HOKKAIDO UNIVERSITY

Title	6. The "Ushio Maru" Cruise 200, 201 and 202 in July - September 2010
Citation	海洋調査漁業試験要報, 54, 147-161
Issue Date	2012-03-30
Doc URL	https://hdl.handle.net/2115/77125
Type	dataset
File Information	Data.Rec.Oceanogr.Obs.Expl.Fish.54.147.pdf

Hokkaido University Collection of Scholarly and Academic Papers : HUSCAP

6

THE " USHIO MARU "

CRUISE 200

CRUISE 201

CRUISE 202

IN JULY - SEPTEMBER 2010

1. Cruise Itinerary

Cruise 200

Departure from Hakodate	Jul.	28 ,	2010
Start hydrographic research (US10342)		28	
Start Frame trawl net sampling		28	
Finish Frame trawl net sampling		29	
Arrival at Usujiri		30	
Departure from Usujiri		31	
Arrival at Usujiri		31	
Departure from Usujiri	Aug.	2	
Arrival at Hakodate		2	
Departure from Hakodate		4	
Start trawl net research		4	
Arrival at Aomori		4	
Departure from Aomori		5	
Finish trawl net research		5	
Finish hydrographic research (US10385)		5	
Return to Hakodate		6	

Total coverage 504.1 miles

Cruise 201

Departure from Hakodate	Aug.	20 ,	2010
Start hydrographic research (US10386)		20	
Arrival at and departure from Muroran		20	
Arrival at and departure from Muroran		22	
Retrieval Sediment trap system		22	
Arrival at Muroran		22	
Departure from Muroran		23	
Set Sediment trap system		23	
Arrival at Mori		23	
Departure from Mori		24	
Start trawl net research		24	
Arrival at Muroran		24	
Departure from Muroran		25	
Arrival at Mori		25	
Departure from Mori		26	
Finish trawl net research		26	
Arrival at Mori		26	
Departure from Mori		27	
Arrival at Usujiri		27	
Departure from Usujiri		28	
Finish hydrographic research (US10434)		29	
Return to Hakodate		30	

Total coverage 797.7 miles

Cruise 202

Departure from Hakodate	Sep.	2 ,	2010
Arrival at Nemuro		3	
Departure from Nemuro		4	
Start hydrographic research (US10435)		4	
Arrival at Nemuro		4	
Departure from Nemuro		5	
Arrival at Rausu		5	
Departure from Rausu		6	
Finish hydrographic research (US10478)		7	
Arrival at and departure from Rausu		7	
Arrival at and departure from Shiraoi		9	
Arrival at and departure from Shiraoi		10	
Return to Hakodate		11	

Total coverage 1054.6 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 200

Research Staff:	Professor	(Laboratory of Marine Environmental Science)	Shigeru Montani
	Professor	(Laboratory of Marine Bioresource Science)	Tetsuya Takatsu
	Associate Professor	(Laboratory of Marine Bioresource and Environment Sensing)	Tohru Mukai
	Associate Professor	(Laboratory of Marine Bioresource Science)	Toshikuni Nakatani
Guest Scientist (Domestic):		(Geological Survey of Hokkaido)	Kazuo Kido

Teaching Assistant:	Chair of Marine Bioresource Science:	2 persons
Participant:	Teacher at High School:	9 persons
	Teacher at Junior High School:	1 person
Graduate Students:	Chair of Marine Bioresource Science:	1 person
	Chair of Marine Bioresource and environment Sensing:	6 persons
	Chair of Marine Industrial Science and Technology:	1 person
	Graduate School of Environmental Science:	2 persons
Under Graduate Students:	Department of Marine Biology:	5 persons
	Department of Applied Marine Science:	6 persons

Cruise 201

Research Staff:	Professor	(Laboratory of Marine Environmental Science)	Shigeru Montani
	Professor	(Laboratory of Marine Bioresource Science)	Tetsuya Takatsu
	Professor	(Laboratory of Marine Bioresource and Environment Sensing)	Seiichi Saitoh
	Professor	(Laboratory of Marine Environmental Science)	Kenshi Kuma
	Associate Professor	(Laboratory of Marine Bioresource and Environment Sensing)	Tohru Hirawake
	Assistant Professor	(Laboratory of Marine Environmental Science)	Hiroji Onishi
	Postdoctoral fellow	(Faculty of Fisheries Sciences)	Tomonori Isada
Guest Scientist (Domestic):		(Ehime University)	Michinobu Kuwae
		(JAMSTEC)	Yasushi Yoshikawa
		(JAMSTEC)	Masahide Wakita
		(JAMSTEC)	Mitsumasa Kano

Participant:		7 persons
Research Students:	Faculty of Fisheries Sciences:	1 person
Graduate Students:	Chair of Marine Bioresource Science:	4 persons
	Chair of Marine Bioresource and Environment Sensing:	3 persons
	Chair of Marine Environmental Science:	1 person
	Graduate School of Environmental Science:	4 persons
	Kyoto University:	1 person
Under Graduate Students:	Department of Marine Biology:	4 persons

	Department of Applied Marine Science:	5 persons
	Department of Applied Marine Science (Third grade):	1 person

Cruise 202

Research Staff:	Professor (Laboratory of Marine Environmental Science)	Shigeru Montani
Graduate Students:	Graduate School of Environmental Science:	4 persons
Under Graduate Students:	Department of Marine Biology:	3 persons
	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".

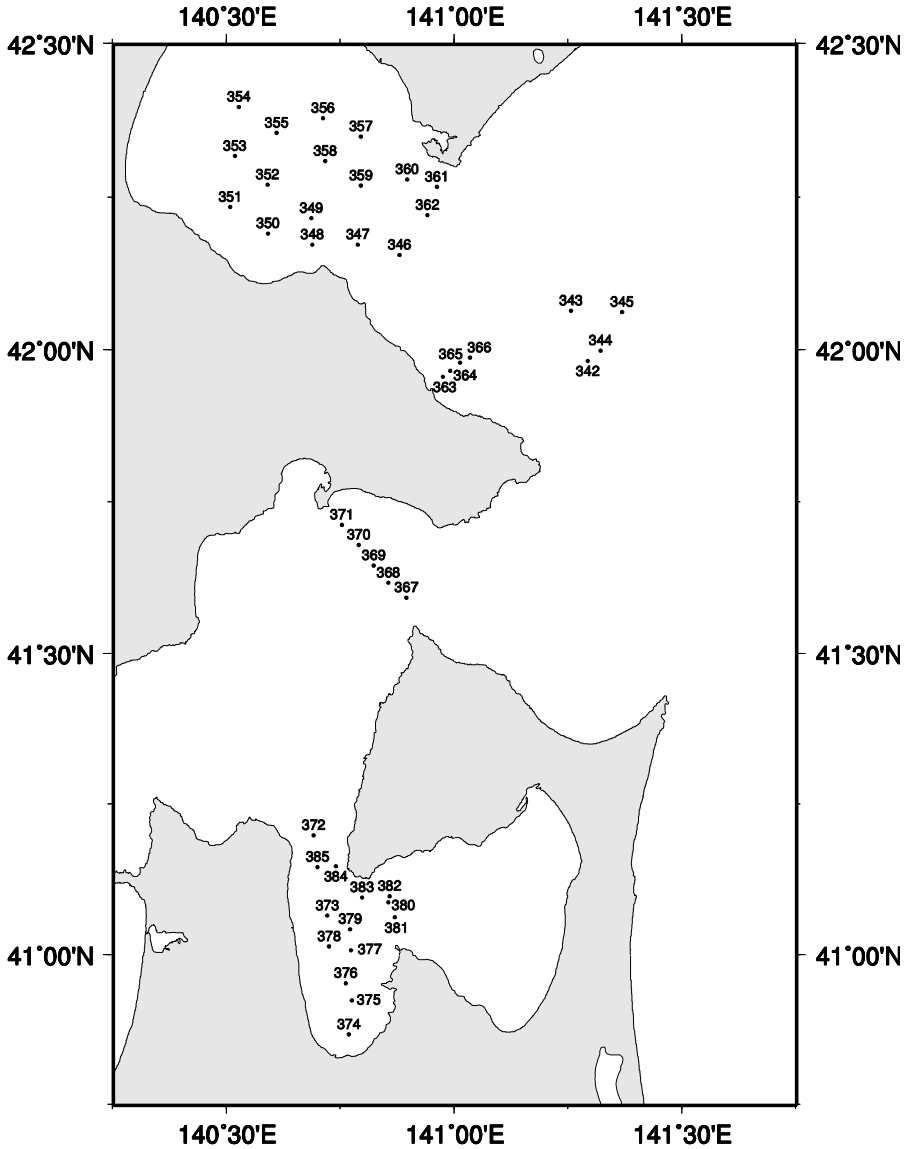

Figure 1: Oceanographic stations (Cruise 200)

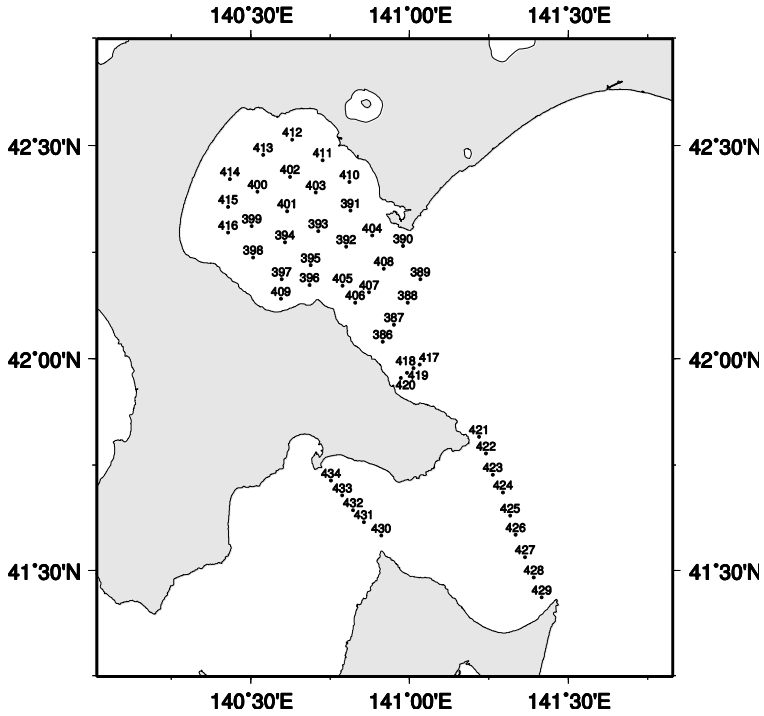

Figure 2: Oceanographic stations (Cruise 201)

