



HOKKAIDO UNIVERSITY

Title	6. The "Ushio Maru" Cruise 161, 262, 263 in July - August 2012
Citation	海洋調査漁業試験要報, 56, 167-183
Issue Date	2015-03-31
Doc URL	https://hdl.handle.net/2115/77460
Type	dataset
File Information	Data.Rec.Oceanogr.Obs.Expl.Fish.56.167.pdf



THE " USHIO MARU "

CRUISE 261

CRUISE 262

CRUISE 263

IN JULY - AUGUST 2012

1. Cruise Itinerary

Cruise 261

Departure from Hakodate	Jul. 20, 2012
Arrival at Shiraoi	20
Departure from Shiraoi	21
Start hydrographic research (US12396)	22
Arrival at and departure from Shiraoi	24
Finish hydrographic research (US12421)	24
Return to Hakodate	25
Total coverage 743.2 miles	

Cruise 262

Departure from Hakodate	Jul. 29, 2012
Start hydrographic research (US12422)	29
Finish hydrographic research (US12482)	31
Return to Hakodate	Aug. 1
Total coverage 574.8 miles	

Cruise 263

Departure from Hakodate	Aug. 4, 2012
Start hydrographic research (US12483) and trawl net research	4
Arrival at Aomori	4
Departure from Aomori	5
Finish trawl net research	5
Arrival at Hakodate	6
Departure from Hakodate	7
Finish hydrographic research (US12518)	9
Return to Hakodate	10
Total coverage 439.3 miles	

2. 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 SBE-9Plus and SBE-19). Dynamic computations were made using a desk-top computer aboard the “Ushio Maru”.

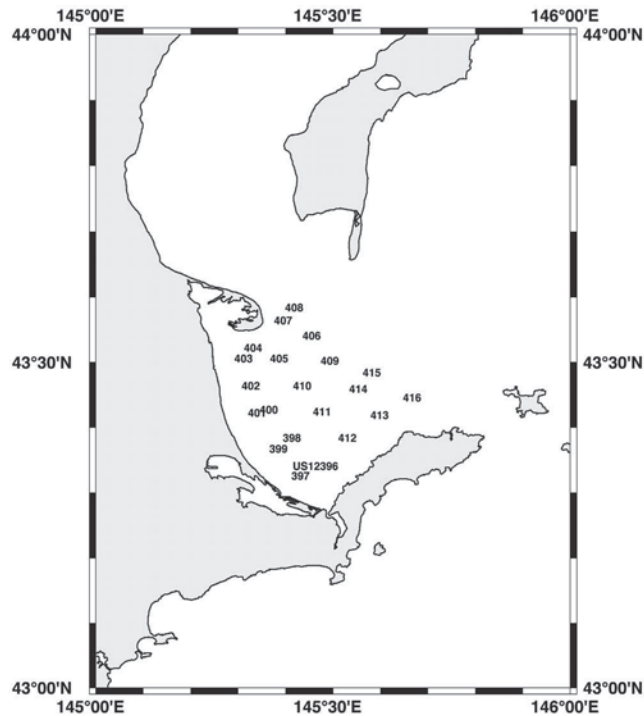


Figure 1. Oceanographic stations (Cruise 261-1)

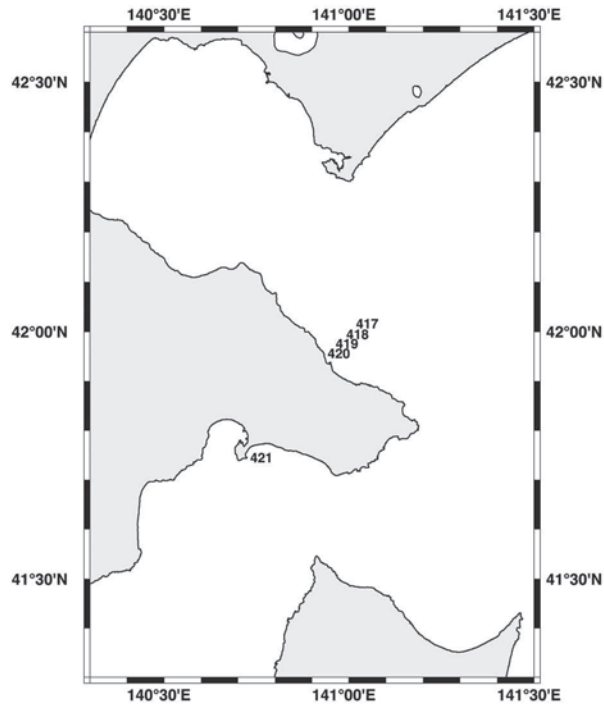


Figure 2. Oceanographic stations (Cruise 261-2)

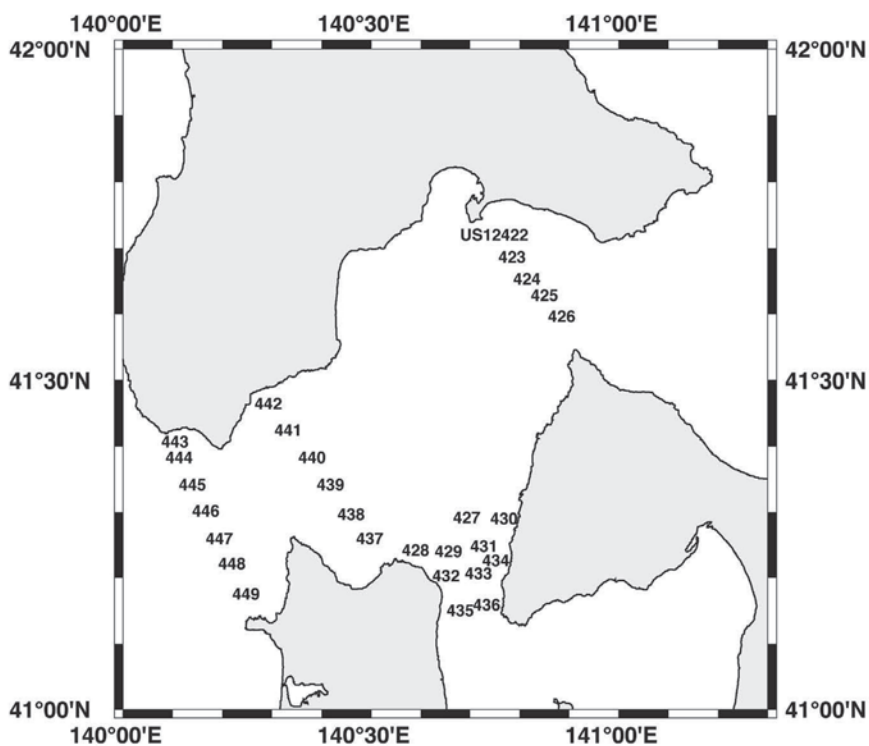


Figure 3. Oceanographic stations (Cruise 262-1)

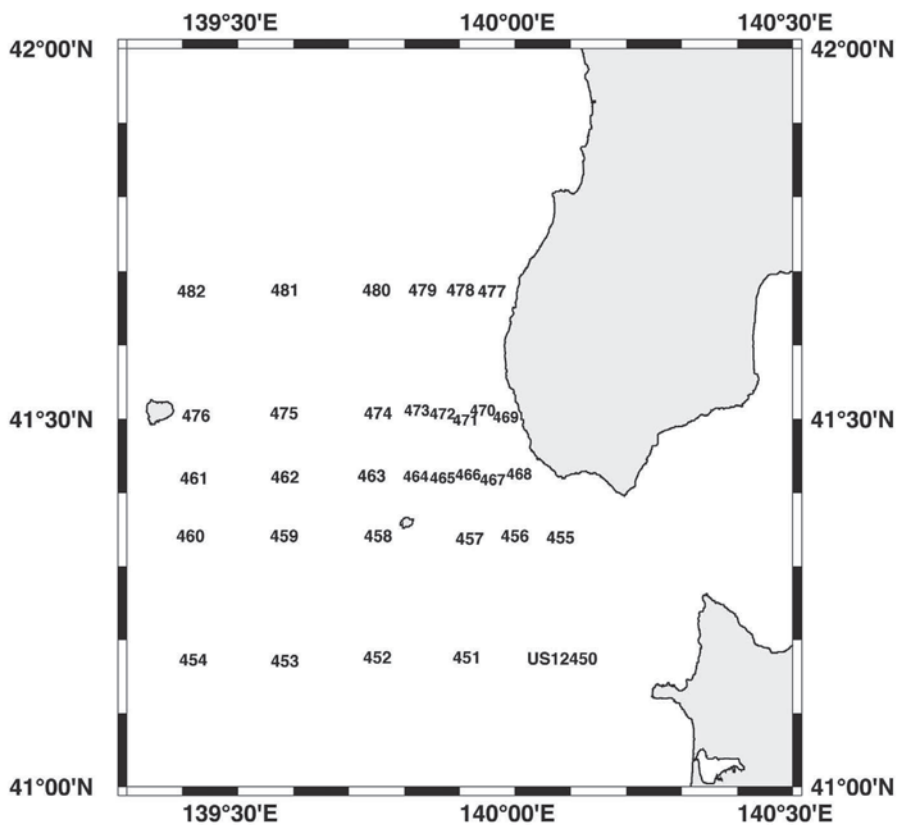


Figure 4. Oceanographic stations (Cruise 262-2)

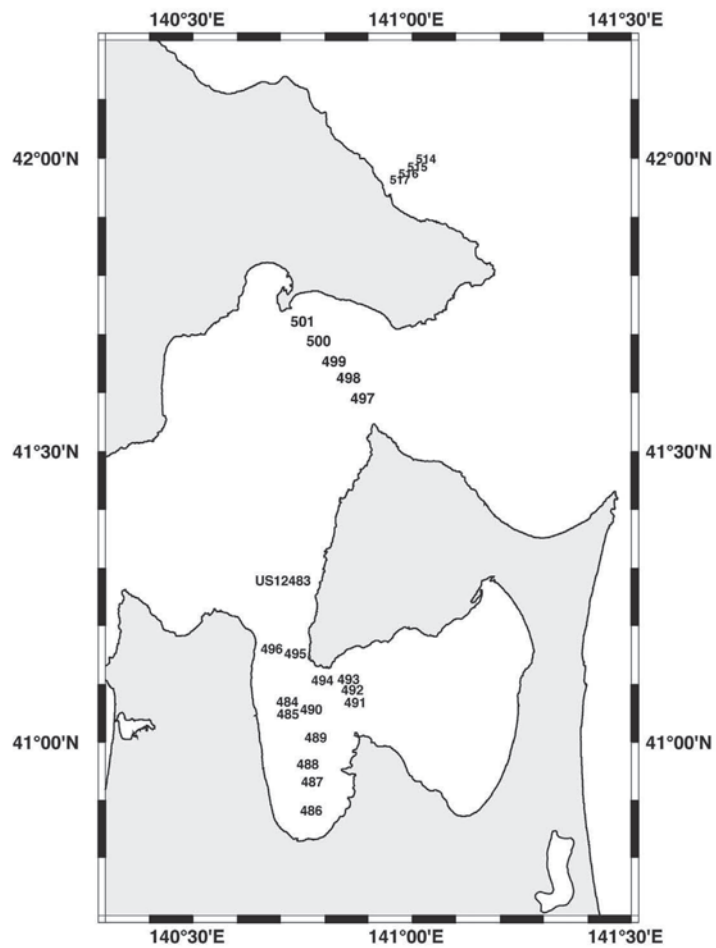


Figure 5. Oceanographic stations (Cruise 263-1)

