.088	26.365
100	2.900	33.091	26.370

STATION		US10060	
LATITUDE	41-49.6	N	
LONGITUDE	141-13.0	E	
DEPTH (m)	174		
Press.	Temp.	Salinity	Sigma-T
5	2.184	32.922	26.293
10	2.199	32.926	26.295
20	2.289	32.948	26.306
30	3.033	33.089	26.357
40	3.028	33.085	26.354
50	3.073	33.091	26.355
75	3.153	33.107	26.361
100	3.117	33.122	26.376
125	3.014	33.119	26.382
150	3.003	33.121	26.385

STATION		US10061	
LATITUDE	41-46.8	N	
LONGITUDE	141-14.4	E	
DEPTH (m)	201		
Press.	Temp.	Salinity	Sigma-T
5	2.261	32.913	26.280
10	2.253	32.913	26.281
20	2.332	32.929	26.287
30	3.150	33.100	26.355
40	3.172	33.087	26.343
50	3.151	33.091	26.348
75	3.198	33.108	26.358
100	3.185	33.107	26.358
125	3.181	33.109	26.360
150	3.049	33.127	26.386
175	2.995	33.120	26.385

STATION		US10062	
LATITUDE	41-43.9	N	
LONGITUDE	141-15.8	E	
DEPTH (m)	231		
Press.	Temp.	Salinity	Sigma-T
5	2.709	33.000	26.314
10	2.705	33.031	26.339
20	2.892	33.087	26.368
30	3.005	33.082	26.353
40	3.104	33.096	26.356
50	3.084	33.091	26.354
75	3.113	33.100	26.359
100	3.227	33.133	26.374
125	3.236	33.133	26.374
150	3.167	33.133	26.380
175	3.246	33.160	26.395
200	3.245	33.159	26.394

STATION		US10063	
LATITUDE	41-40.7	N	
LONGITUDE	141-17.3	E	
DEPTH (m)	232		
Press.	Temp.	Salinity	Sigma-T
5	1.735	32.783	26.215
10	1.736	32.830	26.253
20	2.011	32.909	26.296
30	2.415	32.965	26.310
40	2.619	32.994	26.316
50	3.009	33.061	26.337
75	3.192	33.093	26.346
100	3.181	33.105	26.356
125	3.253	33.129	26.369
150	3.288	33.141	26.376
175	3.302	33.162	26.391
200	3.223	33.175	26.408

STATION		US10064	
LATITUDE	41-37.9	N	
LONGITUDE	141-18.8	E	
DEPTH (m)	217		
Press.	Temp.	Salinity	Sigma-T
5	2.164	32.902	26.279
10	2.119	32.897	26.278
20	2.293	32.943	26.301
30	2.330	32.939	26.295
40	2.364	32.941	26.295
50	2.925	33.098	26.373
75	3.019	33.085	26.355
100	3.069	33.106	26.367
125	3.104	33.111	26.368
150	3.082	33.104	26.365
175	3.157	33.157	26.400
200	3.556	33.229	26.421

STATION		US10065	
LATITUDE	41-34.9	N	
LONGITUDE	141-20.3	E	
DEPTH (m)	316		
Press.	Temp.	Salinity	Sigma-T
5	3.277	33.108	26.350
10	3.497	33.171	26.380
20	3.453	33.159	26.375
30	4.499	33.343	26.417
40	4.693	33.323	26.380
50	5.268	33.429	26.399
75	5.193	33.397	26.383
100	5.188	33.408	26.391
125	5.257	33.408	26.384
150	5.154	33.387	26.379
175	5.022	33.369	26.380
200	5.094	33.387	26.386
250	6.256	33.616	26.427
300	5.610	33.559	26.461