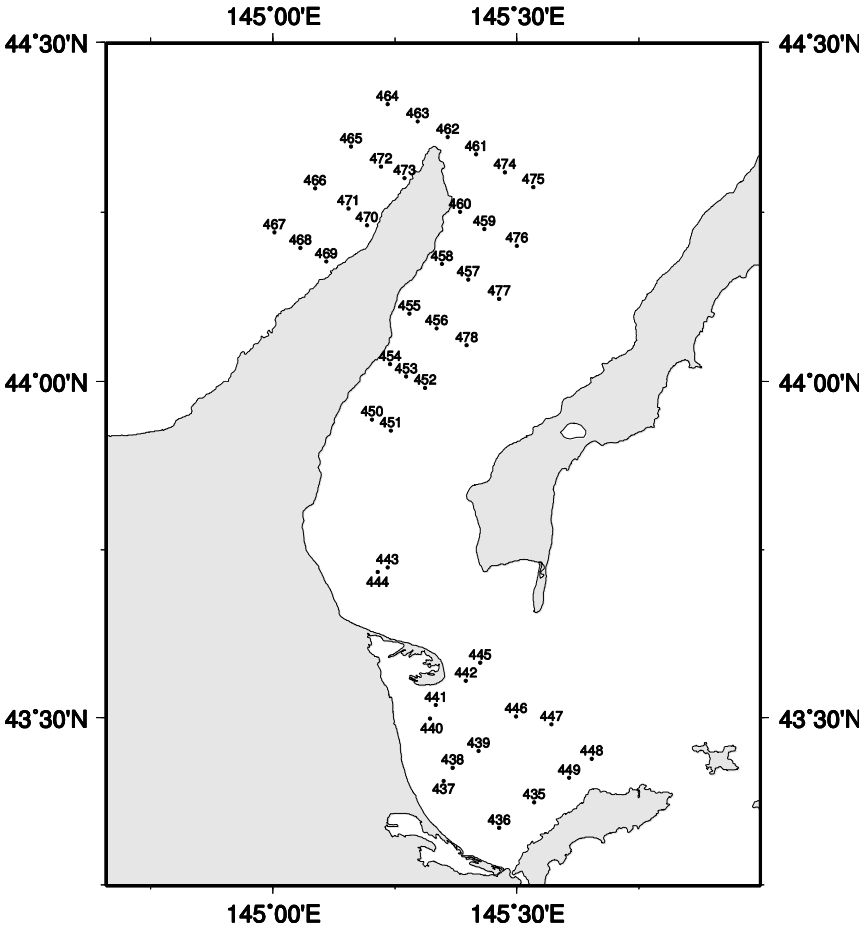

Figure 3: Oceanographic stations (Cruise 202)

Table 1: List of oceanographic stations

Cruise 200

Station	Lat. (N)*	Long (E)*	Date	S.M.T	Depth	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US10342	41-59.0	141-17.5	7/28	1703-1713	283	SSW-3	SW -1	SSW-5	22.8	17.0	c	1007.3
US10343	42-03.9	141-15.3	7/29	1154-1202	232	South-2	SE -1	South-4	19.4	16.6	r	1001.0
US10344	42-00.0	141-19.2	7/29	1246-1256	297	SSE-2	SE -1	SSE-4	19.0	16.7	r	1000.1
US10345	42-03.8	141-22.0	7/29	1336-1348	359	SSE-3	SE -1	SSE-5	19.5	17.0	r	999.5
US10346	42-09.4	140-52.7	7/31	0740-0751	78	East-1	ESE-1	East-2	22.3	21.3	bc	1005.0
US10347	42-10.4	140-47.2	7/31	0831-0838	92	East-1	ESE-1	East-2	21.7	21.5	c	1005.1
US10348	42-10.4	140-41.2	7/31	0915-0922	86	East-1	ESE-1	East-3	23.2	21.6	bc	1005.1
US10349	42-13.0	140-41.1	7/31	0954-1000	90	East-1	ESE-1	East-3	21.9	22.2	bc	1005.1
US10350	42-11.5	140-35.4	7/31	1041-1047	82	East-1	ESE-1	East-3	26.6	21.7	bc	1005.1
US10351	42-14.1	140-30.4	7/31	1123-1131	81	East-1	ESE-1	East-3	23.8	21.8	bc	1005.1
US10352	42-16.3	140-35.3	7/31	1210-1219	91	East-2	ESE-1	East-4	22.9	22.0	bc	1005.1
US10353	42-19.1	140-31.0	7/31	1257-1303	93	ESE-1	ESE-1	ESE-3	26.4	22.2	bc	1005.1
US10354	42-23.9	140-31.5	7/31	1342-1349	95	ESE-1	ESE-1	ESE-3	23.8	22.5	bc	1005.1
US10355	42-21.4	140-36.5	7/31	1432-1439	88	ESE-2	ESE-1	ESE-4	23.8	22.0	c	1004.6
US10356	42-22.8	140-42.6	7/31	1517-1522	61	ESE-3	ESE-1	ESE-5	22.4	21.9	c	1004.6
US10357	42-21.0	140-47.6	7/31	1557-1603	52	ESE-3	ESE-1	ESE-5	23.4	22.0	c	1004.6
US10358	42-18.6	140-42.9	7/31	1641-1646	62	East-3	ESE-1	East-5	22.4	21.8	c	1004.5
US10359	42-16.2	140-47.6	7/31	1726-1731	70	East-3	ESE-1	East-5	21.6	21.6	c	1004.2
US10360	42-16.8	140-53.7	7/31	1816-1821	59	East-3	ESE-1	East-5	21.5	22.0	c	1004.2
US10361	42-16.1	140-57.6	7/31	1849-1855	62	ENE-3	ESE-1	ENE-5	20.9	18.6	c	1004.6
US10362	42-13.3	140-56.4	7/31	1923-1929	69	NE -2	ESE-1	NE -4	20.5	19.1	c	1005.0
US10363	41-57.4	140-58.4	8/2	0902-0905	80	Calm	East-1	Calm	22.8	20.8	bc	1007.2
US10364	41-58.0	140-59.4	8/2	0916-0920	87	Calm	East-1	Calm	22.2	18.6	bc	1007.2
US10365	41-58.8	141-00.7	8/2	0928-0932	95	Calm	East-1	Calm	22.7	18.4	bc	1007.3
US10366	41-59.3	141-02.0	8/2	0939-0943	102	Calm	East-1	Calm	23.0	19.2	bc	1007.5
US10367	41-35.6	140-53.6	8/2	1305-1308	56	SW-3	East-1	SW-5	23.4	23.2	c	1007.6
US10368	41-37.1	140-51.2	8/2	1328-1332	100	SW-3	East-1	SW-5	23.6	23.4	c	1007.6
US10369	41-38.8	140-49.3	8/2	1349-1400	324	SW-3	East-1	SW-5	23.9	23.0	c	1007.6
US10370	41-40.8	140-47.3	8/2	1419-1427	225	SW-3	East-1	SW-5	23.9	21.8	c	1007.6
US10371	41-42.8	140-45.1	8/2	1445-1450	84	SW-3	East-1	SW-5	23.1	20.5	c	1007.5
US10372	41-12.0	140-41.4	8/4	1218-1221	75	SSE-1	South-1	SSE-3	22.6	23.4	r	1013.2
US10373	41-04.0	140-43.2	8/4	1344-1347	60	NE -1	East-1	NE -2	23.5	23.1	o	1013.2
US10374	40-52.1	140-46.0	8/4	1505-1508	29	NNW-1	NNE-1	NNW-2	26.1	23.5	c	1013.1
US10375	40-55.5	140-46.4	8/5	0658-0701	42	Calm	NNE-1	Calm	25.5	23.6	bc	1017.9
US10376	40-57.2	140-45.6	8/5	0718-0721	50	Calm	NNE-1	Calm	27.2	23.1	bc	1017.8
US10377	41-00.5	140-46.3	8/5	0839-0843	52	Calm	North-1	Calm	30.3	23.3	bc	1018.0
US10378	41-00.9	140-43.4	8/5	0901-0904	56	Calm	North-1	Calm	29.2	23.5	bc	1018.1
US10379	41-02.6	140-46.2	8/5	0925-0928	52	Calm	North-1	Calm	27.9	24.0	bc	1018.1
US10380	41-05.3	140-51.2	8/5	1024-1027	53	West-1	NW -1	West-2	31.3	24.6	bc	1018.2
US10381	41-03.8	140-52.1	8/5	1046-1049	51	West-1	NW -1	West-1	31.4	24.3	bc	1018.2
US10382	41-05.9	140-51.4	8/5	1106-1109	53	West-1	NW -1	West-3	31.0	24.3	bc	1018.2
US10383	41-05.8	140-47.8	8/5	1131-1134	50	West-1	NW -1	West-3	29.0	24.6	bc	1018.2
US10384	41-08.9	140-44.3	8/5	1202-1206	62	North-1	SW -1	North-3	29.7	24.2	bc	1018.2
US10385	41-08.8	140-41.9	8/5	1224-1228	56	NNE-1	SW -1	NNE-3	28.6	24.3	bc	1018.2

Cruise 201

Station	Lat. (N)*	Long (E)*	Date	S.M.T	Depth	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US10386	42-02.5	140-54.8	8/20	1300-1305	77	East-3	East-1	East-5	22.7	20.2	bc	1021.5
US10387	42-04.9	140-56.9	8/20	1340-1348	83	ESE-3	East-1	ESE-5	22.9	21.9	bc	1021.1
US10388	42-08.0	140-59.5	8/20	1437-1440	84	East-3	East-1	East-5	22.9	22.1	bc	1020.6
US10389	42-11.3	141-01.9	8/20	1506-1510	81	ENE-3	East-1	ENE-5	21.9	21.2	c	1020.6
US10390	42-16.0	140-58.6	8/20	1545-1548	65	ENE-3	East-1	ENE-5	21.5	19.9	bc	1020.5
US10391	42-21.0	140-48.7	8/20	1818-1821	52	East-3	East-1	East-5	21.3	20.9	bc	1019.8
US10392	42-15.9	140-47.9	8/20	1855-1859	70	East-3	East-1	East-5	21.0	20.1	bc	1019.7
US10393	42-18.1	140-42.6	8/20	1927-1930	63	East-3	East-1	East-5	21.5	23.2	c	1020.0
US10394	42-16.5	140-36.3	8/20	2005-2014	91	East-2	East-1	East-4	22.4	22.7	c	1020.1
US10395	42-13.3	140-41.2	8/20	2100-2103	90	East-2	East-1	East-4	22.5	22.4	bc	1019.7
US10396	42-10.5	140-41.0	8/20	2127-2130	87	East-2	East-1	East-4	21.1	17.8	bc	1019.6
US10397	42-11.3	140-35.7	8/20	2157-2200	82	ESE-2	East-1	ESE-4	21.3	20.4	bc	1019.2
US10398	42-14.4	140-30.3	8/20	2358-0003	83	ESE-2	East-1	ESE-3	21.6	21.7	bc	1019.0
US10399	42-18.8	140-30.0	8/21	0030-0035	92	SE -1	East-1	SE -3	22.1	21.2	bc	1018.6
US10400	42-23.6	140-31.1	8/21	0106-0111	96	ESE-2	East-1	ESE-4	22.3	22.7	bc	1018.6
US10401	42-20.9	140-36.7	8/21	0257-0302	88	ESE-2	East-1	ESE-4	22.1	23.5	bc	1017.6
US10402	42-25.7	140-37.3	8/21	0335-0340	84	ESE-2	East-1	ESE-4	22.3	23.3	bc	1017.6
US10403	42-23.5	140-42.1	8/21	0407-0410	65	ESE-2	East-1	ESE-4	22.3	23.3	bc	1017.1
US10404	42-17.5	140-52.8	8/21	0927-0933	59	ESE-2	East-1	ESE-4	22.1	19.8	bc	1017.2
US10405	42-10.4	140-47.2	8/21	1215-1220	93	SE -1	East-1	SE -3	23.2	22.4	c	1015.9
US10406	42-08.0	140-49.6	8/21	2048-2052	85	SW-2	East-1	SW -4	26.2	22.4	bc	1013.6
US10407	42-09.5	140-52.2	8/21	2108-2112	76	SW -1	East-1	SW -3	26.6	21.7	bc	1013.6
US10408	42-12.8	140-55.0	8/21	2137-2140	68	WSW-1	East-1	WSW-3	25.2	19.8	bc	1013.6
US10409	42-08.6	140-35.6	8/23	1246-1250	63	East-3	East-1	East-5	23.9	23.9	c	1011.1
US10410	42-25.0	140-48.5	8/25	0751-0754	44	Calm	SSE-1	Calm	22.5	23.5	c	1014.7
US10411	42-28.0	140-43.4	8/25	0829-0833	59	Calm	SSE-1	Calm	23.2	23.1	c	1015.1
US10412	42-30.9	140-37.7	8/25	0908-0912	62	North-1	SSE-1	North-2	22.6	22.8	c	1015.1
US10413	42-28.8	140-32.2	8/25	0943-0948	76	East-1	East-1	East-2	23.8	23.7	c	1015.3
US10414	42-25.4	140-25.9	8/26	1120-1125	70	South-1	East-1	South-2	26.7	23.9	bc	1019.1
US10415	42-21.5	140-25.6	8/26	1201-1206	74	South-1	East-1	South-1	26.3	24.5	bc	1019.1
US10416	42-17.9	140-25.6	8/26	1235-1240	66	Calm	East-1	Calm	28.1	24.0	bc	1019.1
US10417	41-59.3	141-01.8	8/27	1212-1217	101	ENE-1	ESE-1	ENE-2	23.2	21.3	c	1021.0
US10418	41-58.8	141-00.6	8/27	1223-1227	94	ENE-1	ESE-1	ENE-2	23.6	22.3	c	1021.0
US10419	41-58.1	140-59.4	8/27	1235-1239	86	Calm	ESE-1	Calm	23.6	23.0	c	1021.0
US10420	41-57.4	140-58.2	8/27	1246-1250	79	Calm	ESE-1	Calm	24.3	22.8	c	1021.0
US10421	41-49.1	141-13.0	8/28	1001-1013	162	NNW-1	ESE-1	NNW-3	25.0	22.6	bc	1021.0