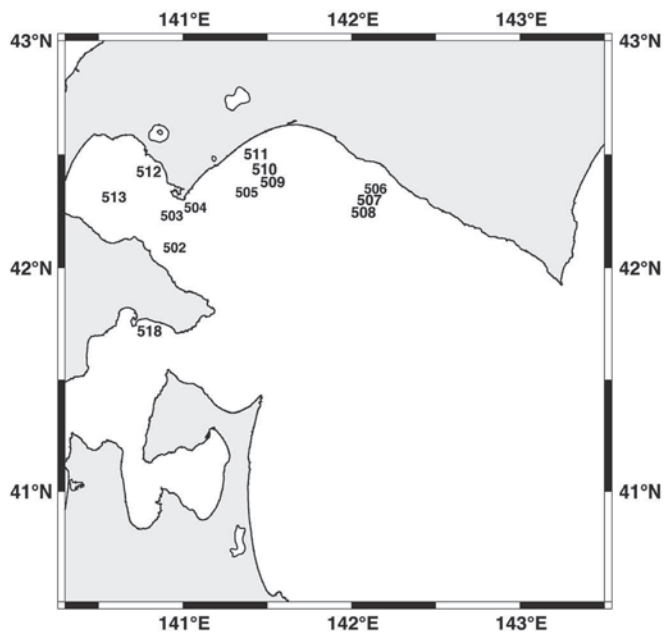


Figure 6. Oceanographic stations (Cruise 263-2)

Table 1. List of Oceanographic Station

Cruise 261												
Station	Lat. (N) [*]	Long. (E) [*]	Date	S.M.T.	Depth (m)	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US12396	43-20.1	145-27.8	7/22	1251-1253	14	NW -1	North-1	NW -2	14.9	13.6	c	1015.6
US12397	43-19.2	145-25.9	7/22	1310-1312	10	NNE-1	North-1	NNE-3	15.5	13.5	c	1015.6
US12398	43-22.7	145-24.8	7/22	1350-1352	13	North-1	North-1	North-2	14.8	14.2	c	1015.1
US12399	43-21.7	145-23.1	7/22	1406-1407	9	NW -1	North-1	NW -2	14.8	14.2	c	1015.1
US12400	43-25.3	145-21.9	7/22	1437-1438	10	NW -2	North-1	NW -4	14.1	14.8	c	1015.0
US12401	43-25.0	145-20.4	7/22	1451-1452	8	NW -1	North-1	NW -3	13.7	12.6	c	1014.9
US12402	43-27.5	145-19.6	7/22	1513-1514	8	North-1	North-1	North-3	13.9	12.3	bc	1015.1
US12403	43-30.0	145-18.7	7/22	1538-1539	7	NNE-1	North-1	NNE-2	14.2	12.2	bc	1015.1
US12404	43-31.0	145-19.9	7/22	1555-1557	6	Calm	North-1	Calm	15.6	11.8	bc	1015.1
US12405	43-30.0	145-23.2	7/22	1620-1621	11	Calm	NNE-1	Calm	15.6	12.1	bc	1015.1
US12406	43-32.1	145-27.3	7/22	1652-1654	18	Calm	NNE-1	Calm	14.4	12.4	bc	1015.1
US12407	43-33.5	145-23.7	7/22	1720-1721	11	SE -1	North-1	SE -2	14.8	13.4	bc	1015.1
US12408	43-34.7	145-25.1	7/22	1737-1739	10	SE -1	North-1	SE -2	14.0	13.3	bc	1015.2
US12409	43-29.8	145-29.6	7/22	1820-1822	23	SE -1	North-1	SE -2	13.9	12.1	bc	1015.5
US12410	43-27.5	145-26.1	7/22	1852-1854	19	Calm	North-1	Calm	13.4	11.9	c	1015.6
US12411	43-25.1	145-28.6	7/22	1924-1926	18	SSW-1	North-1	SSW-1	13.3	12.6	c	1015.6
US12412	43-22.7	145-31.8	7/22	1952-1954	18	Calm	NW -1	Calm	13.6	14.0	c	1016.1
US12413	43-24.8	145-35.9	7/22	2022-2024	25	East-1	NW -1	East-1	13.3	13.3	c	1016.0
US12414	43-27.2	145-33.2	7/22	2048-2051	27	SE -1	NW -1	SE -2	13.5	14.0	o	1016.1
US12415	43-28.7	145-34.9	7/22	2111-2113	28	Calm	NW -1	Calm	13.3	11.9	c	1016.1
US12416	43-26.4	145-40.0	7/22	2145-2147	29	South-1	NW -1	South-2	13.2	13.4	c	1016.1
US12417	41-59.3	141-02.0	7/24	1406-1410	100	Calm	East-1	Calm	19.0	17.5	r	1015.5
US12418	41-58.7	141-00.6	7/24	1418-1422	93	Calm	East-1	Calm	20.4	17.6	r	1015.4
US12419	41-58.1	140-59.4	7/24	1430-1434	85	Calm	East-1	Calm	19.6	17.1	r	1015.5
US12420	41-57.2	140-58.1	7/24	1443-1447	74	West-1	East-1	West-2	18.8	15.6	r	1015.5
US12421	41-44.4	140-45.0	7/24	1825-1829	62	Calm	SE -1	Calm	20.8	19.6	o	1014.5
Cruise 262												
Station	Lat. (N) [*]	Long. (E) [*]	Date	S.M.T.	Depth (m)	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US12422	41-42.7	140-44.9	7/29	0826-0831	85	West-1	SE -1	West-2	24.5	21.0	bc	1009.0
US12423	41-40.7	140-47.1	7/29	0848-0856	226	Calm	SE -1	Calm	24.3	18.8	bc	1009.0
US12424	41-38.7	140-48.9	7/29	0912-0925	334	SE -1	ESE-1	SE -1	26.5	23.0	bc	1009.1
US12425	41-37.2	140-51.0	7/29	0937-0941	99	Calm	ESE-1	Calm	28.1	22.8	bc	1009.1
US12426	41-35.3	140-53.1	7/29	0958-1000	39	SW -1	East-1	SW -3	25.8	21.5	bc	1009.1
US12427	41-17.0	140-41.6	7/29	1211-1217	147	West-1	NW -1	West-1	26.7	21.6	m	1009.1
US12428	41-14.0	140-35.4	7/29	1250-1254	60	NW -2	NW -1	NW -4	24.0	21.2	m	1008.7
US12429	41-13.9	140-39.4	7/29	1316-1319	89	NW -1	NW -1	NW -3	26.9	21.6	m	1009.1
US12430	41-16.9	140-46.9	7/29	1400-1402	45	NW -1	NW -1	NW -2	26.8	21.2	m	1009.1
US12431	41-14.1	140-43.7	7/29	1430-1433	80	NNW -2	NW -1	NNW-4	24.7	21.5	c	1009.1
US12432	41-11.1	140-39.1	7/29	1508-1510	32	North-2	NW -1	North-4	26.3	21.9	c	1009.0
US12433	41-12.2	140-43.0	7/29	1532-1536	72	North-2	NW -1	North-4	24.8	20.9	c	1009.1
US12434	41-13.1	140-45.7	7/29	1552-1555	63	North-2	NW -1	North-4	25.1	20.9	c	1009.1
US12435	41-08.8	140-41.4	7/29	1643-1646	49	NNW -2	NW -1	NNW-3	24.8	21.2	bc	1009.1
US12436	41-09.0	140-44.0	7/29	1701-1704	60	North-2	NW -1	North-4	24.6	21.0	bc	1009.0
US12437	41-15.1	140-29.9	7/29	1846-1850	89	NW -2	NW -1	NW -4	24.0	20.8	bc	1009.1
US12438	41-17.3	140-27.6	7/29	1906-1912	146	West-2	NW -1	Wet-4	24.0	20.7	bc	1009.0
US12439	41-20.0	140-25.1	7/29	1929-1940	216	WSW-1	NW -1	WSW-2	24.8	21.4	bc	1009.1
US12440	41-22.5	140-22.9	7/29	1958-2007	246	West-1	NW -1	West-2	25.0	23.3	bc	1009.6
US12441	41-25.0	140-20.0	7/29	2030-2033	93	West-1	West-1	West-2	24.8	22.6	bc	1009.5
US12442	41-27.4	140-17.6	7/29	2054-2056	55	WNW-1	SW -1	WNW-1	23.0	17.4	bc	1009.6
US12443	41-24.4	140-05.9	7/29	2323-2326	56	North-1	SW -1	North-2	24.0	23.4	bc	1009.1
US12444	41-22.8	140-06.8	7/29	2339-2343	104	NE -1	WSW-1	NE -3	24.4	23.3	c	1009.1
US12445	41-20.0	140-08.4	7/30	0006-0015	260	Calm	SW -1	Calm	25.3	23.4	c	1009.1
US12446	41-17.6	140-10.0	7/30	0033-0039	150	Calm	SW -1	Calm	25.5	23.6	c	1009.1
US12447	41-15.1	140-11.7	7/30	0100-0105	138	Calm	SW -1	Calm	25.6	23.5	bc	1009.1
US12448	41-12.8	140-13.2	7/30	0127-0131	113	Calm	SW -1	Calm	25.3	23.3	bc	1009.1
US12449	41-10.0	140-14.9	7/30	0151-0155	67	Calm	SW -1	Calm	25.0	23.4	bc	1009.0
US12450	41-10.0	140-05.1	7/30	0244-0249	165	Calm	WSW-1	Calm	26.0	24.3	bc	1009.0
US12451	41-10.1	139-54.8	7/30	0340-0350	260	SSW -1	WSW-1	SSW -2	26.0	24.3	c	1009.1
US12452	41-10.1	139-45.1	7/30	0438-0452	1804	South-1	WSW-1	South-3	25.5	23.6	o	1009.1
US12453	41-09.8	139-35.1	7/30	0540-0553	1940	South-1	WSW-1	South-3	24.7	22.2	o	1009.3
US12454	41-09.9	139-25.2	7/30	0640-0651	2735	South-1	WSW-1	South-3	24.7	21.9	o	1009.2
US12455	41-19.9	140-04.9	7/30	1026-1036	273	SSW-1	WSW-1	SSW-3	29.6	24.2	bc	1009.6
US12456	41-20.0	140-00.0	7/30	1106-1114	237	SSW-1	WSW-1	SSW -3	18.8	24.3	bc	1009.6
US12457	41-19.8	139-55.1	7/30	1143-1147	131	SSW-1	WSW-1	SSW-3	18.5	24.0	bc	1009.6
US12458	41-20.0	139-45.2	7/30	1233-1246	485	SSW-1	South-1	SSW-3	27.5	23.0	bc	1009.5
US12459	41-20.0	139-35.0	7/30	1335-1347	809	SSW-1	South-1	SSW-3	27.3	23.2	bc	1009.6
US12460	41-20.0	139-24.9	7/30	1435-1446	2550	South-1	South-1	South-3	27.4	23.4	bc	1009.6
US12461	41-24.7	139-25.3	7/30	1515-1527	2206	South-1	South-1	South-3	30.9	23.4	bc	1009.6