STATION		US10066	
LATITUDE	41-32.0	N	
LONGITUDE	141-21.9	E	
DEPTH (m)	260		
Press.	Temp.	Salinity	Sigma-T
5	9.252	34.023	26.313
10	9.257	34.019	26.308
20	9.267	34.015	26.304
30	9.271	34.018	26.306
40	9.274	34.017	26.305
50	9.274	34.018	26.305
75	9.273	34.017	26.305
100	9.274	34.017	26.304
125	9.269	34.016	26.304
150	9.264	34.015	26.305
175	9.266	34.015	26.304
200	9.244	34.012	26.306
250	9.195	34.003	26.307

STATION		US10067	
LATITUDE	41-29.1	N	
LONGITUDE	141-23.6	E	
DEPTH (m)	96		
Press.	Temp.	Salinity	Sigma-T
5	9.346	34.020	26.295
10	9.353	34.023	26.296
20	9.347	34.022	26.297
30	9.346	34.022	26.297
40	9.356	34.018	26.292
50	9.361	34.021	26.293
75	9.263	34.010	26.301

STATION		US10068	
LATITUDE	41-27.9	N	
LONGITUDE	141-24.1	E	
DEPTH (m)	59		
Press.	Temp.	Salinity	Sigma-T
5	9.077	34.006	26.328
10	9.101	34.007	26.324
20	9.102	34.006	26.324
30	9.109	34.007	26.323
40	9.112	34.006	26.322
50	9.112	34.007	26.323

STATION		US10069	
LATITUDE	41-43.5	N	
LONGITUDE	140-36.5	E	
DEPTH (m)	39		
Press.	Temp.	Salinity	Sigma-T
5	8.299	34.005	26.447
10	8.305	34.014	26.454
20	8.220	34.006	26.460
30	8.110	33.967	26.446

STATION		US10070	
LATITUDE	41-43.7	N	
LONGITUDE	140-35.9	E	
DEPTH (m)	21		
Press.	Temp.	Salinity	Sigma-T
5	7.450	33.846	26.447
10	7.451	33.850	26.450

STATION		US10071	
LATITUDE	41-41.2	N	
LONGITUDE	140-34.3	E	
DEPTH (m)	41		
Press.	Temp.	Salinity	Sigma-T
5	8.441	34.046	26.458
10	8.433	34.046	26.460
20	8.412	34.046	26.462
30	8.352	34.034	26.462

STATION		US10072	
LATITUDE	41-37.5	N	
LONGITUDE	140-30.0	E	
DEPTH (m)	31		
Press.	Temp.	Salinity	Sigma-T
5	8.482	33.974	26.396
10	8.360	34.021	26.451
20	7.961	34.017	26.508

STATION		US10073	
LATITUDE	41-37.6	N	
LONGITUDE	140-28.4	E	
DEPTH (m)	24		
Press.	Temp.	Salinity	Sigma-T
5	7.563	33.953	26.515
10	7.562	33.986	26.541
20	7.571	33.992	26.544

STATION		US10074	
LATITUDE	41-38.0	N	
LONGITUDE	140-26.7	E	
DEPTH (m)	16		
Press.	Temp.	Salinity	Sigma-T
5	7.199	33.909	26.532
10	7.197	33.925	26.544

STATION		US10075	
LATITUDE	41-35.0	N	
LONGITUDE	140-33.0	E	
DEPTH (m)	59		
Press.	Temp.	Salinity	Sigma-T
5	8.778	34.056	26.414
10	8.776	34.057	26.415
20	8.760	34.056	26.417
30	8.761	34.056	26.416
40	8.674	34.059	26.432
50	8.583	34.054	26.443

STATION		US10076	
LATITUDE	41-35.1	N	
LONGITUDE	140-30.2	E	
DEPTH (m)	47		
Press.	Temp.	Salinity	Sigma-T
5	8.770	34.037	26.400
10	8.753	34.046	26.410
20	8.747	34.046	26.411
30	8.738	34.045	26.412
40	8.248	34.027	26.473

STATION		US10077	
LATITUDE	41-35.1	N	
LONGITUDE	140-26.8	E	
DEPTH (m)	14		
Press.	Temp.	Salinity	Sigma-T
5	8.023	33.964	26.457
10	8.018	33.979	26.470

