

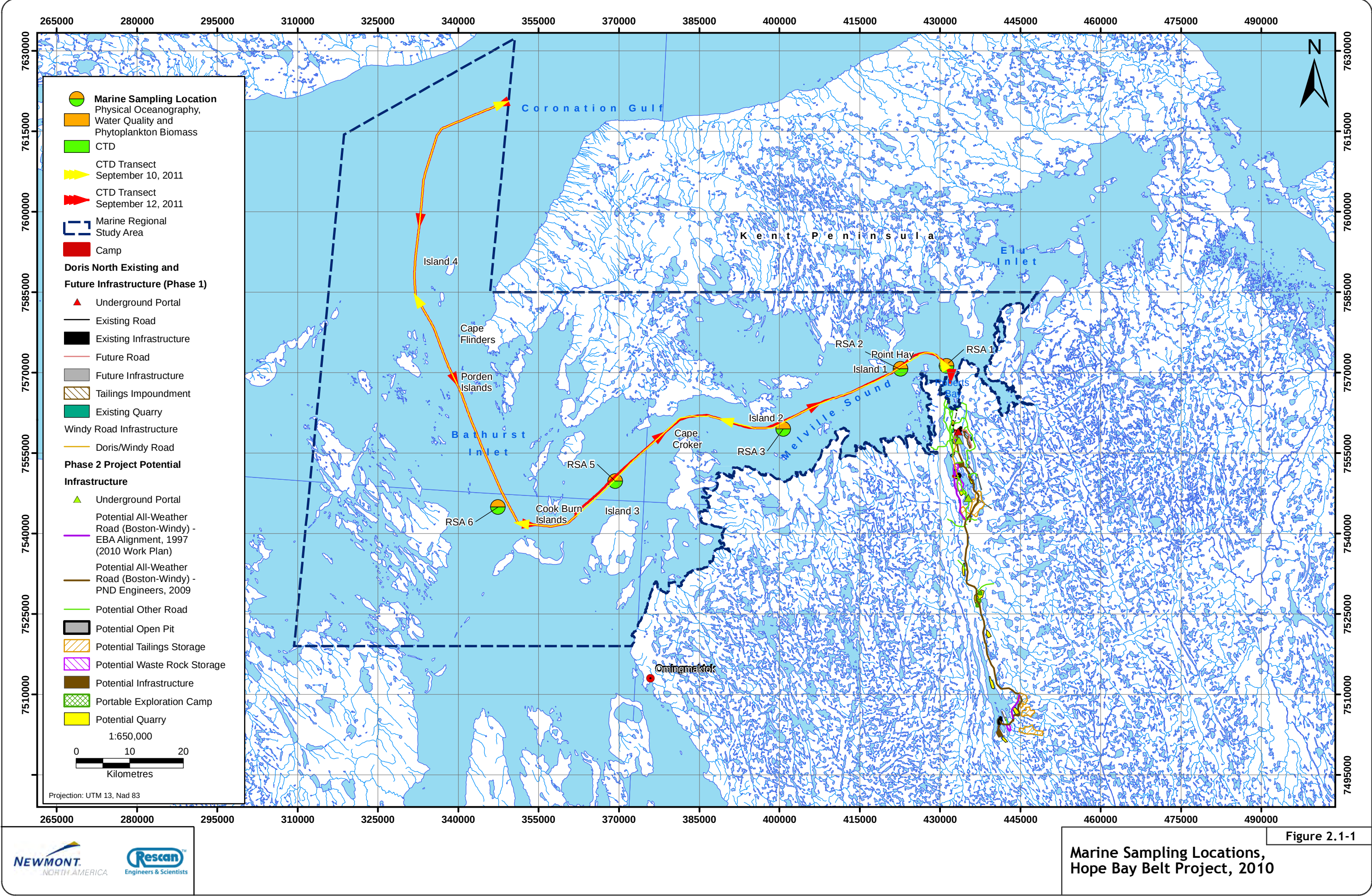


Table 2.2-1. Summary of the Regional Marine Baseline Sampling Program, Hope Bay Belt Project, June 2010

Monitoring Parameter	Location	Sample Replication and Depths	Sampling Dates	Sampling Device
Marine Physical Oceanography				
Salinity/Temperature, Dissolved Oxygen (DO) profiles	Melville Sound (CTD, 5 sites; DO, 5 sites)	n = 1/site	June	Conductivity-Temperature-Depth (CTD) probe; DO meter
Marine Water Quality				
Physical, anions, nutrients, total and dissolved metals, total organic carbon (TOC)	Melville Sound (5 sites)	n = 1/site @ 1 m below the surface, 4 m above pycnocline, 4 m below pycnocline, mid-deep layer + 17% replication	June	2.5 L Niskin sampling bottle
Phytoplankton Biomass				
Biomass (chl a)	Melville Sound (5 sites)	n = 3/site @ 1 m below ice layer	June	2.5 L Niskin sampling bottle

Table 2.2-2. Water Quality Parameters and Detection Limits for Regional Marine Baseline Samples, Hope Bay Belt Project, June 2010

Parameter	Units	Detection Limit	Parameter	Units	Detection Limit
Physical Tests			Total and Dissolved Metals (<i>continued</i>)		
pH	pH	0.1	Copper (Cu)	mg/L	0.001
Total Suspended Solids	mg/L	3	Gallium (Ga)	mg/L	0.0005
Turbidity	NTU	0.1	Iron (Fe)	mg/L	0.05
Anions			Lead (Pb)	mg/L	0.001
Bromide (Br)	mg/L	5.0	Lithium (Li)	mg/L	0.02
Chloride (Cl)	mg/L	50	Magnesium (Mg)	mg/L	1.0
Fluoride (F)	mg/L	0.03 - 0.075	Manganese (Mn)	mg/L	0.0005
Sulphate (SO ₄)	mg/L	50	Mercury (Hg)	mg/L	0.00001
Nutrients			Molybdenum (Mo)	mg/L	0.002
Ammonia (as N)	mg/L	0.005 - 0.01	Nickel (Ni)	mg/L	0.0005
Nitrate + Nitrite (as N)	mg/L	0.006	Phosphorus (P)	mg/L	1.0
Nitrate (as N)	mg/L	0.006	Potassium (K)	mg/L	20
Nitrite (as N)	mg/L	0.002	Rhenium (Re)	mg/L	0.0005
Ortho Phosphate (as P)	mg/L	0.001	Rubidium (Rb)	mg/L	0.005
Total Phosphorus	mg/L	0.002	Selenium (Se)	mg/L	0.002
Silicate (as SiO ₂)	mg/L	0.005 - 1.0	Silicon (Si)	mg/L	0.5
Organic Carbon			Silver (Ag)	mg/L	0.0002
Total Organic Carbon	mg/L	0.5	Sodium (Na)	mg/L	20
Total and Dissolved Metals			Strontium (Sr)	mg/L	0.05
Aluminum (Al)	mg/L	0.005	Tellurium (Te)	mg/L	0.0005
Antimony (Sb)	mg/L	0.0005	Thallium (Tl)	mg/L	0.0005
Arsenic (As)	mg/L	0.002	Thorium (Th)	mg/L	0.0005

(continued)

Table 2.2-2. Water Quality Parameters and Detection Limits for Regional Marine Baseline Samples, Hope Bay Belt Project, June 2010 (completed)

Parameter	Units	Detection Limit	Parameter	Units	Detection Limit
Barium (Ba)	mg/L	0.001	Tin (Sn)	mg/L	0.001
Beryllium (Be)	mg/L	0.0005	Titanium (Ti)	mg/L	0.005
Bismuth (Bi)	mg/L	0.0005	Tungsten (W)	mg/L	0.001
Boron (B)	mg/L	0.1	Uranium (U)	mg/L	0.0005
Cadmium (Cd)	mg/L	0.00012	Vanadium (V)	mg/L	0.0005
Calcium (Ca)	mg/L	0.5	Yttrium (Y)	mg/L	0.0005
Cesium (Cs)	mg/L	0.0005	Zinc (Zn)	mg/L	0.005
Chromium (Cr)	mg/L	0.001	Zirconium (Zr)	mg/L	0.0005
Cobalt (Co)	mg/L	0.0005			

CCME Guidelines

All water quality data were compared to the marine CCME guidelines for the protection of aquatic life. Marine CCME guidelines are also shown in all figures where applicable.

2.2.1.3 Phytoplankton

Water samples were collected and analyzed for phytoplankton biomass (as chlorophyll *a*) at five sites in the marine RSA during June 2010. Triplicate samples were gathered from 1 m below the sea ice using a 2.5 L Niskin water sampler. All samples were transferred into 1 L plastic bottles and stored in a cool, dark cooler until being returned to camp later in the day. Once at camp, the samples were filtered onto 0.45 µm nitrocellulose filters, which were wrapped in aluminum foil and stored frozen. The biomass samples were hand carried to Vancouver, BC, to ensure they remained frozen, and sent to ALS (Burnaby, BC) for chlorophyll *a* analysis.

2.2.2 Open-Water Continuous Regional Oceanographic Sampling

Physical (temperature, salinity and dissolved oxygen) and biological (phytoplankton biomass) information was collected continuously along a round-trip transect from Roberts Bay to Cambridge Bay, Nunavut during September 2010 (Figure 2.1-1). The oceanographic data were collected using a ship-of-opportunity platform aboard the marine vessel, M/V Kelly Ovayuak. This tugboat transported provisions between Roberts Bay and Cambridge Bay in 2010, and left Roberts Bay on the 9th of September 2010, returning from Cambridge Bay on the 11th of September 2010.

The oceanographic data was collected using a conductivity, temperature, and depth (CTD; RBR-620) instrument fitted with a dissolved oxygen probe and a fluorometer. A fluorometer measures the concentration of chlorophyll *a* in aquatic and marine systems, which is a proxy for phytoplankton biomass. The CTD was placed into a 10 L plastic bucket and was continuously bathed with seawater drawn from a seawater intake system aboard the vessel. The intake water was drawn from approximately 2 m depth, and therefore the CTD results represented the surface oceanographic features along the round-trip transect from Roberts Bay to Cambridge Bay. The CTD was an internally, continuously logging system and the data acquisition rate was set to 1 datum acquisition per minute. Similarly, a GPS device (Garmin C60 GPS) was used to acquire the UTM coordinates along the transect, and the tracking system of this device was set to acquire UTM coordinates once per minute. Both devices were initialized synchronously prior to the vessel leaving Roberts Bay on September 9, 2010.

Because each device collected data synchronously on a minute by minute basis, each CTD timestamp could be assigned a corresponding UTM coordinate from the GPS.

During the initial leg of the voyage from Roberts Bay to Cambridge Bay, the shipboard seawater pump was accidentally turned off and the water bathing the CTD was not properly flushed. Therefore, the data from this transect was compromised and was not used. All data obtained during the return journey from Cambridge Bay to Roberts Bay were deemed accurate and were included in this report.

3. Results

3. Results

3.1 UNDER-ICE REGIONAL OCEANOGRAPHIC SAMPLING

3.1.1 Physical Oceanography

3.1.1.1 Snow and Ice Cover

Measurements of snow and ice thickness were conducted at five sites along the marine RSA during June 2010. Ice thickness ranged between 0.8 m (RSA6) and 1.1 m (RSA1 and RSA5) (Table 3.1-1). There was no snow cover at any of the sites.

Table 3.1-1. Snow and Ice Cover at Regional Marine Sites, Hope Bay Belt Project, June 2010

Site	Ice Depth (m)	Snow Depth (m)	Water Column Depth (m)
RSA1	1.1	0	>100
RSA2	1.0	0	-85
RSA3	1.0	0	82
RSA4	no data due to weak ice in 10 km radius		
RSA5	1.1	0	>100
RSA6	0.8	0	>100

3.1.1.2 Water Column Structure

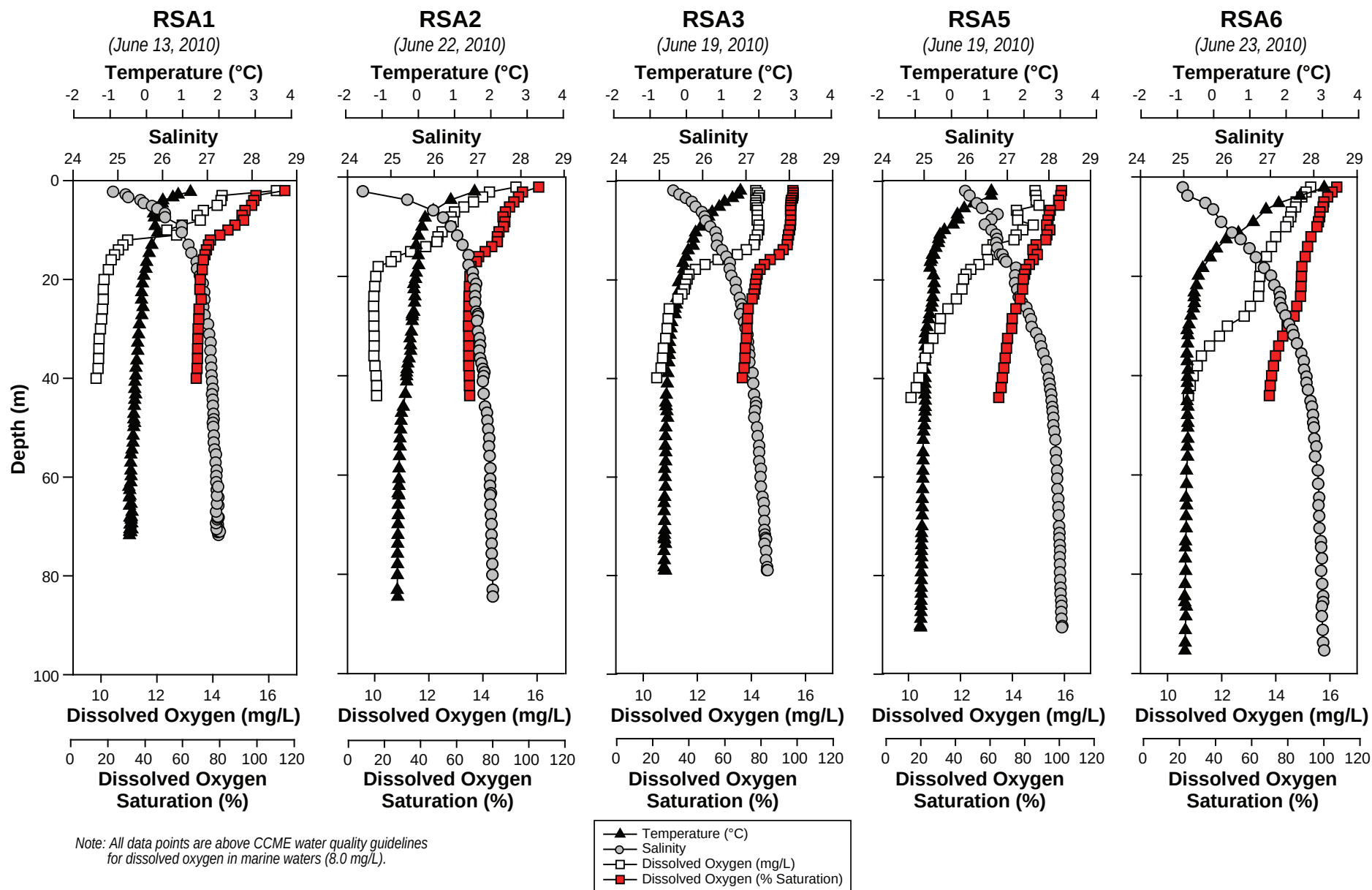
Conductivity, temperature, and depth (CTD) casts were conducted at five sites in the marine RSA during June 2010. Depth profiles of salinity and temperature from these casts are shown in Figure 3.1-1. The full dataset is provided in Appendix 3.1-1.

All sites had broad pycnoclines, with warmer and less saline waters in the surface, and colder, saltier water at depth. The difference in surface and deeper waters was greater in the more enclosed sites, RSA1 and RSA2, than the sites closer to Bathurst Inlet (RSA3, RSA5 and RSA6).

Stable mixed surface layers were not observed at any of the sites. The surface layers had variable salinities and temperatures, with salinities starting at 24.4 and increasing with depth and temperatures starting at 1.6°C and declining with depth. The exception to this was at RSA6, the site closest to Bathurst Inlet, which had a higher surface temperature than any other site at 3.1°C.

The temperatures in the surface water were all above the freezing temperature of seawater (-1.4°C at a salinity of 27), indicating the sea ice was melting at this time of year. Water salinities and temperatures were typically isohaline and isothermal below the pycnocline, with deep water salinities and temperatures of approximately 27.3 to 28.1 and -0.5°C to -0.7°C. Salinities and temperatures in the deep water below the pycnocline tended to be higher at more enclosed sites (RSA1, RSA2 and RSA3) than at the sites closer to Bathurst Inlet (RSA5 and RSA6).

The patterns observed in temperature and salinity in the marine RSA likely reflected the timing of sampling. During long June days, solar radiation both reduces surface salinities by melting the sea ice, and warms surface waters under the ice. This creates depth gradients in temperature and salinity in the under-ice surface layer.



3.1.1.3 Dissolved Oxygen

Profiles of dissolved oxygen concentration and saturation were collected from five sites in the marine RSA (RSA1, RSA2, RSA3, RSA5, RSA6) during June. Profiles are presented in Figure 3.1-1 and the raw data are provided in Appendix 3.1-2.

Dissolved oxygen concentrations ranged from 9.8 mg/L to 16.3 mg/L, and tracked vertical thermohaline trends, with the greatest concentrations in surface waters and lowest concentrations at bottom depths. The near-surface depths (<6 m) were often supersaturated with dissolved oxygen (>100%), indicating that photosynthesis was active in the surface layer during this period. Dissolved oxygen concentrations in the more enclosed sites, RSA1 and RSA2, had very stable dissolved oxygen concentrations below the pycnocline (at approximately 67% saturation). Site RSA3 showed a strong gradient in vertical dissolved oxygen concentrations compared to the two more open sites, RSA5 and RSA6, which showed generally consistent declines with depth. This indicates there was stronger mixing towards Bathurst Inlet, which was likely given the presence of the numerous smaller islands in this area.

Dissolved oxygen concentrations at all sites at all depths was above the recommended marine CCME guideline for aquatic life (8 mg/L; CCME 2011).

3.1.2 Water Quality

Under-ice water quality samples were collected from five sites in the marine RSA (RSA1, RSA2, RSA3, RSA5 and RSA6) during June 2010. Samples were collected from the surface, above the pycnocline, below the pycnocline, and from the deep water. Profiles of water quality parameters are shown in Figures 3.1-2 to 3.1-6 and all water quality data and realized detection limits are presented in Appendix 3.1-3.

3.1.2.1 Physical Parameters

The pH levels were similar at all sites and at all depths, averaging 7.8 pH units (Figure 3.1-2). pH was stable with depth at all sites. The exception was RSA6 where the deep waters had a slightly lower pH than all other water samples (pH 7.5); however, these samples had higher variability.