Cruise 262 (continued)

Station	Lat. (N)*	Long. (E)*	Date	S.M.T.	Depth (m)	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US12462	41-24.8	139-35.1	7/30	1611-1623	1249	South-1	South-1	South-3	25.3	23.2	bc	1009.3
US12463	41-24.9	139-44.5	7/30	1705-1716	1184	South-1	South-1	South-3	25.1	22.9	bc	1009.1
US12464	41-24.9	139-50.0	7/30	1744-1756	973	South-1	South-1	South-3	25.0	23.0	bc	1009.0
US12465	41-24.9	139-52.5	7/30	1812-1826	449	South-1	South-1	South-3	25.2	23.8	bc	1009.3
US12466	41-24.9	139-54.9	7/30	1842-1848	138	South-1	South-1	South-3	25.1	23.6	bc	1009.5
US12467	41-24.9	139-57.4	7/30	1902-1907	121	South-1	South-1	South-3	25.3	23.7	bc	1009.6
US12468	41-25.1	139-59.9	7/30	1921-1926	107	SSW-1	South-1	SSW-3	25.5	24.0	bc	1009.8
US12469	41-30.0	139-58.8	7/30	1953-1957	106	SSE-1	South-1	SSE-2	26.4	24.9	bc	1010.0
US12470	41-30.0	139-57.4	7/30	2008-2012	123	SSE-1	South-1	SSE-2	26.1	23.8	bc	1010.5
US12471	41-29.9	139-55.0	7/30	2027-2035	208	South-1	South-1	South-2	26.1	24.1	bc	1010.6
US12472	41-30.0	139-52.7	7/30	2047-2100	868	SSE-1	South-1	SSE-3	25.7	23.8	bc	1010.2
US12473	41-30.0	139-50.3	7/30	2113-2126	1327	SSW-2	South-1	SSW-4	25.5	23.3	bc	1010.5
US12474	41-30.0	139-45.2	7/30	2150-2203	1430	SSW-1	South-1	SSW-3	24.9	23.0	bc	1010.5
US12475	41-30.0	139-35.0	7/30	2250-2302	1427	South-2	South-1	South-3	24.6	22.6	c	1010.1
US12476	41-29.8	139-25.5	7/30	2343-2356	1221	South-2	South-1	South-4	24.5	23.2	f	1009.6
US12477	41-39.9	139-57.5	7/31	0310-0314	121	South-2	South-1	South-4	25.9	23.5	c	1009.6
US12478	41-40.0	139-55.0	7/31	0338-0350	991	South-2	South-1	South-4	25.5	23.5	c	1009.6
US12479	41-40.0	139-50.0	7/31	0419-0431	1433	South-2	South-1	South-4	25.1	22.8	o	1009.6
US12480	41-40.0	139-45.0	7/31	0459-0511	1438	South-1	South-1	South-3	24.8	23.4	f	1009.7
US12481	41-40.0	139-35.1	7/31	0600-0612	880	South-1	SSW-1	South-3	24.5	23.5	f	1009.7
US12482	41-39.9	139-25.0	7/31	0658-0711	2084	SSW-1	SW -1	SSW-3	24.8	22.1	o	1010.1

Cruise 263

Station	Lat. (N)*	Long. (E)*	Date	S.M.T.	Depth (m)	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US12483	41-16.2	140-42.3	8/4	1125-1135	128	South-1	NE -1	South-2	24.3	22.7	c	1012.5
US12484	41-03.7	140-42.9	8/4	1426-1431	60	NE -2	ESE-1	NE -5	23.7	23.0	c	1016.6
US12485	41-02.4	140-43.0	8/4	1500-1503	57	East-3	ESE-1	East-5	23.9	23.0	c	1016.1
US12486	40-52.4	140-46.2	8/4	1608-1611	29	ENE-2	ENE-1	ENE-5	23.9	23.2	bc	1015.0
US12487	40-55.4	140-46.3	8/5	0656-0659	41	Calm	NNE-1	Calm	24.1	23.7	o	1012.1
US12488	40-57.2	140-45.7	8/5	0732-0734	49	Calm	NNE-1	Calm	23.6	23.2	o	1012.1
US12489	41-00.0	140-46.8	8/5	0820-0823	51	Calm	South-1	Calm	24.7	22.8	f	1012.0
US12490	41-02.9	140-46.2	8/5	0901-0904	51	Calm	South-1	Calm	26.0	23.3	o	1011.6
US12491	41-03.6	140-52.2	8/5	1039-1041	50	SW -1	NW -1	SW -2	24.9	23.2	c	1011.1
US12492	41-04.9	140-51.8	8/5	1055-1058	51	SW -1	NW -1	SW -3	26.1	23.3	c	1010.9
US12493	41-06.0	140-51.3	8/5	1132-1136	51	SW -1	WNW-1	SW -3	24.3	22.9	c	1010.6
US12494	41-05.9	140-47.7	8/5	1214-1218	50	NW -1	WNW-1	NW -3	26.8	23.8	bc	1010.1
US12495	41-09.0	140-44.0	8/5	1252-1254	60	North-2	North-1	North-4	26.3	23.5	bc	1010.0
US12496	41-09.0	140-41.2	8/5	1313-1316	49	North-2	North-1	North-4	25.3	23.5	bc	1009.8
US12497	41-34.9	140-53.2	8/5	1556-1559	33	Calm	NE -1	Calm	28.8	20.4	bc	1008.7
US12498	41-37.0	140-51.3	8/5	1619-1624	96	Calm	NE -1	Calm	26.2	22.6	bc	1008.6
US12499	41-38.7	140-49.3	8/5	1645-1657	313	NE -2	East-1	NE -2	26.1	22.7	c	1008.5
US12500	41-40.8	140-47.2	8/5	1721-1730	215	Calm	SE -1	Calm	26.6	25.0	c	1008.6
US12501	41-42.8	140-45.0	8/5	1748-1754	83	SE -1	SE -1	SE -2	26.7	23.0	m	1008.1
US12502	42-04.2	140-57.0	8/7	1258-1308	84	SE -1	NE -1	SE -3	21.7	20.8	bc	1008.9
US12503	42-12.7	140-56.0	8/7	1440-1445	69	South-1	East-1	South-2	24.2	24.2	bc	1009.0
US12504	42-14.8	141-04.4	8/7	1450-1454	77	SSE-1	East-1	SSE-3	20.6	20.6	bc	1008.7
US12505	42-18.9	141-22.7	8/7	1732-1742	425	South-1	SE -1	South-3	18.9	17.8	bc	1008.8
US12506	42-19.8	142-08.6	8/8	0515-0525	74	NNW-1	SE -1	NNW-3	18.4	19.7	bc	1009.6
US12507	42-16.7	142-06.3	8/8	0702-0711	246	NNW-1	SE -1	NNW-3	19.1	19.6	bc	1009.7
US12508	42-13.4	142-04.2	8/8	0753-0801	627	NNW-1	SE -1	NNW-3	21.1	19.4	bc	1009.6
US12509	42-21.5	141-31.9	8/8	1043-1059	407	SW -1	SE -1	SW -3	21.5	19.1	bc	1009.6
US12510	42-24.8	141-29.0	8/8	1210-1220	236	SW -1	SE -1	SW -3	21.1	20.0	bc	1008.7
US12511	42-28.7	141-26.1	8/8	1311-1315	81	SW -1	SE -1	SW -3	21.6	20.5	bc	1008.3
US12512	42-24.2	140-47.8	8/9	0316-0319	46	SE -3	SE -1	SE -5	20.9	22.1	o	1009.2
US12513	42-17.5	140-35.4	8/9	0521-0530	91	SE -2	SE -1	SE -4	21.1	21.5	o	1009.4
US12514	41-59.5	141-01.9	8/9	0854-0858	99	SE -3	SE -1	SE -5	21.7	20.8	o	1010.5
US12515	41-58.7	141-00.7	8/9	0908-0912	93	SE -3	SE -1	SE -5	21.1	20.8	c	1010.6
US12516	41-58.0	140-59.5	8/9	0920-0924	86	SE -3	SE -1	SE -5	21.5	20.7	c	1010.5
US12517	41-57.4	140-58.3	8/9	0932-0935	78	SE -2	SE -1	SE -4	21.4	20.4	o	1010.6
US12518	41-44.3	140-46.6	8/9	1303-1306	57	East-3	ESE-1	East-5	23.1	22.0	bc	1010.7

(*) : Fixed position by Global Positioning System

Table 2. Oceanographic data

STATION US12396			
LATITUDE	43-20.1	N	
LONGITUD	145-27.8	E	
DEPTH (m)	14		
Press.	Temp.	Salinity	Sigma-T
5	13.337	31.569	23.670
10	12.647	31.641	23.860

STATION US12399			
LATITUDE	43-21.7	N	
LONGITUD	145-23.1	E	
DEPTH (m)	9		
Press.	Temp.	Salinity	Sigma-T
5	13.809	31.033	23.162

STATION US12402			
LATITUDE	43-27.5	N	
LONGITUD	145-19.6	E	
DEPTH (m)	8		
Press.	Temp.	Salinity	Sigma-T
5	12.373	31.890	24.105

STATION US12405			
LATITUDE	43-30.0	N	
LONGITUD	145-23.2	E	
DEPTH (m)	11		
Press.	Temp.	Salinity	Sigma-T
5	12.452	32.012	24.185

STATION US12408			
LATITUDE	43-34.7	N	
LONGITUD	145-25.1	E	
DEPTH (m)	10		
Press.	Temp.	Salinity	Sigma-T
5	12.842	32.051	24.140