Cruise 201 (Continued)

Station	Lat. (N)*	Long (E)*	Date	S.M.T	Depth	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US10422	41-46.7	141-14.3	8/28	1123-1137	195	NNE-1	ESE-1	NNE-3	25.5	22.5	c	1020.7
US10423	41-43.7	141-15.6	8/28	1156-1212	228	NNE-1	ESE-1	NNE-3	25.2	21.9	bc	1020.6
US10424	41-41.2	141-17.5	8/28	1231-1253	235	NE -1	ESE-1	NE -3	26.1	26.5	bc	1020.1
US10425	41-37.9	141-18.9	8/28	1317-1330	212	ENE-1	ESE-1	ENE-3	27.6	27.0	bc	1020.0
US10426	41-35.2	141-19.9	8/28	1344-1400	287	East-1	ESE-1	East-3	26.7	27.3	bc	1019.8
US10427	41-32.0	141-21.7	8/28	1416-1429	259	Wast-1	ESE-1	East-2	27.1	26.2	bc	1019.6
US10428	41-29.1	141-23.3	8/28	1448-1455	105	East-1	SE -1	East-2	27.2	25.9	bc	1019.6
US10429	41-26.3	141-24.8	8/28	1513-1517	38	East-1	ESE-1	East-3	27.1	25.5	bc	1019.5
US10430	41-35.1	140-54.5	8/29	1729-1733	55	Calm	East-1	Calm	28.4	26.7	bc	1015.1
US10431	41-37.0	140-51.2	8/29	1757-1802	94	Calm	East-1	Calm	28.0	28.2	bc	1015.1
US10432	41-38.7	140-49.2	8/29	1820-1832	336	NE -1	East-1	NE -2	28.0	28.3	bc	1015.1
US10433	41-40.8	140-47.1	8/29	1851-1858	222	NE -1	East-1	NE -3	26.4	26.1	bc	1015.1
US10434	41-42.9	140-45.0	8/29	1914-1918	84	Calm	ESE-1	Calm	26.4	24.7	bc	1015.1

Cruise 202

Station	Lat. (N)*	Long (E)*	Date	S.M.T	Depth	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US10435	43-22.5	145-32.0	9/4	0903-0907	18	North-1	NE -1	North-3	20.6	20.9	bc	1013.1
US10436	43-20.2	145-27.7	9/4	0933-0936	15	NNE-1	NE -1	NNE-2	21.7	21.1	bc	1013.5
US10437	43-24.4	145-20.9	9/4	1019-1020	9	Calm	NE -1	Calm	21.9	20.9	bc	1013.5
US10438	43-25.6	145-22.0	9/4	1036-1038	10	Calm	NE -1	Calm	22.6	21.0	bc	1013.2
US10439	43-27.1	145-25.2	9/4	1102-1105	17	Calm	NE -1	Calm	22.0	20.3	bc	1013.2
US10440	43-30.0	145-19.2	9/4	1140-1142	8	NE -1	NE -1	NE -2	22.5	20.9	bc	1013.1
US10441	43-31.2	145-19.9	9/4	1154-1200	7	NE -1	NE -1	NE -2	22.9	20.9	bc	1013.1
US10442	43-33.4	145-23.6	9/4	1233-1237	11	Calm	NE -1	Calm	23.8	21.9	bc	1013.1
US10443	43-43.5	145-14.0	9/4	1340-1346	18	SE -1	NNW-1	SE -2	24.4	21.9	bc	1012.7
US10444	43-43.1	145-12.8	9/4	1404-1407	17	Calm	NNW-1	Calm	25.5	20.7	bc	1013.0
US10445	43-35.0	145-25.4	9/4	1527-1531	13	Calm	NW -1	Calm	23.3	19.2	bc	1012.6
US10446	43-30.2	145-29.8	9/4	1609-1614	24	Calm	ENE-1	Calm	23.0	19.9	bc	1012.6
US10447	43-29.5	145-34.1	9/4	1641-1644	30	Calm	ENE-1	Calm	23.0	21.8	bc	1012.7
US10448	43-26.4	145-39.1	9/4	1718-1721	30	SSW-1	NE -1	SSW-3	21.9	21.4	bc	1013.1
US10449	43-24.7	145-36.3	9/4	1543-1546	27	SSW-1	NE -1	SSW-3	22.1	21.5	bc	1013.1
US10450	43-56.7	145-12.1	9/6	0649-0652	82	Calm	South-1	Calm	21.9	21.5	c	1008.2
US10451	43-55.7	145-14.4	9/6	0706-0709	80	NNE-1	South-1	NNE-3	22.2	21.6	c	1008.1
US10452	43-59.5	145-18.6	9/6	0740-0749	266	NNW-2	NE -1	NNW-4	22.1	22.1	r	1008.1
US10453	44-00.5	145-16.3	9/6	0801-0816	467	NNE-2	NE -1	NNE-4	22.1	21.7	c	1008.2
US10454	44-01.6	145-14.3	9/6	0827-0839	373	NNE-1	NE -1	NNE-3	21.8	21.1	r	1008.6
US10455	44-06.1	145-16.7	9/6	0909-0922	421	NNW-1	NE -1	NNW-3	22.4	21.1	r	1008.6
US10456	44-04.8	145-20.0	9/6	0941-0957	725	NNE-1	NE -1	NNE-3	22.4	21.1	c	1008.7
US10457	44-09.1	145-23.9	9/6	1028-1045	1493	SE -1	NE -1	SE -3	21.7	21.7	r	1008.1
US10458	44-10.5	145-20.7	9/6	1102-1106	122	West-2	NE -1	West-4	21.5	21.0	r	1008.5
US10459	44-13.6	145-25.9	9/6	1135-1152	1396	NE -1	NNE-1	NE -2	22.8	20.3	r	1007.6
US10460	44-15.1	145-22.9	9/6	1209-1219	350	SSW-1	NE -1	SSW-2	22.4	20.2	c	1006.7
US10461	44-20.2	145-24.9	9/6	1248-1305	898	NW -1	NE -1	NW -3	22.9	20.2	c	1007.2
US10462	44-21.7	145-21.4	9/6	1327-1330	80	WSW-2	NE -1	WSW-4	23.1	19.5	bc	1007.1
US10463	44-23.1	145-17.7	9/6	1352-1408	708	SW -2	NE -1	SW -4	23.3	20.6	bc	1006.6
US10464	44-24.6	145-14.0	9/6	1430-1446	1398	SW -2	NE -1	SW -4	23.3	21.0	bc	1006.3
US10465	44-20.9	145-09.5	9/6	1532-1549	1166	SW -2	NE -1	SW -4	23.2	21.1	bc	1006.6
US10466	44-17.2	145-05.1	9/6	1633-1650	882	SW -1	NE -1	SW -3	22.8	20.0	bc	1007.0
US10467	44-13.3	145-00.1	9/6	1736-1752	662	SW -1	NE -1	SW -3	23.2	20.3	bc	1006.8
US10468	44-11.9	145-03.3	9/6	1808-1823	447	South-1	NE -1	South-3	22.7	19.7	bc	1007.0
US10469	44-10.7	145-06.5	9/6	1839-1847	305	South-1	NE -1	South-3	23.6	21.7	bc	1007.4
US10470	44-13.9	145-11.5	9/6	1915-1919	118	SW -1	NE -1	SW -3	24.5	21.5	bc	1007.7
US10471	44-15.4	145-09.2	9/6	1936-1952	615	WSW-1	NE -1	WSW-3	25.1	20.8	bc	1007.7
US10472	44-19.1	145-13.2	9/6	2015-2031	666	SW -1	NE -1	SW -3	24.4	20.9	bc	1008.0
US10473	44-18.1	145-16.1	9/6	2045-2051	155	SSW-1	NE -1	SSW -3	23.2	21.0	bc	1007.7
US10474	44-18.6	145-28.4	9/7	0454-0511	1503	SSW-1	NE -1	SSW-3	22.1	21.6	o	1005.6
US10475	44-17.3	145-31.9	9/7	0530-0547	2085	South-1	NE -1	South-3	21.5	21.7	o	1004.6
US10476	44-12.1	145-29.9	9/7	0623-0640	2067	South-1	NE -1	South-3	21.9	20.5	o	1004.1
US10477	44-07.4	145-27.7	9/7	0715-0731	1228	SSW-1	NE -1	SSW-2	21.9	21.1	r	1003.3
US10478	44-03.3	145-23.7	9/7	0805-0820	531	SSE-1	NE -1	SSE-2	22.1	21.1	r	1002.6

(*): Fixed position by Global Positioning System

Table 2: Oceanographic data

STATION US10342
LATITUDE 41-59.0 N
LONGITUDE 141-17.5 E
DEPTH (m) 283

Press.	Temp.	Salinity	Sigma-T
5	16.818	31.874	23.158
10	9.781	32.445	24.992
20	3.558	32.752	26.040
30	2.698	32.876	26.215
40	2.105	32.935	26.310
50	2.119	33.028	26.383
75	1.345	33.052	26.457
100	1.037	33.104	26.518
125	0.994	33.155	26.562
150	1.210	33.208	26.591
175	1.173	33.239	26.619
200	2.315	33.412	26.675

STATION US10343
LATITUDE 42-03.9 N
LONGITUDE 141-15.3 E
DEPTH (m) 232

Press.	Temp.	Salinity	Sigma-T
5	15.493	31.982	23.539
10	10.555	32.373	24.807
20	5.410	32.800	25.885
30	4.138	33.092	26.254
40	3.683	33.137	26.335
50	2.771	33.074	26.368
75	2.034	33.120	26.463
100	1.522	33.142	26.517
125	1.062	33.146	26.551
150	1.650	33.268	26.609
175	1.200	33.239	26.617
200	1.686	33.346	26.669

STATION US10344
LATITUDE 42-00.0 N
LONGITUDE 141-19.2 E
DEPTH (m) 297

Press.	Temp.	Salinity	Sigma-T
5	15.644	32.105	23.601
10	10.652	32.373	24.790
20	4.821	32.791	25.944
30	3.563	32.990	26.230
40	5.066	33.391	26.392
50	3.438	33.200	26.409
75	1.431	33.091	26.482
100	1.615	33.146	26.514
125	1.099	33.146	26.548
150	1.046	33.188	26.586
175	1.065	33.217	26.608
200	1.390	33.276	26.634
250	2.885	33.507	26.703

