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MANUSCRIPT REPORT SERIES

No. 990

**Physical and Chemical Oceanographic Data
from the West Coast of Vancouver Island
and the Northern British Columbia Coast,
1957-1967**

**Volume II, Fisher Channel - Cousins Inlet,
Douglas Channel - Kitimat Arm and Prince
Rupert Harbour and its Contiguous Waters**

by

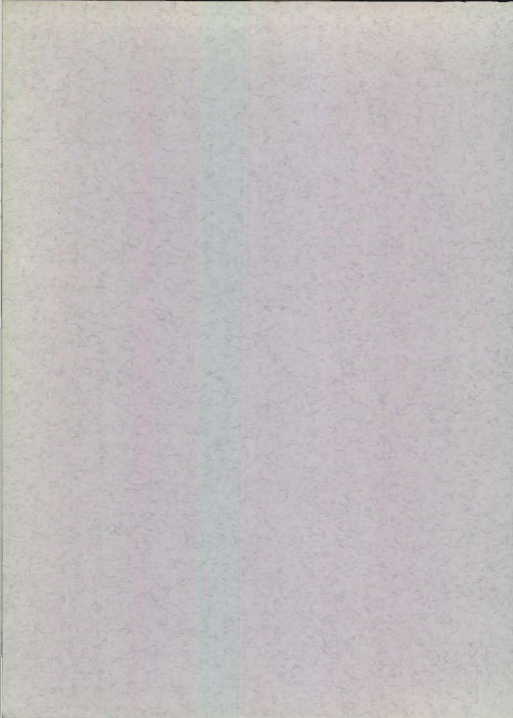
M. Waldichuk, J. R. Markert and J. H. Meikle

**Biological Station, Nanaimo, B.C.
Pacific Oceanographic Group**

November, 1968

Programmed by The Canadian Committee on Oceanography

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Physical and chemical oceanographic data from the West Coast
of Vancouver Island and the northern British Columbia coast,
1957-1967

by

M. Waldichuk, J.R. Markert and J.H. Weikle

INTRODUCTION

Oceanographic surveys were conducted from 1957 to 1967 in a number of the inlets along the west coast of Vancouver Island, and on the north coast of British Columbia, in order to study the effects of existing pulp mills and to predict the pollutional effects from proposed pulp mills. The objectives in all these surveys were to examine the physical and chemical properties of the water and to determine the water movements from current measurements. Biological observations were not formally carried out, but unusual conditions were generally noted, and any samples obtained in either water sampling or bottom sampling gear were returned to the base laboratory for identification locally or elsewhere by experts. These studies formed part of the inventory of polluted waters on the British Columbia coast (Waldichuk, 1957).

Surveys in Muchalat Inlet reported here were commenced in 1959. Tully (1937) was the first to carry out a study of Nootka Sound, including Muchalat Inlet. The recent surveys were initiated to give oceanographic information on conditions in that inlet, which might have some bearing on the dispersal of pulp-mill effluent proposed to be discharged into the inlet from a planned pulp mill at Gold River. In cooperation with the Department of Fisheries, an appraisal of the system was made on the basis of survey work, and from a comparison with similar inlets on the west coast of Vancouver Island. Further comparative data were available from surveys of conditions prevailing in existing pulp-mill areas on the coast. Recommendations were made for a submarine diffuser to take advantage of the dilution afforded by a fairly deep column of water adjacent to the site of the Gold River pulp mill. Because of a steep rock bluff bordering Neroutsos Inlet, a tunnel had to be drilled for the pipe-line to carry effluent to a diffuser at the prescribed point and depth. This mill has been in operation since early 1967, and the diffuser system has been apparently operating quite satisfactorily. A survey was conducted during August 1968, to investigate dispersal of the effluent, but these data are not reported here.

The present study in Quatsino Sound was commenced in 1956 (Waldichuk, MS, 1956a, MS, 1956b) with the first survey in August 1957, following announced plans of the company to expand its sulphite pulp-mill production at Fort Alice on Neroutsos Inlet. An earlier investigation of the area (Hutchinson and Lucas, MS, 1927) had found no significant changes in the chemical characteristics of the water or in the plankton following 10 years.

of production of the mill and disposal of wastes into Neroutsos Inlet. However, evidence of oxygen depletion from the surface waters in Neroutsos Inlet by the sulphite mill wastes was noted in the August 1957 survey and was subsequently reported (Waldichuk, 1958). Parts of this study have been reported in other publications, comparing the polluted conditions in various types of oceanographic environments along the British Columbia coast (Waldichuk, 1957, 1960, 1962a, 1962b, 1962c). Further surveys have continued in Neroutsos Inlet, during the later years, to observe any deterioration in the water quality with expanded production of the pulp mill.

Surveys in Fisher Channel and Cousins Inlet have been conducted from time to time, in order to determine the effects of over half a century of pulp mill waste disposal into an inlet with substantial fresh water inflow. The pulp mill at Ocean Falls has had a diversified pulp and paper production since about 1905, and the vast accumulation of particulate materials in the bottom has had a marked effect on the bottom conditions and on the benthic flora and fauna. However, because the fresh water inflow is quite substantial the year round, being controlled by a dam for power requirements in the pulp mill, the surface waters are relatively unpolluted. Data from the surveys in Cousins Inlet have only been used in descriptive comparisons of different conditions arising in divergent geographical locations, where pulp mills discharge their wastes, along the British Columbia coast (Waldichuk, 1962a, 1962b, 1962c, 1962d).

Oceanographic surveys were commenced in Kitimat Arm in the spring of 1962, in order to study the effects of the aluminum smelter at Kitimat. However, it was subsequently announced that a pulp mill was planned for this inlet, and the survey information became valuable for a study to determine the effects of its wastes on oceanographic conditions in the area. In cooperation with the Pacific Area Director, Department of Fisheries, studies have been continued to examine oceanographic conditions and to determine possible effects from wastes to be discharged into the head of Kitimat Arm from a pulp mill proposed for Kitimat. No reports on these studies have been released to date.