STATION US12411			
LATITUDE	43-25.1	N	
LONGITUD	145-28.6	E	
DEPTH (m)	18		
Press.	Temp.	Salinity	Sigma-T
5	11.801	31.960	24.266
10	11.031	32.058	24.480

STATION US12414			
LATITUDE	43-27.2	N	
LONGITUD	145-33.2	E	
DEPTH (m)	27		
Press.	Temp.	Salinity	Sigma-T
5	10.947	32.143	24.561
10	10.525	32.190	24.670
20	8.596	32.303	25.069

STATION US12397			
LATITUDE	43-19.2	N	
LONGITUD	145-25.9	E	
DEPTH (m)	10		
Press.	Temp.	Salinity	Sigma-T
5	13.626	31.218	23.342

STATION US12400			
LATITUDE	43-25.3	N	
LONGITUD	145-21.9	E	
DEPTH (m)	10		
Press.	Temp.	Salinity	Sigma-T
5	12.638	31.805	23.989

STATION US12403			
LATITUDE	43-30.0	N	
LONGITUD	145-18.7	E	
DEPTH (m)	7		
Press.	Temp.	Salinity	Sigma-T
5	12.455	31.949	24.135

STATION US12406			
LATITUDE	43-32.1	N	
LONGITUD	145-27.3	E	
DEPTH (m)	18		
Press.	Temp.	Salinity	Sigma-T
5	12.145	32.094	24.306
10	11.988	32.110	24.348

STATION US12409			
LATITUDE	43-29.8	N	
LONGITUD	145-29.6	E	
DEPTH (m)	23		
Press.	Temp.	Salinity	Sigma-T
5	10.653	32.187	24.646
10	10.515	32.211	24.689
20	10.111	32.250	24.787

STATION US12412			
LATITUDE	43-22.7	N	
LONGITUD	145-31.8	E	
DEPTH (m)	18		
Press.	Temp.	Salinity	Sigma-T
5	13.673	31.452	23.513
10	12.586	31.762	23.965

STATION US12415			
LATITUDE	43-28.7	N	
LONGITUD	145-34.9	E	
DEPTH (m)	28		
Press.	Temp.	Salinity	Sigma-T
5	11.419	32.117	24.457
10	10.317	32.201	24.714
20	7.282	32.355	25.298

STATION US12398			
LATITUDE	43-22.7	N	
LONGITUD	145-24.8	E	
DEPTH (m)	13		
Press.	Temp.	Salinity	Sigma-T
5	13.932	30.962	23.083
10	12.326	31.767	24.019

STATION US12401			
LATITUDE	43-25.0	N	
LONGITUD	145-20.4	E	
DEPTH (m)	8		
Press.	Temp.	Salinity	Sigma-T
5	12.923	31.675	23.833

STATION US12404			
LATITUDE	43-31.0	N	
LONGITUD	145-19.9	E	
DEPTH (m)	6		
Press.	Temp.	Salinity	Sigma-T
5	12.209	32.008	24.228

STATION US12407			
LATITUDE	43-33.5	N	
LONGITUD	145-23.7	E	
DEPTH (m)	11		
Press.	Temp.	Salinity	Sigma-T
5	13.958	31.964	23.850

STATION US12410			
LATITUDE	43-27.5	N	
LONGITUD	145-26.1	E	
DEPTH (m)	19		
Press.	Temp.	Salinity	Sigma-T
5	12.002	32.073	24.317
10	11.315	32.101	24.463

STATION US12413			
LATITUDE	43-24.8	N	
LONGITUD	145-35.9	E	
DEPTH (m)	25		
Press.	Temp.	Salinity	Sigma-T
5	12.861	31.754	23.906
10	11.896	31.922	24.219
20	9.564	32.185	24.826

STATION US12416			
LATITUDE	43-26.4	N	
LONGITUD	145-40.0	E	
DEPTH (m)	29		
Press.	Temp.	Salinity	Sigma-T
5	12.532	31.861	24.052
10	10.311	32.165	24.687
20	9.064	32.269	24.970

STATION US12417			
LATITUDE 41-59.3 N			
LONGITUD 141-02.0 E			
DEPTH (m) 100			
Press.	Temp.	Salinity	Sigma-T
5	17.461	32.679	23.625
10	15.462	33.050	24.368
20	10.744	32.720	25.046
30	10.160	33.401	25.676
40	9.747	33.704	25.982
50	9.245	33.847	26.176
75	7.920	33.830	26.367

STATION US12420			
LATITUDE 41-57.2 N			
LONGITUD 140-58.1 E			
DEPTH (m) 74			
Press.	Temp.	Salinity	Sigma-T
5	15.229	32.175	23.746
10	14.474	32.516	24.170
20	11.435	32.328	24.618
30	11.838	33.005	25.070
40	9.495	33.217	25.643
50	5.367	32.912	25.978

STATION US12423			
LATITUDE 41-40.7 N			
LONGITUD 140-47.1 E			
DEPTH (m) 226			
Press.	Temp.	Salinity	Sigma-T
5	18.914	33.956	24.245
10	18.838	33.965	24.271
20	17.406	34.026	24.670
30	15.720	34.095	25.115
40	14.717	34.142	25.372
50	13.984	34.183	25.559
75	11.922	34.224	26.001
100	9.988	34.214	26.340
125	9.855	34.250	26.391
150	9.821	34.250	26.396
175	9.819	34.251	26.397
200	9.837	34.252	26.396

STATION US12426			
LATITUDE 41-35.3 N			
LONGITUD 140-53.1 E			
DEPTH (m) 39			
Press.	Temp.	Salinity	Sigma-T
5	20.672	33.927	23.766
10	19.801	33.945	24.009
20	15.234	34.177	25.286
30	15.098	34.219	25.348

STATION US12418			
LATITUDE 41-58.7 N			
LONGITUD 141-00.6 E			
DEPTH (m) 93			
Press.	Temp.	Salinity	Sigma-T
5	17.540	32.462	23.440
10	16.014	32.745	24.010
20	8.626	32.347	25.098
30	7.811	32.720	25.511
40	8.369	33.306	25.889
50	5.318	33.019	26.068
75	7.231	33.703	26.365

STATION US12421			
LATITUDE 41-44.4 N			
LONGITUD 140-45.0 E			
DEPTH (m) 62			
Press.	Temp.	Salinity	Sigma-T
5	19.514	33.690	23.889
10	17.250	33.838	24.564
20	14.111	33.989	25.383
30	13.193	34.163	25.706
40	11.731	34.220	26.034
50	11.474	34.244	26.100

STATION US12424			
LATITUDE 41-38.7 N			
LONGITUD 140-48.9 E			
DEPTH (m) 334			
Press.	Temp.	Salinity	Sigma-T
5	20.911	33.843	23.637
10	19.972	33.900	23.931
20	19.805	33.971	24.028
30	18.615	34.070	24.407
40	17.578	34.130	24.708
50	16.144	34.143	25.056
75	14.594	34.248	25.480
100	11.175	34.220	26.137
125	9.891	34.210	26.353
150	8.651	34.198	26.545
175	8.122	34.167	26.602
200	8.027	34.180	26.626
250	7.839	34.175	26.650
300	7.821	34.176	26.653

STATION US12427			
LATITUDE 41-17.0 N			
LONGITUD 140-41.6 E			
DEPTH (m) 147			
Press.	Temp.	Salinity	Sigma-T
5	20.760	33.958	23.765
10	20.688	33.974	23.797
20	20.355	33.951	23.869
30	19.899	33.962	23.996
40	19.329	33.984	24.161
50	18.140	34.084	24.537
75	12.898	34.280	25.855
100	12.225	34.299	26.001
125	11.497	34.288	26.130

STATION US12419			
LATITUDE 41-58.1 N			
LONGITUD 140-59.4 E			
DEPTH (m) 85			
Press.	Temp.	Salinity	Sigma-T
5	15.603	32.126	23.626
10	14.676	32.609	24.198
20	11.073	32.907	25.133
30	10.866	33.183	25.385
40	7.388	33.041	25.823
50	5.124	32.884	25.984
75	6.510	33.668	26.435

STATION US12422			
LATITUDE 41-42.7 N			
LONGITUD 140-44.9 E			
DEPTH (m) 85			
Press.	Temp.	Salinity	Sigma-T
5	19.957	34.051	24.049
10	19.662	34.081	24.149
20	17.885	34.059	24.579
30	14.641	34.201	25.433
40	13.006	34.236	25.800
50	11.581	34.208	26.053
75	9.204	34.223	26.477

STATION US12425			
LATITUDE 41-37.2 N			
LONGITUD 140-51.0 E			
DEPTH (m) 99			
Press.	Temp.	Salinity	Sigma-T
5	20.988	33.820	23.599
10	19.779	33.899	23.980
20	17.762	34.017	24.577
30	15.497	34.165	25.218
40	13.481	34.261	25.723
50	12.016	34.270	26.019
75	11.703	34.280	26.086

STATION US12428			
LATITUDE 41-14.0 N			
LONGITUD 140-35.4 E			
DEPTH (m) 60			
Press.	Temp.	Salinity	Sigma-T
5	21.542	33.752	23.396
10	21.546	33.752	23.395
20	21.500	33.756	23.411
30	21.402	33.764	23.444
40	14.081	34.116	25.487
50	13.291	34.203	25.717

STATION US12429			
LATITUDE 41-13.9 N			
LONGITUD 140-39.4 E			
DEPTH (m) 89			
Press.	Temp.	Salinity	Sigma-T
5	21.163	33.782	23.523
10	20.804	33.816	23.646
20	20.586	33.866	23.742
30	20.514	33.913	23.797
40	20.082	33.969	23.954
50	15.552	33.927	25.023
75	14.276	34.033	25.382

STATION US12432			
LATITUDE 41-11.1 N			
LONGITUD 140-39.1 E			
DEPTH (m) 32			
Press.	Temp.	Salinity	Sigma-T
5	22.079	33.703	23.210
10	21.944	33.705	23.250
20	20.788	33.816	23.650

STATION US12435			
LATITUDE 41-08.8 N			
LONGITUD 140-41.4 E			
DEPTH (m) 49			
Press.	Temp.	Salinity	Sigma-T
5	21.339	33.768	23.464
10	21.063	33.799	23.563
20	21.002	33.820	23.595
30	20.839	33.867	23.675
40	20.253	33.928	23.877

STATION US12438			
LATITUDE 41-17.3 N			
LONGITUD 140-27.6 E			
DEPTH (m) 146			
Press.	Temp.	Salinity	Sigma-T
5	20.829	33.871	23.681
10	20.122	33.926	23.911
20	18.959	33.977	24.250
30	16.276	34.060	24.961
40	15.639	34.101	25.138
50	15.527	34.122	25.179
75	12.857	34.256	25.845
100	11.935	34.302	26.059
125	11.782	34.310	26.094