3.1.2.2 Suspended Material

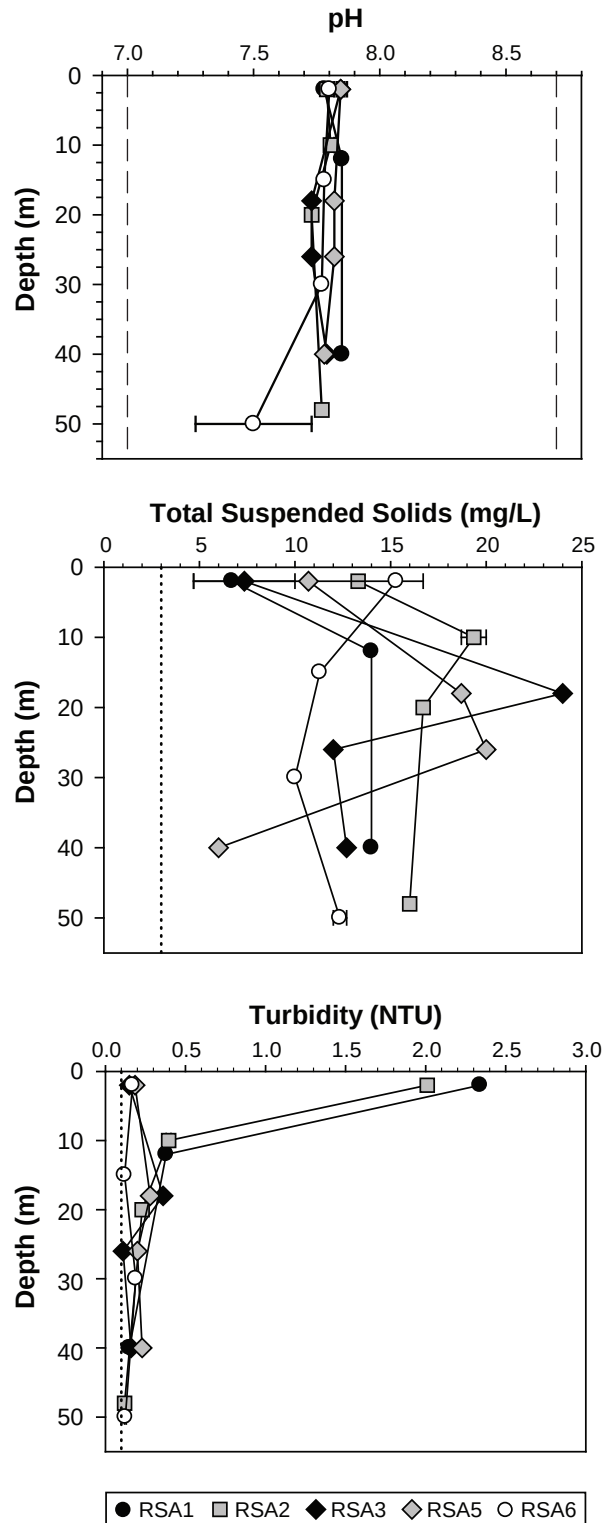
Concentrations of total suspended solids (TSS) were quite high, although variable, in the RSA, ranging from below 6.0 mg/L to 24.0 mg/L (Figure 3.1-2). There was no clear difference between sites, and although TSS often varied dramatically with depth, there was no consistent pattern.

Turbidity was low at all sites and depths, averaging 0.38 NTU (Figure 3.1-2). Surface turbidity levels at sites RSA1 and RSA2 were high, reaching 2.01 NTU and 2.34 NTU, and may reflect the higher primary production that could have been occurring during this time.

3.1.2.3 Nutrients and Total Organic Carbon (TOC)

Overall, nutrient levels were low and similar between sites (Figure 3.1-3). Total ammonia concentrations were mostly below analytical detection (<0.005 mg/L and 0.01 mg/L). Exceptions to this were sites RSA1 and RSA 2 above the pycnocline, which ranged from 0.0181 mg/L to 0.0391 mg/L.

Nitrate, total phosphorus, orthophosphate, and silicate generally exhibited depth gradients, with lower concentrations in surface waters, indicative of phytoplankton growth and nutrient uptake. The trend was most evident for nitrate, which was below detection (0.006 mg/L) in surface samples at all sites. This surface depletion suggests that phytoplankton growth was likely limited by nitrate availability in



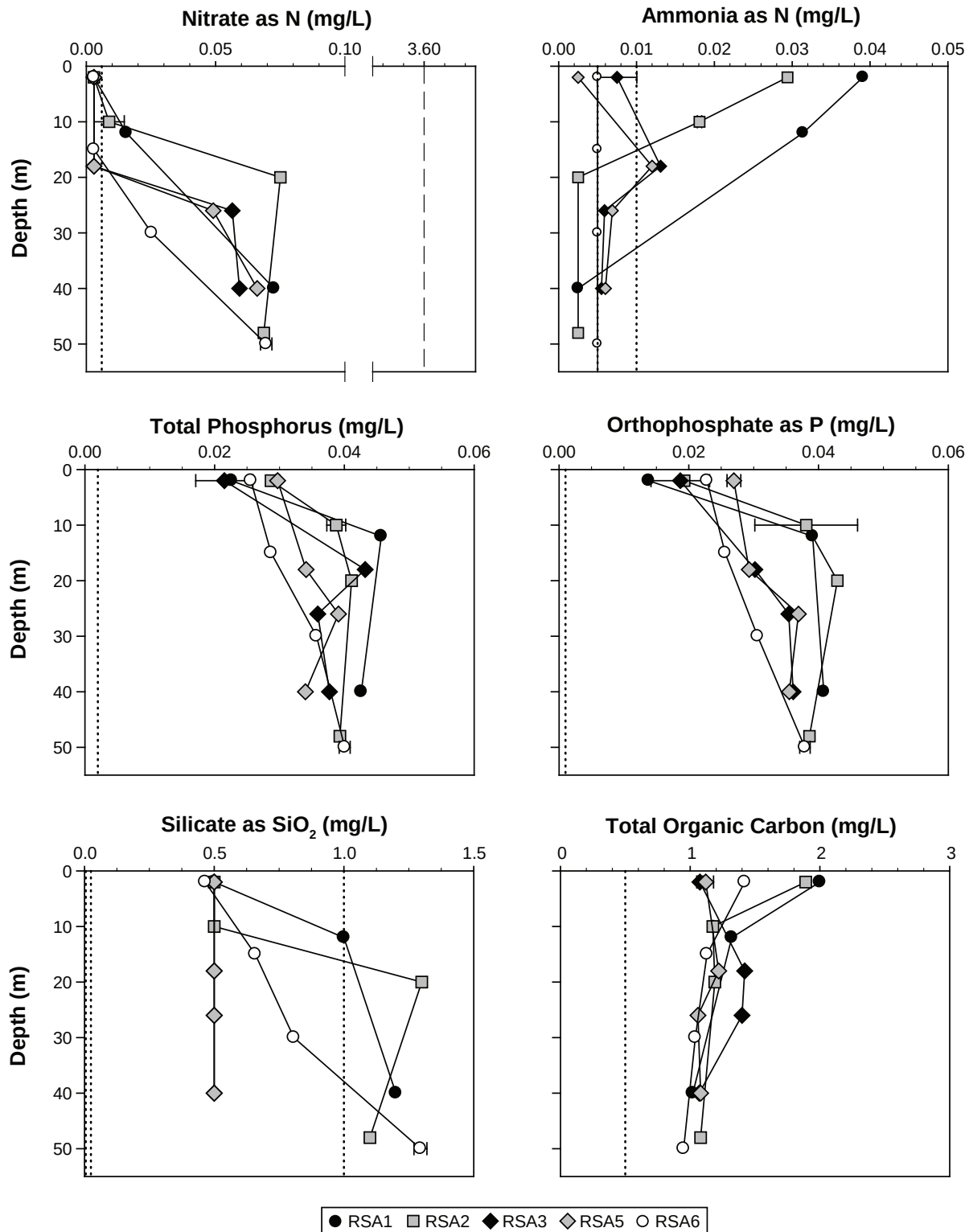
Notes: Error bars represent standard error of the mean of duplicate samples.

Dotted lines represent analytical detection limits (pH: 0.1 pH units, total suspended solids: 3 mg/L, turbidity: 0.1 NTU).

Values below the analytical detection limit are plotted at half the detection limit.

Dashed lines represent the marine CCME water quality guideline (pH 7.0–8.7).

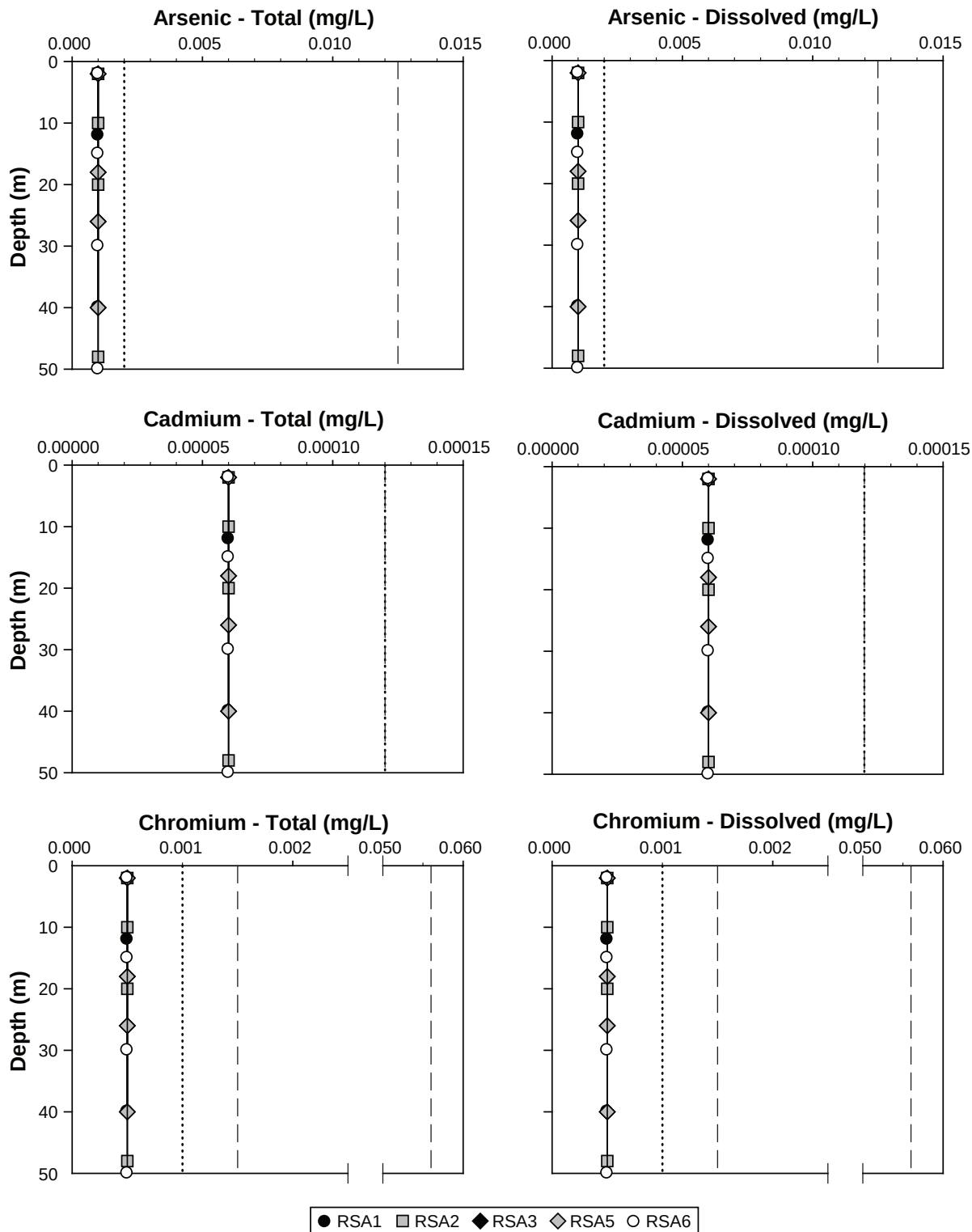
CCME guidelines for total suspended solids and turbidity are dependent upon background levels.



Notes: Error bars represent standard error of the mean of duplicate samples.

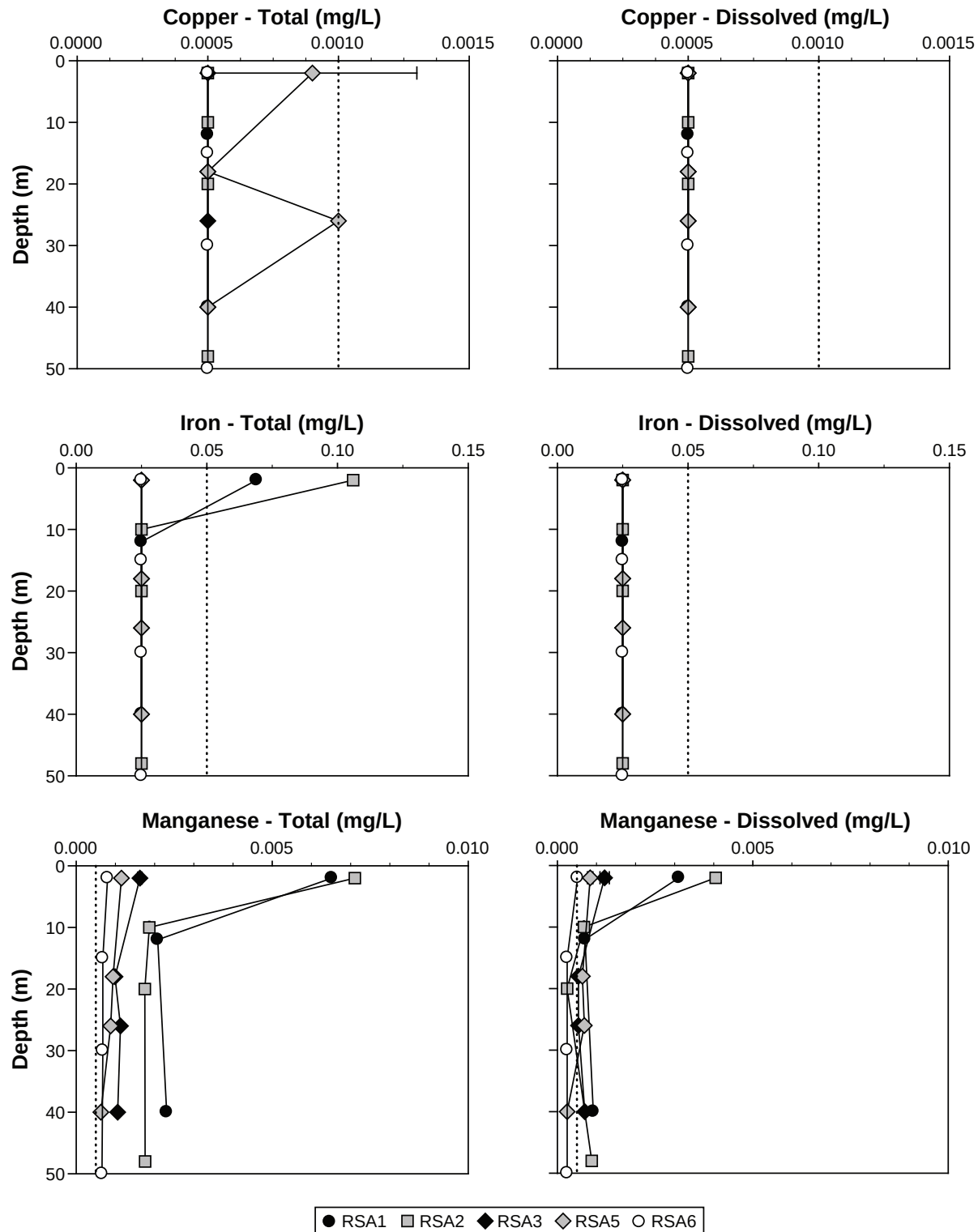
Dotted lines represent analytical detection limits (nitrate as N: 0.006 mg/L; ammonia as N: 0.005 or 0.01 mg/L; total phosphorus: 0.002 mg/L; orthophosphate: 0.001 mg/L; silicate: 0.005 or 0.025 or 1.0 mg/L; total organic carbon: 0.5 mg/L). Values below the analytical detection limit are plotted at half the detection limit. Dashed line represents the marine CCME water quality guideline for nitrate as N (3.6 mg/L).

Figure 3.1-3



Notes: Error bars represent standard error of the mean of duplicate samples.
 Dotted lines represent analytical detection limits (arsenic: 0.002 mg/L; cadmium: 0.00012 mg/L; chromium: 0.001 mg/L).
 Values below the analytical detection limit are plotted at half the detection limit.
 Dashed lines represent the marine CCME water quality guidelines (arsenic: 0.0125 mg/L; cadmium: 0.00012 mg/L;
 hexavalent chromium: 0.0015 mg/L; trivalent chromium: 0.056 mg/L).

Figure 3.1-4

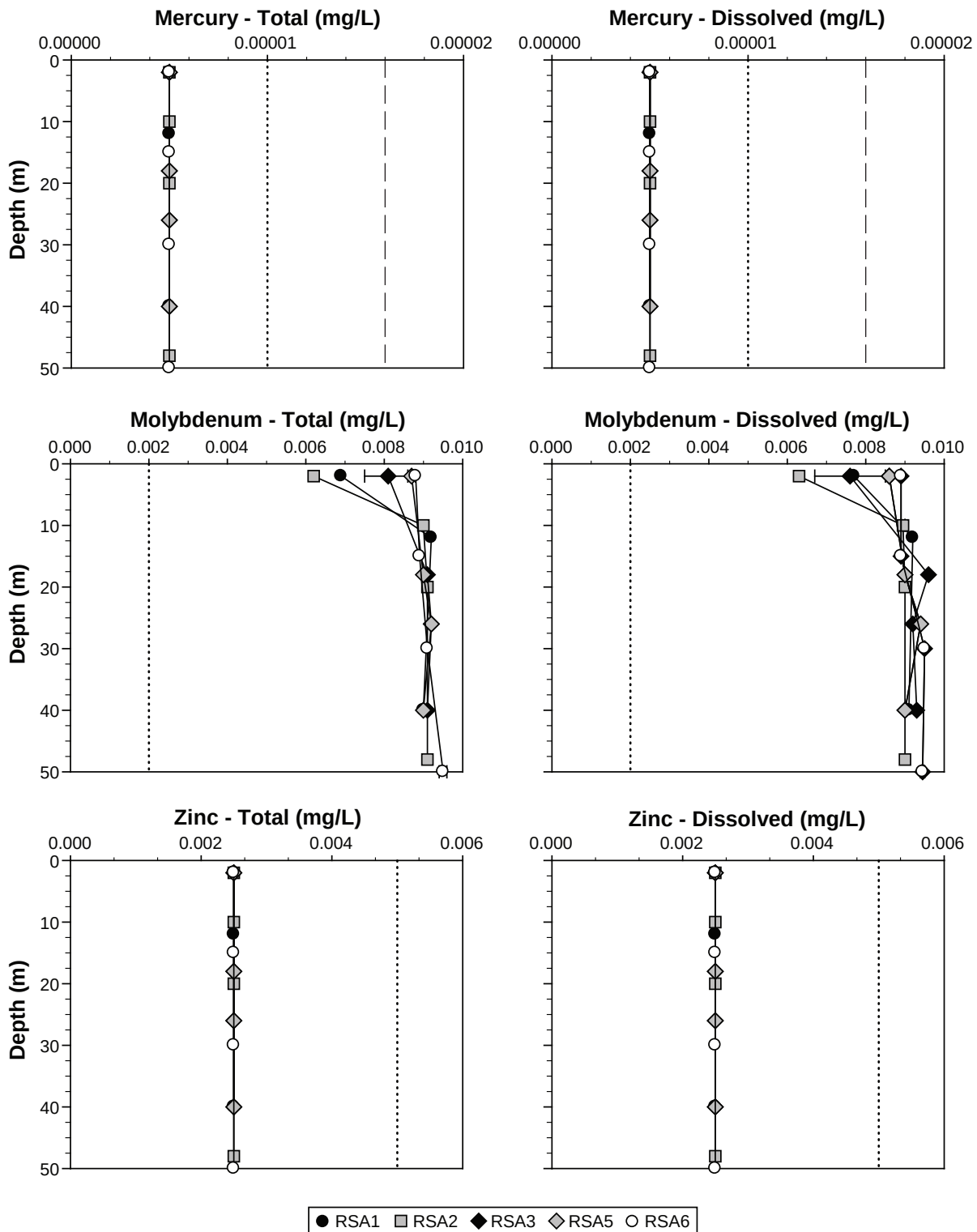


Notes: Error bars represent standard error of the mean of duplicate samples.

Dotted lines represent analytical detection limits (copper: 0.001 mg/L; iron: 0.05 mg/L; manganese: 0.0005 mg/L).