The first examination of the waters adjacent to the pulp mill on Watson Island near Prince Rupert was conducted by Stokes (MS, 1953). He found the fish, plankton and other marine life in the vicinity of the pulp mill relatively unimpaired, at that time, although dissolved oxygen concentrations at low tide were already less than 5 mg/l at some stations.

During the first oceanographic survey in September 1961, Porpoise Harbour and Wainwright Basin were found to be the most heavily polluted coastal area observed to that time in British Columbia. In spite of the large tidal range and turbulence of the northern coastal waters, there was oxygen depletion that in some cases resulted in zero dissolved oxygen concentrations at various depths in Porpoise Harbour and Wainwright Basin. Almost immediately following the first survey, a report was prepared for the Department of Fisheries recommending corrective measures in this pulp

mill to improve water quality of these important fishery waters (Waldichuk, MS, 1962). A survey was conducted again in April 1962 and the technical staff of the pulp mill cooperated in an important study of the waters during a week's closure of the pulp mill in July 1962. The 1961 observations and these further studies on the low-oxygen conditions in Porpoise Harbour and Wainwright Basin have been reported in scientific journals (Waldichuk and Bousfield, 1962; Waldichuk, 1966).

Inlets of the B.C. Mainland and Vancouver Island have been studied by the Institute of Oceanography of the University of British Columbia and reported by Pickard (1961, 1962). Some of these inlets are included here.

The data reported here have been collected by standard oceanographic procedures, with essentially the same instruments and same degree of precision as applied in ordinary inshore oceanographic surveys. The data have been processed and tabulated according to procedures and format established for the early oceanographic-pollution surveys. This scheme has been followed to provide consistency and uniformity of presentation from one set of data to another for ease of analysis. It is hoped that the format, however, will allow future transcription onto cards and tape for computer analysis. This data record is published in two volumes to facilitate binding.

SURVEY PLANS

The stations occupied in the various surveys are shown in the track charts represented by Fig. 1-19. The stations were arranged in such a way as to provide the gradients expected from the effects of pollution in the given area. In the immediate locality adjacent to a pulp mill, for example, stations were relatively closely spaced. However, as one proceeded away from the polluted area, the stations were more widely separated. It was considered desirable to occupy stations well beyond the limits of the expected pollution field, into comparatively uncontaminated waters. Also, while much of the pollution is often confined to the surface layer, samples and measurements were taken as close to the bottom as practical, in order to observe any unfavourable conditions in the deep water. The characteristics of the bottom water also provided information useful in some cases to the analysis of flushing rates of the whole system.

STATION PROCEDURE AND METHODS OF OBSERVATION

Surveys were conducted with the 85-ft Canadian Hydrographic Service Ship, CSS EHKOLI, the 72-ft Fisheries Research Board's vessel, A.P. KNIGHT, and the Canadian Naval Auxiliary Vessels, CNAV WHITEHROAT (164 ft), OSHAWA (225 ft) and LAYMORE (165 ft). Station positions were generally fixed by radar, by sextant or by compass on known landmarks. The vessels were anchored on all stations of less than 150 metres depth. On stations of greater depths, the vessel usually drifted and was manoeuvred on station to maintain the wire angle of the hydrographic cast as nearly zero as

possible. A log was maintained of station positions and of meteorological information by the deck officer on watch.

Water samples were taken mainly with Fjarlie bottles (Fjarlie, 1953) (Nansen bottles were used in surveys since 1963) at the standard depths of 2, 4, 6, 10, 15, 20, 30, 50, 70, 100, 150, 200 and 250 metres or to the maximum depth the bottom would allow. Surface samples were collected with a bucket. Temperatures were obtained, when possible, with paired reversing thermometers at each depth. Surface temperatures were measured in a bucket with a standard 0-30 C surface thermometer. These data were supplemented by continuous temperature records with depth using a bathythermograph. At each station, a Secchi disc reading was taken as a measure of water transparency. A turbidimeter was used in later surveys to measure in situ transmissivity, but these data are not reported here. On some surveys, bottom samples were also collected.

Samples were taken at each depth for salinity, dissolved oxygen, pH and alkalinity determinations. Dissolved oxygen, pH and alkalinity determinations were carried out immediately on board ship. Salinity samples were collected in 10-12 oz medicine bottles, sealed tightly with corks and wax or with screw caps lined with polyethylene sealers, and returned to the base laboratory for salinity determination. Dissolved oxygen was carried out by the modified Winkler method, and pH and alkalinity were determined with a Model G or Model GS Beckman pH Meter, according to the procedures described by Strickland and Parsons (1965). Salinities were carried out on the University of Washington-type conductivity salinometer for early surveys, and on an Australian (CSIRO)-type of inductive salinometer for the more recent surveys. Details of the other analyses are given in the section on observations and methods. The schedule of cruises is shown in Table I.

ACKNOWLEDGEMENTS

The cooperation of masters and crews of the vessels CSS ENKOLI, A.P. KNIGHT, CNAV WHITETHROAT, CNAV OSHANA and CNAV LAYMORE is gratefully acknowledged. Crew members often contributed to scientific work in addition to their duties normally required for operating the ship. Data processing, tabulating and typing have been carried out by Miss C. Lee, Miss M.I. Ott, Mrs. E.J. Young, Mrs. W.J. Wilson, Mrs. L.A. Bourassa, and Mrs. B. Davis.