STATION		US10078	
LATITUDE	41-29.1	N	
LONGITUDE	140-21.6	E	
DEPTH (m)	70		
Press.	Temp.	Salinity	Sigma-T
5	8.586	34.018	26.414
10	8.551	34.041	26.438
20	8.493	34.039	26.444
30	8.482	34.040	26.447
40	8.464	34.037	26.448
50	8.432	34.037	26.453

STATION		US10079	
LATITUDE	41-22.5	N	
LONGITUDE	140-06.5	E	
DEPTH (m)	114		
Press.	Temp.	Salinity	Sigma-T
5	7.607	34.053	26.588
10	7.587	34.069	26.602
20	7.090	34.062	26.668
30	7.070	34.069	26.676
40	6.889	34.065	26.697
50	6.493	34.066	26.751
75	5.884	34.069	26.831
100	4.568	34.068	26.984

STATION		US10080	
LATITUDE	41-23.4	N	
LONGITUDE	140-06.1	E	
DEPTH (m)	98		
Press.	Temp.	Salinity	Sigma-T
5	8.331	34.057	26.484
10	8.270	34.051	26.489
20	7.472	34.008	26.571
30	6.925	34.046	26.678
40	6.783	34.073	26.718
50	6.757	34.078	26.726
75	5.678	34.075	26.862

STATION		US10081	
LATITUDE	41-24.0	N	
LONGITUDE	140-06.0	E	
DEPTH (m)	85		
Press.	Temp.	Salinity	Sigma-T
5	8.079	34.064	26.527
10	8.010	34.058	26.533
20	7.632	34.053	26.584
30	7.486	34.051	26.603
40	7.364	34.065	26.632
50	7.280	34.070	26.647
75	7.222	34.067	26.653

STATION		US10082	
LATITUDE	41-24.5	N	
LONGITUDE	140-06.1	E	
DEPTH (m)	54		
Press.	Temp.	Salinity	Sigma-T
5	8.506	34.056	26.456
10	8.506	34.058	26.458
20	8.108	34.045	26.507
30	7.889	34.030	26.529
40	7.388	34.045	26.612
50	7.253	34.055	26.639

STATION		US10083	
LATITUDE	41-25.4	N	
LONGITUDE	140-00.3	E	
DEPTH (m)	105		
Press.	Temp.	Salinity	Sigma-T
5	7.272	34.065	26.645
10	7.209	34.067	26.671
20	7.113	34.083	26.681
30	6.903	34.089	26.715
40	6.747	34.080	26.729
50	6.271	34.073	26.785
75	4.538	34.076	26.994

STATION		US10084	
LATITUDE	41-25.7	N	
LONGITUDE	140-01.3	E	
DEPTH (m)	86		
Press.	Temp.	Salinity	Sigma-T
5	7.583	34.060	26.597
10	7.317	34.065	26.638
20	7.317	34.072	26.643
30	7.289	34.074	26.649
40	7.224	34.080	26.663
50	7.091	34.074	26.677
75	4.695	34.028	26.939

STATION		US10085	
LATITUDE	41-26.0	N	
LONGITUDE	140-02.0	E	
DEPTH (m)	54		
Press.	Temp.	Salinity	Sigma-T
5	7.056	34.040	26.655
10	7.045	34.068	26.679
20	6.990	34.068	26.686
30	6.988	34.067	26.686
40	6.992	34.071	26.688
50	6.997	34.070	26.687

STATION		US10086	
LATITUDE	41-26.3	N	
LONGITUDE	140-02.3	E	
DEPTH (m)	35		
Press.	Temp.	Salinity	Sigma-T
5	7.446	34.037	26.598
10	7.442	34.064	26.620
20	7.321	34.059	26.633
30	7.249	34.062	26.646

STATION		US10087	
LATITUDE	41-28.0	N	
LONGITUDE	140-16.3	E	
DEPTH (m)	28		
Press.	Temp.	Salinity	Sigma-T
5	8.111	34.045	26.507
10	8.126	34.045	26.506
20	8.128	34.044	26.504