Values below the analytical detection limit are plotted at half the detection limit.

Figure 3.1-5



Notes: Error bars represent standard error of the mean of duplicate samples.

Dotted lines represent analytical detection limits (mercury: 0.00001 mg/L; molybdenum: 0.002 mg/L; zinc: 0.005 mg/L).

Values below the analytical detection limit are plotted at half the detection limit.

Dashed line represents the marine CCME water quality guidelines for inorganic mercury (0.000016 mg/L).

the surface waters. Phosphorus was always above its analytical detection limit, with surface concentrations averaging 0.026 mg/L, and increasing deeper into the water column to a maximum of 0.046 mg/L. Bioavailable orthophosphate made up the majority of the total phosphorus pool, further suggesting that the primary production in this area was controlled by nitrogen availability. Surface concentrations of silicate were lower than deeper in the water column for sites RSA1, RSA2, and RSA6. Sites RSA3 and RSA4 were below the analytical detection limit (1.0 mg/L) throughout the water column for silicate. Silicate in surface waters was likely drawn down by silica-frustuled diatoms.

Total organic carbon (TOC) concentrations tended to be stable down the water column, generally between 1.0 and 1.5 mg/L. Exceptions were at the more enclosed sites RSA1 and RSA2, which had higher surface TOC concentrations of 1.9 mg/L and 2.0 mg/L, respectively. This pattern matches the higher surface turbidities found at these sites, and suggests higher phytoplankton growth at these locations.

3.1.2.4 *Metals*

Overall, the five sites in the marine RSA had low concentrations of total and dissolved metals (Figures 3.1-4 to 3.1-6). Average concentrations of total and dissolved arsenic, cadmium, chromium, copper, iron, mercury and zinc were at or below the analytical detection limits for all sites and all depths. Exceptions to this were iron concentrations in the surface samples from RSA1 and RSA2, which were 0.069 mg/L and 0.106 mg/L, respectively.

Surface waters at RSA1 and RSA2, the two more enclosed sites, had higher concentrations of total iron and total and dissolved manganese than other sites. Trends in molybdenum concentrations were more similar to those seen in nutrients than in the other metals. Molybdenum concentrations tended to be lowest in the surface waters, particularly in the more enclosed sites, suggesting phytoplankton uptake or dilution from melting sea ice.

3.1.2.5 *Comparison with CCME Water Quality Guidelines*

All water quality data collected in the marine RSA were compared to the CCME water quality guidelines for the protection of marine aquatic life (2011). All water quality parameters were below their respective guideline concentration.

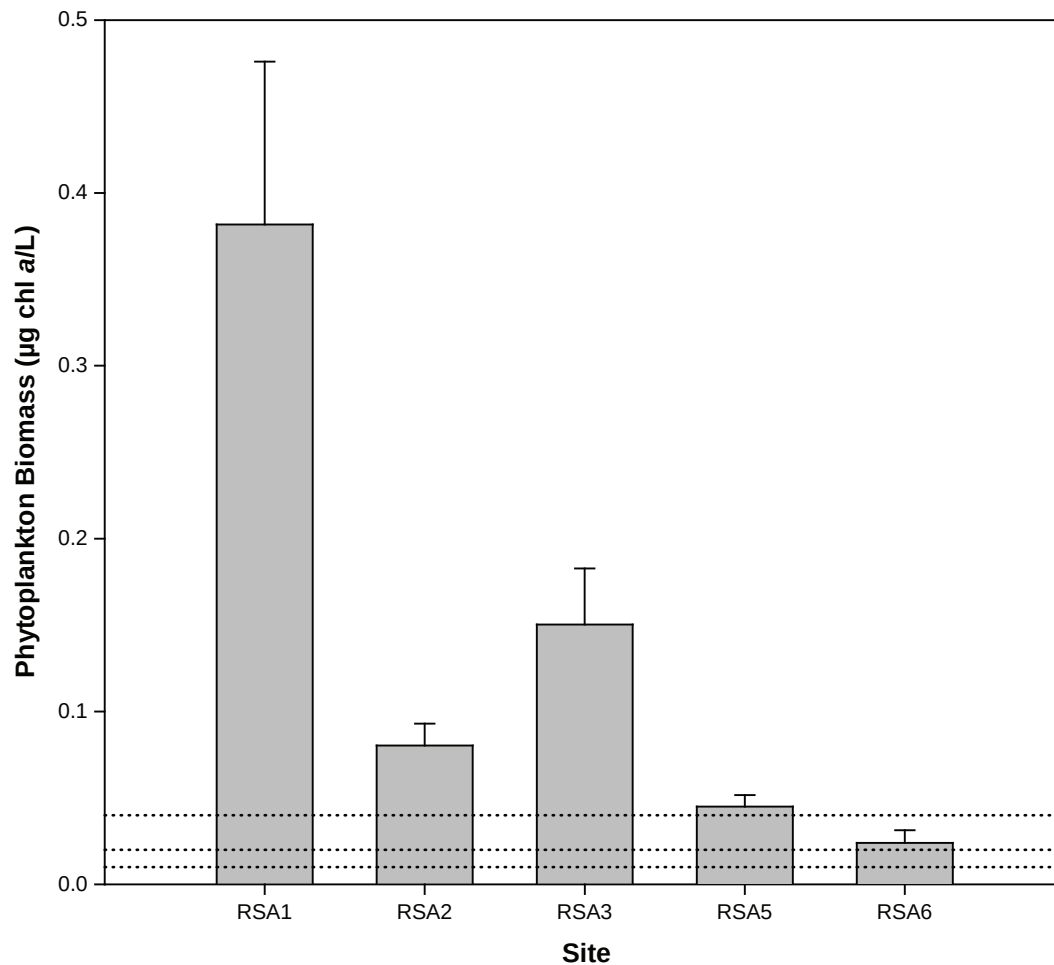
3.1.2.6 *Quality Assurance/Quality Control (QA/QC)*

Analytical results for travel, field, and equipment blanks collected as part of the 2010 marine water quality sampling program are presented in Appendix 3.1-3. Analytical results for blank samples were below detection limits for every water quality parameter.

3.1.3 **Phytoplankton**

Phytoplankton are free-floating autotrophic algae that play an important role in marine systems as primary producers and prey for higher trophic levels. Phytoplankton biomass (as chlorophyll *a*) samples were collected from surface water at five sites in the marine RSA. Chlorophyll *a* results are shown in Figure 3.1-7, and the raw data are provided in Appendix 3.1-4.

Overall, mean phytoplankton biomass (as chlorophyll *a*) was very low in the marine RSA, with all concentrations below 0.5 µg chl *a*/L. RSA1, the closest site to Roberts Bay, had the highest mean biomass (0.38 µg chl *a*/L) compared to the other sites (total mean: 0.08 µg chl *a*/L). Phytoplankton biomass at most sites was probably limited by reduced under-ice light levels, and the low nutrient levels in the surface waters.



Notes: Error bars represent standard error of the mean of triplicate samples.
Dotted lines represent analytical detection limits (0.01, 0.02 and 0.04 µg chl a/L).
No replicates were below analytical detection limits.

Figure 3.1-7

3.1.4 Summary

A summary of the under-ice regional oceanographic sampling during June is presented in Table 3.1-2.

Table 3.1-2. Summary of 2010 Regional Marine Baseline Results, June 2010

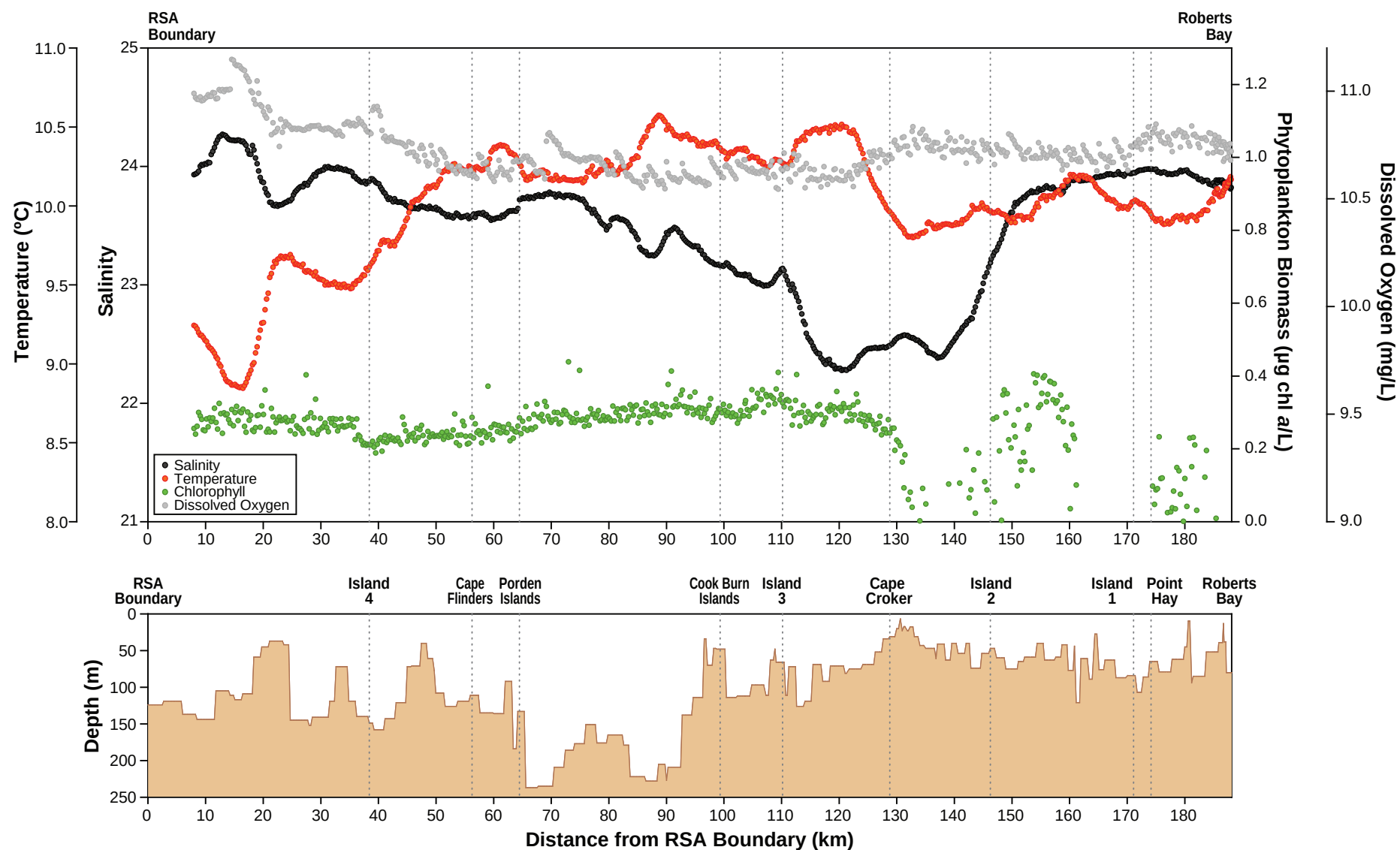
Melville Sound Site	Snow Depth (m)	Ice Depth (m)	Max Depth (m)	Physical Oceanography		Water Quality		Primary production
				Water Column Structure	Dissolved Oxygen CCME Guideline Exceedances*	General description	Parameters that exceed CCME Guidelines	Phytoplankton (chl <i>a</i>)
RSA1	0	1.1	>100	Broad pycnocline, dissolved oxygen levels variable in surface and stable below pycnocline	None	Slightly basic, higher surface turbidity, higher surface nitrogen as ammonia and TOC, higher surface metals than other sites	None	Chl <i>a</i> concentrations over twice as high as any other site
RSA2	0	1	~ 85	Broad pycnocline, Dissolved oxygen levels variable in surface and stable but lower below pycnocline	None	Slightly basic, higher surface turbidity, higher surface nitrogen as ammonia and TOC, higher surface metals than other sites	None	Low chl <i>a</i> concentrations
RSA3	0	1	82	Broad pycnocline, dissolved oxygen levels stable above and below pycnocline	None	Slightly basic, low nutrient and metal concentrations	None	Low chl <i>a</i> concentrations
RSA5	0	1.1	>100	Broad pycnocline, dissolved oxygen levels declining with depth with no clear stable zones	None	Slightly basic, low nutrient and metal concentrations	None	Low chl <i>a</i> concentrations
RSA6	0	0.8	>100	Broad pycnocline, dissolved oxygen levels declining with depth with no clear stable zones	None	Slightly basic, low nutrient and metal concentrations	None	Lowest chl <i>a</i> concentrations

* The CCME recommended minimum concentration of DO in marine waters is 8.0 mg/L
Sampling could not be conducted at site RSA4 due to safety concerns over weak ice.

3.2 OPEN-WATER CONTINUOUS REGIONAL OCEANOGRAPHIC SAMPLING

On the return leg of a trip from Roberts Bay to Cambridge Bay, a ‘ship of opportunity’ provided the facility on which to continuously monitor properties of surface seawater between Cambridge Bay and Roberts Bay (Figure 2.1-1). This was accomplished using automated instrumentation (CTD fitted with dissolved oxygen and fluorometric probes). Figure 3.2-1 shows the data obtained from this transect of approximately 180 km, over a period of approximately 12 hours on the 12th of September 2010. All raw data is provided in Appendix 3.2-1.

The dominant feature of this transect was a 30-km stretch of decreasing surface salinity (~22.5), through the constriction near Cape Croker that separates Bathurst Inlet from Melville Sound



Temperature, Salinity, Dissolved Oxygen, Phytoplankton Biomass (as chl a), and Bathymetry along the Marine RSA Transect, Hope Bay Belt Project, September 2010

Figure 3.2-1

(Figure 3.2-1). The salinity decrease was accompanied by an increase in temperature of approximately 0.5°C over the slightly deeper water on the western side of Cape Croker. The higher temperature, lower salinity surface seawater probably represented the wind-driven input of near surface, more brackish water from Bathurst Inlet into Melville Sound through the narrows at Cape Croker. The Coriolis effect probably contributed slightly to the eastward movement of Bathurst Inlet water into western Melville Sound. The surface seawater was slightly more saline (23-24) and colder (~10°C) in central Melville Sound than the waters in northern Bathurst Inlet between the Cook Burn Islands and the Porden Islands. North of Cape Flinders towards the RSA boundary, the salinity increased and temperature decreased characteristic of the more marine influenced waters of Coronation Gulf.

Surface dissolved oxygen was also slightly lower in the zone between Island 3 and Cape Croker, but overall, dissolved oxygen was relatively stable between 10.5 and 11.0 mg/L. Northward towards the marine RSA boundary, the dissolved oxygen concentrations were highest, and increased with increasing salinity and decreasing temperature. At these temperatures and salinities, the dissolved oxygen level represented a saturation of the order of 110% throughout the transect.

Through the eastern portion of this transect, surface phytoplankton biomass (chlorophyll *a*) was extremely low at 0.2 µg chl *a*/L or less; this could represent either a very low production environment, or one where phytoplankton production occurred at depth. Deep chlorophyll maxima (regions deeper in the water column where phytoplankton can access nutrients with sufficient light to photosynthesize) are characteristic of some parts of the Arctic where fresher surface waters have constrained mixing and the supply of nutrients from below. Towards the Cook Burn Islands, chlorophyll was slightly higher in the range of 0.2-0.4 µg chl *a*/L, and remained at this level in the open waters towards the marine RSA boundary. Even at 0.2-0.4 µg chl *a*/L, these represent extremely low levels of phytoplankton biomass in surface waters for a near coastal environment. There were no apparent regions of enhanced phytoplankton biomass along the frontal boundaries (e.g., at Island 2 or Island 3) of this transect.

References

References

Definitions of the acronyms and abbreviations used in this reference list can be found in the Glossary and Abbreviations section.

CCME. 2011. Canadian Water Quality Guidelines for the Protection of Aquatic Life: Summary Table. Updated January 2011. In: *Canadian Environmental Quality Guidelines, 1999*. Canadian Council of Ministers of the Environment: Winnipeg, MB.

Fofonoff, P. and C. Millard Jr. 1983. Algorithms for computation of fundamental properties of seawater. *Unesco Technical Papers in Marine Science*. Vol. 44, pp. 53.

Appendix 3.1-1

Temperature and Salinity Profile Data from Regional
Marine Sites, Hope Bay Belt Project, June 2010

Appendix 3.1-1. Temperature and Salinity Profile Data from Regional Marine Sites, Hope Bay Belt Project, June 2010

RSA1			RSA2			RSA3		
13-Jun-10			22-Jun-10			19-Jun-10		
Depth (m)	Temperature (°C)	Salinity	Depth (m)	Temperature (°C)	Salinity	Depth (m)	Temperature (°C)	Salinity
2.2604	1.1498	24.8967	2.9035	1.5197	24.3545	2.0235	1.4491	25.3189
2.7975	0.8179	25.1754	4.5744	0.86	25.3813	2.8469	1.3744	25.4596
3.3811	0.676	25.2348	6.7336	0.3736	25.9779	3.5323	1.2267	25.6097
3.9791	0.4078	25.5101	8.158	0.1488	26.207	4.3149	1.0069	25.7499
4.5735	0.3924	25.5811	9.9594	0.0598	26.3851	5.3238	0.8576	25.8322
5.1456	0.3194	25.7656	11.7859	-0.0336	26.5299	6.392	0.6644	25.9846
5.7143	0.2469	25.8851	13.662	-0.1007	26.6558	7.3058	0.565	26.0484
6.6152	0.1576	26.052	15.7352	-0.0407	26.7923	8.1648	0.539	26.0707
7.4327	0.1807	26.0548	17.7461	-0.0292	26.798	9.3386	0.3547	26.1747
9.1727	0.2017	26.4295	19.2499	-0.0976	26.8927	10.4913	0.1983	26.303
10.4941	0.2677	26.4301	20.5153	-0.1139	26.9003	11.7545	0.1395	26.3368
13.0051	0.113	26.5804	21.5145	-0.1659	26.9682	13.2138	0.1315	26.3325
14.6492	0.0399	26.6464	22.5715	-0.1589	26.9464	14.1421	-0.0031	26.451
16.4377	-0.0283	26.7603	23.9939	-0.1352	26.9476	15.4487	-0.0633	26.5481
17.8538	-0.0459	26.7718	25.2666	-0.1466	26.9466	16.6746	-0.1481	26.631
19.2387	-0.1025	26.8371	27.1302	-0.1672	26.9768	17.9099	-0.1245	26.6222
20.8035	-0.1397	26.8982	27.6387	-0.209	27.0111	19.3323	-0.1732	26.6652
22.5689	-0.1603	26.9332	28.0593	-0.2071	27.0102	20.6187	-0.2709	26.7622
24.0798	-0.163	26.9375	28.9782	-0.2073	26.9872	22.2309	-0.2502	26.774
25.5761	-0.1265	26.9115	31.1003	-0.2319	27.0114	23.8217	-0.3205	26.8592
27.2379	-0.1569	26.9403	32.4653	-0.2712	27.0494	25.1347	-0.3311	26.8952
29.0903	-0.2231	27.02	33.8631	-0.2574	27.0613	25.9994	-0.3695	26.9294
31.1094	-0.242	27.0431	34.9724	-0.2524	27.0399	27.1064	-0.3688	26.8696
32.8012	-0.2695	27.0753	36.4966	-0.2971	27.0621	28.7135	-0.4601	26.9604
34.4438	-0.2653	27.0724	37.5176	-0.3308	27.0973	29.975	-0.4772	26.9929
36.3915	-0.2933	27.0826	38.641	-0.3517	27.1261	31.2859	-0.5054	27.0385
37.8657	-0.3148	27.0897	39.3314	-0.3691	27.1605	32.7372	-0.5184	27.0489
39.4298	-0.3198	27.0952	40.1022	-0.3653	27.1425	34.2045	-0.522	27.0617
40.6903	-0.3415	27.1075	41.1486	-0.3638	27.1246	35.3633	-0.5342	27.0801
42.1362	-0.3464	27.1278	43.6621	-0.4024	27.1439	36.8717	-0.5455	27.0817
43.2486	-0.324	27.1051	46.2482	-0.4577	27.1775	39.0469	-0.5693	27.1545
44.3586	-0.3485	27.1223	47.4793	-0.5083	27.2198	41.1523	-0.5832	27.1696
45.5842	-0.3561	27.1268	49.058	-0.5194	27.2294	43.4267	-0.6071	27.1887
47.1954	-0.3742	27.1384	50.8015	-0.5295	27.2508	45.0176	-0.6286	27.2348
48.2987	-0.3729	27.1453	52.6065	-0.5485	27.2712	45.7852	-0.6163	27.2307
49.0316	-0.3502	27.1275	54.237	-0.5453	27.2652	46.784	-0.5933	27.2109
49.8597	-0.3721	27.1353	56.1877	-0.5624	27.282	48.1099	-0.5737	27.1959
51.6057	-0.3889	27.1472	58.6518	-0.5758	27.2999	50.0693	-0.6233	27.2555
53.0132	-0.3944	27.1452	60.7887	-0.5769	27.2924	51.8464	-0.6309	27.272
54.4338	-0.4241	27.1665	62.1676	-0.5742	27.2918	53.8222	-0.6393	27.306
55.4225	-0.4527	27.1966	63.6909	-0.601	27.311	55.132	-0.6244	27.3063
57.0742	-0.4553	27.1856	64.0916	-0.578	27.2937	56.9693	-0.6254	27.305
58.648	-0.4518	27.2116	65.9662	-0.5963	27.3004	58.507	-0.6553	27.3476
59.8227	-0.4447	27.2042	68.1019	-0.5968	27.3077	60.1404	-0.6429	27.3361
61.0461	-0.4527	27.2026	69.9348	-0.6059	27.3243	62.0888	-0.6291	27.3454
62.6104	-0.4806	27.2129	72.0624	-0.6042	27.324	64.1688	-0.6574	27.3829
64.1034	-0.4925	27.2484	73.8477	-0.6112	27.3281	65.4311	-0.6705	27.4149
65.7747	-0.4868	27.2502	75.8625	-0.6143	27.3315	67.0836	-0.6662	27.4218
68.1964	-0.4751	27.2544	77.9729	-0.6171	27.3425	69.0852	-0.6571	27.4278
69.634	-0.4735	27.2377	80.1791	-0.6213	27.3469	70.928	-0.6529	27.4288
70.5354	-0.4753	27.2517	83.1457	-0.622	27.354	71.8661	-0.6619	27.4403
71.1184	-0.4537	27.2354	84.5327	-0.6121	27.3545	72.531	-0.6697	27.4505
71.7744	-0.4876	27.2521				72.8364	-0.6585	27.467
						73.7327	-0.633	27.4286
						75.1876	-0.6746	27.4711
						77.0395	-0.6629	27.4632
						78.4846	-0.6758	27.4923
						79.1016	-0.6586	27.4938
						79.1106	-0.6428	27.4855
						79.1166	-0.6349	27.4993