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TABLE 1 - SURVEYS

Period	Vessel	Observations ^a					Personnel
		S	T	O	P	A	
<u>Nootka Sound - Murchat Inlet</u>							
12-13 August 1959	A.P. KNIGHT	X	X	X	X	X	M. Waldichuk and H. Kessler
6-8 October 1961	CNAV WHITETHROAT	X	X	X	X	X	M. Waldichuk, A.E. Werner and M. Larsen
1-3 November 1962	CNAV OSHAWA	X	X	X	X	X	M. Waldichuk, A.E. Werner and J.R. Markert
19-21 August 1966	CNAV LAYMORE	X	X	X	X	X	J.H. Meikle, J.A. Stickland, J. Wong and G.H. Hallett
<u>Quatsino Sound - Neroutsos Inlet</u>							
15-19 August 1957	CNAV EHKOLI	X	X	X	X	X	M. Waldichuk and B.J. Burns
9-11 October 1961	CNAV WHITETHROAT	X	X	X	X	X	M. Waldichuk, A.E. Werner and M. Larsen
4-5 November 1962	CNAV OSHAWA	X	X	X	X	X	M. Waldichuk, A.E. Werner and J.R. Markert
22-23 August 1966	CNAV LAYMORE	X	X	X	X	X	J.H. Meikle, J.A. Stickland, J. Wong and G.H. Hallett
<u>Fisher Channel - Cousins Inlet</u>							
19-21 September 1961	CSS ^b EHKOLI	X	X	X	X	X	M. Waldichuk and J.R. Markert
23-26 April 1962	CSS EHKOLI	X	X	X	X	X	A.E. Werner and J.R. Markert
27-28 October 1964	CSS EHKOLI	X	X	X	X	X	M. Waldichuk and J.H. Meikle

^a S = salinity; T = temperature; O = dissolved oxygen; P = pH; A = alkalinity; C = currents.

^b EHKOLI was transferred from the Canadian Naval Auxiliary Vessels (RCN) to the Canadian Hydrographic Service in 1961, which explains the change in designation prefix.

TABLE I - SURVEYS (cont'd)

Period	Vessel	Observations ^a					Personnel	
		S	T	O	P	A		C
<u>Douglas Channel - Kitimat Arm</u>								
11-13 April 1962	CSS ENKOLI	X	X	X	X	X	M. Waldichuk and J.R. Markert	
16-19 October 1964	CSS ENKOLI	X	X	X	X	X	X	M. Waldichuk and J.H. Weikle
27-28 September 1967	A.P. KNIGHT	X	X	X	X	X	J.H. Weikle and D.A. Blank	
<u>Prince Rupert Harbour and contiguous waters</u>								
15-18 September 1961	CSS ENKOLI	X	X	X	X	X	X	M. Waldichuk and J.R. Markert
14-21 April 1962	CSS ENKOLI	X	X	X	X	X	X	M. Waldichuk and J.R. Markert
20-26 October 1964	CSS ENKOLI	X	X	X	X	X	X	M. Waldichuk and J.H. Weikle
10 July - 7 August 1967	CSS PARRY	X	X	X	X	X	X	J.H. Weikle

^a S = salinity; T = temperature; O = dissolved oxygen; P = pH; A = alkalinity; C = currents.

^c Not reported here (currents were measured by the Canadian Hydrographic Service).

OBSERVATIONS AND METHODS, WITH EXPLANATIONS OF THE
DATA RECORD HEADINGS, SYMBOLS AND UNITS

Station Designation: The stations are designated by number consecutively in the order they were usually taken. Prefix letters M, Q, O, K, and P of the numbers designate stations in Muchalat Inlet, Quatsino Sound, Cousins Inlet, Kitimat Arm, and Prince Rupert Harbour area, respectively.

Time: Pacific Standard Time is used throughout. It usually signifies the instant that the messenger was dropped to close the sampling bottles. If two casts were made, the time is either given for messengers on each cast or only for the first, shallower cast. (S) denotes a shallow cast, ca 0-20 m; (D) denotes a deep cast, >20 m.

Date: Figures signify: date/month/year.

Lat. and Long.: Position of the ship given as latitude and longitude in degrees and minutes, at the time the messenger was dropped to close the water sampling bottles and reverse the deep-sea thermometers.

Depth (of bottom): Sounding in feet, obtained from the echo sounder and/or from bottom sampler or lead weight and meter block.

B.T. Ser. No.: Bathythermograph slide number given consecutively in the order taken.

Weather: Given by word description.

Cloud Type: Given by standard symbol for the meteorological nomenclature for cloud description. Example: Ci = Cirrus; St = Stratus; Cu = Cumulus; Sc = Stratocumulus; Ns = Nimbostratus.

Amt.: Amount of cloud cover given in tenths of sky covered. Example: 0 = clear sky; 3 = 3/10 of sky covered; 10 = completely overcast.

Wind Dir.: Direction from which wind was blowing in degrees on the gyro compass (True).

Spd.: Estimated wind speed in miles per hour.

Sea: Given in the meteorological number code for height and in ^{OT} for direction from which sea comes. Example: 0 = calm sea; 1 = 1 to 2-foot waves; 2 = 3 to 4-foot waves.

Swell: Given in meteorological number code for height and in ^{OT} for direction from which swell comes. Example: 0 = no swell; 1 = 1 to 3-foot swell; 2 = 4 to 6-foot swell.

Air Temp. - D: Air temperature on dry-bulb thermometer, as observed on ship's bridge in degrees Fahrenheit.

- W: Air temperature on wet-bulb thermometer, as observed on ship's bridge in degrees Fahrenheit.

Baro: Uncorrected reading of ship's aneroid barometer in millibars.

Secchi: Depth in feet at which a white, 30-cm (12-in) disc just disappears from sight.

Col.: Water colour as observed against the white Secchi disc. (Abbreviations: lt = light; dk = dark; dl = dull; pl = pale; clr = clear; sty = silty; mky = murky; wh = white; gy = grey; br = brown; yl = yellow; gn = green; rd = red.)

Bottom: Composition and colour of the bottom sample taken by a Dietz-La Fond, clamshell-type bottom sampler, and occasionally by anchor or other device striking the bottom.

Tide: The curve gives the predicted tide for the specified location. The arrow marks the height and phase of the tide at the time samples were taken.

Depth (of sample): Distance in metres from the water surface to the sampling bottle, as measured on the meter block. (Sample depths for the early surveys are given in feet because a block calibrated in yards was used.)

I (C): Temperatures obtained from reversing thermometers are reported to the nearest 0.01 degree Celsius. Surface temperatures measured with an ordinary 0 to 30 C surface thermometer are accurate only to the nearest 0.1 C.