STATION US12441			
LATITUDE 41-25.0 N			
LONGITUD 140-20.0 E			
DEPTH (m) 93			
Press.	Temp.	Salinity	Sigma-T
5	19.660	33.949	24.049
10	18.730	34.027	24.346
20	17.235	34.096	24.765
30	16.479	34.129	24.967
40	14.967	34.156	25.329
50	13.139	34.180	25.730
75	9.211	34.186	26.447

STATION US12430			
LATITUDE 41-16.9 N			
LONGITUD 140-46.9 E			
DEPTH (m) 45			
Press.	Temp.	Salinity	Sigma-T
5	20.806	33.870	23.686
10	20.084	33.879	23.885
20	19.805	33.869	23.950
30	19.236	33.837	24.073
40	17.292	33.812	24.533

STATION US12433			
LATITUDE 41-12.2 N			
LONGITUD 140-43.0 E			
DEPTH (m) 72			
Press.	Temp.	Salinity	Sigma-T
5	20.949	33.865	23.644
10	20.673	33.874	23.725
20	19.733	33.907	23.998
30	19.310	33.928	24.123
40	18.506	33.966	24.355
50	17.676	33.971	24.563

STATION US12436			
LATITUDE 41-09.0 N			
LONGITUD 140-44.0 E			
DEPTH (m) 60			
Press.	Temp.	Salinity	Sigma-T
5	21.396	33.824	23.491
10	21.297	33.828	23.521
20	20.482	33.826	23.739
30	17.293	33.794	24.519
40	15.840	33.894	24.933
50	13.600	33.554	25.152

STATION US12439			
LATITUDE 41-20.0 N			
LONGITUD 140-25.1 E			
DEPTH (m) 216			
Press.	Temp.	Salinity	Sigma-T
5	21.543	33.757	23.400
10	21.481	33.766	23.424
20	21.165	33.805	23.540
30	20.380	33.860	23.792
40	19.734	33.910	24.000
50	19.191	33.952	24.172
75	15.969	34.158	25.107
100	13.544	34.323	25.758
125	11.736	34.307	26.101
150	11.059	34.300	26.220
175	10.924	34.299	26.243
200	10.646	34.289	26.285

STATION US12442			
LATITUDE 41-27.4 N			
LONGITUD 140-17.6 E			
DEPTH (m) 55			
Press.	Temp.	Salinity	Sigma-T
5	17.571	34.053	24.651
10	17.318	34.114	24.759
20	14.072	34.154	25.519
30	12.121	34.172	25.923
40	10.789	34.190	26.182
50	10.423	34.198	26.253

STATION US12431			
LATITUDE 41-14.1 N			
LONGITUD 140-43.7 E			
DEPTH (m) 80			
Press.	Temp.	Salinity	Sigma-T
5	20.983	33.971	23.715
10	20.629	33.965	23.806
20	19.807	33.973	24.029
30	18.638	33.993	24.343
40	18.283	33.984	24.424
50	17.600	33.972	24.582
75	13.164	33.998	25.584

STATION US12434			
LATITUDE 41-13.1 N			
LONGITUD 140-45.7 E			
DEPTH (m) 63			
Press.	Temp.	Salinity	Sigma-T
5	20.958	33.879	23.652
10	20.480	33.879	23.780
20	20.008	33.879	23.904
30	19.860	33.857	23.927
40	16.335	33.693	24.665
50	14.436	33.654	25.055

STATION US12437			
LATITUDE 41-15.1 N			
LONGITUD 140-29.9 E			
DEPTH (m) 89			
Press.	Temp.	Salinity	Sigma-T
5	21.248	33.830	23.536
10	20.827	33.867	23.679
20	19.902	33.932	23.973
30	14.871	34.101	25.307
40	12.728	34.217	25.841
50	12.618	34.244	25.883

STATION US12440			
LATITUDE 41-22.5 N			
LONGITUD 140-22.9 E			
DEPTH (m) 246			
Press.	Temp.	Salinity	Sigma-T
5	23.411	33.759	22.874
10	22.165	33.938	23.365
20	20.974	33.909	23.671
30	17.580	34.113	24.695
40	16.032	34.217	25.138
50	14.183	34.243	25.563
75	13.553	34.260	25.707
100	13.119	34.280	25.812
125	10.368	34.205	26.268
150	8.740	34.199	26.532
175	8.622	34.196	26.548
200	8.550	34.194	26.558

STATION US12443			
LATITUDE 41-24.4 N			
LONGITUD 140-05.9 E			
DEPTH (m) 56			
Press.	Temp.	Salinity	Sigma-T
5	19.993	34.081	24.063
10	19.382	34.151	24.275
20	17.153	34.255	24.906
30	16.808	34.285	25.011
40	16.356	34.278	25.110
50	15.015	34.281	25.414

STATION US12444			
LATITUDE 41-22.8 N			
LONGITUD 140-06.8 E			
DEPTH (m) 104			
Press.	Temp.	Salinity	Sigma-T
5	22.975	33.922	23.123
10	22.666	33.952	23.234
20	15.738	34.200	25.191
30	14.420	34.318	25.571
40	14.077	34.346	25.666
50	13.083	34.354	25.876
75	9.333	34.213	26.448

STATION US12445			
LATITUDE 41-20.0 N			
LONGITUD 140-08.4 E			
DEPTH (m) 260			
Press.	Temp.	Salinity	Sigma-T
5	23.469	33.910	22.972
10	22.626	33.969	23.259
20	19.081	34.209	24.396
30	16.448	34.282	25.093
40	14.493	34.317	25.555
50	13.007	34.341	25.881
75	10.064	34.261	26.364
100	9.700	34.253	26.419
125	9.342	34.236	26.465
150	9.026	34.222	26.504
175	8.490	34.196	26.569
200	8.172	34.189	26.611

STATION US12446			
LATITUDE 41-17.6 N			
LONGITUD 140-10.0 E			
DEPTH (m) 150			
Press.	Temp.	Salinity	Sigma-T
5	23.814	33.992	22.933
10	23.791	33.985	22.934
20	23.305	34.023	23.105
30	20.735	34.186	23.946
40	12.457	34.273	25.936
50	11.661	34.339	26.140
75	10.821	34.305	26.266
100	10.103	34.260	26.357
125	9.252	34.229	26.474

STATION US12447			
LATITUDE 41-15.1 N			
LONGITUD 140-11.7 E			
DEPTH (m) 138			
Press.	Temp.	Salinity	Sigma-T
5	23.256	33.512	22.732
10	23.050	33.521	22.798
20	22.227	34.011	23.403
30	17.698	34.297	24.807
40	15.714	34.392	25.345
50	13.218	34.392	25.878
75	11.059	34.306	26.224
100	10.814	34.307	26.269
125	9.781	34.240	26.396

STATION US12448			
LATITUDE 41-12.8 N			
LONGITUD 140-13.2 E			
DEPTH (m) 113			
Press.	Temp.	Salinity	Sigma-T
5	23.487	33.501	22.657
10	23.096	33.487	22.759
20	22.073	33.685	23.199
30	21.625	33.890	23.479
40	17.099	34.255	24.919
50	13.680	34.377	25.772
75	12.149	34.374	26.074
100	11.962	34.361	26.100

STATION US12449			
LATITUDE 41-10.0 N			
LONGITUD 140-14.9 E			
DEPTH (m) 67			
Press.	Temp.	Salinity	Sigma-T
5	23.467	33.490	22.654
10	23.410	33.502	22.680
20	22.414	33.638	23.067
30	21.224	33.916	23.608
40	20.139	34.126	24.059
50	15.655	34.289	25.279

STATION US12450			
LATITUDE 41-10.0 N			
LONGITUD 140-05.1 E			
DEPTH (m) 165			
Press.	Temp.	Salinity	Sigma-T
5	24.188	33.979	22.813
10	23.082	33.973	23.131
20	21.328	34.058	23.688
30	19.867	34.164	24.159
40	17.826	34.317	24.792
50	15.785	34.425	25.354
75	13.326	34.397	25.860
100	10.870	34.305	26.257
125	10.013	34.246	26.361
150	6.106	34.111	26.837

STATION US12451			
LATITUDE 41-10.1 N			
LONGITUD 139-54.8 E			
DEPTH (m) 260			
Press.	Temp.	Salinity	Sigma-T
5	24.196	33.981	22.812
10	23.823	33.967	22.912
20	20.791	34.159	23.910
30	14.911	34.244	25.409
40	12.873	34.263	25.847
50	10.815	34.296	26.261
75	9.454	34.252	26.459
100	7.743	34.164	26.655
125	6.596	34.123	26.783
150	5.080	34.070	26.928
175	3.740	34.041	27.050
200	3.407	34.040	27.081

STATION US12452			
LATITUDE 41-10.1 N			
LONGITUD 139-45.1 E			
DEPTH (m) 1804			
Press.	Temp.	Salinity	Sigma-T
5	23.332	33.779	22.912
10	23.240	33.777	22.937
20	21.256	33.884	23.575
30	17.626	33.940	24.551
40	9.803	33.939	26.157
50	6.403	34.007	26.717
75	2.910	34.023	27.114
100	1.995	34.039	27.202
125	1.857	34.046	27.218
150	1.519	34.046	27.243
175	1.288	34.056	27.267
200	1.251	34.059	27.272
250	1.009	34.063	27.291
300	0.812	34.065	27.305

STATION US12453			
LATITUDE 41-09.8 N			
LONGITUD 139-35.1 E			
DEPTH (m) 1940			
Press.	Temp.	Salinity	Sigma-T
5	22.028	33.844	23.332
10	17.510	33.899	24.546
20	9.481	33.924	26.198
30	6.594	33.988	26.677
40	4.236	33.998	26.965
50	2.995	34.012	27.097
75	2.296	34.040	27.179
100	1.878	34.041	27.213
125	1.687	34.054	27.237
150	1.402	34.052	27.256
175	1.259	34.058	27.271
200	1.103	34.060	27.283
250	0.957	34.064	27.295
300	0.827	34.065	27.305

STATION US12454			
LATITUDE 41-09.9 N			
LONGITUD 139-25.2 E			
DEPTH (m) 2735			
Press.	Temp.	Salinity	Sigma-T
5	22.034	33.838	23.326
10	16.056	33.835	24.837
20	6.742	33.852	26.549
30	4.637	34.000	26.923
40	3.736	34.025	27.037
50	2.831	34.003	27.104
75	1.955	34.027	27.196
100	1.732	34.031	27.216
125	1.415	34.033	27.240
150	1.318	34.041	27.254
175	1.185	34.044	27.265
200	1.158	34.049	27.270
250	1.032	34.058	27.286
300	0.931	34.064	27.297