STATION		US10088	
LATITUDE	41-26.7	N	
LONGITUDE	140-17.7	E	
DEPTH (m)	66		
Press.	Temp.	Salinity	Sigma-T
5	8.518	34.060	26.457
10	8.515	34.059	26.457
20	8.431	34.052	26.464
30	8.347	34.045	26.472
40	8.277	34.044	26.481
50	8.205	34.048	26.496

STATION		US10089	
LATITUDE	41-24.1	N	
LONGITUDE	140-19.9	E	
DEPTH (m)	95		
Press.	Temp.	Salinity	Sigma-T
5	8.470	34.049	26.456
10	8.468	34.050	26.457
20	8.468	34.049	26.456
30	8.441	34.044	26.457
40	8.322	34.022	26.458
50	7.745	34.050	26.565
75	6.212	34.048	26.773

STATION		US10090	
LATITUDE	41-43.3	N	
LONGITUDE	140-40.0	E	
DEPTH (m)	71		
Press.	Temp.	Salinity	Sigma-T
5	8.519	34.046	26.446
10	8.523	34.046	26.446
20	8.526	34.048	26.446
30	8.529	34.049	26.447
40	8.537	34.057	26.452
50	8.152	34.053	26.508

STATION		US10091	
LATITUDE	41-47.0	N	
LONGITUDE	140-40.3	E	
DEPTH (m)	21		
Press.	Temp.	Salinity	Sigma-T
5	7.505	33.711	26.333
10	8.216	34.042	26.489

STATION		US10092	
LATITUDE	41-45.3	N	
LONGITUDE	140-40.2	E	
DEPTH (m)	43		
Press.	Temp.	Salinity	Sigma-T
5	7.650	33.772	26.360
10	8.309	34.046	26.478
20	8.484	34.039	26.446
30	8.430	34.041	26.456

STATION		US10093	
LATITUDE	41-58.7	N	
LONGITUDE	141-01.1	E	
DEPTH (m)	99		
Press.	Temp.	Salinity	Sigma-T
5	1.599	32.787	26.227
10	1.596	32.771	26.215
20	1.605	32.786	26.227
30	1.628	32.823	26.254
40	1.658	32.836	26.263
50	1.747	32.861	26.276
75	2.936	33.186	26.442

STATION		US10094	
LATITUDE	41-58.2	N	
LONGITUDE	140-59.8	E	
DEPTH (m)	91		
Press.	Temp.	Salinity	Sigma-T
5	1.772	32.769	26.201
10	1.746	32.789	26.219
20	1.726	32.802	26.231
30	1.727	32.807	26.235
40	1.701	32.830	26.255
50	1.757	32.866	26.280
75	3.070	33.196	26.439

STATION		US10095	
LATITUDE	41-57.8	N	
LONGITUDE	140-58.9	E	
DEPTH (m)	86		
Press.	Temp.	Salinity	Sigma-T
5	1.847	32.810	26.228
10	1.844	32.808	26.227
20	1.839	32.809	26.228
30	1.775	32.825	26.246
40	1.897	32.902	26.299
50	2.461	33.053	26.376
75	3.020	33.189	26.438

STATION		US10096	
LATITUDE	41-57.5	N	
LONGITUDE	140-58.2	E	
DEPTH (m)	81		
Press.	Temp.	Salinity	Sigma-T
5	1.945	32.815	26.225
10	1.949	32.816	26.226
20	1.932	32.823	26.233
30	1.976	32.902	26.293
40	2.541	33.076	26.388
50	2.742	33.140	26.422
75	2.944	33.173	26.432

STATION		US10097	
LATITUDE	42-10.2	N	
LONGITUDE	140-47.5	E	
DEPTH (m)	94		
Press.	Temp.	Salinity	Sigma-T
5	1.599	32.792	26.231
10	1.597	32.806	26.243
20	1.966	32.997	26.370
30	3.121	33.226	26.458
40	3.111	33.220	26.454
50	3.075	33.211	26.451
75	3.005	33.215	26.460