B.T. Data: A 450-ft (135 m), 200-ft (65 m) or 100-ft (30 m) bathythermograph, depending on the depth of water, was used for a continuous profile of temperature with depth. The traces were corrected for temperature from a reversing thermometer, when possible, and were drawn by hand in the final record from a projected image of the B.T. slide.

S (‰): Salinity expresses the total salt content of the water in parts per thousand (‰) and was usually determined on a salinometer at the base laboratory. These data have an accuracy of $\pm 0.01\%$. Samples with very low salinities were titrated with an accuracy of $\pm 0.05\%$.

σ_t : Density term at atmospheric pressure and in situ temperature, as defined by: $(\text{Density} - 1) \times 1,000$. It is a function of salinity and temperature and was determined from nomographs prepared by the U.S. Hydrographic Office.

Dissolved Oxygen (mg/l): Concentration of dissolved oxygen in milligrams per litre of water. For conversion to mg-at/l divide by 16 and to ml/l multiply by 0.7.

Dissolved Oxygen (% Sat.): Percentage that the observed concentration bears to the total concentration when the water is saturated with dissolved oxygen at the in situ salinity and temperature. Defined by:

$$\frac{\text{Observed concentration}}{\text{Saturation concentration}} \times 100$$

The saturation concentration, as a function of salinity and temperature, was obtained from a nomograph prepared by Tully (1949) from tables given by Whipple and Whipple (1911).

pH: Hydrogen-ion concentration in pH units (1-14) measured to the nearest 0.01 unit on a pH meter and corrected for the in situ temperature and salinity. A Beckman pH Meter (Model G-2 or GS) was generally used, with samples first brought to room temperature. The pH was measured within 12 hours whenever possible; but in case of delay, samples were held in a dark cooler.

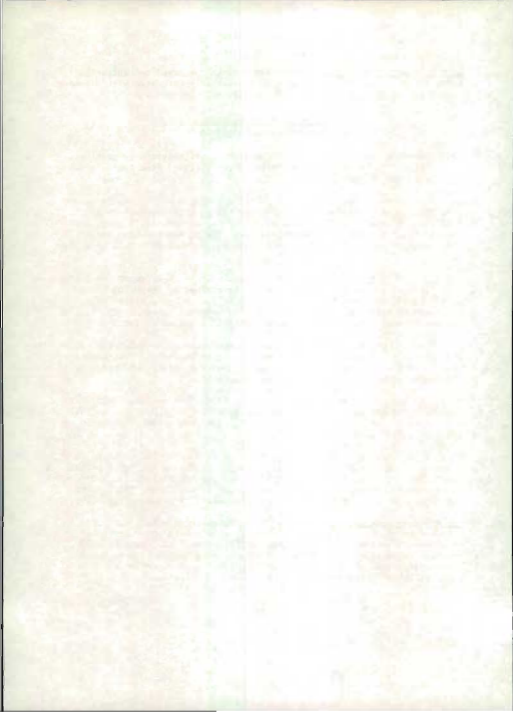
Alkalinity - total: The number of milliequivalents of hydrogen ion neutralized by 1 litre of sea water at 20 C. It was determined by measuring the pH in 100 ml of sea water treated with 25 ml of 0.01 N hydrochloric acid, using a Beckman pH Meter (Model G-2 or GS) in the laboratory, with samples first brought to room temperature, usually within 12 hours of collection.

- Carb.: The number of milliequivalents of hydrogen ion neutralized by 1 litre of sea water at 20 C in converting carbonate and bicarbonate ions to carbon dioxide. It was evaluated from the total alkalinity, using the tables given by Strickland and Parsons (1965).

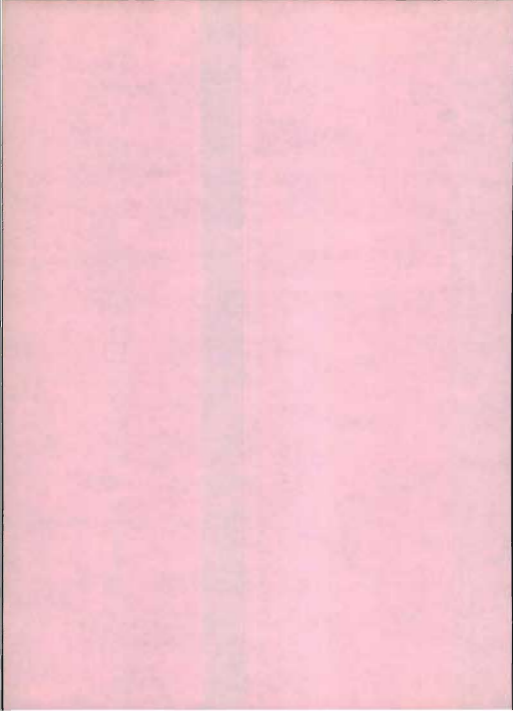
Note: In general, the tables given by Strickland and Parsons (1965) were used for calculating total and carbonate alkalinities. However, in the extreme cases, of low and high values, the equations given by Thompson and Anderson (1940) were used.

SSL: Spent sulphite liquor concentration in parts per million based on a standard of spent sulphite pulp-mill digester liquor of 10% total solids concentration. A modified procedure was used of the nitrosolignin determination first introduced by Pearl and Benson (1940), later improved by Goldschmid and Maranville (1959) and standardized by Barnes et al. (1963).

Current Measurements: Surface currents were measured with a C.B.I. (Chesapeake Bay Institute) drag described by Pritchard and Burt (1951) or with a current pole and log line (U.S. Department of Commerce, 1950). Sub-surface currents were measured with a standard Ekman Current Meter (Ekman, 1932), or the Ekman-Merz modification. Wind direction and speed were estimated during the interval of current measurement.