STATION US12455			
LATITUDE 41-19.9 N			
LONGITUD 140-04.9 E			
DEPTH (m) 273			
Press.	Temp.	Salinity	Sigma-T
5	23.734	33.951	22.925
10	22.677	34.018	23.281
20	18.779	34.241	24.497
30	15.880	34.267	25.211
40	12.744	34.312	25.911
50	10.756	34.277	26.256
75	10.195	34.279	26.355
100	9.877	34.265	26.399
125	9.356	34.235	26.462
150	9.266	34.233	26.475
175	9.046	34.224	26.503
200	8.259	34.191	26.600
250	8.105	34.186	26.619

STATION US12456			
LATITUDE 41-20.0 N			
LONGITUD 140-00.0 E			
DEPTH (m) 237			
Press.	Temp.	Salinity	Sigma-T
5	24.046	33.953	22.835
10	22.650	33.967	23.250
20	16.703	34.237	24.999
30	14.908	34.281	25.438
40	13.076	34.311	25.844
50	12.705	34.329	25.932
75	8.982	34.208	26.501
100	7.923	34.174	26.636
125	7.056	34.151	26.742
150	7.030	34.153	26.747
175	6.971	34.149	26.752
200	6.940	34.150	26.757

STATION US12457			
LATITUDE 41-19.8 N			
LONGITUD 139-55.1 E			
DEPTH (m) 131			
Press.	Temp.	Salinity	Sigma-T
5	23.888	33.777	22.749
10	23.585	33.783	22.842
20	22.707	33.968	23.235
30	20.436	34.006	23.889
40	11.783	34.194	26.004
50	8.983	34.178	26.477
75	3.456	33.989	27.036
100	1.857	34.036	27.210

STATION US12458			
LATITUDE 41-20.0 N			
LONGITUD 139-45.2 E			
DEPTH (m) 485			
Press.	Temp.	Salinity	Sigma-T
5	22.571	33.825	23.165
10	21.530	33.853	23.477
20	14.431	33.786	25.157
30	6.440	33.912	26.636
40	4.779	33.998	26.906
50	4.294	34.014	26.971
75	2.332	34.026	27.165
100	1.773	34.039	27.219
125	1.571	34.040	27.235
150	1.448	34.048	27.250
175	1.292	34.056	27.267
200	1.098	34.059	27.282
250	1.006	34.062	27.291
300	0.909	34.064	27.299

STATION US12459			
LATITUDE 41-20.0 N			
LONGITUD 139-35.0 E			
DEPTH (m) 809			
Press.	Temp.	Salinity	Sigma-T
5	22.354	33.845	23.242
10	17.265	33.735	24.479
20	8.005	33.899	26.409
30	5.619	33.986	26.799
40	4.227	34.018	26.981
50	3.648	34.039	27.057
75	2.611	34.037	27.151
100	2.159	34.040	27.190
125	1.766	34.044	27.223
150	1.429	34.052	27.254
175	1.225	34.056	27.271
200	1.107	34.060	27.282
250	0.913	34.064	27.298
300	0.754	34.065	27.309

STATION US12460			
LATITUDE 41-20.0 N			
LONGITUD 139-24.9 E			
DEPTH (m) 2550			
Press.	Temp.	Salinity	Sigma-T
5	23.190	33.881	23.031
10	20.431	33.840	23.763
20	7.363	33.834	26.450
30	5.503	33.994	26.818
40	4.467	34.033	26.968
50	3.748	34.023	27.035
75	2.686	34.034	27.141
100	2.099	34.038	27.193
125	1.754	34.048	27.228
150	1.440	34.052	27.253
175	1.266	34.056	27.269
200	1.114	34.059	27.281
250	0.957	34.062	27.294
300	0.801	34.065	27.306

STATION US12461			
LATITUDE 41-24.7 N			
LONGITUD 139-25.3 E			
DEPTH (m) 2206			
Press.	Temp.	Salinity	Sigma-T
5	22.079	33.835	23.311
10	19.960	33.813	23.866
20	7.752	33.866	26.420
30	5.667	33.990	26.796
40	4.194	34.013	26.981
50	3.686	34.036	27.051
75	2.706	34.037	27.142
100	2.059	34.042	27.200
125	1.805	34.050	27.225
150	1.588	34.054	27.245
175	1.301	34.058	27.268
200	1.094	34.060	27.284
250	0.881	34.064	27.301
300	0.732	34.066	27.311

STATION US12462			
LATITUDE 41-24.8 N			
LONGITUD 139-35.1 E			
DEPTH (m) 1249			
Press.	Temp.	Salinity	Sigma-T
5	22.464	33.807	23.181
10	20.211	33.804	23.794
20	10.493	33.751	25.890
30	6.441	33.948	26.665
40	4.778	34.015	26.919
50	3.527	34.008	27.044
75	2.525	34.040	27.160
100	2.101	34.038	27.193
125	1.589	34.046	27.238
150	1.456	34.052	27.253
175	1.327	34.054	27.263
200	1.078	34.060	27.285
250	0.829	34.065	27.304
300	0.738	34.066	27.311

STATION US12463			
LATITUDE 41-24.9 N			
LONGITUD 139-44.5 E			
DEPTH (m) 1184			
Press.	Temp.	Salinity	Sigma-T
5	22.802	33.811	23.089
10	20.551	33.845	23.736
20	13.338	33.846	25.431
30	7.514	33.911	26.489
40	5.326	33.998	26.843
50	5.212	34.029	26.881
75	3.113	34.040	27.108
100	2.526	34.046	27.165
125	2.001	34.046	27.207
150	2.008	34.048	27.208
175	1.924	34.049	27.215
200	1.525	34.050	27.246
250	1.320	34.057	27.266
300	1.208	34.060	27.276

STATION US12464			
LATITUDE 41-24.9 N			
LONGITUD 139-50.0 E			
DEPTH (m) 973			
Press.	Temp.	Salinity	Sigma-T
5	23.644	33.814	22.849
10	22.324	33.847	23.251
20	19.918	34.004	24.024
30	11.655	34.075	25.935
40	7.405	34.084	26.640
50	4.766	34.028	26.931
75	3.323	34.050	27.097
100	2.864	34.049	27.138
125	2.663	34.049	27.155
150	2.265	34.049	27.189
175	1.982	34.050	27.212
200	1.663	34.052	27.238
250	1.334	34.059	27.267
300	1.082	34.062	27.286

STATION US12465			
LATITUDE 41-24.9 N			
LONGITUD 139-52.5 E			
DEPTH (m) 449			
Press.	Temp.	Salinity	Sigma-T
5	23.827	33.795	22.780
10	23.538	33.789	22.860
20	18.559	33.891	24.284
30	11.223	34.088	26.025
40	8.598	34.058	26.443
50	7.637	34.083	26.607
75	3.938	34.042	27.030
100	2.566	34.050	27.164
125	2.238	34.048	27.190
150	1.960	34.050	27.214
175	1.702	34.051	27.234
200	1.398	34.057	27.260
250	1.150	34.060	27.280
300	1.029	34.061	27.289

STATION US12466			
LATITUDE 41-24.9 N			
LONGITUD 139-54.9 E			
DEPTH (m) 138			
Press.	Temp.	Salinity	Sigma-T
5	22.967	33.792	23.027
10	22.092	33.829	23.303
20	16.407	33.987	24.875
30	12.156	34.209	25.945
40	9.696	34.230	26.402
50	6.643	34.093	26.752
75	3.998	34.051	27.032
100	3.161	34.053	27.114
125	1.834	34.047	27.220

STATION US12467			
LATITUDE 41-24.9 N			
LONGITUD 139-57.4 E			
DEPTH (m) 121			
Press.	Temp.	Salinity	Sigma-T
5	23.713	33.782	22.804
10	21.681	33.938	23.500
20	20.024	34.020	24.008
30	14.354	34.210	25.502
40	12.470	34.273	25.934
50	10.227	34.226	26.309
75	7.007	34.131	26.733
100	4.081	34.033	27.008

STATION US12468			
LATITUDE 41-25.1 N			
LONGITUD 139-59.9 E			
DEPTH (m) 107			
Press.	Temp.	Salinity	Sigma-T
5	23.976	33.782	22.727
10	23.905	33.809	22.768
20	22.652	33.961	23.245
30	18.933	34.081	24.336
40	12.306	34.236	25.937
50	11.126	34.252	26.170
75	7.274	34.149	26.710
100	5.034	34.083	26.945

STATION US12469			
LATITUDE 41-30.0 N			
LONGITUD 139-58.8 E			
DEPTH (m) 106			
Press.	Temp.	Salinity	Sigma-T
5	23.676	33.848	22.865
10	23.486	33.870	22.936
20	21.792	34.038	23.545
30	19.026	34.061	24.297
40	14.709	34.169	25.395
50	11.933	34.241	26.013
75	6.043	34.110	26.844
100	4.742	34.086	26.980

STATION US12470			
LATITUDE 41-30.0 N			
LONGITUD 139-57.4 E			
DEPTH (m) 123			
Press.	Temp.	Salinity	Sigma-T
5	24.055	33.807	22.722
10	23.029	33.881	23.076
20	21.160	34.062	23.737
30	17.919	34.141	24.634
40	12.908	34.259	25.837
50	10.136	34.240	26.336
75	6.184	34.106	26.823
100	4.408	34.057	26.993

STATION US12471			
LATITUDE 41-29.9 N			
LONGITUD 139-55.0 E			
DEPTH (m) 208			
Press.	Temp.	Salinity	Sigma-T
5	24.203	33.815	22.685
10	23.314	33.826	22.953
20	21.211	33.991	23.668
30	16.592	34.205	25.000
40	12.451	34.276	25.940
50	9.069	34.194	26.476
75	6.456	34.101	26.784
100	4.232	34.062	27.016
125	3.775	34.059	27.060
150	2.655	34.050	27.157
175	1.431	34.051	27.254
200	1.119	34.059	27.281

STATION US12472			
LATITUDE 41-30.0 N			
LONGITUD 139-52.7 E			
DEPTH (m) 868			
Press.	Temp.	Salinity	Sigma-T
5	23.607	33.806	22.853
10	22.974	33.810	23.039
20	19.666	34.032	24.110
30	12.455	34.217	25.894
40	10.626	34.245	26.254
50	8.572	34.176	26.540
75	5.146	34.064	26.917
100	4.029	34.055	27.031
125	3.145	34.054	27.117
150	2.331	34.047	27.182
175	1.891	34.050	27.219
200	1.557	34.052	27.246
250	1.272	34.059	27.271
300	0.990	34.063	27.292