STATION US10345
LATITUDE 42-03.8 N
LONGITUDE 141-22.0 E
DEPTH (m) 359

Press.	Temp.	Salinity	Sigma-T
5	17.036	32.030	23.227
10	12.941	32.207	24.242
20	6.015	32.720	25.749
30	4.415	32.935	26.101
40	4.132	33.173	26.320
50	4.217	33.287	26.402
75	2.445	33.202	26.497
100	1.013	33.123	26.536
125	1.019	33.165	26.569
150	1.138	33.220	26.605
175	1.347	33.274	26.635
200	1.405	33.297	26.650
250	1.572	33.367	26.695
300	2.349	33.499	26.742

STATION US10346
LATITUDE 42-09.4 N
LONGITUDE 140-52.7 E
DEPTH (m) 78

Press.	Temp.	Salinity	Sigma-T
5	20.112	31.170	21.814
10	16.529	31.664	23.063
20	7.965	32.279	25.143
30	6.060	32.666	25.702
40	6.245	33.063	25.992
50	6.547	33.327	26.161

STATION US10347
LATITUDE 42-10.4 N
LONGITUDE 140-47.2 E
DEPTH (m) 92

Press.	Temp.	Salinity	Sigma-T
5	20.958	31.040	21.493
10	17.496	31.579	22.774
20	7.439	32.129	25.099
30	6.352	32.658	25.658
40	6.297	32.953	25.898
50	5.047	32.935	26.033
75	5.683	33.319	26.263

STATION US10348
LATITUDE 42-10.4 N
LONGITUDE 140-41.2 E
DEPTH (m) 86

Press.	Temp.	Salinity	Sigma-T
5	21.937	31.035	21.225
10	21.091	31.032	21.452
20	11.364	31.887	24.288
30	7.771	32.611	25.431
40	6.041	32.755	25.774
50	5.961	33.065	26.028
75	4.319	33.253	26.364

STATION US10349
LATITUDE 42-13.0 N
LONGITUDE 140-41.1 E
DEPTH (m) 90

Press.	Temp.	Salinity	Sigma-T
5	22.028	31.041	21.205
10	21.230	31.058	21.435
20	14.567	31.860	23.644
30	7.043	32.234	25.235
40	5.880	32.713	25.761
50	4.756	32.784	25.945
75	5.812	33.413	26.322

STATION US10350
LATITUDE 42-11.5 N
LONGITUDE 140-35.4 E
DEPTH (m) 82

Press.	Temp.	Salinity	Sigma-T
5	21.492	31.040	21.351
10	21.049	31.024	21.457
20	11.795	32.028	24.319
30	6.771	32.400	25.401
40	5.469	32.742	25.832
50	4.183	32.798	26.016
75	4.516	33.310	26.389

STATION US10351
LATITUDE 42-14.1 N
LONGITUDE 140-30.4 E
DEPTH (m) 81

Press.	Temp.	Salinity	Sigma-T
5	21.548	31.006	21.309
10	21.214	31.011	21.403
20	11.173	32.035	24.437
30	7.851	32.609	25.418
40	6.231	32.837	25.815
50	5.873	33.020	26.004
75	4.644	33.275	26.347

STATION US10352
LATITUDE 42-16.3 N
LONGITUDE 140-35.3 E
DEPTH (m) 91

Press.	Temp.	Salinity	Sigma-T
5	21.858	31.036	21.248
10	21.302	31.072	21.426
20	16.748	31.648	23.002
30	8.417	32.243	25.048
40	6.350	32.707	25.697
50	5.775	33.011	26.008
75	4.669	33.335	26.392

STATION US10353
LATITUDE 42-19.1 N
LONGITUDE 140-31.0 E
DEPTH (m) 93

Press.	Temp.	Salinity	Sigma-T
5	21.844	31.027	21.245
10	21.310	31.000	21.369
20	15.644	31.743	23.322
30	8.039	32.271	25.125
40	5.806	32.651	25.720
50	5.494	32.909	25.962
75	4.691	33.289	26.353

STATION US10354
LATITUDE 42-23.9 N
LONGITUDE 140-31.5 E
DEPTH (m) 95

Press.	Temp.	Salinity	Sigma-T
5	22.528	30.978	21.019
10	21.404	31.014	21.354
20	12.152	31.954	24.196
30	7.865	32.414	25.262
40	6.167	32.678	25.698
50	5.551	32.895	25.943
75	4.603	33.345	26.407

STATION US10355
LATITUDE 42-21.4 N
LONGITUDE 140-36.5 E
DEPTH (m) 88

Press.	Temp.	Salinity	Sigma-T
5	22.064	31.039	21.194
10	21.440	31.099	21.409
20	15.731	31.429	23.062
30	7.795	32.057	24.993
40	6.580	32.719	25.677
50	6.425	33.073	25.977
75	5.775	33.322	26.255

STATION US10356
LATITUDE 42-22.8 N
LONGITUDE 140-42.6 E
DEPTH (m) 61

Press.	Temp.	Salinity	Sigma-T
5	22.159	31.053	21.178
10	20.990	31.223	21.624
20	14.258	31.634	23.534
30	7.546	32.194	25.134
40	6.556	32.723	25.684
50	5.947	32.986	25.968

STATION US10357
LATITUDE 42-21.0 N
LONGITUDE 140-47.6 E
DEPTH (m) 52

Press.	Temp.	Salinity	Sigma-T
5	21.893	31.093	21.281
10	20.486	31.315	21.827
20	11.217	31.832	24.270
30	6.302	32.450	25.501
40	5.301	32.619	25.754

STATION US10358
LATITUDE 42-18.6 N
LONGITUDE 140-42.9 E
DEPTH (m) 62

Press.	Temp.	Salinity	Sigma-T
5	21.706	31.106	21.342
10	21.035	31.184	21.582
20	16.970	31.496	22.834
30	8.337	32.170	25.002
40	6.172	32.555	25.600
50	6.508	33.148	26.025

STATION US10359
LATITUDE 42-16.2 N
LONGITUDE 140-47.6 E
DEPTH (m) 70

Press.	Temp.	Salinity	Sigma-T
5	21.670	31.100	21.347
10	20.094	31.242	21.874
20	17.753	31.527	22.674
30	7.455	32.139	25.105
40	6.820	33.033	25.893
50	6.261	33.236	26.126

STATION US10360
LATITUDE 42-16.8 N
LONGITUDE 140-53.7 E
DEPTH (m) 59

Press.	Temp.	Salinity	Sigma-T
5	21.937	30.880	21.108
10	15.842	31.652	23.209
20	11.561	32.219	24.510
30	5.975	32.777	25.800
40	6.213	33.061	25.994
50	6.197	33.167	26.080

STATION US10361
LATITUDE 42-16.1 N
LONGITUDE 140-57.6 E
DEPTH (m) 62

Press.	Temp.	Salinity	Sigma-T
5	18.258	31.043	22.182
10	16.030	31.926	23.377
20	10.172	32.274	24.795
30	7.195	32.606	25.507
40	5.175	32.908	25.998
50	4.855	32.993	26.100

STATION US10362
LATITUDE 42-13.3 N
LONGITUDE 140-56.4 E
DEPTH (m) 69

Press.	Temp.	Salinity	Sigma-T
5	19.157	31.089	21.995
10	17.325	31.468	22.729
20	12.295	32.090	24.275
30	7.412	32.566	25.446
40	4.811	32.772	25.930
50	4.755	32.983	26.103

STATION US10363
LATITUDE 41-57.4 N
LONGITUDE 140-58.4 E
DEPTH (m) 80

Press.	Temp.	Salinity	Sigma-T
5	19.926	30.891	21.650
10	17.613	31.714	22.850
20	12.813	31.954	24.070
30	7.661	32.361	25.250
40	6.403	32.854	25.807
50	5.375	32.944	26.003

STATION US10364
LATITUDE 41-58.0 N
LONGITUDE 140-59.4 E
DEPTH (m) 87

Press.	Temp.	Salinity	Sigma-T
5	18.497	30.986	22.080
10	17.234	31.836	23.033
20	12.264	32.142	24.320
30	7.475	32.452	25.348
40	6.655	32.849	25.770
50	5.053	32.918	26.019
75	5.486	33.358	26.317

STATION US10365
LATITUDE 41-58.8 N
LONGITUDE 141-00.7 E
DEPTH (m) 95

Press.	Temp.	Salinity	Sigma-T
5	18.533	31.579	22.524
10	17.949	31.737	22.787
20	10.462	32.353	24.808
30	7.831	32.930	25.673
40	6.468	33.034	25.941
50	5.793	33.156	26.121
75	6.006	33.478	26.350

STATION US10366
LATITUDE 41-59.3 N
LONGITUDE 141-02.0 E
DEPTH (m) 102

Press.	Temp.	Salinity	Sigma-T
5	18.666	31.597	22.506
10	12.735	32.064	24.170
20	8.487	32.591	25.311
30	6.851	33.028	25.886
40	5.267	32.964	26.031
50	6.017	33.203	26.130
75	6.379	33.505	26.323
100	5.034	33.492	26.476

STATION US10367
LATITUDE 41-35.6 N
LONGITUDE 140-53.6 E
DEPTH (m) 56

Press.	Temp.	Salinity	Sigma-T
5	22.874	33.459	22.801
10	22.435	33.498	22.955
20	20.126	33.639	23.691
30	19.986	33.666	23.748
40	19.772	33.678	23.813
50	19.334	33.707	23.948

STATION US10368
LATITUDE 41-37.1 N
LONGITUDE 140-51.2 E
DEPTH (m) 100

Press.	Temp.	Salinity	Sigma-T
5	23.218	33.678	22.868
10	22.586	33.651	23.029
20	20.582	33.508	23.470
30	16.986	33.893	24.668
40	14.521	34.066	25.355
50	13.250	34.119	25.660
75	12.258	34.170	25.895

STATION US10369
LATITUDE 41-38.8 N
LONGITUDE 140-49.3 E
DEPTH (m) 324

Press.	Temp.	Salinity	Sigma-T
5	22.655	33.791	23.115
10	21.272	33.802	23.508
20	17.313	33.858	24.564
30	15.198	34.041	25.189
40	14.726	34.105	25.342
50	13.341	34.182	25.691
75	12.344	34.187	25.892
100	11.298	34.156	26.064
125	10.758	34.155	26.161
150	10.560	34.159	26.199
175	10.388	34.162	26.231
200	10.323	34.164	26.244
250	10.226	34.163	26.260
300	10.179	34.163	26.268

STATION US10370
LATITUDE 41-40.8 N
LONGITUDE 140-47.3 E
DEPTH (m) 225

Press.	Temp.	Salinity	Sigma-T
5	21.155	33.877	23.597
10	20.681	33.878	23.726
20	18.477	33.944	24.345
30	17.113	34.078	24.780
40	14.872	34.121	25.322
50	14.835	34.149	25.352
75	12.739	34.136	25.775
100	11.739	34.165	25.990
125	10.540	34.162	26.204
150	10.266	34.167	26.256
175	10.155	34.170	26.277
200	10.112	34.171	26.286

STATION US10371
LATITUDE 41-42.8 N
LONGITUDE 140-45.1 E
DEPTH (m) 84

Press.	Temp.	Salinity	Sigma-T
5	19.536	33.774	23.947
10	18.709	33.919	24.268
20	18.289	33.960	24.405
30	16.930	34.001	24.764
40	15.838	34.050	25.053
50	13.778	34.107	25.544
75	11.782	34.162	25.980

STATION US10372
LATITUDE 41-12.0 N
LONGITUDE 140-41.4 E
DEPTH (m) 75

Press.	Temp.	Salinity	Sigma-T
5	23.275	33.379	22.626
10	22.825	33.452	22.810
20	22.022	33.501	23.073
30	21.726	33.518	23.168
40	21.283	33.551	23.314
50	19.212	33.699	23.974

STATION US10373
LATITUDE 41-04.0 N
LONGITUDE 140-43.2 E
DEPTH (m) 60

Press.	Temp.	Salinity	Sigma-T
5	23.047	32.610	22.109
10	22.842	32.919	22.401
20	21.176	33.167	23.052
30	20.383	33.328	23.387
40	18.422	33.315	23.878
50	16.824	33.536	24.432