FISHER CHANNEL - COUSINS INLET



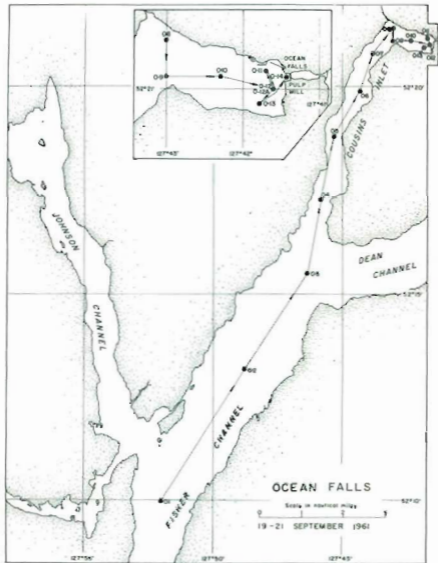
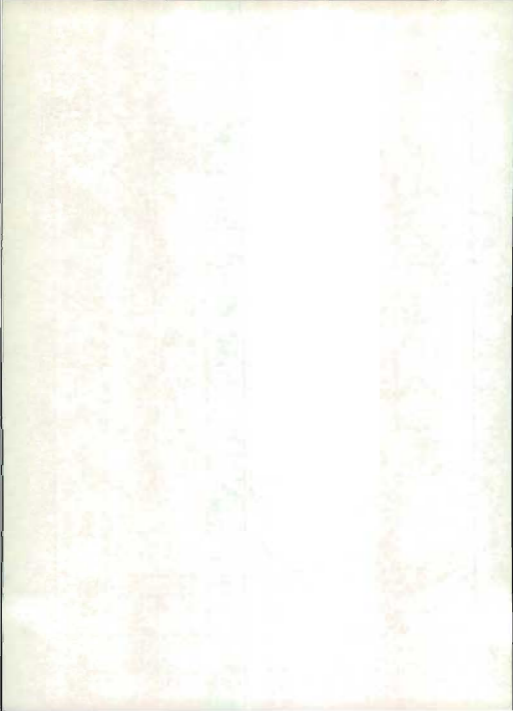
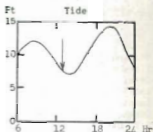


Fig. 9. Track chart of stations occupied in Fisher Channel-Cousins Inlet, 19-21 September 1961.



Stations: 0-1
 Time: 1255-1322
 Date: 19/IX/61
 Lat: 52° 10' N
 Long: 127° 52.0' W
 Depth: 2267 ft
 B.T. Ser. No. 20

Weather: Sunny
 Cloud: Type Ac Amt. 3
 Wind: Dir. 296 *T Spd 15-17 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 56 *F. W. *F.
 Baro: 1015 mb.
 Secchi: 23 ft Col: Grey-green

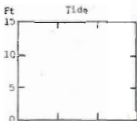


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.2	23.00	17.12	9.30	101.1	8.13	1.53	1.48
2	12.96	23.01	17.18	9.26	100.2	8.17	1.63	1.57
4	12.01	25.27	19.09	8.92	96.3	8.16	1.86	1.80
6	11.57	27.33	20.76	8.25	89.5	8.08	1.94	1.89
10	11.32	28.12	21.40	7.71	83.5	8.03	1.99	1.95
15	11.33	30.06	22.90	6.82	75.0	8.02	2.11	2.06
20	11.26	30.54	23.29	6.74	74.2	8.04	2.06	2.01
30	8.47	31.34	24.36	5.41	56.5	7.89	2.15	2.11
50	7.79	32.16	25.10	4.70	48.5	7.83	2.18	2.15
74	7.49	32.53	25.44	4.47	45.8	7.84	2.26	2.23
98	7.18	32.90	25.77	4.11	42.0	7.82	2.25	2.22

(continued below)

Station: 0-1 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

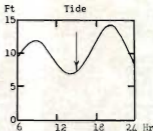
Weather:
 Cloud: Type
 Wind: Dir. *T Spd. mph.
 Sea: Swell:
 Air Temp: D. *F. W. *F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
147	6.93	33.14	25.99	3.60	36.7	7.81	2.29	2.26
196	6.80	33.25	26.09	3.37	34.3	7.74	2.35	2.32
294	6.76	33.29	26.13	3.25	33.1	7.81	2.34	2.31
392	6.76	33.30	26.14	3.24	33.0	7.76	2.32	2.29
491		33.31		3.25	34.0	7.82	2.31	2.28

Station: 0-2
 Time: 1442-1510
 Date: 19/IX/61
 Lat: 52° 13.2' N
 Long: 127° 48.8' W
 Depth: 1738 ft
 B.T. Ser. No. 21

Weather: Cloudy
 Cloud: Type Ac Amt. 8
 Wind: Dir. 296 °T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 57 °F. W. °F.
 Baro: 1014.5 mb.
 Secchi: 24 ft Col: green



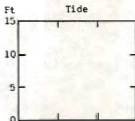
Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.3	21.73	16.12	9.47	102.3	8.09	1.50	1.45
2	12.79	22.71	16.98	9.36	101.0	8.13	1.52	1.47
4	12.22	24.14	18.18	9.51	102.3	8.13	1.61	1.56
6	11.69	26.52	20.10	9.38	101.4	8.06	1.83	1.78
10	11.35	28.06	21.36	7.80	84.5	8.03	1.94	1.90
15	9.68	29.79	22.97	6.41	67.8	7.95	2.05	2.01
20	9.16	30.50	23.60	5.91	62.2	7.87	2.13	2.09
30	8.6 *	31.22	24.25	5.38	58.0	7.85	2.17	2.13
49	8.00	31.89	24.86	4.95	51.2	7.81	2.22	2.19
73	7.50	32.51	25.42	4.42	45.3	7.78	2.18	2.15
97	7.26	32.90	25.76	4.22	43.2	7.81	2.27	2.24

*Temperature taken from B.T. trace.