Appendix 3.1-1. Temperature and Salinity Profile Data from Regional Marine Sites, Hope Bay Belt Project, June 2010

RSA5			RSA6		
19-Jun-10			23-Jun-10		
Depth (m)	Temperature (°C)	Salinity	Depth (m)	Temperature (°C)	Salinity
2.1177	1.1437	25.9933	2.0705	3.0897	24.9782
3.0616	1.1341	26.0946	3.7578	2.4249	25.0897
4.6093	0.625	26.2671	5.2233	1.8307	25.4989
5.596	0.3584	26.3976	6.5168	1.4765	25.6792
6.8371	0.1622	26.7707	9.0453	1.1244	25.8648
7.8891	0.1853	26.6207	11.2064	0.7152	26.1143
8.9006	0.0407	26.4626	12.5139	0.3736	26.3158
10.0501	-0.2127	26.6235	14.3643	0.1053	26.5192
10.944	-0.337	26.7354	16.1767	-0.0655	26.6701
11.844	-0.3766	26.76	18.3045	-0.2745	26.8508
12.6396	-0.388	26.7374	19.8544	-0.3986	27.015
13.6557	-0.457	26.7623	21.7686	-0.4438	27.0888
15.0281	-0.5177	26.8286	23.2288	-0.5112	27.2137
15.0576	-0.5601	26.89	24.1738	-0.5117	27.2308
16.0029	-0.5834	26.9299	25.3626	-0.5061	27.2238
16.4865	-0.6177	26.9744	26.4481	-0.5351	27.2701
17.6868	-0.6302	27.2128	27.8975	-0.601	27.3485
19.2478	-0.527	27.1954	29.6385	-0.654	27.4313
20.7953	-0.5029	27.1893	30.8004	-0.7071	27.5081
22.086	-0.5239	27.2421	31.8495	-0.6833	27.5385
23.6556	-0.5486	27.2779	33.5261	-0.6923	27.6147
24.7741	-0.5671	27.3581	35.545	-0.7119	27.7122
25.7335	-0.5992	27.4604	37.0558	-0.7056	27.7737
27.0806	-0.6363	27.5238	38.8241	-0.6778	27.7827
28.1481	-0.6694	27.5709	40.2164	-0.699	27.834
29.712	-0.7139	27.5915	41.4525	-0.7023	27.8356
30.9664	-0.7599	27.6984	42.8676	-0.6845	27.87
32.2569	-0.7748	27.7857	45.1056	-0.7097	27.9268
33.643	-0.7678	27.8182	46.2294	-0.684	27.9605
35.1128	-0.7665	27.8698	47.8961	-0.6969	27.9865
36.6869	-0.7739	27.9389	49.5007	-0.6866	27.9895
38.3583	-0.7766	27.9629	50.4498	-0.6888	28.0072
40.0568	-0.7717	27.9996	52.6786	-0.6871	28.0162
41.2372	-0.7749	28.0208	54.2695	-0.7062	28.0634
42.3965	-0.7731	28.0343	56.3	-0.6952	28.0355
43.4126	-0.7771	28.0593	59.0987	-0.7238	28.1009
44.644	-0.764	28.0667	61.7941	-0.725	28.1054
45.9272	-0.7684	28.0847	64.5432	-0.7394	28.1266
46.888	-0.7704	28.0959	66.1151	-0.7197	28.1116
48.1383	-0.7861	28.1103	68.3096	-0.7356	28.1276
49.649	-0.7891	28.1084	70.7512	-0.7308	28.1339
50.9202	-0.813	28.1322	73.3537	-0.7488	28.1669
52.6114	-0.8234	28.1591	74.5999	-0.7513	28.1742
55.1385	-0.8279	28.1725	76.8483	-0.7582	28.1911
56.7848	-0.8301	28.1794	79.3304	-0.746	28.1735
58.8622	-0.8318	28.2014	81.9807	-0.7633	28.1978
60.4881	-0.8364	28.2024	84.4052	-0.7735	28.2197
62.6055	-0.8422	28.2066	85.6291	-0.7703	28.2192
64.6089	-0.8509	28.2297	86.5117	-0.7272	28.188
66.2949	-0.854	28.2343	88.4817	-0.7411	28.19
67.9696	-0.8508	28.2406	91.2482	-0.7569	28.2119
70.1575	-0.8604	28.2485	93.7655	-0.7603	28.2214
71.5301	-0.872	28.2603	95.3486	-0.7673	28.2441
72.6227	-0.8661	28.2557			
73.9824	-0.8698	28.2664			
75.1613	-0.8748	28.2721			
76.4546	-0.866	28.2625			
77.8997	-0.8688	28.27			
79.5317	-0.8773	28.2699			
81.0785	-0.8774	28.2758			
82.6463	-0.8801	28.2844			
83.8567	-0.8821	28.286			
85.2912	-0.8876	28.3006			
86.3147	-0.8919	28.3083			
87.5685	-0.8882	28.2993			
88.9269	-0.8954	28.3064			
90.408	-0.9076	28.3262			
90.7099	-0.9	28.316			

Appendix 3.1-2

Dissolved Oxygen Concentrations from Regional Marine
Sites, Hope Bay Belt Project, June 2010

Appendix 3.1-2. Dissolved Oxygen Concentrations from Regional Marine Sites, Hope Bay Belt Project, June 2010

RSA1			
21-Jun-10			
Depth (m)	Temp (°C)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
2	0.6	16.27	113.6
3	-0.1	14.33	98.1
4	-0.4	14.29	96.9
5	-0.6	14.15	95.8
6	-0.6	13.66	92.2
7	-0.6	13.44	90.6
8	-0.6	13.55	91.5
9	-0.7	12.90	86.8
10	-0.7	12.35	83.1
11	-0.7	12.70	78.7
12	-0.7	10.95	73.7
13	-0.7	10.78	72.6
14	-0.7	10.62	71.5
15	-0.6	10.48	70.7
16	-0.6	10.36	69.9
18	-0.6	10.26	69.3
20	-0.6	10.11	68.2
22	-0.6	10.08	68.0
24	-0.7	10.08	68.7
26	-0.7	10.05	67.6
28	-0.7	10.02	67.4
30	-0.7	9.98	67.1
32	-0.7	9.93	66.9
34	-0.7	9.92	66.8
36	-0.7	9.91	66.7
38	-0.7	9.89	66.5
40	-0.7	9.82	66.1

Snow depth: 0 m

Ice thickness: 1.1 m

Max depth: >100 m

RSA2			
21-Jun-10			
Depth (m)	Temp (°C)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
2	-0.4	15.22	105.9
3	-0.3	14.24	96.9
4	-0.5	13.99	94.7
5	-0.6	13.65	92.1
6	-0.6	13.29	89.7
7	-0.6	12.95	87.4
8	-0.6	12.82	86.1
9	-0.6	12.90	87.1
10	-0.6	12.80	86.4
11	-0.6	12.49	83.9
12	-0.6	12.34	83.0
13	-0.6	12.30	83.0
14	-0.7	11.89	79.9
15	-0.7	11.33	76.2
16	-0.7	10.78	72.6
17	-0.7	10.61	71.4
18	-0.6	10.13	68.4
20	-0.6	10.04	67.8
22	-0.6	10.00	67.5
24	-0.6	9.97	67.3
26	-0.6	9.96	67.2
28	-0.7	9.97	67.1
30	-0.7	9.97	67.0
32	-0.7	9.98	67.1
34	-0.7	9.98	67.1
36	-0.7	9.97	67.1
38	-0.8	10.01	67.1
40	-0.8	10.05	67.4
42	-0.8	10.07	67.5
44	-0.8	10.07	67.6

Snow depth: 0 m

Ice thickness: 1.0 m

Max depth: ~85 m

RSA3			
19-Jun-10			
Depth (m)	Temp (°C)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
2	0.3	14.16	98.0
2.5	0.2	14.22	98.2
3	0.1	14.30	98.1
3.5	0.0	14.26	97.8
4	0.0	14.16	97.1
4.5	-0.1	14.17	97.0
5	-0.1	14.15	96.9
5.5	-0.2	14.20	96.8
6	-0.2	14.22	96.7
7	-0.3	14.22	96.8
8	-0.3	14.21	96.8
9	-0.4	14.28	96.6
10	-0.5	14.27	96.2
11	-0.6	14.22	95.6
12	-0.7	14.13	95.1
13	-0.7	14.10	94.8
14	-0.8	13.81	92.6
15	-0.8	13.48	90.4
16	-0.9	12.77	85.4
17	-0.9	12.29	82.2
18	-0.9	11.93	79.8
19	-0.9	11.69	78.2
20	-0.9	11.62	77.7
21	-0.9	11.56	77.3
22	-0.9	11.52	77.0
23	-0.9	11.43	76.4
24	-0.9	11.28	75.4
26	-0.9	10.96	73.3
28	-1.0	10.92	72.8
30	-1.0	10.88	72.6
32	-1.0	10.83	72.2
34	-1.0	10.74	71.6
36	-1.0	10.71	71.4
38	-1.0	10.66	71.0
40	-1.0	10.50	70.0

Snow depth: 0 m

Ice thickness: 1.0 m

Max depth: 82 m

RSA4			
22-Jun-10			
Depth (m)	Temp (°C)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)

Note: no data could be collected due to
weak ice in 10 km radius

Appendix 3.1-2. Dissolved Oxygen Concentrations from Regional Marine Sites, Hope Bay Belt Project, June 2010

RSA5			
19-Jun-10			
Depth (m)	Temp (°C)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
2	-0.5	14.87	103.3
3	-0.2	14.90	102.9
4	-0.2	14.91	101.7
5	-0.4	15.02	101.9
6	-0.2	14.15	96.8
7	-0.5	14.21	96.2
8	-0.6	14.20	95.5
9	-0.7	14.80	94.7
10	-0.8	14.40	96.6
11	-0.8	14.14	94.9
12	-0.8	14.06	94.3
13	-0.9	13.25	88.6
14	-1.0	13.02	86.8
15	-1.0	13.38	89.3
16	-1.0	13.05	87.0
17	-1.0	12.71	84.8
18	-1.0	12.40	82.7
19	-0.8	12.22	82.0
20	-0.8	12.12	81.3
22	-0.8	12.06	80.8
24	-0.8	11.84	79.4
26	-0.9	11.52	77.0
28	-1.0	11.23	74.9
30	-1.1	11.21	74.6
32	-1.1	10.94	72.2
34	-1.1	10.76	71.6
36	-1.1	10.65	70.8
38	-1.1	10.53	70.0
40	-1.1	10.40	69.2
42	-1.1	10.30	68.5
44	-1.1	10.10	67.1

Snow depth: 0 m

Ice thickness: 1.1 m

Max depth: >100 m

RSA6			
23-Jun-10			
Depth (m)	Temp (°C)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
2	1.3	15.29	108.8
3	0.7	15.12	106.2
4	0.3	14.96	103.7
5	0.1	14.75	101.6
6	0.0	14.73	101.2
7	-0.2	14.57	99.4
8	-0.3	14.55	99.3
9	-0.3	14.46	98.6
10	-0.3	14.37	97.8
12	-0.6	14.00	94.5
14	-0.9	13.84	92.6
16	-1.0	13.65	91.3
18	-1.1	13.44	89.4
20	-1.1	13.41	89.2
22	-1.1	13.38	89.0
24	-1.2	13.36	88.7
26	-1.2	13.06	86.6
28	-1.2	12.83	85.1
30	-1.3	12.21	81.3
32	-1.3	11.92	78.8
34	-1.2	11.55	76.6
36	-1.2	11.25	74.8
38	-1.2	11.10	73.7
40	-1.2	10.95	72.7
42	-1.2	10.84	71.9
44	-1.2	10.77	71.4

Snow depth: 0 m

Ice thickness: 0.8 m

Max depth: >100 m

Appendix 3.1-3

Water Quality Data from Regional Marine Sites, Hope Bay
Belt Project, June 2010

Appendix 3.1-3. Water Quality Data from Regional Marine Sites, Hope Bay Belt Project, June 2010

Station	CCME Guidelines for the Protection of Aquatic Life			RSA1			RSA2				RSA3					RSA5					RSA6					RDL ^g for Blanks	BLANK								
Date Sampled				21-JUN-10			22-JUN-10					21-JUN-10					21-JUN-10					23-JUN-10					22-JUN-10								
Depth Zone				Surface			Below Pycnocline		Deep		Surface		Above Pycnocline	Above Pycnocline		Below Pycnocline		Deep		Surface		Above Pycnocline		Below Pycnocline			Deep		Deep		Equipment Blank				
Replicate				1	1	1	1	1	2	1	1	1	2	1	1	1	2	1	1	1	2	2	1	1	1		1	2	1	1	1	1	1		
Depth (m)	2	12	40	2	10	10	20	48	2	2	18	26	40	2	2	18	26	40	2	2	18	26	40	2	15	30	50	50	-	-	-				
ALS Sample ID	Units	RDL ^a	(Marine) ^b	L901015-1	L901015-2	L901015-3	L901015-13	L901015-14	L901015-15	L901015-16	L901015-17	L901015-8	L901015-9	L901015-10	L901015-11	L901015-12	L901015-4	L901015-5	L901015-6	L901015-7	L901015-19	L902060-1	L902060-2	L902060-3	L902060-4	L902060-5		L901015-18	L902060-7	L902060-6					
Physical Tests																																0.1	5.98	5.70	5.73
pH	pH	0.1	7.0 - 8.7	7.78	7.85	7.85	7.79	7.82	7.79	7.73	7.77	7.86	7.83	7.73	7.73	7.79	7.82	7.87	7.82	7.82	7.78	7.80	7.78	7.77	7.73	7.27	3	<3.0	<3.0	<3.0					
Total Suspended Solids	mg/L	3		6.7	14.0	14.0	13.3	18.7	20.0	16.7	16.0	10.0	4.7	24.0	12.0	12.7	4.7	16.7	18.7	20.0	6.0	15.3	11.3	10.0	12.7	12.0	0.1	<0.10	<0.10	<0.10					
Turbidity	NTU	0.1		2.34	0.38	0.15	2.01	0.41	0.38	0.23	0.12	0.14	0.16	0.36	0.11	0.16	0.19	0.18	0.28	0.20	0.23	0.17	0.12	0.19	0.12	0.13									
Anions																																0.1	<0.050	<0.050	<0.050
Bromide (Br)	mg/L	5.0		14.3	40.4	38.0	23.6	40.3	40.3	40.0	38.3	20.6	31.2	41.7	41.3	40.8	39.3	38.7	40.5	42.3	41.4	27.9	32.9	34.3	33.9	33.9	0.1	<0.050	<0.050	<0.050					
Chloride (Cl)	mg/L	50		6430	15500	15000	9750	15300	15200	15400	15500	8640	12200	15500	15600	15500	14900	14900	15500	15900	16000	14100	15600	16000	16300	16200	1	<0.50	<0.50	<0.50					
Fluoride (F)	mg/L	0.03 - 0.075		0.765	1.07	1.11	0.775	0.983	0.985	1.03	1.23	0.750	0.798	0.945	0.978	1.02	1.08	1.12	1.08	1.07	1.10	0.784	0.856	0.886	0.896	0.905	0.02	<0.020	<0.020	<0.020					
Nutrients																																0.005 - 0.01	<0.0050	<0.0050	<0.0050
Ammonia as N	mg/L	0.005 - 0.01		0.0391	0.0314	<0.0050	0.0294	0.0179	0.0183	<0.0050	<0.0050	0.0093	0.0057	0.0131	0.0059	0.0055	<0.0050	<0.0050	0.0120	0.0069	0.0060	<0.010	<0.010	<0.010	<0.010	<0.010	0.005 - 0.01	<0.0050	<0.010	<0.010					
Nitrate+Nitrite-N	mg/L	0.0060		<0.0060	0.0155	0.0726	<0.0060	0.0147	<0.0060	0.0751	0.0687	<0.0060	<0.0060	<0.0060	0.0565	0.0593	<0.0060	<0.0060	<0.0060	0.0491	0.0661	<0.0060	<0.0060	0.0282	0.0738	0.0691	0.006	<0.0060	<0.0060	<0.0060					
Nitrate-N	mg/L	0.0060	3.6	<0.0060	0.0155	0.0726	<0.0060	0.0147	<0.0060	0.0751	0.0687	<0.0060	<0.0060	<0.0060	0.0565	0.0593	<0.0060	<0.0060	<0.0060	0.0491	0.0661	<0.0060	<0.0060	0.0253	0.0718	0.0674	0.005 - 0.006	<0.0060	<0.0050	<0.0050					
Nitrite-N	mg/L	0.0020		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0029	0.0020	<0.0020	0.002	<0.0020	<0.0010	<0.0010					
Ortho Phosphate as P	mg/L	0.0010		0.0138	0.0391	0.0408	0.0193	0.0437	0.0325	0.0429	0.0386	0.0155	0.0219	0.0302	0.0354	0.0361	0.0277	0.0262	0.0293	0.0369	0.0355	0.0228	0.0256	0.0306	0.0387	0.0371	0.001	<0.0010	<0.0010	<0.0010					
Total Phosphate as P	mg/L	0.0020		0.0226	0.0457	0.0426	0.0287	0.0402	0.0373	0.0411	0.0393	0.0171	0.0259	0.0432	0.0359	0.0377	0.0300	0.0294	0.0341	0.0391	0.0340	0.0256	0.0287	0.0357	0.0409	0.0392	0.002	<0.0020	<0.0020	<0.0020					
Silicate (as SiO ₂)	mg/L	0.005 - 1		<1.0	1.0	1.2	<1.0	<1.0	<1.0	1.3	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.465	0.658	0.807	1.32	1.27	0.005 - 1	<1.0	<0.0050	<0.0050					
Sulfate (SO ₄)	mg/L	50		894	2180	2110	1370	2160	2140	2160	2170	1190	1700	2190	2200	2180	2100	2090	2180	2230	2240	1910	2120	2180	2220	2200	0.5	<0.50	<0.50	<0.50					
Organic / Inorganic Carbon																																0.5	<0.50	<0.50	<0.50
Total Organic Carbon	mg/L	0.5		2.00	1.32	1.02	1.89	1.17	1.18	1.19	1.08	1.05	1.10	1.42	1.40	1.07	1.06	1.18	1.22	1.06	1.08	1.42	1.13	1.04	0.95	0.95	0.5	<0.50	<0.50	<0.50					
Total Metals																																0.003	<0.0030	<0.0030	<0.0030
Aluminum (Al)	mg/L	0.0050		0.0289	<0.0050	<0.0050	0.0510	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0093	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.003	<0.0030	<0.0030	<0.0030					
Antimony (Sb)	mg/L	0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00001	<0.000010	<0.000010	<0.000010					
Arsenic (As)	mg/L	0.0020	0.0125	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.00005	<0.000050	<0.000050	<0.000050					
Barium (Ba)	mg/L	0.0010		0.0096	0.0120	0.0115	0.0087	0.0117	0.0125	0.0128	0.0115	0.0098	0.0113	0.0110	0.0109	0.0108	0.0110	0.0109	0.0111	0.0105	0.0099	0.0101	0.0091	0.0093	0.0107	0.0106	0.001	<0.0010	<0.0010	<0.0010					
Beryllium (Be)	mg/L	0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.000050	<0.0000050	<0.0000050	<0.0000050						
Bismuth (Bi)	mg/L	0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00005	<0.000050	<0.000050	<0.000050					
Boron (B)	mg/L	0.10		2.63	3.51	3.47	2.45	3.44	3.49	3.50	3.48	2.95	3.37	3.52	3.60	3.52	3.32	3.26	3.40	3.55	3.50	3.27	3.38	3.39	3.56	3.56	0.005	<0.0050	<0.0050	<0.0050					
Cadmium (Cd)	mg/L	0.00012	0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.000050	<0.0000050	<0.0000050	<0.0000050						
Calcium (Ca)	mg/L	0.50		232	330	321	214	311	311	310	318	264	299	313	325	304	302	309	326	325	322	328	343	339	353	351	0.05	<0.050	<0.050	<0.050					
Cesium (Cs)	mg/L	0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.000050	<0.0000050	<0.0000050	<0.0000050						
Chromium (Cr)	mg/L	0.0010	0.056 ^c	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0005	<0.00050	<0.00050	<0.00050					
Cobalt (Co)	mg/L	0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00005	<0.000050	<0.000050	<0.000050					
Copper (Cu)	mg/L	0.0010		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	<0.0010	0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0005	<0.00050	<0.00050	<0.00050					
Gallium (Ga)	mg/L	0.00050		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00005	<0.000050	<0.000050	<0.000050					
Iron (Fe)	mg/L	0.050		0.069	<0.050	<0.050	0.106	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.03	<0.030	<0.030	<0.030					
Lead (Pb)	mg/L	0.0010		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.00005	<0.000050	<0.000050	<0.000050					
Lithium (Li)	mg/L	0.020		0.103	0.145	0.144	0.098	0.141	0.143																										