STATION		US10098	
LATITUDE	42-12.9	N	
LONGITUDE	140-42.2	E	
DEPTH (m)	92		
Press.	Temp.	Salinity	Sigma-T
5	1.744	32.842	26.261
10	1.743	32.848	26.266
20	2.108	33.055	26.405
30	3.044	33.223	26.463
40	3.056	33.208	26.450
50	3.028	33.205	26.450
75	2.815	33.193	26.459

STATION		US10099	
LATITUDE	42-16.0	N	
LONGITUDE	140-36.0	E	
DEPTH (m)	93		
Press.	Temp.	Salinity	Sigma-T
5	1.943	32.887	26.283
10	1.921	32.887	26.285
20	2.143	32.979	26.342
30	3.062	33.213	26.454
40	3.073	33.205	26.446
50	3.071	33.203	26.445
75	3.110	33.215	26.451

STATION		US10100	
LATITUDE	42-18.9	N	
LONGITUDE	140-30.9	E	
DEPTH (m)	95		
Press.	Temp.	Salinity	Sigma-T
5	2.051	32.890	26.277
10	2.011	32.927	26.310
20	3.143	33.206	26.440
30	3.143	33.204	26.439
40	3.134	33.203	26.439
50	3.117	33.207	26.444
75	3.130	33.215	26.449

STATION		US10101	
LATITUDE	42-23.7	N	
LONGITUDE	140-30.9	E	
DEPTH (m)	97		
Press.	Temp.	Salinity	Sigma-T
5	3.254	33.219	26.441
10	3.249	33.220	26.442
20	3.228	33.219	26.443
30	3.218	33.221	26.446
40	3.216	33.224	26.448
50	3.219	33.225	26.449
75	3.225	33.229	26.452

STATION		US10102	
LATITUDE	42-19.5	N	
LONGITUDE	140-23.6	E	
DEPTH (m)	89		
Press.	Temp.	Salinity	Sigma-T
5	2.865	33.084	26.367
10	2.769	33.124	26.407
20	2.780	33.135	26.416
30	2.792	33.143	26.421
40	2.839	33.167	26.436
50	2.980	33.177	26.432

STATION		US10103	
LATITUDE	42-08.7	N	
LONGITUDE	140-35.6	E	
DEPTH (m)	65		
Press.	Temp.	Salinity	Sigma-T
5	3.122	33.192	26.431
10	3.133	33.200	26.436
20	3.130	33.197	26.434
30	3.135	33.198	26.434
40	3.138	33.196	26.433
50	3.119	33.197	26.435

STATION		US10104	
LATITUDE	42-11.2	N	
LONGITUDE	140-35.2	E	
DEPTH (m)	82		
Press.	Temp.	Salinity	Sigma-T
5	2.851	33.187	26.451
10	2.921	33.199	26.454
20	2.988	33.208	26.456
30	3.021	33.211	26.455
40	3.027	33.209	26.453
50	3.045	33.209	26.451
75	2.949	33.219	26.468

STATION		US10105	
LATITUDE	42-13.9	N	
LONGITUDE	140-30.7	E	
DEPTH (m)	83		
Press.	Temp.	Salinity	Sigma-T
5	2.778	33.140	26.420
10	2.889	33.156	26.423
20	3.057	33.204	26.446
30	3.051	33.200	26.444
40	3.050	33.202	26.445
50	3.057	33.206	26.448
75	3.000	33.206	26.453

STATION		US10106	
LATITUDE	42-18.3	N	
LONGITUDE	140-41.9	E	
DEPTH (m)	68		
Press.	Temp.	Salinity	Sigma-T
5	1.482	32.768	26.220
10	1.480	32.772	26.223
20	1.484	32.771	26.222
30	1.527	32.790	26.235
40	2.824	33.174	26.443
50	3.209	33.230	26.454