(continued below)

Station: 0-2 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

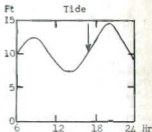
Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
146	6.92	33.14	25.99	3.72	38.0	7.77	2.26	2.23
194	6.80	33.25	26.09	3.32	33.8	7.77	2.34	2.31
291	6.72	33.29	26.13	3.25	33.0	7.73	2.33	2.30
388	6.74	33.29	26.13	3.23	32.8	7.77	2.34	2.31

Stations: 0-3
 Time: 1635-1701
 Date: 19/IX/61
 Lat: 52° 15.5' N
 Long: 127° 46.4' W
 Depth: 1508 ft
 B.T. Ser. No. 22

Weather: Sunny, scattered showers
 Cloud: Type Sc Amt. 9
 Wind: Dir. 210 °T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 56 °F. W. °F.
 Baro: 1014 mb.
 Secchi: 24 ft Col: green

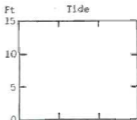


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.4	20.00	14.78	9.87	105.7	8.16	1.43	1.37
2	13.24	20.02	14.82	9.88	105.6	8.19	1.41	1.35
4	11.90	24.12	18.22	8.86	94.5	8.11	1.69	1.64
6	11.45	25.74	19.54	8.46	90.4	8.07	1.81	1.76
10	10.32	28.22	21.65	7.23	76.7	7.97	1.95	1.91
15	9.66	29.74	22.94	6.54	69.2	7.90	1.94	1.91
20	9.17	30.49	23.60	6.22	65.3	7.91	2.08	2.04
30	8.39	31.34	24.38	5.37	55.7	7.87	2.28	2.24
50	7.92	31.99	24.95	5.02	51.8	7.80	2.10	2.07
75	7.42	32.61	25.16	4.38	44.9	7.80	2.19	2.16
99	7.14	32.96	25.82	4.03	41.2	7.81	2.43	2.40

(continued below)

Stations: 0-3 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

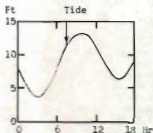
Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
149	6.89	33.16	26.01	3.61	36.9	7.76	2.33	2.30
191	6.80	33.25	26.09	3.37	34.4	7.74	2.35	2.32
287	6.75	33.29	26.13	3.32	33.8	7.78	2.36	2.33
383	6.73	33.30	26.14	3.24	32.0	7.72	2.33	2.30

Station: 0-4
 Time: 0734
 Date: 20/IX/61
 Lat: 52° 17.3' N
 Long: 127° 45.8' W
 Depth: 262 ft
 B.T. Ser. No. 23

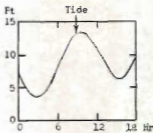
Weather: Partly cloudy
 Cloud: Type Sc Amt. 7
 Wind: Dir. - *T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 52°F. W. *F.
 Baro: 1013 mb.
 Secchi: 17 ft Col: green



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.9	4.54	3.10	8.26	78.1	7.01	0.35	0.35
2	12.05	19.82	14.88	8.55	89.1	8.05	1.50	1.48
4	11.67	24.36	18.44	8.35	83.9	8.07	1.71	1.66
6	10.90	27.33	20.87	7.47	79.7	7.96	1.83	1.79
10	10.04	28.87	22.20	6.78	71.8	7.94	1.94	1.91
15	9.29	30.29	23.42	6.06	63.8	7.90	2.07	2.03
20	8.93	30.73	23.82	5.67	59.4	7.84	2.10	2.07
30	8.24	31.53	24.55	5.02	52.1	7.82	2.18	2.15
50	7.67	32.26	25.20	4.29	44.2	7.77	2.24	2.21
75	7.24	32.84	25.71	4.17	42.7	7.78	2.24	2.21

Station: 0-5
 Time: 0850
 Date: 20/IX/61
 Lat: 52° 18.8' N
 Long: 127° 45.3' W
 Depth: 264 ft
 B.T. Ser. No. 24

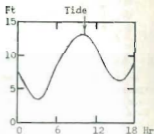
Weather: Overcast
 Cloud: Type Sc Amt. 10
 Wind: Dir. 210 *T Spd. 8-10mph.
 Sea: 0 Swell: 0
 Air Temp: D. 51°F. W. *F.
 Baro: 1013 mb.
 Secchi: 16 ft Col: br-grn



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.1	8.14	5.73	7.97	78.9	7.32	0.58	0.58
2	12.99	15.81	11.64	8.60	89.0	7.92	1.10	1.09
4	11.38	25.93	19.70	7.56	80.7	8.00	1.74	1.70
6	11.17	26.68	20.32	7.37	78.8	7.95	1.79	1.75
10	10.21	28.68	22.02	6.44	68.3	7.89	1.98	1.95
15	9.54	29.90	23.07	5.82	61.4	7.86	2.01	1.98
20	8.90	30.62	23.63	4.83	50.6	7.73	2.11	2.09
30	8.06	31.33	24.42	4.06	41.8	7.68	2.01	1.99
50	7.82	31.99	24.96	3.84	39.6	7.68	2.18	2.16
75	7.45	32.52	25.43	3.27	33.6	7.67	2.22	2.20

Station: 0-6
 Time: 1002
 Date: 20/IX/61
 Lat: 52° 19.9' N
 Long: 127° 44.3' W
 Depth: 229 ft
 B.T. Ser. No. 25

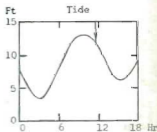
Weather: Cloudy
 Cloud: Type Sc Amt. 9
 Wind: Dir. 210° T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 55 °F. W. °F.
 Baro: 1012 mb.
 Secchi: 14 ft Col: br-gn



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.1	5.63	3.87	7.84	76.5	7.19	0.36	0.36
2	12.39	21.49	16.10	8.82	93.3	8.05	1.48	1.45
4	11.77	24.00	18.14	7.54	80.1	7.96	1.65	1.61
6	10.95	27.04	20.63	7.02	74.8	7.93	1.84	1.81
10	10.24	28.68	22.02	5.47	58.3	7.76	1.97	1.94
15	9.14	30.14	23.32	4.77	50.1	7.74	2.05	2.02
20	8.57	30.69	23.84	4.38	45.5	7.70	2.07	2.05
30	7.91	31.28	24.40	3.22	33.1	7.59	2.15	2.13
50	7.67	31.96	24.96	1.59	16.3	7.47	2.19	2.17