Shaded cells indicate values that exceed CCME guidelines for the protection of marine aquatic life

a) *RDL = Realized Detection Limit*

b) Canadian water quality guidelines for the protection of marine aquatic life, Canadian Council of Ministers of the Environment, Updated December 2007

c) Interim guideline

d) Guideline refers to inorganic mercury

Appendix 3.1-3. Water Quality Data from Regional Marine Sites, Hope Bay Belt Project, June 2010

Station			CCME Guidelines for the Protection of Aquatic Life	(Marine) ^b	RSA1			RSA2					RSA3					RSA5					RSA6					RDL ^a for Blanks	BLANK	BLANK	BLANK		
Date Sampled					21-JUN-10			22-JUN-10					21-JUN-10					21-JUN-10					23-JUN-10						22-JUN-10	23-JUN-10	23-JUN-10		
Depth Zone Replicate	Depth (m)	ALS Sample ID			Units	RDL ^a	Surface	Below Pycnocline	Deep	Surface	Above Pycnocline	Above Pycnocline	Below Pycnocline	Deep	Surface	Surface	Above Pycnocline	Below Pycnocline	Deep	Surface	Surface	Above Pycnocline	Below Pycnocline	Deep	Surface	Above Pycnocline	Below Pycnocline		Deep	Deep	Equipment Blank	Field Blank	Travel Blank
							1	1	1	1	1	2	1	1	1	1	2	2	18	26	40	1	2	18	26	40	1		1	1	1	2	1
				L901015-1	L901015-2	L901015-3	L901015-13	L901015-14	L901015-15	L901015-16	L901015-17	L901015-8	L901015-9	L901015-10	L901015-11	L901015-12	L901015-4	L901015-5	L901015-6	L901015-7	L901015-19	L902060-1	L902060-2	L902060-3	L902060-4	L902060-5				L901015-18	L902060-7	L902060-6	
Dissolved Metals																																	
Aluminum (Al)	mg/L	0.0050			<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.003	<0.0030	<0.0030	<0.0030			
Antimony (Sb)	mg/L	0.00050			<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00001	<0.000010	<0.000010	<0.000010			
Arsenic (As)	mg/L	0.0020	0.0125		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.00005	<0.000050	<0.000050	<0.000050			
Barium (Ba)	mg/L	0.0010			0.0100	0.0122	0.0116	0.0092	0.0119	0.0119	0.0130	0.0111	0.0084	0.0113	0.0108	0.0112	0.0109	0.0109	0.0108	0.0110	0.0105	0.0104	0.0104	0.0090	0.0096	0.0104	0.0103	0.0001	<0.00010	<0.00010	<0.00010		
Beryllium (Be)	mg/L	0.00050			<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.000005	<0.0000050	<0.0000050	<0.0000050			
Bismuth (Bi)	mg/L	0.00050			<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00005	<0.000050	<0.000050	<0.000050			
Boron (B)	mg/L	0.10			2.98	3.59	3.52	2.44	3.42	3.46	3.55	3.46	2.59	3.29	3.55	3.57	3.61	3.31	3.25	3.45	3.55	3.57	3.34	3.35	3.58	3.53	3.51	0.005	<0.0050	<0.0050	<0.0050		
Cadmium (Cd)	mg/L	0.00012	0.00012		<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	<0.00012	0.000005	<0.0000050	<0.0000050	<0.0000050			
Calcium (Ca)	mg/L	0.50			287	328	319	213	312	308	315	321	228	299	319	319	320	301	314	318	318	327	331	350	364	350	362	0.05	<0.050	<0.050	<0.050		
Cesium (Cs)	mg/L	0.00050			<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.000005	<0.0000050	<0.0000050	<0.0000050			
Chromium (Cr)	mg/L	0.0010	0.056 ^c		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0005	<0.00050	<0.00050	<0.00050			
Cobalt (Co)	mg/L	0.00050			<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00005	<0.000050	<0.000050	<0.000050			
Copper (Cu)	mg/L	0.0010			<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0005	<0.00050	<0.00050	<0.00050			
Gallium (Ga)	mg/L	0.00050			<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00005	<0.000050	<0.000050	<0.000050			
Iron (Fe)	mg/L	0.050			<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.03	<0.030	<0.030	<0.030			
Lead (Pb)	mg/L	0.0010			<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.00005	<0.000050	<0.000050	<0.000050			
Lithium (Li)	mg/L	0.020			0.123	0.149	0.145	0.100	0.142	0.143	0.143	0.143	0.105	0.137	0.146	0.147	0.146	0.136	0.137	0.142	0.144	0.143	0.137	0.136	0.146	0.145	0.144	0.0002	<0.00020	<0.00020	<0.00020		
Magnesium (Mg)	mg/L	1.0			913	1040	1010	691	997	984	1000	1030	742	952	994	1010	1030	964	1020	1030	1020	1050	1040	1080	1130	1090	1120	0.1	<0.10	<0.10	<0.10		
Manganese (Mn)	mg/L	0.00050			0.00311	0.00071	0.00092	0.00405	0.00067	0.00069	<0.00050	0.00088	0.00109	0.00133	0.00054	0.00054	0.00070	0.00091	0.00077	0.00064	0.00069	<0.00050	0.00052	<0.00050	<0.00050	<0.00050	<0.00050	0.0002	<0.00020	<0.00020	<0.00020		
Mercury (Hg)	mg/L	0.000010	0.000016 ^d		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.00001	<0.000010	<0.000010	<0.000010			
Molybdenum (Mo)	mg/L	0.0020			0.0077	0.0092	0.0091	0.0063	0.0089	0.0090	0.0090	0.0090	0.0067	0.0085	0.0096	0.0092	0.0093	0.0086	0.0086	0.0090	0.0094	0.0090	0.0089	0.0089	0.0095	0.0094	0.0095	0.00005	<0.000050	<0.000050	<0.000050		
Nickel (Ni)	mg/L	0.00050			0.00059	0.00105	0.00058	0.00053	<0.00050	<0.00050	0.00058	0.00062	<0.00050	<0.00050	<0.00050	0.00057	0.00051	0.00084	0.00061	<0.00050	0.00076	0.00061	0.00063	0.00065	0.00064	0.00073	0.00065	0.0002	<0.00020	<0.00020	<0.00020		
Phosphorus (P)	mg/L	1.0			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.3	<0.30	<0.30	<0.30			
Potassium (K)	mg/L	20			267	325	315	209	309	307	311	321	230	292	314	316	321	297	313	317	317	327	322	349	366	349	362	2	<2.0	<2			

Appendix 3.1-4

Phytoplankton Biomass (as chl *a*) from Regional Marine Sites, Hope Bay Belt Project, June 2010

Appendix 3.1-4. Phytoplankton Biomass (as chl *a*) from Regional Marine Sites, Hope Bay Belt Project, June 2010

	RSA1		
Depth	Surface	Surface	Surface
Replicate	1	2	3
Date Sampled	21-Jun-10	21-Jun-10	21-Jun-10
Chlorophyll <i>a</i> (µg/L)	0.564	0.332	0.249

	RSA2		
Depth	Surface	Surface	Surface
Replicate	1	2	3
Date Sampled	22-Jun-10	22-Jun-10	22-Jun-10
Chlorophyll <i>a</i> (µg/L)	0.098	0.087	0.056

	RSA3		
Depth	Surface	Surface	Surface
Replicate	1	2	3
Date Sampled	21-Jun-10	21-Jun-10	21-Jun-10
Chlorophyll <i>a</i> (µg/L)	0.096	0.147	0.208

	RSA4		
Depth	No data could be collected due to weak ice		
Replicate			
Date Sampled			
Chlorophyll <i>a</i> (µg/L)			

	RSA5		
Depth	Surface	Surface	Surface
Replicate	1	2	3
Date Sampled	21-Jun-10	21-Jun-10	21-Jun-10
Chlorophyll <i>a</i> (µg/L)	0.036	0.041	0.058

	RSA6		
Depth	Surface	Surface	Surface
Replicate	1	2	3
Date Sampled	23-Jun-10	23-Jun-10	23-Jun-10
Chlorophyll <i>a</i> (µg/L)	0.023	0.012	0.037

* all samples were taken at 1 m below the ice.

Appendix 3.2-1

Temperature, Salinity, Dissolved Oxygen, and
Phytoplankton Biomass (as chl *a*) Data along the RSA
Marine Transect, Hope Bay Belt Project, September 2010

Appendix 3.2-1. Temperature, Salinity, Dissolved Oxygen, and Phytoplankton Biomass (as chl *a*) Data along the RSA Marine Transect, Hope Bay Belt Project, September 2010

Date/Time	Distance from RSA moving towards Roberts Bay (km)	Water Depth (m)	Temperature (°C)	Chlorophyll <i>a</i> (µg/L)	Salinity	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
Sept. 12_00:00:00	7.96	137	9.24	0.26	23.93	10.99	111.6
Sept. 12_00:01:00	8.23	137	9.24	0.24	23.94	10.97	111.4
Sept. 12_00:02:00	8.51	144	9.22	0.26	23.94	10.96	111.3
Sept. 12_00:03:00	8.78	144	9.20	0.30	23.96	10.96	111.2
Sept. 12_00:04:00	9.06	144	9.18	0.29	24.00	10.97	111.4
Sept. 12_00:05:00	9.33	144	9.18	0.28	24.01	10.95	111.2
Sept. 12_00:06:00	9.60	144	9.17	0.25	24.01	10.96	111.2
Sept. 12_00:07:00	9.88	144	9.15	0.25	24.02	10.97	111.2
Sept. 12_00:08:00	10.15	144	9.14	0.28	24.02	10.97	111.3
Sept. 12_00:09:00	10.43	144	9.12	0.26	24.03	10.98	111.3
Sept. 12_00:10:00	10.70	144	9.10	0.28	24.03	10.98	111.2
Sept. 12_00:11:00	10.98	144	9.10	0.27	24.10	10.98	111.2
Sept. 12_00:12:00	11.25	144	9.08	0.28	24.13	10.99	111.4
Sept. 12_00:13:00	11.53	144	9.07	0.31	24.16	10.99	111.4
Sept. 12_00:14:00	11.80	105	9.04	0.27	24.20	10.96	111.1
Sept. 12_00:15:00	12.07	105	9.03	0.25	24.22	10.97	111.1
Sept. 12_00:16:00	12.35	105	9.00	0.32	24.25	11.01	111.4
Sept. 12_00:17:00	12.62	105	8.98	0.30	24.26	11.00	111.3
Sept. 12_00:18:00	12.90	105	8.95	0.24	24.27	11.01	111.3
Sept. 12_00:19:00	13.17	105	8.93	0.30	24.26	11.00	111.2
Sept. 12_00:20:00	13.45	105	8.90	0.29	24.26	11.01	111.2
Sept. 12_00:21:00	13.72	105	8.89	0.30	24.24	11.01	111.1
Sept. 12_00:22:00	13.99	105	8.88	0.28	24.23	11.00	111.1
Sept. 12_00:23:00	14.27	111	8.88	0.27	24.22	11.01	111.1
Sept. 12_00:24:00	14.54	111	8.87	0.31	24.22	11.15	112.5
Sept. 12_00:25:00	14.82	111	8.87	0.26	24.22	11.14	112.4
Sept. 12_00:26:00	15.09	117	8.87	0.30	24.22	11.12	112.3
Sept. 12_00:27:00	15.37	117	8.86	0.32	24.22	11.12	112.2
Sept. 12_00:28:00	15.64	117	8.85	0.28	24.22	11.12	112.2
Sept. 12_00:29:00	15.92	117	8.85	0.30	24.22	11.12	112.1
Sept. 12_00:30:00	16.19	117	8.85	0.30	24.21	11.10	112.0
Sept. 12_00:31:00	16.46	109	8.84	0.31	24.21	11.10	111.9
Sept. 12_00:32:00	16.74	109	8.86	0.26	24.19	11.09	111.9
Sept. 12_00:33:00	17.01	109	8.88	0.24	24.18	11.07	111.7
Sept. 12_00:34:00	17.29	109	8.91	0.30	24.14	11.06	111.6
Sept. 12_00:35:00	17.56	109	8.93	0.28	24.10	11.04	111.5
Sept. 12_00:36:00	17.84	109	8.96	0.29	24.10	11.00	111.1
Sept. 12_00:37:00	18.11	109	8.99	0.25	24.18	10.99	111.2
Sept. 12_00:38:00	18.39	59	9.01	0.25	24.14	10.96	110.9
Sept. 12_00:39:00	18.66	59	9.07	0.26	24.07	10.94	110.8
Sept. 12_00:40:00	18.93	59	9.11	0.29	24.02	11.05	111.9
Sept. 12_00:41:00	19.21	59	9.16	0.29	23.96	10.99	111.5
Sept. 12_00:42:00	19.48	59	9.21	0.26	23.91	10.94	111.0
Sept. 12_00:43:00	19.76	45	9.26	0.32	23.87	10.93	111.0
Sept. 12_00:44:00	20.03	45	9.26	0.29	23.86	10.90	110.8
Sept. 12_00:45:00	20.31	45	9.34	0.36	23.81	10.89	110.8
Sept. 12_00:46:00	20.58	45	9.41	0.25	23.77	10.87	110.8
Sept. 12_00:47:00	20.85	45	9.45	0.25	23.76	10.93	111.4
Sept. 12_00:48:00	21.13	37	9.55	0.25	23.70	10.91	111.4
Sept. 12_00:49:00	21.40	37	9.57	0.31	23.69	10.80	110.3
Sept. 12_00:50:00	21.68	37	9.61	0.29	23.67	10.85	111.0
Sept. 12_00:51:00	21.95	37	9.65	0.25	23.67	10.81	110.6
Sept. 12_00:52:00	22.23	37	9.64	0.27	23.68	10.81	110.6
Sept. 12_00:53:00	22.50	37	9.66	0.28	23.66	10.83	110.8
Sept. 12_00:54:00	22.78	37	9.67	0.29	23.67	10.74	110.0
Sept. 12_00:55:00	23.05	37	9.68	0.28	23.67	10.87	111.3
Sept. 12_00:56:00	23.32	37	9.68	0.28	23.68	10.81	110.7
Sept. 12_00:57:00	23.60	42	9.67	0.28	23.69	10.83	110.9
Sept. 12_00:58:00	23.87	42	9.68	0.29	23.70	10.86	111.2
Sept. 12_00:59:00	24.15	42	9.67	0.27	23.70	10.84	111.1
Sept. 12_01:00:00	24.42	42	9.67	0.28	23.71	10.84	111.0
Sept. 12_01:01:00	24.70	145	9.69	0.25	23.71	10.83	111.0
Sept. 12_01:02:00	24.97	145	9.67	0.28	23.73	10.82	110.9
Sept. 12_01:03:00	25.25	145	9.65	0.29	23.76	10.83	110.9
Sept. 12_01:04:00	25.52	145	9.63	0.24	23.78	10.83	110.8
Sept. 12_01:05:00	25.79	145	9.63	0.26	23.80	10.82	110.8
Sept. 12_01:06:00	26.07	145	9.63	0.26	23.81	10.83	110.8
Sept. 12_01:07:00	26.34	145	9.62	0.26	23.82	10.82	110.8
Sept. 12_01:08:00	26.62	145	9.62	0.25	23.83	10.82	110.8
Sept. 12_01:09:00	26.89	145	9.63	0.24	23.83	10.82	110.8
Sept. 12_01:10:00	27.17	145	9.59	0.28	23.85	10.82	110.7
Sept. 12_01:11:00	27.44	145	9.58	0.40	23.85	10.82	110.7
Sept. 12_01:12:00	27.71	145	9.59	0.29	23.84	10.83	110.8
Sept. 12_01:13:00	27.99	152	9.59	0.25	23.87	10.83	110.8
Sept. 12_01:14:00	28.26	152	9.58	0.30	23.89	10.84	110.9
Sept. 12_01:15:00	28.54	141	9.57	0.24	23.91	10.84	110.9

Appendix 3.2-1. Temperature, Salinity, Dissolved Oxygen, and Phytoplankton Biomass (as chl *a*) Data along the RSA Marine Transect, Hope Bay Belt Project, September 2010