STATION US12473			
LATITUDE 41-30.0 N			
LONGITUD 139-50.3 E			
DEPTH (m) 1327			
Press.	Temp.	Salinity	Sigma-T
5	23.321	33.804	22.934
10	22.663	33.816	23.132
20	20.108	33.906	23.899
30	11.908	34.237	26.014
40	10.386	34.290	26.331
50	8.494	34.178	26.554
75	4.296	34.048	26.998
100	3.894	34.058	27.047
125	3.195	34.048	27.107
150	2.642	34.048	27.157
175	1.908	34.048	27.216
200	1.634	34.053	27.240
250	1.171	34.059	27.278
300	0.977	34.062	27.293

STATION US12474			
LATITUDE 41-30.0 N			
LONGITUD 139-45.2 E			
DEPTH (m) 1430			
Press.	Temp.	Salinity	Sigma-T
5	22.941	33.838	23.070
10	22.112	33.827	23.295
20	19.155	33.939	24.170
30	12.676	34.173	25.816
40	10.126	34.166	26.279
50	5.562	34.023	26.834
75	4.257	34.056	27.008
100	3.322	34.042	27.090
125	2.588	34.042	27.156
150	2.193	34.043	27.190
175	1.926	34.048	27.215
200	1.620	34.052	27.241
250	1.262	34.058	27.271
300	1.074	34.061	27.286

STATION US12475			
LATITUDE 41-30.0 N			
LONGITUD 139-35.0 E			
DEPTH (m) 1427			
Press.	Temp.	Salinity	Sigma-T
5	22.914	33.812	23.057
10	21.541	33.814	23.444
20	15.248	33.877	25.052
30	8.970	34.026	26.360
40	6.673	34.026	26.695
50	4.918	34.035	26.919
75	3.318	34.041	27.091
100	2.818	34.044	27.138
125	2.428	34.042	27.170
150	2.056	34.045	27.202
175	1.573	34.049	27.242
200	1.352	34.052	27.260
250	1.118	34.061	27.282
300	0.891	34.064	27.299

STATION US12476			
LATITUDE 41-29.8 N			
LONGITUD 139-25.5 E			
DEPTH (m) 1221			
Press.	Temp.	Salinity	Sigma-T
5	22.063	33.801	23.290
10	21.044	33.823	23.586
20	11.195	33.904	25.887
30	7.175	33.951	26.569
40	5.729	34.016	26.809
50	4.053	34.022	27.003
75	2.999	34.041	27.120
100	2.078	34.033	27.191
125	1.728	34.049	27.230
150	1.516	34.052	27.248
175	1.328	34.057	27.265
200	1.153	34.059	27.279
250	0.934	34.063	27.296
300	0.798	34.065	27.306

STATION US12477			
LATITUDE 41-39.9 N			
LONGITUD 139-57.5 E			
DEPTH (m) 121			
Press.	Temp.	Salinity	Sigma-T
5	23.607	33.847	22.884
10	22.996	33.906	23.105
20	22.551	33.939	23.257
30	21.626	34.000	23.562
40	16.425	34.129	24.980
50	13.445	34.233	25.709
75	8.301	34.151	26.562
100	6.901	34.144	26.758

STATION US12478			
LATITUDE 41-40.0 N			
LONGITUD 139-55.0 E			
DEPTH (m) 991			
Press.	Temp.	Salinity	Sigma-T
5	23.664	33.848	22.868
10	22.519	33.929	23.259
20	20.589	34.016	23.855
30	16.258	34.170	25.051
40	14.134	34.258	25.586
50	11.869	34.237	26.021
75	8.521	34.174	26.547
100	7.760	34.176	26.662
125	6.264	34.088	26.799
150	4.785	34.066	26.959
175	3.964	34.062	27.044
200	2.595	34.045	27.158
250	1.641	34.046	27.234
300	1.184	34.059	27.277

STATION US12479			
LATITUDE 41-40.0 N			
LONGITUD 139-50.0 E			
DEPTH (m) 1433			
Press.	Temp.	Salinity	Sigma-T
5	22.063	33.868	23.340
10	21.637	33.879	23.467
20	19.713	34.088	24.141
30	16.022	34.187	25.117
40	12.040	34.239	25.990
50	10.436	34.266	26.304
75	6.966	34.127	26.736
100	5.989	34.102	26.845
125	5.045	34.071	26.934
150	4.135	34.049	27.015
175	3.206	34.042	27.102
200	2.611	34.044	27.156
250	1.608	34.055	27.244
300	1.191	34.056	27.274

STATION US12480			
LATITUDE 41-40.0 N			
LONGITUD 139-45.0 E			
DEPTH (m) 1438			
Press.	Temp.	Salinity	Sigma-T
5	23.584	33.860	22.901
10	22.134	33.863	23.316
20	17.458	34.030	24.661
30	11.011	34.108	26.079
40	9.616	34.201	26.393
50	7.899	34.083	26.569
75	6.508	34.086	26.765
100	5.393	34.078	26.899
125	4.280	34.043	26.995
150	3.572	34.048	27.072
175	3.123	34.046	27.113
200	2.811	34.045	27.139
250	1.758	34.048	27.227
300	1.252	34.058	27.271

STATION US12481			
LATITUDE 41-40.0 N			
LONGITUD 139-35.1 E			
DEPTH (m) 880			
Press.	Temp.	Salinity	Sigma-T
5	23.674	33.819	22.843
10	20.474	33.997	23.871
20	10.919	34.095	26.085
30	8.529	34.121	26.503
40	7.469	34.115	26.656
50	6.275	34.057	26.773
75	5.352	34.053	26.884
100	4.505	34.047	26.975
125	3.496	34.045	27.076
150	2.884	34.046	27.134
175	2.601	34.044	27.157
200	1.995	34.045	27.207
250	1.581	34.046	27.238
300	1.088	34.060	27.284

STATION US12482			
LATITUDE 41-39.9 N			
LONGITUD 139-25.0 E			
DEPTH (m) 2084			
Press.	Temp.	Salinity	Sigma-T
5	22.237	33.863	23.288
10	21.413	33.893	23.539
20	19.795	33.970	24.030
30	10.595	33.815	25.923
40	5.995	33.970	26.740
50	4.478	34.005	26.945
75	3.439	34.044	27.081
100	2.417	34.033	27.164
125	2.019	34.042	27.203
150	1.728	34.044	27.227
175	1.488	34.052	27.250
200	1.273	34.056	27.268
250	1.082	34.060	27.284
300	0.930	34.062	27.296

STATION US12483			
LATITUDE 41-16.2 N			
LONGITUD 140-42.3 E			
DEPTH (m) 128			
Press.	Temp.	Salinity	Sigma-T
5	22.476	33.761	23.144
10	21.121	33.874	23.604
20	20.206	33.937	23.897
30	15.503	34.152	25.208
40	14.188	34.227	25.551
50	13.610	34.262	25.698
75	11.745	34.281	26.079
100	11.185	34.276	26.178

STATION US12484			
LATITUDE 41-03.7 N			
LONGITUD 140-42.9 E			
DEPTH (m) 60			
Press.	Temp.	Salinity	Sigma-T
5	23.098	33.465	22.742
10	23.065	33.485	22.767
20	22.712	33.615	22.966
30	19.597	33.733	23.900
40	16.004	33.920	24.916
50	13.130	33.712	25.370

STATION US12485			
LATITUDE 41-02.4 N			
LONGITUD 140-43.0 E			
DEPTH (m) 57			
Press.	Temp.	Salinity	Sigma-T
5	23.048	33.502	22.784
10	23.014	33.508	22.798
20	22.640	33.627	22.995
30	19.208	33.797	24.049
40	16.187	33.915	24.870
50	14.433	34.018	25.337

STATION US12486			
LATITUDE 40-52.4 N			
LONGITUD 140-46.2 E			
DEPTH (m) 29			
Press.	Temp.	Salinity	Sigma-T
5	23.706	33.514	22.603
10	22.342	33.413	22.917
20	21.659	33.755	23.367

STATION US12487			
LATITUDE 40-55.4 N			
LONGITUD 140-46.3 E			
DEPTH (m) 41			
Press.	Temp.	Salinity	Sigma-T
5	23.320	33.498	22.703
10	21.794	33.647	23.247
20	20.817	33.643	23.511
30	18.187	33.655	24.196

STATION US12488			
LATITUDE 40-57.2 N			
LONGITUD 140-45.7 E			
DEPTH (m) 49			
Press.	Temp.	Salinity	Sigma-T
5	23.368	33.559	22.735
10	22.794	33.620	22.946
20	20.255	33.496	23.548
30	19.561	33.575	23.789
40	14.760	33.779	25.083

STATION US12489			
LATITUDE 41-00.0 N			
LONGITUD 140-46.8 E			
DEPTH (m) 51			
Press.	Temp.	Salinity	Sigma-T
5	22.990	33.277	22.630
10	22.728	33.458	22.842
20	21.597	33.741	23.373
30	19.829	33.509	23.669
40	17.899	33.770	24.355

STATION US12492			
LATITUDE 41-04.9 N			
LONGITUD 140-51.8 E			
DEPTH (m) 51			
Press.	Temp.	Salinity	Sigma-T
5	22.902	33.224	22.615
10	21.465	33.627	23.322
20	19.615	33.748	23.907
30	18.061	33.601	24.186
40	14.628	33.374	24.799
50	13.416	33.500	25.148

STATION US12495			
LATITUDE 41-09.0 N			
LONGITUD 140-44.0 E			
DEPTH (m) 60			
Press.	Temp.	Salinity	Sigma-T
5	23.439	33.404	22.597
10	22.965	33.497	22.804
20	22.718	33.604	22.956
30	19.434	33.711	23.926
40	17.048	33.883	24.646
50	13.357	33.917	25.482

STATION US12498			
LATITUDE 41-37.0 N			
LONGITUD 140-51.3 E			
DEPTH (m) 96			
Press.	Temp.	Salinity	Sigma-T
5	20.061	33.950	23.945
10	19.873	33.993	24.027
20	18.068	34.118	24.579
30	15.308	34.241	25.319
40	14.483	34.269	25.520
50	11.869	34.253	26.033
75	10.951	34.264	26.212

STATION US12501			
LATITUDE 41-42.8 N			
LONGITUD 140-45.0 E			
DEPTH (m) 83			
Press.	Temp.	Salinity	Sigma-T
5	22.992	33.984	23.166
10	22.893	33.992	23.200
20	20.804	34.040	23.816
30	17.917	34.121	24.619
40	15.132	34.164	25.299
50	12.785	34.218	25.830
75	9.838	34.220	26.370

STATION US12490			
LATITUDE 41-02.9 N			
LONGITUD 140-46.2 E			
DEPTH (m) 51			
Press.	Temp.	Salinity	Sigma-T
5	23.239	33.137	22.452
10	23.125	33.398	22.683
20	21.475	33.606	23.304
30	18.585	33.670	24.109
40	15.869	33.901	24.932