STATION US10374
LATITUDE 40-52.1 N
LONGITUDE 140-46.0 E
DEPTH (m) 29

Press.	Temp.	Salinity	Sigma-T
5	23.577	32.673	22.004
10	22.357	32.835	22.474
20	21.736	33.154	22.889

STATION US10375
LATITUDE 40-55.5 N
LONGITUDE 140-46.4 E
DEPTH (m) 42

Press.	Temp.	Salinity	Sigma-T
5	23.729	32.558	21.873
10	22.458	33.030	22.593
20	21.165	33.152	23.043
30	20.415	33.215	23.292
40	19.412	33.245	23.576

STATION US10376
LATITUDE 40-57.2 N
LONGITUDE 140-45.6 E
DEPTH (m) 50

Press.	Temp.	Salinity	Sigma-T
5	23.145	32.751	22.187
10	22.785	33.298	22.705
20	22.534	33.354	22.818
30	20.993	33.243	23.159
40	19.925	33.289	23.477
50	17.493	33.707	24.405

STATION US10377
LATITUDE 41-00.5 N
LONGITUDE 140-46.3 E
DEPTH (m) 52

Press.	Temp.	Salinity	Sigma-T
5	22.984	33.348	22.686
10	22.328	33.232	22.783
20	21.844	33.344	23.003
30	20.998	33.395	23.273
40	18.986	33.368	23.778
50	14.224	33.856	25.256

STATION US10378
LATITUDE 41-00.9 N
LONGITUDE 140-43.4 E
DEPTH (m) 56

Press.	Temp.	Salinity	Sigma-T
5	23.151	33.032	22.398
10	22.603	33.241	22.713
20	21.795	33.310	22.991
30	20.928	33.368	23.271
40	18.182	33.386	23.992
50	15.447	33.819	24.964

STATION US10379
LATITUDE 41-02.6 N
LONGITUDE 140-46.2 E
DEPTH (m) 52

Press.	Temp.	Salinity	Sigma-T
5	23.502	32.424	21.838
10	22.300	32.929	22.561
20	21.019	33.161	23.090
30	20.096	33.298	23.439
40	18.875	33.323	23.771
50	14.914	33.696	24.985

STATION US10380
LATITUDE 41-05.3 N
LONGITUDE 140-51.2 E
DEPTH (m) 53

Press.	Temp.	Salinity	Sigma-T
5	23.573	32.482	21.860
10	22.790	32.813	22.335
20	20.782	33.019	23.045
30	19.797	33.320	23.534
40	17.633	33.333	24.085
50	15.607	33.491	24.676

STATION US10381
LATITUDE 41-03.8 N
LONGITUDE 140-52.1 E
DEPTH (m) 51

Press.	Temp.	Salinity	Sigma-T
5	23.620	32.518	21.874
10	22.702	33.258	22.697
20	21.137	33.128	23.032
30	20.090	33.256	23.408
40	18.072	33.280	23.938
50	14.228	33.472	24.960

STATION US10382
LATITUDE 41-05.9 N
LONGITUDE 140-51.4 E
DEPTH (m) 53

Press.	Temp.	Salinity	Sigma-T
5	24.488	31.646	20.961
10	22.662	32.623	22.228
20	20.276	33.052	23.205
30	19.661	33.316	23.566
40	17.831	33.312	24.021
50	15.307	33.485	24.737

STATION US10383
LATITUDE 41-05.8 N
LONGITUDE 140-47.8 E
DEPTH (m) 50

Press.	Temp.	Salinity	Sigma-T
5	23.897	32.401	21.705
10	23.199	32.525	22.001
20	20.454	32.987	23.108
30	19.280	33.286	23.641
40	17.837	33.303	24.012

STATION US10384
LATITUDE 41-08.9 N
LONGITUDE 140-44.3 E
DEPTH (m) 62

Press.	Temp.	Salinity	Sigma-T
5	23.600	32.755	22.060
10	23.311	33.158	22.448
20	23.008	33.433	22.743
30	21.804	33.523	23.150
40	18.553	33.278	23.818
50	16.633	33.398	24.371

STATION US10385
LATITUDE 41-08.8 N
LONGITUDE 140-41.9 E
DEPTH (m) 56

Press.	Temp.	Salinity	Sigma-T
5	23.505	33.389	22.567
10	23.315	33.407	22.636
20	23.238	33.405	22.656
30	23.180	33.396	22.666
40	22.083	33.502	23.057
50	16.744	33.763	24.625

STATION US10386
LATITUDE 42-02.5 N
LONGITUDE 140-54.8 E
DEPTH (m) 77

Press.	Temp.	Salinity	Sigma-T
5	18.080	31.210	22.352
10	14.979	32.116	23.754
20	8.503	32.626	25.336
30	6.893	32.853	25.742
40	5.368	32.823	25.908
50	5.561	32.926	25.967

STATION US10387
LATITUDE 42-04.9 N
LONGITUDE 140-56.9 E
DEPTH (m) 83

Press.	Temp.	Salinity	Sigma-T
5	17.685	31.442	22.623
10	13.473	32.162	24.102
20	8.807	32.804	25.428
30	7.272	32.865	25.700
40	5.713	32.851	25.889
50	6.221	33.019	25.960

STATION US10388
LATITUDE 42-08.0 N
LONGITUDE 140-59.5 E
DEPTH (m) 84

Press.	Temp.	Salinity	Sigma-T
5	20.325	30.945	21.587
10	16.121	31.953	23.378
20	9.234	32.789	25.350
30	6.603	33.051	25.936
40	5.804	33.132	26.101
50	5.524	33.132	26.134
75	5.449	33.151	26.158

STATION US10389
LATITUDE 42-11.3 N
LONGITUDE 141-01.9 E
DEPTH (m) 81

Press.	Temp.	Salinity	Sigma-T
5	19.789	31.338	22.024
10	16.253	31.878	23.290
20	10.101	32.714	25.150
30	6.517	33.069	25.962
40	6.198	33.139	26.057
50	5.885	33.138	26.095
75	5.481	33.130	26.138

STATION US10390
LATITUDE 42-16.0 N
LONGITUDE 140-58.6 E
DEPTH (m) 65

Press.	Temp.	Salinity	Sigma-T
5	19.919	31.143	21.843
10	15.808	31.893	23.401
20	10.804	32.528	24.885
30	8.001	32.690	25.460
40	7.149	32.788	25.657
50	6.474	32.889	25.825

STATION US10391
LATITUDE 42-21.0 N
LONGITUDE 140-48.7 E
DEPTH (m) 52

Press.	Temp.	Salinity	Sigma-T
5	20.935	30.551	21.128
10	19.527	31.283	22.050
20	9.690	32.343	24.929
30	7.729	32.606	25.433
40	6.117	32.709	25.728

STATION US10392
LATITUDE 42-15.9 N
LONGITUDE 140-47.9 E
DEPTH (m) 70

Press.	Temp.	Salinity	Sigma-T
5	20.345	30.584	21.308
10	13.807	31.898	23.830
20	10.304	32.414	24.883
30	7.993	32.623	25.408
40	6.735	32.745	25.678
50	5.486	32.851	25.917

STATION US10393
LATITUDE 42-18.1 N
LONGITUDE 140-42.6 E
DEPTH (m) 63

Press.	Temp.	Salinity	Sigma-T
5	23.393	30.129	20.133
10	23.050	30.329	20.381
20	11.374	31.959	24.342
30	7.002	32.643	25.562
40	5.908	32.874	25.884
50	5.278	32.937	26.008

STATION US10394
LATITUDE 42-16.5 N
LONGITUDE 140-36.3 E
DEPTH (m) 91

Press.	Temp.	Salinity	Sigma-T
5	22.790	30.489	20.576
10	22.445	30.570	20.733
20	11.316	32.105	24.466
30	6.904	32.441	25.416
40	5.661	32.752	25.817
50	5.389	33.012	26.055
75	4.686	33.343	26.396

STATION US10395
LATITUDE 42-13.3 N
LONGITUDE 140-41.2 E
DEPTH (m) 90

Press.	Temp.	Salinity	Sigma-T
5	22.151	30.594	20.832
10	16.756	31.410	22.814
20	9.354	32.298	24.948
30	6.907	32.602	25.543
40	5.925	32.791	25.817
50	5.406	32.967	26.018
75	4.683	33.309	26.370

STATION US10396
LATITUDE 42-10.5 N
LONGITUDE 140-41.0 E
DEPTH (m) 87

Press.	Temp.	Salinity	Sigma-T
5	18.227	31.501	22.540
10	12.670	31.898	24.054
20	7.412	32.276	25.218
30	6.599	32.703	25.662
40	5.673	32.849	25.892
50	5.301	33.045	26.091
75	5.250	33.284	26.286

STATION US10397
LATITUDE 42-11.3 N
LONGITUDE 140-35.7 E
DEPTH (m) 82

Press.	Temp.	Salinity	Sigma-T
5	20.361	30.728	21.414
10	13.745	31.821	23.783
20	8.263	32.282	25.102
30	6.753	32.639	25.592
40	5.992	32.851	25.856
50	5.596	33.079	26.084
75	5.632	33.269	26.229

STATION US10398
LATITUDE 42-14.4 N
LONGITUDE 140-30.3 E
DEPTH (m) 83

Press.	Temp.	Salinity	Sigma-T
5	21.615	30.128	20.625
10	15.334	31.667	23.330
20	8.619	32.163	24.955
30	7.059	32.659	25.568
40	5.828	32.853	25.877
50	5.645	33.060	26.063
75	6.047	33.310	26.212

STATION US10399
LATITUDE 42-18.8 N
LONGITUDE 140-30.0 E
DEPTH (m) 92

Press.	Temp.	Salinity	Sigma-T
5	22.158	30.542	20.791
10	21.028	30.650	21.179
20	10.345	31.931	24.498
30	7.253	32.378	25.320
40	6.250	32.750	25.744
50	5.428	32.946	25.998
75	4.718	33.332	26.384

STATION US10400
LATITUDE 42-23.6 N
LONGITUDE 140-31.1 E
DEPTH (m) 96

Press.	Temp.	Salinity	Sigma-T
5	23.048	30.421	20.451
10	22.890	30.489	20.547
20	16.233	31.632	23.105
30	7.919	32.379	25.228
40	6.123	32.684	25.707
50	5.516	32.897	25.950
75	4.706	33.311	26.369

STATION US10401
LATITUDE 42-20.9 N
LONGITUDE 140-36.7 E
DEPTH (m) 88

Press.	Temp.	Salinity	Sigma-T
5	23.581	30.481	20.345
10	23.578	30.481	20.346
20	13.760	31.717	23.700
30	7.819	32.521	25.353
40	5.902	32.763	25.797
50	5.575	32.985	26.012
75	4.937	33.281	26.320

STATION US10402
LATITUDE 42-25.7 N
LONGITUDE 140-37.3 E
DEPTH (m) 84

Press.	Temp.	Salinity	Sigma-T
5	23.191	30.301	20.320
10	23.181	30.299	20.322
20	14.139	31.667	23.583
30	7.788	32.250	25.145
40	6.166	32.716	25.727
50	5.231	32.828	25.928
75	5.428	33.279	26.262

STATION US10403
LATITUDE 42-23.5 N
LONGITUDE 140-42.1 E
DEPTH (m) 65

Press.	Temp.	Salinity	Sigma-T
5	23.480	30.269	20.214
10	23.482	30.269	20.214
20	12.298	31.813	24.059
30	6.642	32.602	25.577
40	6.361	32.723	25.709
50	5.115	32.876	25.979