Date/Time	Distance from RSA moving towards Roberts Bay (km)	Water Depth (m)	Temperature (°C)	Chlorophyll <i>a</i> (µg/L)	Salinity	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
Sept. 12_01:16:00	28.81	141	9.56	0.28	23.93	10.84	110.9
Sept. 12_01:17:00	29.09	141	9.58	0.34	23.92	10.84	110.9
Sept. 12_01:18:00	29.36	141	9.55	0.24	23.95	10.84	110.9
Sept. 12_01:19:00	29.64	141	9.54	0.25	23.96	10.84	110.9
Sept. 12_01:20:00	29.91	141	9.53	0.28	23.96	10.82	110.7
Sept. 12_01:21:00	30.18	141	9.53	0.26	23.97	10.82	110.7
Sept. 12_01:22:00	30.46	141	9.53	0.26	23.97	10.82	110.6
Sept. 12_01:23:00	30.73	141	9.50	0.27	23.99	10.83	110.7
Sept. 12_01:24:00	31.01	141	9.51	0.26	23.99	10.82	110.7
Sept. 12_01:25:00	31.28	141	9.50	0.25	24.00	10.83	110.7
Sept. 12_01:26:00	31.56	119	9.50	0.28	23.99	10.82	110.6
Sept. 12_01:27:00	31.83	119	9.51	0.27	23.98	10.82	110.6
Sept. 12_01:28:00	32.11	119	9.50	0.28	23.98	10.81	110.5
Sept. 12_01:29:00	32.38	119	9.52	0.26	23.98	10.81	110.5
Sept. 12_01:30:00	32.65	72	9.51	0.28	23.98	10.80	110.4
Sept. 12_01:31:00	32.93	72	9.49	0.25	23.99	10.80	110.4
Sept. 12_01:32:00	33.20	72	9.50	0.26	23.98	10.81	110.5
Sept. 12_01:33:00	33.48	72	9.48	0.28	23.98	10.80	110.3
Sept. 12_01:34:00	33.75	72	9.50	0.26	23.97	10.79	110.3
Sept. 12_01:35:00	34.03	72	9.50	0.26	23.97	10.85	110.9
Sept. 12_01:36:00	34.30	72	9.48	0.26	23.98	10.85	110.8
Sept. 12_01:37:00	34.57	72	9.49	0.26	23.96	10.86	110.9
Sept. 12_01:38:00	34.85	119	9.49	0.28	23.96	10.85	110.9
Sept. 12_01:39:00	35.12	119	9.48	0.27	23.96	10.84	110.7
Sept. 12_01:40:00	35.40	119	9.48	0.28	23.95	10.85	110.8
Sept. 12_01:41:00	35.67	119	9.51	0.26	23.92	10.85	110.9
Sept. 12_01:42:00	35.95	119	9.50	0.22	23.91	10.84	110.7
Sept. 12_01:43:00	36.22	140	9.52	0.28	23.89	10.84	110.8
Sept. 12_01:44:00	36.50	140	9.53	0.24	23.89	10.87	111.1
Sept. 12_01:45:00	36.77	140	9.53	0.23	23.87	10.85	110.9
Sept. 12_01:46:00	37.04	140	9.55	0.22	23.87	10.86	111.0
Sept. 12_01:47:00	37.32	140	9.56	0.21	23.87	10.84	110.9
Sept. 12_01:48:00	37.59	140	9.56	0.21	23.87	10.84	110.8
Sept. 12_01:49:00	37.87	140	9.60	0.21	23.85	10.82	110.7
Sept. 12_01:50:00	38.14	140	9.59	0.21	23.87	10.81	110.6
Sept. 12_01:51:00	38.42	149	9.61	0.21	23.87	10.81	110.7
Sept. 12_01:52:00	38.69	149	9.63	0.21	23.89	10.80	110.7
Sept. 12_01:53:00	38.97	149	9.64	0.22	23.89	10.91	111.8
Sept. 12_01:54:00	39.24	158	9.66	0.20	23.88	10.93	112.0
Sept. 12_01:55:00	39.51	158	9.69	0.19	23.86	10.92	112.0
Sept. 12_01:56:00	39.79	158	9.71	0.21	23.86	10.93	112.1
Sept. 12_01:57:00	40.06	158	9.72	0.22	23.85	10.91	111.9
Sept. 12_01:58:00	40.34	158	9.76	0.23	23.82	10.88	111.8
Sept. 12_01:59:00	40.61	158	9.78	0.19	23.80	10.82	111.1
Sept. 12_02:00:00	40.89	158	9.78	0.22	23.78	10.78	110.8
Sept. 12_02:01:00	41.16	143	9.77	0.24	23.77	10.79	110.8
Sept. 12_02:02:00	41.43	143	9.78	0.22	23.74	10.77	110.6
Sept. 12_02:03:00	41.71	143	9.78	0.22	23.72	10.77	110.6
Sept. 12_02:04:00	41.98	143	9.75	0.23	23.73	10.78	110.6
Sept. 12_02:05:00	42.26	143	9.75	0.22	23.72	10.79	110.7
Sept. 12_02:06:00	42.53	143	9.77	0.23	23.70	10.77	110.6
Sept. 12_02:07:00	42.81	143	9.75	0.22	23.73	10.77	110.5
Sept. 12_02:08:00	43.08	121	9.78	0.22	23.70	10.76	110.5
Sept. 12_02:09:00	43.36	121	9.79	0.23	23.70	10.76	110.5
Sept. 12_02:10:00	43.63	121	9.81	0.22	23.70	10.76	110.6
Sept. 12_02:11:00	43.90	121	9.83	0.21	23.70	10.76	110.6
Sept. 12_02:12:00	44.18	121	9.85	0.29	23.69	10.76	110.6
Sept. 12_02:13:00	44.45	121	9.87	0.27	23.69	10.75	110.6
Sept. 12_02:14:00	44.73	121	9.91	0.25	23.67	10.74	110.6
Sept. 12_02:15:00	45.00	72	9.92	0.22	23.67	10.71	110.3
Sept. 12_02:16:00	45.28	72	9.96	0.23	23.65	10.76	110.9
Sept. 12_02:17:00	45.55	72	9.99	0.24	23.65	10.71	110.5
Sept. 12_02:18:00	45.83	71	10.02	0.23	23.64	10.76	111.0
Sept. 12_02:19:00	46.10	71	10.02	0.24	23.66	10.71	110.6
Sept. 12_02:20:00	46.37	71	10.04	0.22	23.64	10.70	110.4
Sept. 12_02:21:00	46.65	71	10.04	0.26	23.65	10.70	110.5
Sept. 12_02:22:00	46.92	71	10.04	0.23	23.64	10.67	110.2
Sept. 12_02:23:00	47.20	71	10.05	0.25	23.66	10.73	110.8
Sept. 12_02:24:00	47.47	40	10.06	0.26	23.66	10.75	111.0
Sept. 12_02:25:00	47.75	40	10.07	0.24	23.66	10.73	110.9
Sept. 12_02:26:00	48.02	40	10.08	0.21	23.66	10.70	110.6
Sept. 12_02:27:00	48.29	40	10.11	0.22	23.65	10.67	110.3
Sept. 12_02:28:00	48.57	61	10.12	0.25	23.64	10.65	110.2
Sept. 12_02:29:00	48.84	61	10.11	0.23	23.66	10.66	110.3
Sept. 12_02:30:00	49.12	61	10.12	0.24	23.65	10.75	111.1
Sept. 12_02:31:00	49.39	61	10.13	0.24	23.64	10.71	110.8

Appendix 3.2-1. Temperature, Salinity, Dissolved Oxygen, and Phytoplankton Biomass (as chl *a*) Data along the RSA Marine Transect, Hope Bay Belt Project, September 2010

Date/Time	Distance from RSA moving towards Roberts Bay (km)	Water Depth (m)	Temperature (°C)	Chlorophyll <i>a</i> (µg/L)	Salinity	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
Sept. 12_02:32:00	49.67	77	10.13	0.23	23.64	10.70	110.7
Sept. 12_02:33:00	49.94	108	10.12	0.23	23.65	10.66	110.2
Sept. 12_02:34:00	50.22	108	10.13	0.24	23.63	10.68	110.5
Sept. 12_02:35:00	50.49	108	10.16	0.23	23.64	10.63	110.0
Sept. 12_02:36:00	50.76	108	10.17	0.24	23.62	10.73	111.1
Sept. 12_02:37:00	51.04	108	10.21	0.24	23.61	10.72	111.1
Sept. 12_02:38:00	51.31	108	10.22	0.23	23.60	10.71	111.0
Sept. 12_02:39:00	51.59	126	10.22	0.23	23.59	10.69	110.8
Sept. 12_02:40:00	51.86	126	10.23	0.25	23.58	10.66	110.5
Sept. 12_02:41:00	52.14	126	10.22	0.23	23.59	10.65	110.3
Sept. 12_02:42:00	52.41	126	10.23	0.24	23.57	10.65	110.3
Sept. 12_02:43:00	52.69	126	10.25	0.23	23.58	10.65	110.4
Sept. 12_02:44:00	52.96	126	10.26	0.25	23.56	10.63	110.3
Sept. 12_02:45:00	53.23	126	10.27	0.30	23.58	10.63	110.3
Sept. 12_02:46:00	53.51	126	10.21	0.22	23.60	10.62	110.0
Sept. 12_02:47:00	53.78	119	10.22	0.24	23.59	10.65	110.3
Sept. 12_02:48:00	54.06	119	10.23	0.21	23.58	10.65	110.4
Sept. 12_02:49:00	54.33	119	10.24	0.24	23.57	10.63	110.2
Sept. 12_02:50:00	54.61	119	10.23	0.28	23.57	10.63	110.1
Sept. 12_02:51:00	54.88	119	10.22	0.26	23.58	10.62	110.0
Sept. 12_02:52:00	55.15	119	10.23	0.23	23.58	10.63	110.1
Sept. 12_02:53:00	55.43	119	10.22	0.21	23.59	10.62	110.0
Sept. 12_02:54:00	55.70	119	10.25	0.21	23.56	10.61	110.0
Sept. 12_02:55:00	55.98	111	10.25	0.23	23.57	10.63	110.2
Sept. 12_02:56:00	56.25	111	10.24	0.29	23.58	10.61	110.0
Sept. 12_02:57:00	56.53	111	10.22	0.23	23.60	10.61	110.0
Sept. 12_02:58:00	56.80	111	10.24	0.27	23.57	10.60	109.9
Sept. 12_02:59:00	57.08	111	10.25	0.24	23.60	10.59	109.8
Sept. 12_03:00:00	57.35	111	10.24	0.25	23.60	10.71	111.0
Sept. 12_03:01:00	57.62	135	10.23	0.24	23.60	10.69	110.8
Sept. 12_03:02:00	57.90	135	10.22	0.22	23.60	10.69	110.8
Sept. 12_03:03:00	58.17	135	10.23	0.25	23.61	10.66	110.5
Sept. 12_03:04:00	58.45	135	10.24	0.24	23.59	10.66	110.5
Sept. 12_03:05:00	58.72	135	10.24	0.23	23.59	10.67	110.6
Sept. 12_03:06:00	59.00	135	10.27	0.37	23.57	10.64	110.3
Sept. 12_03:07:00	59.27	135	10.30	0.24	23.57	10.61	110.2
Sept. 12_03:08:00	59.55	135	10.34	0.26	23.54	10.60	110.1
Sept. 12_03:09:00	59.82	135	10.35	0.22	23.56	10.59	110.1
Sept. 12_03:10:00	60.09	136	10.37	0.27	23.55	10.58	110.0
Sept. 12_03:11:00	60.37	136	10.36	0.27	23.56	10.61	110.2
Sept. 12_03:12:00	60.64	136	10.38	0.25	23.56	10.62	110.4
Sept. 12_03:13:00	60.92	136	10.38	0.26	23.56	10.68	111.0
Sept. 12_03:14:00	61.19	136	10.39	0.24	23.56	10.64	110.7
Sept. 12_03:15:00	61.47	136	10.38	0.26	23.59	10.64	110.6
Sept. 12_03:16:00	61.74	136	10.38	0.26	23.58	10.61	110.3
Sept. 12_03:17:00	62.01	92	10.38	0.25	23.60	10.61	110.3
Sept. 12_03:18:00	62.29	92	10.37	0.24	23.61	10.62	110.4
Sept. 12_03:19:00	62.56	92	10.35	0.27	23.62	10.60	110.2
Sept. 12_03:20:00	62.84	92	10.33	0.22	23.62	10.59	110.0
Sept. 12_03:21:00	63.11	92	10.33	0.25	23.62	10.63	110.5
Sept. 12_03:22:00	63.39	184	10.33	0.23	23.63	10.67	110.9
Sept. 12_03:23:00	63.66	184	10.32	0.25	23.62	10.67	110.9
Sept. 12_03:24:00	63.94	184	10.31	0.25	23.62	10.68	110.9
Sept. 12_03:25:00	64.21	133	10.29	0.26	23.64	10.67	110.8
Sept. 12_03:26:00	64.48	133	10.27	0.28	23.72	10.67	110.8
Sept. 12_03:27:00	64.76	133	10.25	0.24	23.72	10.68	110.8
Sept. 12_03:28:00	65.03	133	10.21	0.28	23.73	10.69	110.8
Sept. 12_03:29:00	65.31	133	10.19	0.25	23.73	10.70	110.9
Sept. 12_03:30:00	65.58	237	10.16	0.32	23.73	10.69	110.7
Sept. 12_03:31:00	65.86	237	10.16	0.25	23.74	10.70	110.8
Sept. 12_03:32:00	66.13	237	10.18	0.28	23.73	10.67	110.6
Sept. 12_03:33:00	66.41	237	10.17	0.26	23.74	10.68	110.7
Sept. 12_03:34:00	66.68	237	10.19	0.25	23.73	10.67	110.6
Sept. 12_03:35:00	66.95	237	10.20	0.29	23.73	10.66	110.5
Sept. 12_03:36:00	67.23	237	10.19	0.26	23.75	10.63	110.2
Sept. 12_03:37:00	67.50	237	10.20	0.32	23.75	10.62	110.1
Sept. 12_03:38:00	67.78	235	10.20	0.29	23.76	10.63	110.2
Sept. 12_03:39:00	68.05	235	10.22	0.28	23.75	10.63	110.2
Sept. 12_03:40:00	68.33	235	10.22	0.29	23.75	10.62	110.2
Sept. 12_03:41:00	68.60	235	10.23	0.28	23.75	10.62	110.1
Sept. 12_03:42:00	68.87	235	10.21	0.33	23.77	10.59	109.9
Sept. 12_03:43:00	69.15	235	10.22	0.32	23.77	10.77	111.7
Sept. 12_03:44:00	69.42	235	10.21	0.29	23.76	10.80	112.0
Sept. 12_03:45:00	69.70	235	10.17	0.28	23.78	10.81	112.0
Sept. 12_03:46:00	69.97	235	10.17	0.27	23.77	10.79	111.8
Sept. 12_03:47:00	70.25	235	10.16	0.28	23.77	10.78	111.7

Appendix 3.2-1. Temperature, Salinity, Dissolved Oxygen, and Phytoplankton Biomass (as chl *a*) Data along the RSA Marine Transect, Hope Bay Belt Project, September 2010

Date/Time	Distance from RSA moving towards Roberts Bay (km)	Water Depth (m)	Temperature (°C)	Chlorophyll <i>a</i> (µg/L)	Salinity	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
Sept. 12_03:48:00	70.52	209	10.17	0.30	23.76	10.77	111.6
Sept. 12_03:49:00	70.80	209	10.19	0.28	23.74	10.77	111.6
Sept. 12_03:50:00	71.07	209	10.18	0.30	23.76	10.75	111.4
Sept. 12_03:51:00	71.34	209	10.16	0.27	23.77	10.75	111.4
Sept. 12_03:52:00	71.62	209	10.16	0.27	23.75	10.73	111.2
Sept. 12_03:53:00	71.89	209	10.17	0.29	23.75	10.71	111.0
Sept. 12_03:54:00	72.17	209	10.18	0.31	23.74	10.70	110.9
Sept. 12_03:55:00	72.44	186	10.17	0.30	23.75	10.71	110.9
Sept. 12_03:56:00	72.72	186	10.16	0.29	23.75	10.70	110.9
Sept. 12_03:57:00	72.99	186	10.16	0.44	23.75	10.71	110.9
Sept. 12_03:58:00	73.27	186	10.16	0.29	23.75	10.70	110.8
Sept. 12_03:59:00	73.54	186	10.16	0.27	23.74	10.70	110.8
Sept. 12_04:00:00	73.81	186	10.16	0.28	23.75	10.69	110.7
Sept. 12_04:01:00	74.09	177	10.16	0.27	23.74	10.68	110.7
Sept. 12_04:02:00	74.36	177	10.16	0.30	23.73	10.68	110.6
Sept. 12_04:03:00	74.64	177	10.16	0.28	23.73	10.68	110.7
Sept. 12_04:04:00	74.91	177	10.17	0.42	23.72	10.67	110.5
Sept. 12_04:05:00	75.19	177	10.17	0.28	23.72	10.68	110.6
Sept. 12_04:06:00	75.46	177	10.15	0.28	23.72	10.68	110.6
Sept. 12_04:07:00	75.73	177	10.16	0.26	23.70	10.69	110.7
Sept. 12_04:08:00	76.01	151	10.18	0.28	23.68	10.68	110.6
Sept. 12_04:09:00	76.28	151	10.22	0.29	23.65	10.69	110.8
Sept. 12_04:10:00	76.56	151	10.21	0.26	23.64	10.68	110.7
Sept. 12_04:11:00	76.83	151	10.23	0.31	23.63	10.69	110.9
Sept. 12_04:12:00	77.11	151	10.25	0.29	23.60	10.69	110.9
Sept. 12_04:13:00	77.38	151	10.20	0.30	23.64	10.69	110.7
Sept. 12_04:14:00	77.66	151	10.19	0.28	23.61	10.69	110.7
Sept. 12_04:15:00	77.93	176	10.21	0.29	23.58	10.68	110.6
Sept. 12_04:16:00	78.20	176	10.21	0.30	23.57	10.69	110.8
Sept. 12_04:17:00	78.48	176	10.23	0.28	23.54	10.69	110.7
Sept. 12_04:18:00	78.75	176	10.23	0.28	23.52	10.66	110.4
Sept. 12_04:19:00	79.03	176	10.23	0.29	23.51	10.66	110.5
Sept. 12_04:20:00	79.30	176	10.24	0.28	23.50	10.65	110.3
Sept. 12_04:21:00	79.58	176	10.29	0.28	23.46	10.63	110.3
Sept. 12_04:22:00	79.85	165	10.28	0.29	23.49	10.61	110.0
Sept. 12_04:23:00	80.13	165	10.25	0.28	23.50	10.61	110.0
Sept. 12_04:24:00	80.40	165	10.26	0.28	23.55	10.62	110.1
Sept. 12_04:25:00	80.67	165	10.23	0.32	23.56	10.63	110.2
Sept. 12_04:26:00	80.95	165	10.22	0.28	23.56	10.61	109.9
Sept. 12_04:27:00	81.22	165	10.20	0.30	23.57	10.72	111.0
Sept. 12_04:28:00	81.50	165	10.20	0.31	23.57	10.69	110.7
Sept. 12_04:29:00	81.77	165	10.23	0.29	23.56	10.70	110.9
Sept. 12_04:30:00	82.05	165	10.24	0.28	23.55	10.69	110.8
Sept. 12_04:31:00	82.32	165	10.23	0.31	23.55	10.67	110.6
Sept. 12_04:32:00	82.59	179	10.24	0.31	23.55	10.65	110.4
Sept. 12_04:33:00	82.87	179	10.24	0.31	23.54	10.62	110.1
Sept. 12_04:34:00	83.14	179	10.24	0.28	23.53	10.60	109.9
Sept. 12_04:35:00	83.42	179	10.25	0.29	23.51	10.61	110.0
Sept. 12_04:36:00	83.69	222	10.26	0.32	23.49	10.61	109.9
Sept. 12_04:37:00	83.97	222	10.29	0.31	23.46	10.59	109.9
Sept. 12_04:38:00	84.24	222	10.30	0.29	23.45	10.58	109.7
Sept. 12_04:39:00	84.52	222	10.30	0.32	23.43	10.58	109.7
Sept. 12_04:40:00	84.79	222	10.32	0.32	23.40	10.58	109.7
Sept. 12_04:41:00	85.06	222	10.31	0.27	23.38	10.57	109.6
Sept. 12_04:42:00	85.34	222	10.37	0.29	23.32	10.58	109.8
Sept. 12_04:43:00	85.61	222	10.40	0.31	23.30	10.56	109.7
Sept. 12_04:44:00	85.89	222	10.42	0.31	23.29	10.55	109.6
Sept. 12_04:45:00	86.16	222	10.44	0.29	23.28	10.61	110.2
Sept. 12_04:46:00	86.44	228	10.44	0.33	23.28	10.58	110.0
Sept. 12_04:47:00	86.71	228	10.48	0.30	23.25	10.61	110.3
Sept. 12_04:48:00	86.99	228	10.50	0.29	23.25	10.65	110.8
Sept. 12_04:49:00	87.26	228	10.51	0.27	23.25	10.64	110.7
Sept. 12_04:50:00	87.53	228	10.51	0.32	23.25	10.63	110.6
Sept. 12_04:51:00	87.81	228	10.54	0.30	23.24	10.60	110.4
Sept. 12_04:52:00	88.08	228	10.55	0.32	23.25	10.61	110.5
Sept. 12_04:53:00	88.36	228	10.56	0.31	23.27	10.58	110.2
Sept. 12_04:54:00	88.63	205	10.57	0.29	23.28	10.57	110.1
Sept. 12_04:55:00	88.91	205	10.57	0.29	23.31	10.58	110.3
Sept. 12_04:56:00	89.18	205	10.56	0.32	23.34	10.58	110.3
Sept. 12_04:57:00	89.45	205	10.55	0.29	23.37	10.57	110.1
Sept. 12_04:58:00	89.73	205	10.53	0.30	23.40	10.55	109.9
Sept. 12_04:59:00	90.00	227	10.48	0.32	23.44	10.67	111.1
Sept. 12_05:00:00	90.28	209	10.51	0.38	23.43	10.62	110.6
Sept. 12_05:01:00	90.55	209	10.49	0.29	23.46	10.60	110.4
Sept. 12_05:02:00	90.83	209	10.49	0.41	23.46	10.60	110.4
Sept. 12_05:03:00	91.10	209	10.47	0.31	23.47	10.59	110.2