Station: 0-7
 Time: 1137
 Date: 20/IX/61
 Lat: 52° 20.8' N
 Long: 127° 43.8' W
 Depth: 220 ft
 B.T. Ser. No. 26

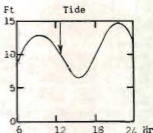
Weather: Cloudy
 Clouds: Type Sc Amt. 9
 Wind: Dir. 210° T Spd. 8-10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 50° F. W. °F.
 Baro: 1013 mb.
 Secchi: 16 ft Col: br-gn



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.6	4.45	2.80	8.17	79.9	7.04	0.35	0.35
2	12.50	18.97	14.15	8.67	90.8	7.98	1.27	1.25
4	11.90	22.96	17.32	7.51	79.5	7.93	1.53	1.50
6	11.22	26.45	20.14	7.07	75.5	7.92	1.79	1.76
10	9.91	29.31	22.56	5.07	54.8	7.75	2.01	1.98
15	8.99	30.13	23.35	4.28	44.8	7.67	2.09	2.07
20	8.28	30.67	23.87	2.84	39.3	7.55	2.09	2.07
30	7.76	31.31	24.44	1.57	16.1	7.46	2.15	2.13
50	7.61	32.05	25.04	1.40	14.4	7.47	2.18	2.16

Stations: 0-8
 Time: 1248
 Date: 20/IX/61
 Lat: 52° 21.4' N
 Long: 127° 43.0' W
 Depth: 180 ft
 B.T. Ser. No. 27

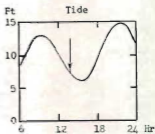
Weather: Partly clear
 Cloud: Type Sc Amt. 9
 Wind: Dir. 210° T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 55°F. W. °F.
 Baro: 1012 mb.
 Secchi: 11 ft Col: br-gn



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.4	3.13	1.81	9.15	88.5	7.15	0.26	0.26
2	12.81	17.18	12.72	8.40	87.5	7.95	1.38	1.36
4	11.88	22.50	16.97	7.54	79.5	7.95	1.53	1.50
6	11.01	26.71	20.37	6.71	71.4	7.93	1.83	1.80
10	9.91	28.45	21.88	4.96	52.2	7.74	1.99	1.97
15	9.07	29.96	23.20	4.03	42.2	7.65	2.04	2.02
20	8.15	30.72	23.96	2.23	22.9	7.47	2.08	2.06
30	7.69	31.28	24.43	1.19	12.2	7.40	2.18	2.17
50	7.55	32.09	25.08	0.48	4.9	7.40	2.24	2.23

Stations: 0-9
 Time: 1351
 Date: 20/IX/61
 Lat: 52° 21.1' N
 Long: 127° 43.0' W
 Depth: 203 ft
 B.T. Ser. No. 28

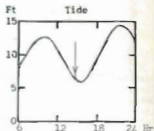
Weather: Partly clear
 Cloud: Type Sc Amt. 9
 Wind: Dir. - °T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 64°F. W. °F.
 Baro: 1012 mb.
 Secchi: 7 ft Col: yl-gn



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	14.2	3.79	2.20	9.05	89.4	7.09	0.36	0.36
2	12.74	12.11	8.84	8.26	83.3	7.81	0.91	0.90
4	11.75	23.83	18.02	7.13	75.6	7.89	1.63	1.61
6	11.10	26.59	20.27	6.73	71.7	7.90	1.95	1.92
10	10.17	28.64	22.00	5.28	56.0	7.75	1.99	1.96
15	9.01	30.04	23.26	4.20	43.9	7.69	2.08	2.05
20	8.16	30.58	23.77	3.34	34.6	7.59	2.13	2.11
30	7.68	31.18	24.35	1.35	13.8	7.45	2.18	2.16
50	7.57	31.90	24.93	0.14	1.4	7.39	2.25	2.24

Station: O-10
 Time: 1457
 Date: 20/IX/61
 Lat: 52° 21.1' N
 Long: 127° 42.3' W
 Depth: 180 ft
 B.T. Ser. No. 29

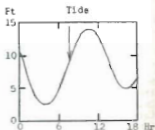
Weather: Light rain
 Cloud: Type Sc Amt. 10
 Wind: Dir. - *T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 65 °F. W. °F.
 Baro: 1012.5 mb.
 Secchi: 10 ft Col: br-gn



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.9	4.18	2.54	8.97	88.1	7.36	0.36	0.36
2	12.83	14.01	10.28	7.76	79.2	7.86	1.10	1.09
4	11.68	22.81	17.24	7.16	75.5	7.92	1.59	1.57
6	10.94	27.13	20.70	6.27	66.8	7.86	1.86	1.83
10	10.04	28.84	22.17	4.80	50.8	7.72	1.95	1.93
15	9.11	29.93	23.16	4.29	44.9	7.72	2.07	2.05
20	8.52	30.46	23.66	3.16	32.7	7.57	2.09	2.07
30	7.65	31.20	24.37	0.26	2.6	7.37	2.15	2.14
50	7.56	32.00	25.00	0.13	1.3	7.38	2.24	2.23

Station: O-11
 Time: 0740
 Date: 21/IX/61
 Lat: 52° 21.15' N
 Long: 127° 41.7' W
 Depth: 105 ft
 B.T. Ser. No. 31

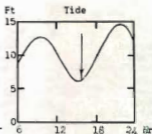
Weather: Partly clear
 Cloud: Type Is Amt. 9
 Wind: Dir. 297 *T Spd. 5-7 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 51 °F. W. °F.
 Baro: 1015 mb.
 Secchi: 12 ft Col: br-gn



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.3	3.35	1.99	8.63	83.5	7.12	0.32	0.32
2	12.57	18.11	13.47	6.73	70.2	7.83	1.36	1.35
4	12.24	21.36	16.02	7.86	83.0	8.00	1.50	1.47
6	11.60	24.54	18.59	7.12	75.7	7.91	1.71	1.68
10	10.88	27.01	20.62	5.14	54.8	7.75	1.90	1.87
15	9.06	29.90	23.15	3.65	38.2	7.63	2.10	2.08
20	7.95	30.87	24.07	1.01	10.3	7.38	2.17	2.16
30	7.66	31.47	24.58	0.00	0.0	6.82	1.71	1.71