STATION US10404
LATITUDE 42-17.5 N
LONGITUDE 140-52.8 E
DEPTH (m) 59

Press.	Temp.	Salinity	Sigma-T
5	19.357	30.915	21.813
10	18.134	31.410	22.492
20	9.108	32.427	25.087
30	8.285	32.577	25.330
40	7.331	32.654	25.526
50	6.894	32.760	25.669

STATION US10405
LATITUDE 42-10.4 N
LONGITUDE 140-47.2 E
DEPTH (m) 93

Press.	Temp.	Salinity	Sigma-T
5	18.481	31.431	22.424
10	15.810	31.728	23.275
20	9.841	32.039	24.667
30	6.931	32.546	25.495
40	6.515	32.856	25.794
50	5.483	32.900	25.955
75	5.325	33.294	26.286

STATION US10406
LATITUDE 42-08.0 N
LONGITUDE 140-49.6 E
DEPTH (m) 85

Press.	Temp.	Salinity	Sigma-T
5	20.750	30.663	21.262
10	16.203	31.648	23.125
20	9.796	32.092	24.715
30	6.837	32.382	25.379
40	6.528	32.813	25.758
50	5.907	32.923	25.923
75	5.550	33.271	26.241

STATION US10407
LATITUDE 42-09.5 N
LONGITUDE 140-52.2 E
DEPTH (m) 76

Press.	Temp.	Salinity	Sigma-T
5	21.301	31.398	21.673
10	17.868	32.051	23.047
20	12.294	32.715	24.760
30	9.125	32.947	25.491
40	6.342	32.793	25.766
50	6.249	32.921	25.879

STATION US10408
LATITUDE 42-12.8 N
LONGITUDE 140-55.0 E
DEPTH (m) 68

Press.	Temp.	Salinity	Sigma-T
5	20.107	30.917	21.623
10	16.439	31.731	23.136
20	11.855	32.595	24.749
30	8.351	32.645	25.374
40	7.069	32.800	25.677
50	7.037	32.869	25.735

STATION US10409
LATITUDE 42-08.6 N
LONGITUDE 140-35.6 E
DEPTH (m) 63

Press.	Temp.	Salinity	Sigma-T
5	24.112	29.733	19.627
10	18.923	31.052	22.025
20	8.545	32.152	24.957
30	6.054	32.582	25.635
40	5.589	32.797	25.862
50	5.123	32.871	25.974

STATION US10410
LATITUDE 42-25.0 N
LONGITUDE 140-48.5 E
DEPTH (m) 44

Press.	Temp.	Salinity	Sigma-T
5	23.437	29.917	19.960
10	17.536	31.530	22.727
20	10.470	32.503	24.924
30	8.409	32.748	25.445
40	6.698	32.737	25.676

STATION US10411
LATITUDE 42-28.0 N
LONGITUDE 140-43.4 E
DEPTH (m) 59

Press.	Temp.	Salinity	Sigma-T
5	23.465	30.240	20.196
10	22.048	30.504	20.792
20	10.860	32.060	24.511
30	8.376	32.625	25.354
40	6.267	32.725	25.722
50	5.402	32.800	25.885

STATION US10412
LATITUDE 42-30.9 N
LONGITUDE 140-37.7 E
DEPTH (m) 62

Press.	Temp.	Salinity	Sigma-T
5	22.896	29.009	19.426
10	18.631	31.199	22.210
20	10.257	32.321	24.817
30	7.317	32.650	25.525
40	6.019	32.745	25.768
50	5.453	32.815	25.892

STATION US10413
LATITUDE 42-28.8 N
LONGITUDE 140-32.2 E
DEPTH (m) 76

Press.	Temp.	Salinity	Sigma-T
5	23.722	29.582	19.625
10	23.170	30.207	20.255
20	11.040	31.925	24.374
30	7.626	32.440	25.317
40	6.224	32.751	25.748
50	5.219	32.867	25.960

STATION US10414
LATITUDE 42-25.4 N
LONGITUDE 140-25.9 E
DEPTH (m) 70

Press.	Temp.	Salinity	Sigma-T
5	23.467	29.811	19.871
10	21.851	30.332	20.716
20	10.102	31.976	24.575
30	8.140	32.549	25.329
40	5.817	32.733	25.783
50	5.259	32.860	25.949

STATION US10415
LATITUDE 42-21.5 N
LONGITUDE 140-25.6 E
DEPTH (m) 74

Press.	Temp.	Salinity	Sigma-T
5	23.447	29.712	19.802
10	20.905	30.635	21.200
20	9.577	32.019	24.694
30	7.193	32.587	25.492
40	6.224	32.779	25.770
50	4.979	32.854	25.976

STATION US10416
LATITUDE 42-17.9 N
LONGITUDE 140-25.6 E
DEPTH (m) 66

Press.	Temp.	Salinity	Sigma-T
5	23.033	30.107	20.218
10	19.440	31.164	21.981
20	8.966	32.102	24.855
30	7.006	32.545	25.484
40	5.983	32.800	25.817
50	5.538	33.012	26.038

STATION US10417
LATITUDE 41-59.3 N
LONGITUDE 141-01.8 E
DEPTH (m) 101

Press.	Temp.	Salinity	Sigma-T
5	18.406	32.209	23.036
10	14.363	32.776	24.393
20	9.559	33.063	25.513
30	7.985	33.078	25.767
40	8.033	33.168	25.830
50	7.520	33.210	25.937
75	6.432	33.208	26.082

STATION US10418
LATITUDE 41-58.8 N
LONGITUDE 141-00.6 E
DEPTH (m) 94

Press.	Temp.	Salinity	Sigma-T
5	21.682	30.670	21.018
10	20.403	31.601	22.066
20	14.686	32.626	24.209
30	8.689	32.822	25.461
40	8.076	33.114	25.781
50	7.650	33.121	25.849
75	6.952	33.213	26.018

STATION US10419
LATITUDE 41-58.1 N
LONGITUDE 140-59.4 E
DEPTH (m) 86

Press.	Temp.	Salinity	Sigma-T
5	19.884	31.188	21.886
10	16.976	31.778	23.049
20	12.987	32.957	24.813
30	10.160	33.040	25.395
40	8.115	33.113	25.775
50	7.823	33.164	25.858
75	6.630	33.079	25.955

STATION US10420
LATITUDE 41-57.4 N
LONGITUDE 140-58.2 E
DEPTH (m) 79

Press.	Temp.	Salinity	Sigma-T
5	20.927	30.604	21.171
10	19.595	31.455	22.164
20	14.366	32.276	24.007
30	10.912	32.762	25.049
40	8.446	32.968	25.612
50	7.747	33.038	25.770
75	5.771	33.009	26.007

STATION US10421
LATITUDE 41-49.1 N
LONGITUDE 141-13.0 E
DEPTH (m) 162

Press.	Temp.	Salinity	Sigma-T
5	17.431	31.763	22.930
10	15.755	32.153	23.614
20	9.600	32.913	25.388
30	8.108	33.096	25.763
40	7.963	33.140	25.819
50	7.764	33.178	25.877
75	6.663	33.176	26.027
100	5.980	33.199	26.132
125	5.349	33.200	26.208
150	3.577	33.199	26.395

STATION US10422
LATITUDE 41-46.7 N
LONGITUDE 141-14.3 E
DEPTH (m) 195

Press.	Temp.	Salinity	Sigma-T
5	20.124	31.124	21.776
10	16.995	31.831	23.085
20	15.119	32.252	23.829
30	12.485	32.804	24.792
40	9.797	32.992	25.418
50	8.673	32.950	25.564
75	7.890	33.185	25.865
100	6.867	33.195	26.015
125	5.645	33.132	26.120
150	4.570	33.192	26.289
175	2.944	33.202	26.455

STATION US10423
LATITUDE 41-43.7 N
LONGITUDE 141-15.6 E
DEPTH (m) 228

Press.	Temp.	Salinity	Sigma-T
5	21.838	30.674	20.979
10	21.703	30.691	21.028
20	17.069	32.094	23.269
30	17.579	33.140	23.950
40	13.831	33.280	24.893
50	10.993	33.152	25.338
75	6.904	33.067	25.909
100	5.561	33.127	26.126
125	5.048	33.201	26.244
150	3.942	33.183	26.347
175	2.747	33.211	26.479
200	2.392	33.289	26.571

STATION US10424
LATITUDE 41-41.2 N
LONGITUDE 141-17.5 E
DEPTH (m) 235

Press.	Temp.	Salinity	Sigma-T
5	26.759	33.533	21.689
10	26.388	33.607	21.862
20	25.290	33.662	22.242
30	24.112	33.659	22.594
40	21.948	33.546	23.128
50	17.083	33.927	24.671
75	11.863	33.803	25.685
100	7.991	33.398	26.017
125	4.281	33.413	26.495
150	2.296	33.279	26.570
175	2.305	33.319	26.602
200	2.311	33.366	26.639

STATION US10425
LATITUDE 41-37.9 N
LONGITUDE 141-18.9 E
DEPTH (m) 212

Press.	Temp.	Salinity	Sigma-T
5	26.549	33.393	21.650
10	25.781	33.447	21.929
20	24.307	33.580	22.476
30	21.873	33.818	23.356
40	21.076	33.872	23.615
50	20.265	33.855	23.819
75	18.456	33.930	24.340
100	13.308	34.190	25.703
125	10.508	33.936	26.034
150	5.617	33.561	26.462
175	3.438	33.489	26.639
200	3.407	33.494	26.646

STATION US10426
LATITUDE 41-35.2 N
LONGITUDE 141-19.9 E
DEPTH (m) 287

Press.	Temp.	Salinity	Sigma-T
5	26.436	33.213	21.550
10	26.700	33.233	21.482
20	24.940	33.514	22.237
30	22.452	33.708	23.110
40	21.162	33.851	23.576
50	19.460	33.949	24.101
75	16.702	34.109	24.901
100	15.929	34.141	25.103
125	15.201	34.179	25.295
150	12.890	34.212	25.804
175	10.201	33.964	26.109
200	5.028	33.562	26.532
250	2.448	33.419	26.670

STATION US10427
LATITUDE 41-32.0 N
LONGITUDE 141-21.7 E
DEPTH (m) 259

Press.	Temp.	Salinity	Sigma-T
5	25.847	33.420	21.889
10	25.320	33.493	22.105
20	23.924	33.623	22.622
30	20.807	33.883	23.696
40	20.365	33.933	23.852
50	19.677	33.945	24.042
75	15.615	34.185	25.208
100	14.263	34.211	25.522
125	13.522	34.222	25.684
150	12.949	34.230	25.807
175	11.470	34.178	26.050
200	9.825	34.053	26.242
250	7.762	33.865	26.417

STATION US10428
LATITUDE 41-29.1 N
LONGITUDE 141-23.3 E
DEPTH (m) 105

Press.	Temp.	Salinity	Sigma-T
5	24.412	33.625	22.479
10	24.032	33.654	22.613
20	23.814	33.685	22.701
30	23.375	33.653	22.805
40	21.897	33.694	23.254
50	17.364	33.871	24.562
75	14.197	34.201	25.528

STATION US10429
LATITUDE 41-26.3 N
LONGITUDE 141-24.8 E
DEPTH (m) 38

Press.	Temp.	Salinity	Sigma-T
5	24.873	33.551	22.285
10	24.736	33.500	22.288
20	23.811	33.625	22.656

STATION US10430
LATITUDE 41-35.1 N
LONGITUDE 140-54.5 E
DEPTH (m) 55

Press.	Temp.	Salinity	Sigma-T
5	26.366	33.331	21.661
10	26.407	33.322	21.641
20	26.262	33.367	21.721
30	26.224	33.380	21.742
40	22.837	33.559	22.888
50	14.328	33.999	25.344

STATION US10431
LATITUDE 41-37.0 N
LONGITUDE 140-51.2 E
DEPTH (m) 94

Press.	Temp.	Salinity	Sigma-T
5	27.761	32.937	20.921
10	27.580	33.412	21.337
20	26.047	33.669	22.015
30	24.929	33.805	22.460
40	23.140	33.860	23.028
50	22.354	33.907	23.288
75	14.381	34.227	25.510