STATION US12493			
LATITUDE 41-06.0 N			
LONGITUD 140-51.3 E			
DEPTH (m) 51			
Press.	Temp.	Salinity	Sigma-T
5	23.086	33.248	22.581
10	21.441	33.648	23.345
20	18.901	33.698	24.051
30	18.261	33.760	24.259
40	14.724	33.340	24.752

STATION US12496			
LATITUDE 41-09.0 N			
LONGITUD 140-41.2 E			
DEPTH (m) 49			
Press.	Temp.	Salinity	Sigma-T
5	23.352	33.493	22.690
10	22.590	33.615	23.000
20	21.810	33.743	23.316
30	20.703	33.831	23.684
40	19.949	33.845	23.894

STATION US12499			
LATITUDE 41-38.7 N			
LONGITUD 140-49.3 E			
DEPTH (m) 313			
Press.	Temp.	Salinity	Sigma-T
5	22.585	33.815	23.153
10	21.816	33.872	23.412
20	19.997	34.020	24.016
30	18.439	34.088	24.465
40	14.112	34.197	25.543
50	11.984	34.219	25.985
75	11.371	34.245	26.120
100	10.190	34.220	26.310
125	10.015	34.233	26.350
150	9.283	34.216	26.459
175	8.582	34.202	26.559
200	8.652	34.205	26.550
250	8.542	34.204	26.566

STATION US12502			
LATITUDE 42-04.2 N			
LONGITUD 140-57.0 E			
DEPTH (m) 84			
Press.	Temp.	Salinity	Sigma-T
5	20.535	33.140	23.203
10	17.738	33.305	24.037
20	12.584	33.341	25.189
30	9.453	33.140	25.589
40	10.268	33.647	25.850
50	6.787	33.234	26.056
75	5.971	33.569	26.426

STATION US12491			
LATITUDE 41-03.6 N			
LONGITUD 140-52.2 E			
DEPTH (m) 50			
Press.	Temp.	Salinity	Sigma-T
5	23.239	33.211	22.509
10	21.996	33.626	23.175
20	19.953	33.693	23.777
30	18.759	33.701	24.090
40	16.462	33.553	24.529

STATION US12494			
LATITUDE 41-05.9 N			
LONGITUD 140-47.7 E			
DEPTH (m) 50			
Press.	Temp.	Salinity	Sigma-T
5	23.687	32.868	22.120
10	23.243	33.181	22.485
20	21.095	33.672	23.458
30	17.781	33.497	24.175
40	15.256	33.376	24.665

STATION US12497			
LATITUDE 41-34.9 N			
LONGITUD 140-53.2 E			
DEPTH (m) 33			
Press.	Temp.	Salinity	Sigma-T
5	18.936	34.099	24.349
10	16.938	34.185	24.903
20	12.848	34.242	25.836

STATION US12500			
LATITUDE 41-40.8 N			
LONGITUD 140-47.2 E			
DEPTH (m) 215			
Press.	Temp.	Salinity	Sigma-T
5	22.752	33.793	23.089
10	22.132	33.917	23.359
20	19.833	34.014	24.054
30	17.595	34.092	24.675
40	16.789	34.182	24.936
50	15.137	34.196	25.322
75	10.211	34.223	26.309
100	9.637	34.231	26.413
125	9.354	34.227	26.456
150	9.101	34.214	26.486
175	8.643	34.200	26.548

STATION US12503			
LATITUDE 42-12.7 N			
LONGITUD 140-56.0 E			
DEPTH (m) 69			
Press.	Temp.	Salinity	Sigma-T
5	19.847	33.136	23.380
10	19.424	33.216	23.550
20	16.096	33.333	24.444
30	12.226	33.554	25.423
40	9.029	33.384	25.848
50	7.705	33.525	26.158

STATION US12504			
LATITUDE	42-14.8	N	
LONGITUD	141-04.4	E	
DEPTH (m)	77		
Press.	Temp.	Salinity	Sigma-T
5	20.480	32.898	23.033
10	19.805	33.578	23.728
20	15.488	33.490	24.701
30	12.590	33.656	25.433
40	11.082	33.750	25.788
50	10.094	33.880	26.062

STATION US12505			
LATITUDE	42-18.9	N	
LONGITUD	141-22.7	E	
DEPTH (m)	425		
Press.	Temp.	Salinity	Sigma-T
5	17.954	33.804	24.367
10	17.782	33.784	24.394
20	14.022	34.074	25.467
30	12.266	34.134	25.866
40	11.301	34.138	26.050
50	10.621	34.125	26.162
75	9.745	34.105	26.296
100	9.353	34.068	26.332
125	8.831	34.030	26.385
150	7.547	33.887	26.466
175	7.324	33.890	26.499

STATION US12506			
LATITUDE	42-19.8	N	
LONGITUD	142-08.6	E	
DEPTH (m)	74		
Press.	Temp.	Salinity	Sigma-T
5	19.869	33.235	23.450
10	18.966	33.426	23.827
20	15.346	33.933	25.073
30	12.496	33.975	25.698
40	11.598	34.073	25.944
50	9.824	33.851	26.084

STATION US12507			
LATITUDE	42-16.7	N	
LONGITUD	142-06.3	E	
DEPTH (m)	246		
Press.	Temp.	Salinity	Sigma-T
5	19.444	33.689	23.906
10	16.837	34.008	24.791
20	13.624	34.145	25.604
30	11.387	34.080	25.989
40	9.529	33.827	26.114
50	10.263	34.110	26.212
75	9.846	34.105	26.279
100	8.965	34.045	26.376
125	8.598	34.018	26.412
150	8.525	34.012	26.419
175	7.431	33.849	26.452
200	6.250	33.727	26.515

STATION US12508			
LATITUDE	42-13.4	N	
LONGITUD	142-04.2	E	
DEPTH (m)	627		
Press.	Temp.	Salinity	Sigma-T
5	19.501	33.845	24.011
10	16.772	34.099	24.877
20	14.312	34.137	25.454
30	12.292	34.143	25.867
40	11.077	34.125	26.080
50	10.174	34.052	26.182
75	9.862	34.113	26.282
100	9.453	34.084	26.327
125	8.760	34.028	26.395
150	7.941	33.956	26.462
175	7.162	33.878	26.513
200	5.692	33.722	26.580

STATION US12509			
LATITUDE	42-21.5	N	
LONGITUD	141-31.9	E	
DEPTH (m)	407		
Press.	Temp.	Salinity	Sigma-T
5	19.211	33.589	23.890
10	18.901	33.582	23.963
20	15.475	33.895	25.016
30	13.195	34.148	25.693
40	12.344	34.150	25.863
50	11.161	34.079	26.029
75	10.257	34.044	26.162
100	9.742	34.083	26.280
125	9.228	34.048	26.337
150	8.261	33.950	26.410
175	6.838	33.791	26.488
200	5.270	33.632	26.560

STATION US12510			
LATITUDE	42-24.8	N	
LONGITUD	141-29.0	E	
DEPTH (m)	236		
Press.	Temp.	Salinity	Sigma-T
5	19.632	33.127	23.429
10	18.695	33.467	23.926
20	15.201	33.465	24.745
30	12.364	33.720	25.526
40	10.017	33.710	25.942
50	9.623	33.844	26.113
75	9.193	33.952	26.267
100	8.160	33.895	26.382
125	7.765	33.873	26.423
150	7.018	33.791	26.464
175	6.128	33.708	26.516
200	5.432	33.640	26.547

STATION US12511			
LATITUDE	42-28.7	N	
LONGITUD	141-26.1	E	
DEPTH (m)	81		
Press.	Temp.	Salinity	Sigma-T
5	19.945	33.182	23.390
10	18.708	33.288	23.786
20	15.147	33.287	24.619
30	12.720	33.666	25.415
40	10.758	33.713	25.816
50	9.061	33.652	26.053
75	7.348	33.720	26.363

STATION US12512			
LATITUDE	42-24.2	N	
LONGITUD	140-47.8	E	
DEPTH (m)	46		
Press.	Temp.	Salinity	Sigma-T
5	22.078	31.478	21.522
10	18.817	31.804	22.626
20	17.689	32.784	23.650
30	9.703	32.922	25.379
40	7.885	33.260	25.924

STATION US12513			
LATITUDE	42-17.5	N	
LONGITUD	140-35.4	E	
DEPTH (m)	91		
Press.	Temp.	Salinity	Sigma-T
5	21.553	31.524	21.701
10	20.819	31.525	21.899
20	19.540	33.042	23.388
30	10.575	32.386	24.815
40	6.962	32.732	25.637
50	4.128	32.733	25.971
75	3.762	33.207	26.384

STATION US12514			
LATITUDE	41-59.5	N	
LONGITUD	141-01.9	E	
DEPTH (m)	99		
Press.	Temp.	Salinity	Sigma-T
5	19.824	33.386	23.577
10	17.468	33.262	24.070
20	15.220	33.433	24.716
30	8.896	32.729	25.356
40	9.226	33.431	25.854
50	6.623	33.282	26.116
75	7.832	33.798	26.354

STATION US12515			
LATITUDE	41-58.7	N	
LONGITUD	141-00.7	E	
DEPTH (m)	93		
Press.	Temp.	Salinity	Sigma-T
5	19.597	33.380	23.631
10	17.065	33.231	24.141
20	13.301	33.333	25.042
30	10.407	33.386	25.622
40	7.270	33.125	25.905
50	5.771	33.135	26.107
75	7.187	33.721	26.386

STATION US12516			
LATITUDE 41-58.0 N			
LONGITUD 140-59.5 E			
DEPTH (m) 86			
Press.	Temp.	Salinity	Sigma-T
5	20.626	32.365	22.589
10	18.456	33.242	23.814
20	12.602	33.194	25.072
30	11.485	33.462	25.490
40	9.470	33.493	25.863
50	7.347	33.363	26.082
75	6.164	33.607	26.431

STATION US12517			
LATITUDE 41-57.4 N			
LONGITUD 140-58.3 E			
DEPTH (m) 78			
Press.	Temp.	Salinity	Sigma-T
5	19.212	32.601	23.134
10	17.330	32.901	23.826
20	13.403	33.147	24.878
30	10.963	33.359	25.505
40	9.572	33.523	25.870
50	6.839	33.308	26.108
75	5.490	33.444	26.385

STATION US12518			
LATITUDE 41-44.3 N			
LONGITUD 140-46.6 E			
DEPTH (m) 57			
Press.	Temp.	Salinity	Sigma-T
5	22.138	34.005	23.423
10	22.075	34.012	23.446
20	17.216	34.128	24.793
30	12.272	34.165	25.889
40	10.465	34.202	26.249
50	9.931	34.230	26.362