STATION		US10107	
LATITUDE	42-20.7	N	
LONGITUDE	140-47.7	E	
DEPTH (m)	54		
Press.	Temp.	Salinity	Sigma-T
5	1.668	32.811	26.242
10	1.658	32.814	26.245
20	1.664	32.815	26.246
30	1.882	32.869	26.274
40	1.942	32.893	26.288
50	2.123	32.978	26.343

STATION		US10108	
LATITUDE	42-22.9	N	
LONGITUDE	140-43.2	E	
DEPTH (m)	59		
Press.	Temp.	Salinity	Sigma-T
5	1.889	32.823	26.236
10	1.862	32.864	26.270
20	1.852	32.864	26.272
30	1.856	32.865	26.272
40	1.866	32.867	26.273
50	2.516	33.094	26.405

STATION		US10109	
LATITUDE	42-20.9	N	
LONGITUDE	140-37.4	E	
DEPTH (m)	87		
Press.	Temp.	Salinity	Sigma-T
5	1.506	32.789	26.235
10	1.530	32.788	26.233
20	1.484	32.792	26.239
30	1.915	32.894	26.291
40	2.611	33.092	26.395
50	2.761	33.137	26.419
75	3.043	33.210	26.452

STATION		US10110	
LATITUDE	42-15.1	N	
LONGITUDE	140-47.1	E	
DEPTH (m)	75		
Press.	Temp.	Salinity	Sigma-T
5	1.402	32.704	26.174
10	1.289	32.712	26.188
20	1.321	32.724	26.196
30	1.325	32.725	26.196
40	1.445	32.765	26.220
50	2.050	32.982	26.351

STATION		US10111	
LATITUDE	41-35.9	N	
LONGITUDE	140-53.1	E	
DEPTH (m)	56		
Press.	Temp.	Salinity	Sigma-T
5	8.551	34.028	26.427
10	8.549	34.027	26.427
20	8.558	34.027	26.425
30	8.553	34.025	26.425
40	8.430	34.010	26.432
50	8.319	33.996	26.437

STATION		US10112	
LATITUDE	41-37.0	N	
LONGITUDE	140-51.2	E	
DEPTH (m)	98		
Press.	Temp.	Salinity	Sigma-T
5	8.007	33.937	26.438
10	8.005	33.937	26.438
20	7.918	33.925	26.441
30	7.870	33.918	26.443
40	7.709	33.900	26.452
50	7.581	33.898	26.469
75	7.526	33.897	26.476

STATION		US10113	
LATITUDE	41-38.7	N	
LONGITUDE	140-49.1	E	
DEPTH (m)	350		
Press.	Temp.	Salinity	Sigma-T
5	7.125	33.834	26.483
10	7.213	33.862	26.493
20	7.474	33.923	26.504
30	7.702	33.991	26.525
40	7.753	34.000	26.524
50	7.868	34.030	26.532
75	7.865	34.023	26.526
100	7.913	34.029	26.524
125	7.905	34.028	26.525
150	7.899	34.027	26.525
175	7.878	34.026	26.527
200	7.877	34.029	26.529
250	7.884	34.032	26.531
300	7.753	34.038	26.555

STATION		US10114	
LATITUDE	41-40.7	N	
LONGITUDE	140-47.1	E	
DEPTH (m)	229		
Press.	Temp.	Salinity	Sigma-T
5	8.087	34.009	26.483
10	8.099	34.010	26.482
20	8.108	34.015	26.484
30	8.095	34.028	26.496
40	8.042	34.024	26.501
50	7.990	34.018	26.504
75	7.797	34.032	26.543
100	7.777	34.032	26.547
125	7.733	34.030	26.551
150	7.705	34.031	26.556
175	7.693	34.031	26.558
200	7.676	34.030	26.560

STATION		US10115	
LATITUDE	41-42.9	N	
LONGITUDE	140-45.0	E	
DEPTH (m)	84		
Press.	Temp.	Salinity	Sigma-T
5	3.254	33.068	26.320
10	3.560	33.161	26.367
20	5.815	33.569	26.445
30	6.003	33.580	26.430
40	5.839	33.553	26.429
50	6.272	33.658	26.458
75	8.087	34.025	26.495