STATION US10432
LATITUDE 41-38.7 N
LONGITUDE 140-49.2 E
DEPTH (m) 336

Press.	Temp.	Salinity	Sigma-T
5	27.411	33.258	21.275
10	26.546	33.556	21.774
20	22.388	33.874	23.254
30	16.984	34.113	24.837
40	15.057	34.210	25.350
50	13.528	34.229	25.689
75	11.702	34.204	26.027
100	11.574	34.209	26.055
125	10.902	34.181	26.156
150	10.789	34.192	26.184
175	10.788	34.192	26.184
200	10.797	34.193	26.183
250	10.786	34.193	26.185
300	10.788	34.193	26.185

STATION US10433
LATITUDE 41-40.8 N
LONGITUDE 140-47.1 E
DEPTH (m) 222

Press.	Temp.	Salinity	Sigma-T
5	25.095	33.764	22.378
10	24.148	33.796	22.686
20	20.355	34.044	23.939
30	17.665	34.124	24.683
40	16.098	34.148	25.070
50	14.571	34.108	25.377
75	12.793	34.189	25.805
100	11.281	34.186	26.091
125	11.150	34.192	26.120
150	10.959	34.192	26.154
175	10.957	34.193	26.155
200	10.940	34.194	26.158

STATION US10434
LATITUDE 41-42.9 N
LONGITUDE 140-45.0 E
DEPTH (m) 84

Press.	Temp.	Salinity	Sigma-T
5	24.151	33.840	22.719
10	22.782	33.848	23.123
20	20.429	33.974	23.866
30	18.149	34.070	24.524
40	16.751	34.172	24.937
50	14.244	34.168	25.493
75	12.334	34.211	25.912

STATION US10435
LATITUDE 43-22.5 N
LONGITUDE 145-32.0 E
DEPTH (m) 18

Press.	Temp.	Salinity	Sigma-T
5	20.908	32.221	22.404
10	18.445	32.713	23.412

STATION US10436
LATITUDE 43-20.2 N
LONGITUDE 145-27.7 E
DEPTH (m) 15

Press.	Temp.	Salinity	Sigma-T
5	20.992	32.052	22.253
10	18.397	32.701	23.415

STATION US10437
LATITUDE 43-24.4 N
LONGITUDE 145-20.9 E
DEPTH (m) 9

Press.	Temp.	Salinity	Sigma-T
5	20.326	32.685	22.912

STATION US10438
LATITUDE 43-25.6 N
LONGITUDE 145-22.0 E
DEPTH (m) 10

Press.	Temp.	Salinity	Sigma-T
5	20.315	32.726	22.946

STATION US10439
LATITUDE 43-27.1 N
LONGITUDE 145-25.2 E
DEPTH (m) 17

Press.	Temp.	Salinity	Sigma-T
5	19.948	32.757	23.066
10	19.961	32.851	23.134

STATION US10440
LATITUDE 43-30.0 N
LONGITUDE 145-19.2 E
DEPTH (m) 8

Press.	Temp.	Salinity	Sigma-T
5	19.763	32.752	23.109

STATION US10441
LATITUDE 43-31.2 N
LONGITUDE 145-19.9 E
DEPTH (m) 7

Press.	Temp.	Salinity	Sigma-T
5	19.780	32.782	23.128

STATION US10442
LATITUDE 43-33.4 N
LONGITUDE 145-23.6 E
DEPTH (m) 11

Press.	Temp.	Salinity	Sigma-T
5	20.839	32.792	22.857

STATION US10443
LATITUDE 43-43.5 N
LONGITUDE 145-14.0 E
DEPTH (m) 18

Press.	Temp.	Salinity	Sigma-T
5	20.214	33.129	23.279
10	20.083	33.197	23.365

STATION US10444
LATITUDE 43-43.1 N
LONGITUDE 145-12.8 E
DEPTH (m) 17

Press.	Temp.	Salinity	Sigma-T
5	20.481	32.999	23.110
10	19.771	33.199	23.448

STATION US10445
LATITUDE 43-35.0 N
LONGITUDE 145-25.4 E
DEPTH (m) 13

Press.	Temp.	Salinity	Sigma-T
5	18.899	33.058	23.563

STATION US10446
LATITUDE 43-30.2 N
LONGITUDE 145-29.8 E
DEPTH (m) 24

Press.	Temp.	Salinity	Sigma-T
5	19.254	33.089	23.497
10	18.425	33.086	23.703

STATION US10447
LATITUDE 43-29.5 N
LONGITUDE 145-34.1 E
DEPTH (m) 30

Press.	Temp.	Salinity	Sigma-T
5	19.882	32.894	23.187
10	17.715	32.982	23.796
20	14.631	32.990	24.502

STATION US10448
LATITUDE 43-26.4 N
LONGITUDE 145-39.1 E
DEPTH (m) 30

Press.	Temp.	Salinity	Sigma-T
5	20.236	32.730	22.970
10	18.160	33.001	23.703
20	16.176	32.987	24.160

STATION US10449
LATITUDE 43-24.7 N
LONGITUDE 145-36.3 E
DEPTH (m) 27

Press.	Temp.	Salinity	Sigma-T
5	21.622	32.199	22.195
10	18.749	32.925	23.499
20	15.849	32.902	24.168

STATION US10450
LATITUDE 43-56.7 N
LONGITUDE 145-12.1 E
DEPTH (m) 82

Press.	Temp.	Salinity	Sigma-T
5	21.216	33.150	23.028
10	20.244	33.275	23.383
20	18.834	33.348	23.801
30	17.477	33.399	24.173
40	16.047	33.488	24.574
50	14.470	33.655	25.049
75	9.094	33.651	26.047

STATION US10451
LATITUDE 43-55.7 N
LONGITUDE 145-14.4 E
DEPTH (m) 80

Press.	Temp.	Salinity	Sigma-T
5	21.396	33.000	22.865
10	20.695	33.277	23.264
20	19.413	33.335	23.644
30	18.240	33.368	23.964
40	15.941	33.499	24.607
50	13.872	33.529	25.077
75	10.528	33.717	25.860

STATION US10452
LATITUDE 43-59.5 N
LONGITUDE 145-18.6 E
DEPTH (m) 266

Press.	Temp.	Salinity	Sigma-T
5	22.254	32.905	22.556
10	19.192	33.286	23.663
20	16.669	33.391	24.357
30	15.656	33.471	24.649
40	14.638	33.531	24.917
50	13.325	33.616	25.256
75	10.531	33.668	25.821
100	8.210	33.747	26.259
125	6.941	33.719	26.417
150	5.829	33.640	26.499
175	4.798	33.576	26.569
200	3.542	33.481	26.623

STATION US10453
LATITUDE 44-00.5 N
LONGITUDE 145-16.3 E
DEPTH (m) 467

Press.	Temp.	Salinity	Sigma-T
5	21.503	32.930	22.783
10	20.173	33.101	23.269
20	18.087	33.294	23.945
30	16.373	33.430	24.456
40	14.808	33.523	24.875
50	13.519	33.521	25.143
75	10.841	33.808	25.876
100	8.139	33.768	26.285
125	6.497	33.676	26.443
150	5.708	33.631	26.507
175	4.001	33.502	26.594
200	3.176	33.471	26.649
250	2.221	33.446	26.710
300	1.817	33.447	26.741
400	1.684	33.546	26.831

STATION US10454
LATITUDE 44-01.6 N
LONGITUDE 145-14.3 E
DEPTH (m) 373

Press.	Temp.	Salinity	Sigma-T
5	21.126	33.237	23.118
10	19.502	33.261	23.565
20	19.125	33.355	23.733
30	17.977	33.344	24.010
40	15.899	33.434	24.566
50	14.125	33.529	25.024
75	9.616	33.726	26.021
100	7.441	33.709	26.341
125	6.199	33.644	26.456
150	5.275	33.584	26.521
175	3.983	33.497	26.592
200	3.608	33.510	26.640
250	2.406	33.449	26.697
300	1.756	33.450	26.748

STATION US10455
LATITUDE 44-06.1 N
LONGITUDE 145-16.7 E
DEPTH (m) 421

Press.	Temp.	Salinity	Sigma-T
5	21.207	33.277	23.127
10	20.400	33.337	23.389
20	19.650	33.449	23.670
30	17.854	33.483	24.146
40	15.637	33.472	24.654
50	14.094	33.584	25.073
75	8.760	33.769	26.192
100	7.484	33.765	26.379
125	6.861	33.742	26.447
150	5.977	33.665	26.501
175	5.435	33.629	26.538
200	4.677	33.592	26.595
250	2.965	33.478	26.673
300	1.867	33.451	26.741
400	1.729	33.552	26.832

STATION US10456
LATITUDE 44-04.8 N
LONGITUDE 145-20.0 E
DEPTH (m) 725

Press.	Temp.	Salinity	Sigma-T
5	21.337	32.945	22.839
10	19.504	33.226	23.538
20	18.028	33.302	23.965
30	17.243	33.383	24.216
40	15.671	33.471	24.646
50	14.233	33.519	24.994
75	10.996	33.763	25.813
100	8.326	33.652	26.167
125	6.831	33.625	26.358
150	4.817	33.535	26.535
175	3.593	33.494	26.629
200	2.641	33.435	26.667
250	2.151	33.442	26.712
300	1.586	33.451	26.761
400	1.741	33.573	26.848
500	1.881	33.682	26.924

STATION US10457
LATITUDE 44-09.1 N
LONGITUDE 145-23.9 E
DEPTH (m) 1493

Press.	Temp.	Salinity	Sigma-T
5	21.769	32.977	22.745
10	20.400	33.149	23.245
20	18.699	33.330	23.821
30	17.944	33.351	24.023
40	15.904	33.447	24.575
50	14.137	33.611	25.086
75	10.801	33.705	25.802
100	9.127	33.798	26.157
125	7.392	33.742	26.373
150	5.804	33.647	26.508
175	4.746	33.583	26.580
200	3.552	33.497	26.634
250	2.192	33.443	26.709
300	1.594	33.439	26.750
400	1.788	33.559	26.833
500	1.940	33.669	26.910

STATION US10458
LATITUDE 44-10.5 N
LONGITUDE 145-20.7 E
DEPTH (m) 122

Press.	Temp.	Salinity	Sigma-T
5	20.747	33.232	23.216
10	20.382	33.404	23.445
20	19.066	33.474	23.838
30	18.023	33.550	24.156
40	15.311	33.619	24.839
50	13.812	33.687	25.211
75	11.495	33.797	25.749
100	9.884	33.857	26.079

STATION US10459
LATITUDE 44-13.6 N
LONGITUDE 145-25.9 E
DEPTH (m) 1396

Press.	Temp.	Salinity	Sigma-T
5	20.677	33.368	23.338
10	20.471	33.504	23.497
20	20.387	33.503	23.518
30	19.590	33.526	23.744
40	19.126	33.605	23.923
50	15.946	33.533	24.632
75	10.655	33.755	25.867
100	8.768	33.869	26.269
125	7.821	33.824	26.376
150	6.926	33.775	26.464
175	6.687	33.825	26.536
200	4.943	33.680	26.635
250	2.188	33.449	26.715
300	1.993	33.505	26.774
400	1.760	33.527	26.810
500	2.058	33.680	26.910

STATION US10460
LATITUDE 44-15.1 N
LONGITUDE 145-22.9 E
DEPTH (m) 350

Press.	Temp.	Salinity	Sigma-T
5	20.595	33.448	23.422
10	20.527	33.462	23.451
20	20.059	33.579	23.663
30	19.601	33.551	23.760
40	19.375	33.536	23.807
50	18.788	33.596	24.002
75	10.900	33.833	25.884
100	9.079	33.844	26.200
125	7.552	33.769	26.372
150	6.563	33.764	26.504
175	6.084	33.761	26.563
200	4.597	33.608	26.616
250	3.713	33.558	26.667