Appendix 3.2-1. Temperature, Salinity, Dissolved Oxygen, and Phytoplankton Biomass (as chl *a*) Data along the RSA Marine Transect, Hope Bay Belt Project, September 2010

Date/Time	Distance from RSA moving towards Roberts Bay (km)	Water Depth (m)	Temperature (°C)	Chlorophyll <i>a</i> (µg/L)	Salinity	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
Sept. 12_05:04:00	91.38	209	10.45	0.32	23.48	10.60	110.3
Sept. 12_05:05:00	91.65	209	10.45	0.34	23.48	10.59	110.2
Sept. 12_05:06:00	91.92	209	10.44	0.32	23.47	10.58	110.1
Sept. 12_05:07:00	92.20	209	10.44	0.32	23.44	10.58	110.0
Sept. 12_05:08:00	92.47	209	10.42	0.35	23.44	10.59	110.2
Sept. 12_05:09:00	92.75	138	10.44	0.36	23.41	10.66	110.9
Sept. 12_05:10:00	93.02	138	10.44	0.32	23.39	10.63	110.5
Sept. 12_05:11:00	93.30	138	10.44	0.32	23.37	10.61	110.4
Sept. 12_05:12:00	93.57	138	10.45	0.30	23.36	10.60	110.3
Sept. 12_05:13:00	93.85	138	10.44	0.31	23.35	10.61	110.3
Sept. 12_05:14:00	94.12	138	10.42	0.34	23.34	10.59	110.1
Sept. 12_05:15:00	94.39	138	10.42	0.31	23.33	10.60	110.1
Sept. 12_05:16:00	94.67	114	10.42	0.29	23.32	10.58	110.0
Sept. 12_05:17:00	94.94	114	10.42	0.36	23.33	10.58	110.0
Sept. 12_05:18:00	95.22	114	10.41	0.31	23.32	10.58	109.9
Sept. 12_05:19:00	95.49	114	10.38	0.30	23.33	10.60	110.0
Sept. 12_05:20:00	95.77	114	10.39	0.31	23.29	10.59	109.9
Sept. 12_05:21:00	96.04	114	10.38	0.29	23.29	10.58	109.8
Sept. 12_05:22:00	96.31	114	10.40	0.31	23.26	10.57	109.8
Sept. 12_05:23:00	96.59	34	10.38	0.30	23.25	10.58	109.8
Sept. 12_05:24:00	96.86	34	10.39	0.31	23.22	10.56	109.6
Sept. 12_05:25:00	97.14	70	10.39	0.28	23.22	10.57	109.7
Sept. 12_05:26:00	97.41	70	10.39	0.32	23.20	10.57	109.6
Sept. 12_05:27:00	97.69	70	10.40	0.34	23.19	10.69	110.9
Sept. 12_05:28:00	97.96	70	10.39	0.27	23.19	10.67	110.7
Sept. 12_05:29:00	98.24	47	10.41	0.28	23.18	10.66	110.6
Sept. 12_05:30:00	98.51	47	10.41	0.29	23.17	10.64	110.5
Sept. 12_05:31:00	98.78	48	10.39	0.30	23.17	10.64	110.4
Sept. 12_05:32:00	99.06	48	10.37	0.31	23.17	10.62	110.1
Sept. 12_05:33:00	99.33	48	10.37	0.31	23.16	10.62	110.1
Sept. 12_05:34:00	99.61	48	10.35	0.30	23.16	10.60	109.9
Sept. 12_05:35:00	99.88	48	10.35	0.32	23.16	10.60	109.8
Sept. 12_05:36:00	100.16	48	10.34	0.31	23.17	10.65	110.3
Sept. 12_05:37:00	100.43	114	10.30	0.29	23.18	10.66	110.3
Sept. 12_05:38:00	100.71	114	10.31	0.30	23.18	10.65	110.3
Sept. 12_05:39:00	100.98	114	10.33	0.32	23.15	10.64	110.3
Sept. 12_05:40:00	101.25	114	10.34	0.29	23.14	10.63	110.1
Sept. 12_05:41:00	101.53	114	10.33	0.30	23.14	10.61	109.9
Sept. 12_05:42:00	101.80	114	10.34	0.29	23.12	10.61	109.9
Sept. 12_05:43:00	102.08	114	10.35	0.29	23.10	10.59	109.7
Sept. 12_05:44:00	102.35	112	10.36	0.27	23.09	10.67	110.6
Sept. 12_05:45:00	102.63	112	10.36	0.28	23.09	10.66	110.4
Sept. 12_05:46:00	102.90	112	10.36	0.30	23.08	10.66	110.4
Sept. 12_05:47:00	103.17	112	10.35	0.29	23.08	10.65	110.3
Sept. 12_05:48:00	103.45	112	10.36	0.29	23.08	10.68	110.7
Sept. 12_05:49:00	103.66	112	10.35	0.32	23.09	10.68	110.6
Sept. 12_05:50:00	103.75	112	10.36	0.33	23.08	10.64	110.3
Sept. 12_05:51:00	104.04	112	10.34	0.31	23.08	10.64	110.2
Sept. 12_05:52:00	104.35	112	10.30	0.29	23.08	10.63	110.0
Sept. 12_05:53:00	104.48	112	10.31	0.30	23.06	10.63	110.0
Sept. 12_05:54:00	104.82	97	10.31	0.36	23.04	10.64	110.1
Sept. 12_05:55:00	105.03	97	10.31	0.31	23.03	10.62	109.9
Sept. 12_05:56:00	105.39	97	10.30	0.31	23.03	10.63	109.9
Sept. 12_05:57:00	105.59	97	10.31	0.32	23.02	10.62	109.8
Sept. 12_05:58:00	105.82	97	10.31	0.35	23.01	10.62	109.9
Sept. 12_05:59:00	106.08	97	10.28	0.34	23.02	10.62	109.8
Sept. 12_06:00:00	106.43	97	10.28	0.34	23.00	10.63	109.9
Sept. 12_06:01:00	106.66	97	10.27	0.36	23.00	10.62	109.8
Sept. 12_06:02:00	106.90	97	10.27	0.30	22.99	10.63	109.9
Sept. 12_06:03:00	107.28	111	10.25	0.35	23.00	10.62	109.7
Sept. 12_06:04:00	107.41	111	10.25	0.34	22.99	10.63	109.8
Sept. 12_06:05:00	107.71	111	10.24	0.32	22.99	10.59	109.4
Sept. 12_06:06:00	108.06	63	10.26	0.35	23.01	10.65	110.1
Sept. 12_06:07:00	108.33	63	10.27	0.34	23.01	10.67	110.3
Sept. 12_06:08:00	108.58	63	10.28	0.34	23.03	10.61	109.7
Sept. 12_06:09:00	108.84	48	10.29	0.32	23.05	10.60	109.7
Sept. 12_06:10:00	109.06	66	10.29	0.36	23.07	10.55	109.1
Sept. 12_06:11:00	109.42	66	10.29	0.41	23.09	10.54	109.1
Sept. 12_06:12:00	109.70	66	10.29	0.33	23.10	10.67	110.4
Sept. 12_06:13:00	109.95	66	10.28	0.35	23.13	10.64	110.0
Sept. 12_06:14:00	110.19	66	10.27	0.33	23.14	10.63	110.0
Sept. 12_06:15:00	110.43	66	10.27	0.31	23.12	10.71	110.8
Sept. 12_06:16:00	110.73	111	10.26	0.33	23.07	10.65	110.1
Sept. 12_06:17:00	110.99	111	10.26	0.33	23.04	10.64	110.0
Sept. 12_06:18:00	111.28	72	10.26	0.33	23.00	10.59	109.4
Sept. 12_06:19:00	111.55	72	10.28	0.31	22.95	10.58	109.3

Appendix 3.2-1. Temperature, Salinity, Dissolved Oxygen, and Phytoplankton Biomass (as chl *a*) Data along the RSA Marine Transect, Hope Bay Belt Project, September 2010

Date/Time	Distance from RSA moving towards Roberts Bay (km)	Water Depth (m)	Temperature (°C)	Chlorophyll <i>a</i> (µg/L)	Salinity	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
Sept. 12_06:20:00	111.86	72	10.31	0.27	23.00	10.65	110.2
Sept. 12_06:21:00	112.13	72	10.35	0.29	22.97	10.71	110.8
Sept. 12_06:22:00	112.40	72	10.38	0.33	22.93	10.61	109.9
Sept. 12_06:23:00	112.62	126	10.41	0.40	22.90	10.68	110.6
Sept. 12_06:24:00	112.96	126	10.41	0.30	22.86	10.70	110.8
Sept. 12_06:25:00	113.19	126	10.41	0.26	22.81	10.63	110.1
Sept. 12_06:26:00	113.50	126	10.43	0.30	22.75	10.64	110.1
Sept. 12_06:27:00	113.78	126	10.44	0.32	22.69	10.64	110.2
Sept. 12_06:28:00	114.08	119	10.42	0.29	22.67	10.55	109.2
Sept. 12_06:29:00	114.28	119	10.47	0.27	22.59	10.66	110.4
Sept. 12_06:30:00	114.59	119	10.46	0.30	22.55	10.59	109.6
Sept. 12_06:31:00	114.93	119	10.46	0.29	22.53	10.64	110.1
Sept. 12_06:32:00	115.15	119	10.47	0.28	22.51	10.60	109.7
Sept. 12_06:33:00	115.46	69	10.48	0.28	22.48	10.59	109.6
Sept. 12_06:34:00	115.67	69	10.48	0.29	22.46	10.63	110.0
Sept. 12_06:35:00	115.96	69	10.49	0.29	22.43	10.59	109.6
Sept. 12_06:36:00	116.27	69	10.48	0.32	22.42	10.58	109.5
Sept. 12_06:37:00	116.60	69	10.46	0.32	22.42	10.59	109.5
Sept. 12_06:38:00	116.81	69	10.48	0.29	22.38	10.55	109.2
Sept. 12_06:39:00	117.15	92	10.48	0.27	22.37	10.61	109.7
Sept. 12_06:40:00	117.34	92	10.49	0.27	22.34	10.65	110.1
Sept. 12_06:41:00	117.65	92	10.49	0.28	22.33	10.60	109.6
Sept. 12_06:42:00	117.99	92	10.49	0.31	22.36	10.57	109.3
Sept. 12_06:43:00	118.27	92	10.46	0.30	22.37	10.60	109.6
Sept. 12_06:44:00	118.48	71	10.50	0.32	22.33	10.59	109.6
Sept. 12_06:45:00	118.80	71	10.50	0.31	22.32	10.59	109.5
Sept. 12_06:46:00	119.09	71	10.48	0.32	22.32	10.63	109.9
Sept. 12_06:47:00	119.30	71	10.51	0.29	22.29	10.64	110.0
Sept. 12_06:48:00	119.57	71	10.50	0.36	22.29	10.59	109.6
Sept. 12_06:49:00	119.87	71	10.50	0.31	22.29	10.59	109.5
Sept. 12_06:50:00	120.16	71	10.49	0.31	22.29	10.58	109.4
Sept. 12_06:51:00	120.44	71	10.52	0.30	22.28	10.63	109.9
Sept. 12_06:52:00	120.75	71	10.50	0.32	22.28	10.58	109.4
Sept. 12_06:53:00	121.05	81	10.50	0.31	22.28	10.59	109.5
Sept. 12_06:54:00	121.26	81	10.50	0.28	22.28	10.61	109.7
Sept. 12_06:55:00	121.77	75	10.47	0.31	22.29	10.62	109.8
Sept. 12_06:56:00	121.86	75	10.47	0.30	22.30	10.61	109.6
Sept. 12_06:57:00	122.18	75	10.46	0.28	22.31	10.59	109.4
Sept. 12_06:58:00	122.44	75	10.48	0.32	22.31	10.56	109.1
Sept. 12_06:59:00	122.67	75	10.46	0.29	22.34	10.65	110.1
Sept. 12_07:00:00	122.99	75	10.44	0.35	22.35	10.63	109.8
Sept. 12_07:01:00	123.23	75	10.42	0.33	22.37	10.61	109.6
Sept. 12_07:02:00	123.48	75	10.39	0.28	22.40	10.66	110.0
Sept. 12_07:03:00	123.76	75	10.36	0.29	22.41	10.63	109.7
Sept. 12_07:04:00	124.12	69	10.33	0.27	22.42	10.66	110.0
Sept. 12_07:05:00	124.37	69	10.29	0.29	22.44	10.64	109.7
Sept. 12_07:06:00	124.58	69	10.26	0.26	22.45	10.64	109.5
Sept. 12_07:07:00	124.97	69	10.23	0.28	22.46	10.67	109.8
Sept. 12_07:08:00	125.23	69	10.20	0.29	22.46	10.72	110.2
Sept. 12_07:09:00	125.53	69	10.17	0.28	22.46	10.70	110.0
Sept. 12_07:10:00	125.68	69	10.16	0.28	22.46	10.67	109.6
Sept. 12_07:11:00	126.00	69	10.13	0.27	22.47	10.72	110.1
Sept. 12_07:12:00	126.28	52	10.11	0.25	22.47	10.70	109.8
Sept. 12_07:13:00	126.57	52	10.10	0.27	22.46	10.69	109.7
Sept. 12_07:14:00	126.92	52	10.08	0.27	22.47	10.64	109.2
Sept. 12_07:15:00	127.09	52	10.06	0.29	22.47	10.73	110.0
Sept. 12_07:16:00	127.37	52	10.05	0.24	22.47	10.71	109.7
Sept. 12_07:17:00	127.66	34	10.02	0.25	22.47	10.70	109.6
Sept. 12_07:18:00	127.95	34	10.01	0.25	22.47	10.68	109.3
Sept. 12_07:19:00	128.22	34	9.99	0.24	22.47	10.67	109.2
Sept. 12_07:20:00	128.53	34	9.97	0.28	22.48	10.70	109.5
Sept. 12_07:21:00	128.79	31	9.96	0.24	22.49	10.70	109.5
Sept. 12_07:22:00	129.16	31	9.95	0.26	22.50	10.69	109.3
Sept. 12_07:23:00	129.50	31	9.93	0.26	22.52	10.76	110.0
Sept. 12_07:24:00	129.67	31	9.92	0.20	22.53	10.77	110.1
Sept. 12_07:25:00	129.98	20.2	9.90	0.22	22.55	10.75	109.8
Sept. 12_07:26:00	130.30	20.2	9.89	0.22	22.56	10.73	109.6
Sept. 12_07:27:00	130.62	6.9	9.87	0.21	22.56	10.73	109.6
Sept. 12_07:28:00	130.95	23	9.86	0.16	22.57	10.78	110.1
Sept. 12_07:29:00	131.25	17.4	9.84	0.09	22.57	10.79	110.1
Sept. 12_07:30:00	131.40	17.4	9.83	0.18	22.57	10.74	109.6
Sept. 12_07:31:00	131.84	23	9.81	-0.06	22.57	10.74	109.6
Sept. 12_07:32:00	132.01	23	9.80	0.06	22.56	10.71	109.2
Sept. 12_07:33:00	132.32	17.8	9.80	0.08	22.56	10.70	109.2
Sept. 12_07:34:00	132.64	17.8	9.81	0.04	22.55	10.81	110.3
Sept. 12_07:35:00	132.79	17.8	9.80	-0.09	22.55	10.83	110.5

Appendix 3.2-1. Temperature, Salinity, Dissolved Oxygen, and Phytoplankton Biomass (as chl *a*) Data along the RSA Marine Transect, Hope Bay Belt Project, September 2010

Date/Time	Distance from RSA moving towards Roberts Bay (km)	Water Depth (m)	Temperature (°C)	Chlorophyll <i>a</i> (µg/L)	Salinity	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
Sept. 12_07:36:00	133.06	31	9.80	-0.20	22.54	10.77	109.9
Sept. 12_07:37:00	133.35	31	9.81	-0.42	22.53	10.75	109.6
Sept. 12_07:38:00	133.67	31	9.81	-0.50	22.53	10.74	109.5
Sept. 12_07:39:00	133.99	43	9.82	0.00	22.52	10.80	110.2
Sept. 12_07:40:00	134.15	43	9.83	-0.19	22.51	10.81	110.2
Sept. 12_07:41:00	134.49	43	9.83	0.09	22.50	10.82	110.4
Sept. 12_07:42:00	134.66	43	9.83	-0.36	22.49	10.77	109.9
Sept. 12_07:43:00	135.03	47	9.84	0.05	22.47	10.79	110.1
Sept. 12_07:44:00	135.30	47	9.89	-0.54	22.44	10.74	109.6
Sept. 12_07:45:00	135.52	47	9.90	-0.37	22.43	10.77	110.0
Sept. 12_07:46:00	135.77	47	9.89	-0.27	22.43	10.72	109.5
Sept. 12_07:47:00	136.06	47	9.88	-0.55	22.42	10.75	109.7
Sept. 12_07:48:00	136.38	47	9.86	-0.62	22.41	10.72	109.4
Sept. 12_07:49:00	136.52	47	9.86	-0.62	22.41	10.76	109.8
Sept. 12_07:50:00	136.81	61	9.85	-0.31	22.40	10.76	109.7
Sept. 12_07:51:00	137.10	41	9.88	-0.41	22.38	10.76	109.8
Sept. 12_07:52:00	137.37	41	9.86	-0.35	22.39	10.73	109.4
Sept. 12_07:53:00	137.67	41	9.87	-0.10	22.39	10.73	109.5
Sept. 12_07:54:00	137.94	41	9.88	-0.25	22.39	10.69	109.1
Sept. 12_07:55:00	138.22	41	9.88	-0.24	22.41	10.69	109.1
Sept. 12_07:56:00	138.47	63	9.89	-0.07	22.43	10.74	109.7
Sept. 12_07:57:00	138.72	63	9.88	-0.10	22.44	10.81	110.3
Sept. 12_07:58:00	139.00	63	9.88	0.10	22.47	10.77	110.0
Sept. 12_07:59:00	139.28	63	9.88	-0.41	22.48	10.78	110.1
Sept. 12_08:00:00	139.58	40	9.88	-0.55	22.51	10.72	109.5
Sept. 12_08:01:00	139.87	40	9.88	-0.41	22.53	10.71	109.4
Sept. 12_08:02:00	140.14	40	9.88	-0.58	22.55	10.77	110.0
Sept. 12_08:03:00	140.29	40	9.89	-0.56	22.56	10.72	109.6
Sept. 12_08:04:00	140.66	54	9.88	-0.48	22.58	10.73	109.6
Sept. 12_08:05:00	140.93	54	9.89	0.11	22.60	10.72	109.6
Sept. 12_08:06:00	141.22	54	9.89	-0.17	22.62	10.79	110.3
Sept. 12_08:07:00	141.37	54	9.91	-0.07	22.64	10.72	109.6
Sept. 12_08:08:00	141.75	54	9.91	-0.01	22.66	10.73	109.7
Sept. 12_08:09:00	142.04	40	9.92	0.20	22.67	10.67	109.1
Sept. 12_08:10:00	142.19	40	9.92	-0.02	22.69	10.77	110.2
Sept. 12_08:11:00	142.59	40	9.94	0.06	22.70	10.72	109.8
Sept. 12_08:12:00	142.85	74	9.96	0.09	22.72	10.71	109.8
Sept. 12_08:13:00	143.09	74	10.00	-0.23	22.71	10.73	110.0
Sept. 12_08:14:00	143.36	74	9.99	0.14	22.77	10.76	110.3
Sept. 12_08:15:00	143.63	74	9.98	0.02	22.81	10.71	109.8
Sept. 12_08:16:00	143.90	74	9.98	-0.08	22.86	10.70	109.8
Sept. 12_08:17:00	144.21	74	9.98	0.19	22.90	10.67	109.5
Sept. 12_08:18:00	144.51	74	9.99	-0.06	22.94	10.68	109.7
Sept. 12_08:19:00	144.76	54	10.02	-0.38	22.95	10.77	110.6
Sept. 12_08:20:00	144.99	54	10.00	-0.37	23.01	10.75	110.4
Sept. 12_08:21:00	145.27	54	9.98	0.11	23.07	10.73	110.2
Sept. 12_08:22:00	145.65	54	9.99	0.09	23.10	10.75	110.5
Sept. 12_08:23:00	145.95	54	9.97	-0.03	23.15	10.73	110.3
Sept. 12_08:24:00	146.23	47	9.97	-0.35	23.19	10.72	110.2
Sept. 12_08:25:00	146.39	47	9.96	-0.30	23.22	10.71	110.1
Sept. 12_08:26:00	146.72	47	9.96	0.28	23.25	10.70	110.0
Sept. 12_08:27:00	146.96	47	9.96	0.05	23.27	10.66	109.6
Sept. 12_08:28:00	147.32	60	9.96	0.29	23.29	10.75	110.5
Sept. 12_08:29:00	147.55	60	9.97	-0.06	23.32	10.73	110.4
Sept. 12_08:30:00	147.79	60	9.96	0.19	23.35	10.73	110.4
Sept. 12_08:31:00	148.17	60	9.95	0.00	23.38	10.71	110.2
Sept. 12_08:32:00	148.41	60	9.95	0.35	23.43	10.72	110.3
Sept. 12_08:33:00	148.64	60	9.94	0.36	23.46	10.72	110.3
Sept. 12_08:34:00	148.94	75	9.94	0.30	23.50	10.70	110.1
Sept. 12_08:35:00	149.18	75	9.92	0.35	23.54	10.71	110.2
Sept. 12_08:36:00	149.43	75	9.91	0.22	23.58	10.80	111.1
Sept. 12_08:37:00	149.82	75	9.89	0.20	23.61	10.79	111.0
Sept. 12_08:38:00	150.07	75	9.93	-0.35	23.61	10.78	111.0
Sept. 12_08:39:00	150.33	75	9.92	0.26	23.66	10.77	110.9
Sept. 12_08:40:00	150.56	75	9.89	0.23	23.69	10.75	110.7
Sept. 12_08:41:00	150.90	75	9.94	0.10	23.68	10.74	110.6
Sept. 12_08:42:00	151.12	65	9.94	0.31	23.70	10.74	110.6
Sept. 12_08:43:00	151.38	65	9.94	0.16	23.71	10.73	110.6
Sept. 12_08:44:00	151.61	65	9.94	0.14	23.72	10.70	110.3
Sept. 12_08:45:00	151.97	65	9.91	0.19	23.74	10.68	110.1
Sept. 12_08:46:00	152.22	59	9.93	0.16	23.74	10.68	110.1
Sept. 12_08:47:00	152.48	59	9.93	0.32	23.76	10.72	110.4
Sept. 12_08:48:00	152.72	59	9.93	0.25	23.77	10.72	110.4
Sept. 12_08:49:00	152.98	59	9.93	0.26	23.78	10.73	110.6
Sept. 12_08:50:00	153.37	59	9.91	-0.13	23.79	10.69	110.2
Sept. 12_08:51:00	153.53	59	9.95	0.14	23.78	10.69	110.2

Appendix 3.2-1. Temperature, Salinity, Dissolved Oxygen, and Phytoplankton Biomass (as chl *a*) Data along the RSA Marine Transect, Hope Bay Belt Project, September 2010

Date/Time	Distance from RSA moving towards Roberts Bay (km)	Water Depth (m)	Temperature (°C)	Chlorophyll <i>a</i> (µg/L)	Salinity	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
Sept. 12_08:52:00	153.76	59	9.97	0.41	23.78	10.69	110.3
Sept. 12_08:53:00	154.06	59	9.99	0.38	23.78	10.70	110.4
Sept. 12_08:54:00	154.38	40	10.02	0.40	23.78	10.69	110.4
Sept. 12_08:55:00	154.60	40	9.99	0.31	23.81	10.76	111.1
Sept. 12_08:56:00	154.94	40	10.05	0.32	23.80	10.69	110.5
Sept. 12_08:57:00	155.17	40	10.05	0.35	23.80	10.74	111.0
Sept. 12_08:58:00	155.41	40	10.06	0.40	23.80	10.71	110.8
Sept. 12_08:59:00	155.65	63	10.06	0.40	23.82	10.71	110.7
Sept. 12_09:00:00	155.98	63	10.03	0.33	23.83	10.69	110.5
Sept. 12_09:01:00	156.21	63	10.06	0.35	23.82	10.70	110.6
Sept. 12_09:02:00	156.55	63	10.06	0.38	23.82	10.74	111.0
Sept. 12_09:03:00	156.76	63	10.06	0.38	23.81	10.72	110.8
Sept. 12_09:04:00	157.10	63	10.05	0.33	23.82	10.70	110.6
Sept. 12_09:05:00	157.34	63	10.07	0.38	23.81	10.70	110.7
Sept. 12_09:06:00	157.60	59	10.08	0.33	23.80	10.72	110.9
Sept. 12_09:07:00	157.86	59	10.09	0.33	23.80	10.71	110.8
Sept. 12_09:08:00	158.09	59	10.10	0.29	23.80	10.69	110.6
Sept. 12_09:09:00	158.45	59	10.07	0.35	23.81	10.68	110.4
Sept. 12_09:10:00	158.69	42	10.13	0.31	23.77	10.63	110.1
Sept. 12_09:11:00	158.92	42	10.13	0.27	23.78	10.66	110.3
Sept. 12_09:12:00	159.30	42	10.16	0.21	23.82	10.72	111.1
Sept. 12_09:13:00	159.55	42	10.15	0.31	23.84	10.66	110.4
Sept. 12_09:14:00	159.77	77	10.16	0.20	23.84	10.74	111.3
Sept. 12_09:15:00	160.13	77	10.20	0.04	23.88	10.70	111.1
Sept. 12_09:16:00	160.37	77	10.18	0.27	23.89	10.68	110.8
Sept. 12_09:17:00	160.62	77	10.20	0.24	23.88	10.73	111.3
Sept. 12_09:18:00	160.84	44	10.19	0.23	23.88	10.71	111.1
Sept. 12_09:19:00	161.15	121	10.18	0.10	23.89	10.68	110.8
Sept. 12_09:20:00	161.50	121	10.17	-0.04	23.89	10.67	110.7
Sept. 12_09:21:00	161.75	121	10.19	-0.43	23.88	10.69	110.9
Sept. 12_09:22:00	161.97	61	10.19	-0.22	23.88	10.67	110.7
Sept. 12_09:23:00	162.33	61	10.19	-0.35	23.88	10.75	111.5
Sept. 12_09:24:00	162.55	61	10.18	-0.62	23.89	10.73	111.3
Sept. 12_09:25:00	162.85	61	10.19	-0.15	23.88	10.72	111.2
Sept. 12_09:26:00	163.07	61	10.17	-0.57	23.89	10.70	111.0
Sept. 12_09:27:00	163.44	89	10.18	-0.62	23.89	10.70	110.9
Sept. 12_09:28:00	163.67	89	10.17	-0.62	23.89	10.69	110.8
Sept. 12_09:29:00	163.92	89	10.16	0.00	23.89	10.67	110.6
Sept. 12_09:30:00	164.38	27.6	10.14	0.00	23.90	10.67	110.6
Sept. 12_09:31:00	164.50	27.6	10.12	0.00	23.91	10.67	110.5
Sept. 12_09:32:00	164.74	27.6	10.11	0.00	23.91	10.63	110.1
Sept. 12_09:33:00	165.11	76	10.10	0.00	23.91	10.75	111.4
Sept. 12_09:34:00	165.35	76	10.09	-0.62	23.92	10.71	110.8
Sept. 12_09:35:00	165.59	76	10.09	0.00	23.92	10.70	110.7
Sept. 12_09:36:00	165.90	76	10.08	0.00	23.92	10.70	110.7
Sept. 12_09:37:00	166.16	63	10.07	-0.62	23.92	10.68	110.6
Sept. 12_09:38:00	166.52	63	10.04	0.00	23.94	10.65	110.1
Sept. 12_09:39:00	166.74	63	10.05	0.00	23.93	10.68	110.4
Sept. 12_09:40:00	167.01	63	10.04	0.00	23.94	10.70	110.6
Sept. 12_09:41:00	167.24	63	10.03	0.00	23.93	10.67	110.3
Sept. 12_09:42:00	167.58	63	10.04	-0.62	23.93	10.67	110.3
Sept. 12_09:43:00	167.80	63	10.03	-0.62	23.93	10.77	111.4
Sept. 12_09:44:00	168.05	87	10.02	-0.62	23.93	10.77	111.3
Sept. 12_09:45:00	168.44	87	9.98	0.00	23.95	10.74	110.9
Sept. 12_09:46:00	168.72	87	10.00	-0.62	23.93	10.72	110.8
Sept. 12_09:47:00	168.99	87	9.99	-0.62	23.93	10.72	110.8
Sept. 12_09:48:00	169.22	87	9.98	-0.62	23.93	10.69	110.4
Sept. 12_09:49:00	169.45	87	9.99	-0.62	23.92	10.69	110.4
Sept. 12_09:50:00	169.72	87	9.99	-0.54	23.94	10.66	110.1
Sept. 12_09:51:00	170.09	84	9.98	-0.62	23.95	10.63	109.8
Sept. 12_09:52:00	170.35	84	9.99	-0.62	23.94	10.70	110.6
Sept. 12_09:53:00	170.61	84	10.01	-0.62	23.94	10.74	111.0
Sept. 12_09:54:00	170.84	84	10.02	-0.59	23.94	10.74	111.0
Sept. 12_09:55:00	171.11	84	10.03	-0.62	23.95	10.75	111.1
Sept. 12_09:56:00	171.37	84	10.04	-0.59	23.95	10.76	111.3
Sept. 12_09:57:00	171.73	107	10.03	-0.62	23.96	10.74	111.1
Sept. 12_09:58:00	171.98	107	10.02	-0.62	23.96	10.77	111.4
Sept. 12_09:59:00	172.23	107	10.01	-0.62	23.97	10.76	111.2
Sept. 12_10:00:00	172.46	107	10.01	-0.45	23.97	10.73	110.9
Sept. 12_10:01:00	172.80	86	10.01	-0.31	23.97	10.79	111.6
Sept. 12_10:02:00	173.05	86	9.99	-0.50	23.97	10.76	111.2
Sept. 12_10:03:00	173.31	86	9.98	-0.20	23.98	10.80	111.6
Sept. 12_10:04:00	173.65	86	9.97	-0.55	23.98	10.83	111.9
Sept. 12_10:05:00	173.91	65	9.96	-0.06	23.98	10.78	111.3
Sept. 12_10:06:00	174.13	65	9.94	-0.06	23.98	10.73	110.8
Sept. 12_10:07:00	174.39	65	9.93	0.10	23.98	10.81	111.5

Appendix 3.2-1. Temperature, Salinity, Dissolved Oxygen, and Phytoplankton Biomass (as chl *a*) Data along the RSA Marine Transect, Hope Bay Belt Project, September 2010

Date/Time	Distance from RSA moving towards Roberts Bay (km)	Water Depth (m)	Temperature (°C)	Chlorophyll <i>a</i> (µg/L)	Salinity	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)
Sept. 12_10:08:00	174.73	65	9.92	0.05	23.97	10.83	111.7
Sept. 12_10:09:00	174.98	65	9.90	0.09	23.98	10.85	111.9
Sept. 12_10:10:00	175.24	65	9.91	0.09	23.95	10.80	111.4
Sept. 12_10:11:00	175.54	79	9.91	0.23	23.95	10.79	111.3
Sept. 12_10:12:00	175.82	79	9.92	0.12	23.94	10.77	111.1
Sept. 12_10:13:00	176.08	79	9.89	0.12	23.95	10.81	111.4
Sept. 12_10:14:00	176.35	79	9.88	-0.30	23.95	10.76	110.9
Sept. 12_10:15:00	176.62	79	9.89	-0.28	23.95	10.76	110.9
Sept. 12_10:16:00	177.01	79	9.90	0.02	23.93	10.79	111.2
Sept. 12_10:17:00	177.28	79	9.89	-0.01	23.94	10.77	111.0
Sept. 12_10:18:00	177.54	79	9.89	0.03	23.93	10.75	110.8
Sept. 12_10:19:00	177.80	62	9.90	0.04	23.93	10.72	110.5
Sept. 12_10:20:00	178.05	62	9.92	0.08	23.94	10.80	111.4
Sept. 12_10:21:00	178.34	62	9.93	0.03	23.94	10.79	111.4
Sept. 12_10:22:00	178.61	62	9.94	0.15	23.94	10.80	111.5
Sept. 12_10:23:00	178.98	62	9.93	0.14	23.95	10.82	111.6
Sept. 12_10:24:00	179.23	62	9.91	0.08	23.97	10.74	110.8
Sept. 12_10:25:00	179.49	62	9.94	-0.23	23.95	10.81	111.6
Sept. 12_10:26:00	179.76	62	9.92	0.00	23.96	10.79	111.3
Sept. 12_10:27:00	180.01	45	9.92	0.12	23.96	10.80	111.5
Sept. 12_10:28:00	180.36	45	9.90	0.04	23.97	10.79	111.2
Sept. 12_10:29:00	180.60	9.9	9.93	-0.32	23.95	10.76	111.0
Sept. 12_10:30:00	180.86	9.9	9.93	0.23	23.94	10.74	110.9
Sept. 12_10:31:00	181.17	94	9.94	0.15	23.93	10.84	111.8
Sept. 12_10:32:00	181.47	85	9.93	0.23	23.92	10.80	111.4
Sept. 12_10:33:00	181.72	85	9.92	0.21	23.92	10.80	111.4
Sept. 12_10:34:00	182.06	85	9.91	0.03	23.91	10.79	111.2
Sept. 12_10:35:00	182.33	85	9.94	-0.31	23.89	10.75	110.9
Sept. 12_10:36:00	182.57	85	9.95	-0.36	23.89	10.74	110.8
Sept. 12_10:37:00	182.84	85	9.95	-0.24	23.89	10.78	111.2
Sept. 12_10:38:00	183.09	85	9.97	-0.02	23.87	10.78	111.3
Sept. 12_10:39:00	183.47	85	9.97	0.12	23.88	10.78	111.3
Sept. 12_10:40:00	183.74	52	9.97	0.19	23.88	10.77	111.2
Sept. 12_10:41:00	183.97	52	9.97	0.00	23.88	10.71	110.6
Sept. 12_10:42:00	184.20	52	10.02	-0.62	23.85	10.81	111.6
Sept. 12_10:43:00	184.51	52	10.03	-0.15	23.85	10.80	111.6
Sept. 12_10:44:00	184.74	52	10.04	-0.24	23.84	10.76	111.2
Sept. 12_10:45:00	184.93	52	10.03	-0.17	23.86	10.71	110.7
Sept. 12_10:46:00	185.13	52	10.08	-0.17	23.83	10.77	111.5
Sept. 12_10:47:00	185.23	52	10.09	-0.10	23.83	10.79	111.7
Sept. 12_10:48:00	185.42	52	10.08	0.01	23.88	10.74	111.2
Sept. 12_10:49:00	185.55	52	10.11	-0.15	23.86	10.72	111.0
Sept. 12_10:50:00	185.67	52	10.11	-0.08	23.86	10.78	111.6
Sept. 12_10:51:00	185.76	52	10.07	-0.62	23.88	10.75	111.2
Sept. 12_10:52:00	185.90	39	10.06	-0.62	23.88	10.78	111.6
Sept. 12_10:53:00	186.05	39	10.06	-0.53	23.88	10.72	110.8
Sept. 12_10:54:00	186.21	39	10.07	-0.62	23.88	10.76	111.4
Sept. 12_10:55:00	186.36	39	10.07	-0.62	23.88	10.71	110.8
Sept. 12_10:56:00	186.48	39	10.06	-0.62	23.88	10.75	111.2
Sept. 12_10:57:00	186.54	39	10.09	-0.62	23.86	10.76	111.4
Sept. 12_10:58:00	186.70	13.3	10.09	-0.62	23.87	10.67	110.5
Sept. 12_10:59:00	186.79	38	10.10	-0.62	23.86	10.76	111.4
Sept. 12_11:00:00	186.89	38	10.13	-0.62	23.85	10.68	110.7
Sept. 12_11:01:00	186.99	38	10.14	0.00	23.84	10.75	111.4
Sept. 12_11:02:00	187.10	38	10.11	-0.62	23.87	10.74	111.2
Sept. 12_11:03:00	187.20	80	10.13	0.00	23.85	10.73	111.2
Sept. 12_11:04:00	187.30	80	10.12	0.00	23.85	10.73	111.2
Sept. 12_11:05:00	187.39	80	10.15	0.00	23.84	10.69	110.8
Sept. 12_11:06:00	187.49	80	10.14	-0.62	23.85	10.75	111.4
Sept. 12_11:07:00	187.60	80	10.14	-0.62	23.85	10.73	111.2
Sept. 12_11:08:00	187.72	80	10.16	0.00	23.83	10.71	111.0
Sept. 12_11:09:00	187.84	80	10.17	0.00	23.82	10.75	111.5
Sept. 12_11:10:00	187.94	80	10.18	0.00	23.81	10.68	110.7
Sept. 12_11:11:00	188.03	80	10.17	0.00	23.82	10.72	111.1
Sept. 12_11:12:00	188.12	80	10.16	0.00	23.82	10.74	111.3