STATION US10461
LATITUDE 44-20.2 N
LONGITUDE 145-24.9 E
DEPTH (m) 898

Press.	Temp.	Salinity	Sigma-T
5	19.351	33.451	23.748
10	18.557	33.533	24.011
20	17.619	33.614	24.303
30	15.666	33.747	24.859
40	15.506	33.754	24.900
50	15.248	33.738	24.945
75	11.731	33.734	25.656
100	8.440	33.797	26.263
125	7.607	33.774	26.368
150	6.526	33.704	26.462
175	5.579	33.683	26.564
200	4.334	33.540	26.591
250	2.444	33.446	26.691
300	2.056	33.456	26.730
400	1.809	33.541	26.817
500	2.062	33.676	26.907

STATION US10462
LATITUDE 44-21.7 N
LONGITUDE 145-21.4 E
DEPTH (m) 80

Press.	Temp.	Salinity	Sigma-T
5	19.275	33.516	23.818
10	19.205	33.534	23.849
20	17.796	33.556	24.216
30	15.726	33.675	24.791
40	14.505	33.676	25.058
50	13.335	33.830	25.420

STATION US10463
LATITUDE 44-23.1 N
LONGITUDE 145-17.7 E
DEPTH (m) 708

Press.	Temp.	Salinity	Sigma-T
5	20.690	33.473	23.415
10	20.081	33.643	23.706
20	18.915	33.706	24.054
30	16.375	33.796	24.736
40	13.505	33.738	25.314
50	12.277	33.950	25.721
75	10.014	33.997	26.166
100	9.067	33.984	26.312
125	7.919	33.956	26.466
150	7.254	33.952	26.558
175	6.760	33.927	26.606
200	6.411	33.901	26.631
250	3.960	33.622	26.694
300	2.634	33.550	26.759
400	3.138	33.716	26.848

STATION US10464
LATITUDE 44-24.6 N
LONGITUDE 145-14.0 E
DEPTH (m) 1398

Press.	Temp.	Salinity	Sigma-T
5	20.836	33.473	23.376
10	20.200	33.631	23.665
20	19.741	33.677	23.820
30	16.202	33.754	24.744
40	10.749	33.610	25.738
50	9.751	33.996	26.209
75	8.760	34.016	26.385
100	7.678	33.990	26.528
125	7.202	34.007	26.608
150	4.605	33.639	26.640
175	3.905	33.639	26.713
200	3.779	33.640	26.726
250	2.842	33.582	26.767
300	2.265	33.563	26.800
400	1.579	33.584	26.868

STATION US10465
LATITUDE 44-20.9 N
LONGITUDE 145-09.5 E
DEPTH (m) 1166

Press.	Temp.	Salinity	Sigma-T
5	19.844	33.051	23.317
10	18.469	33.502	24.010
20	17.514	33.680	24.379
30	15.549	33.684	24.836
40	9.653	33.623	25.934
50	8.213	33.866	26.352
75	7.893	34.010	26.512
100	7.616	33.998	26.543
125	7.168	33.987	26.598
150	5.713	33.787	26.630
175	4.733	33.712	26.684
200	4.041	33.672	26.725
250	2.184	33.524	26.775
300	2.113	33.554	26.805
400	1.834	33.619	26.878

STATION US10466
LATITUDE 44-17.2 N
LONGITUDE 145-05.1 E
DEPTH (m) 882

Press.	Temp.	Salinity	Sigma-T
5	18.688	32.882	23.481
10	14.594	32.695	24.283
20	14.080	33.189	24.771
30	10.632	32.944	25.239
40	8.079	33.290	25.920
50	6.481	33.481	26.291
75	6.854	33.968	26.626
100	6.708	33.954	26.634
125	6.621	33.985	26.671
150	4.387	33.615	26.645
175	3.688	33.609	26.711
200	5.371	33.886	26.749
250	2.650	33.582	26.783
300	1.838	33.535	26.810
400	1.757	33.596	26.865

STATION US10467
LATITUDE 44-13.3 N
LONGITUDE 145-00.1 E
DEPTH (m) 662

Press.	Temp.	Salinity	Sigma-T
5	19.185	33.534	23.854
10	16.269	33.792	24.757
20	14.911	33.844	25.100
30	12.667	33.887	25.597
40	11.968	33.999	25.817
50	11.331	34.026	25.957
75	9.581	34.014	26.252
100	6.685	33.773	26.495
125	5.452	33.784	26.659
150	2.931	33.470	26.670
175	3.867	33.668	26.740
200	3.668	33.665	26.757
250	2.824	33.576	26.764
300	3.050	33.643	26.798
400	3.016	33.739	26.877
500	1.900	33.708	26.944

STATION US10468
LATITUDE 44-11.9 N
LONGITUDE 145-03.3 E
DEPTH (m) 447

Press.	Temp.	Salinity	Sigma-T
5	19.404	33.064	23.439
10	17.837	33.516	24.175
20	17.238	33.820	24.552
30	16.362	33.841	24.773
40	13.277	33.911	25.493
50	11.964	34.006	25.824
75	10.677	34.036	26.082
100	9.470	34.026	26.280
125	8.391	34.025	26.450
150	6.273	33.854	26.612
175	5.083	33.763	26.685
200	4.871	33.754	26.702
250	4.594	33.758	26.735
300	2.829	33.596	26.779
400	3.103	33.702	26.840

STATION US10469
LATITUDE 44-10.7 N
LONGITUDE 145-06.5 E
DEPTH (m) 305

Press.	Temp.	Salinity	Sigma-T
5	21.138	33.561	23.362
10	20.766	33.594	23.487
20	18.118	33.705	24.252
30	16.811	33.823	24.656
40	14.733	33.838	25.134
50	13.752	33.858	25.356
75	10.736	33.990	26.036
100	9.884	34.054	26.233
125	9.067	34.029	26.347
150	7.675	33.945	26.493
175	7.169	33.928	26.551
200	4.938	33.696	26.649

STATION US10470
LATITUDE 44-13.9 N
LONGITUDE 145-11.5 E
DEPTH (m) 118

Press.	Temp.	Salinity	Sigma-T
5	21.263	33.523	23.299
10	20.650	33.546	23.481
20	19.978	33.619	23.714
30	16.926	33.734	24.561
40	15.082	33.832	25.054
50	12.495	33.950	25.679
75	11.261	34.028	25.971

STATION US10471
LATITUDE 44-15.4 N
LONGITUDE 145-09.2 E
DEPTH (m) 615

Press.	Temp.	Salinity	Sigma-T
5	20.843	33.582	23.457
10	20.593	33.637	23.565
20	17.000	33.798	24.592
30	14.589	33.895	25.209
40	14.245	33.918	25.299
50	12.787	33.978	25.643
75	11.448	33.960	25.884
100	9.591	33.963	26.211
125	7.246	33.887	26.508
150	7.235	33.951	26.560
175	5.848	33.819	26.639
200	4.397	33.665	26.683
250	3.295	33.618	26.755
300	3.078	33.617	26.774
400	2.977	33.674	26.829

STATION US10472
LATITUDE 44-19.1 N
LONGITUDE 145-13.2 E
DEPTH (m) 666

Press.	Temp.	Salinity	Sigma-T
5	20.026	33.641	23.718
10	17.950	33.718	24.302
20	16.928	33.816	24.622
30	15.083	33.896	25.103
40	13.765	33.931	25.410
50	12.981	33.967	25.596
75	10.170	33.942	26.097
100	7.950	33.905	26.421
125	7.758	33.943	26.479
150	7.198	33.936	26.554
175	6.166	33.829	26.606
200	5.022	33.740	26.674
250	3.342	33.584	26.724
300	3.209	33.658	26.795
400	2.939	33.709	26.860

STATION US10473
LATITUDE 44-18.1 N
LONGITUDE 145-16.1 E
DEPTH (m) 155

Press.	Temp.	Salinity	Sigma-T
5	21.078	33.488	23.322
10	19.945	33.579	23.693
20	17.629	33.727	24.387
30	16.733	33.757	24.622
40	13.597	33.874	25.400
50	12.915	33.905	25.562
75	11.064	33.936	25.935
100	9.859	33.965	26.167
125	8.435	33.965	26.395

STATION US10474
LATITUDE 44-18.6 N
LONGITUDE 145-28.4 E
DEPTH (m) 1503

Press.	Temp.	Salinity	Sigma-T
5	21.819	32.990	22.742
10	21.664	33.118	22.881
20	17.697	33.361	24.091
30	14.416	33.564	24.991
40	12.898	33.636	25.356
50	11.286	33.713	25.722
75	9.325	33.794	26.122
100	8.557	33.808	26.254
125	6.865	33.702	26.415
150	5.121	33.586	26.541
175	3.204	33.467	26.643
200	2.418	33.428	26.680
250	1.459	33.395	26.725
300	1.654	33.486	26.784
400	1.900	33.577	26.839
500	1.991	33.696	26.928

STATION US10475
LATITUDE 44-17.3 N
LONGITUDE 145-31.9 E
DEPTH (m) 2085

Press.	Temp.	Salinity	Sigma-T
5	21.833	33.044	22.779
10	21.806	33.061	22.799
20	17.872	33.358	24.046
30	14.679	33.544	24.919
40	13.144	33.640	25.311
50	11.663	33.687	25.632
75	9.938	33.806	26.030
100	8.185	33.782	26.290
125	6.770	33.693	26.420
150	5.165	33.616	26.559
175	3.909	33.535	26.630
200	2.710	33.444	26.668
250	1.902	33.450	26.738
300	1.734	33.476	26.771
400	1.819	33.587	26.853

STATION US10476
LATITUDE 44-12.1 N
LONGITUDE 145-29.9 E
DEPTH (m) 2067

Press.	Temp.	Salinity	Sigma-T
5	20.683	33.306	23.290
10	20.656	33.334	23.319
20	19.827	33.507	23.669
30	19.154	33.602	23.914
40	17.333	33.479	24.268
50	14.186	33.588	25.057
75	10.373	33.775	25.932
100	8.440	33.772	26.243
125	7.231	33.707	26.369
150	6.249	33.677	26.476
175	4.394	33.555	26.596
200	3.142	33.466	26.648
250	1.831	33.438	26.733
300	1.651	33.481	26.780
400	1.888	33.585	26.847

STATION US10477
LATITUDE 44-07.4 N
LONGITUDE 145-27.7 E
DEPTH (m) 1228

Press.	Temp.	Salinity	Sigma-T
5	21.305	32.916	22.826
10	21.167	33.143	23.036
20	19.058	33.409	23.791
30	17.396	33.379	24.176
40	16.081	33.447	24.535
50	14.194	33.525	25.007
75	10.839	33.683	25.779
100	8.892	33.733	26.143
125	7.256	33.665	26.332
150	5.327	33.567	26.501
175	4.141	33.493	26.573
200	3.385	33.466	26.626
250	2.146	33.445	26.715
300	1.862	33.475	26.760
400	1.892	33.582	26.844

STATION US10478
LATITUDE 44-03.3 N
LONGITUDE 145-23.7 E
DEPTH (m) 531

Press.	Temp.	Salinity	Sigma-T
5	21.231	32.934	22.859
10	20.972	32.966	22.954
20	18.595	33.349	23.861
30	17.112	33.401	24.261
40	15.891	33.462	24.590
50	14.364	33.556	24.995
75	11.468	33.732	25.703
100	9.540	33.748	26.051
125	7.237	33.694	26.357
150	5.369	33.587	26.513
175	3.279	33.435	26.611
200	2.534	33.440	26.680
250	1.837	33.441	26.735
300	1.565	33.468	26.776
400	1.874	33.592	26.853