Stations: 0-12
 Time: 1603
 Date: 20/IX/61
 Lat: 52° 21.0' N
 Long: 127° 41.65' W
 Depth: 98 ft
 B.T. Ser. No. 30

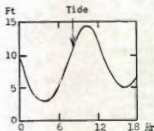
Weather: Sunny
 Cloud: Type Cu Amt. 4
 Wind: Dir. - °T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 65 °F. W. °F.
 Baro: 1012 mb.
 Secchi: 5 ft Col: Dark reddish-brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	14.7	7.02	4.62	6.51	66.3	7.07	0.44	0.44
2	12.71	15.55	11.49	7.64	78.5	7.73	1.22	1.21
4	11.57	24.29	18.40	6.92	73.4	7.86	1.67	1.65
6	11.09	26.63	20.30	6.61	70.4	7.87	1.86	1.83
10	9.77	29.01	22.34	3.93	41.4	7.63	2.02	2.00
15	9.05	29.90	23.15	3.74	39.1	7.62	2.05	2.03
20	8.53	30.34	23.57	2.91	30.1	7.56	2.12	2.10
29	7.71	31.11	24.29	0.38	3.9	7.36	2.25	2.24

Stations: 0-12A
 Time: 0827
 Date: 21/IX/61
 Lat: 52° 21' N
 Long: 127° 41.6' W
 Depth: 111 ft
 B.T. Ser. No. 32

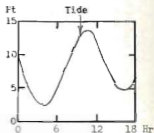
Weather: Partly clear
 Cloud: Type As Amt.
 Wind: Dir. 297 °T Spd. 6-8 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53 °F. W. °F.
 Baro: 1015.5 mb.
 Secchi: 5 ft Col: brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.8	4.30	2.80	6.30	60.7	6.96	0.55	0.55
2	12.83	14.04	10.30	7.65	78.0	7.58	0.95	0.95
4	12.44	20.43	15.38	7.93	83.7	7.89	1.38	1.36
6	11.94	22.87	17.24	7.68	81.2	7.94	1.61	1.58
10	11.03	26.86	20.48	6.50	69.2	7.86	1.81	1.78
15	9.21	29.82	23.06	4.09	42.9	7.66	2.01	1.99
20	8.13	30.68	23.90	1.12	10.4	7.43	2.10	2.09
30	7.62	31.45	24.57	0.00	0.0	7.38	2.24	2.23

Station: 0-13
 Time: 0928
 Date: 21/IX/61
 Lat: 52° 20.9' N
 Long: 127° 41.8' W
 Depth: 128 ft
 B.T. Ser. No. 33

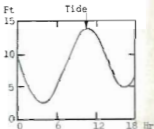
Weather: Partly clear
 Cloud: Type As Amt. 9
 Wind: Dir. 297 °T Spd. 5-7 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 56 °F. W. °F.
 Baro: 1016 mb.
 Secchi: 8 ft Col: br^{gn}



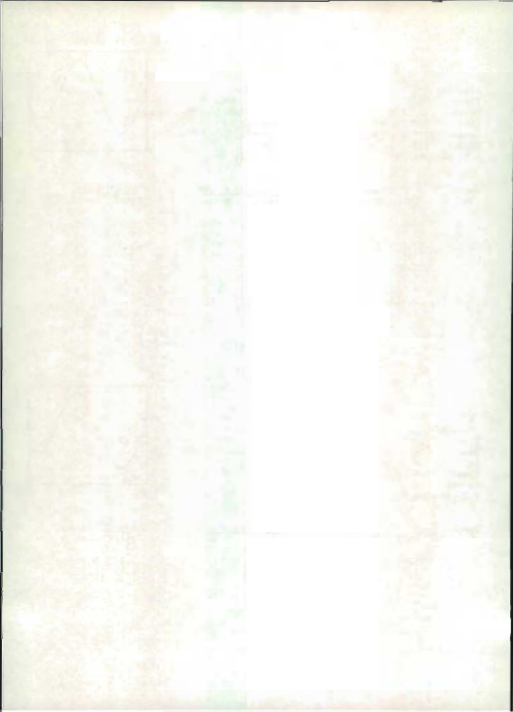
Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.9	4.50	3.02	6.44	62.2	7.07	0.45	0.55
2	12.79	14.54	10.70	7.85	80.4	7.67	0.60	0.59
4	12.57	19.76	14.74	8.30	87.4	7.94	1.33	1.31
6	12.34	20.31	15.20	8.14	85.7	7.93	1.35	1.33
10	10.80	27.32	20.87	5.24	55.8	7.72	1.86	1.84
15	8.93	30.05	23.28	3.73	38.9	7.63	2.07	2.05
20	8.08	30.72	23.93	0.99	11.7	7.41	2.10	2.09
30	7.62	31.56	24.66	0.25	0.1	7.38	2.18	2.17
35	7.61	31.73	24.79	0.00	0.0	7.30	2.32	2.32

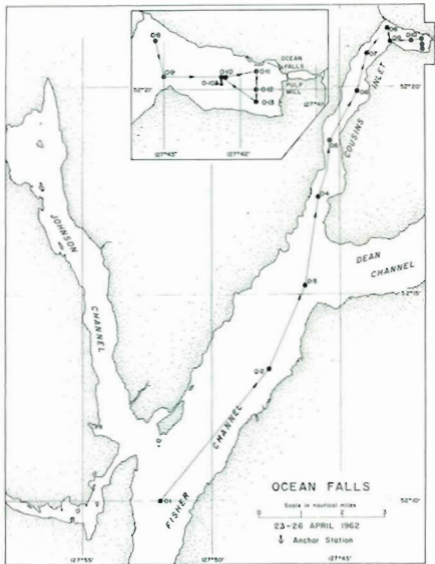
Station: 0-14
 Time: 1024
 Date: 21/IX/61
 Lat: 52° 21.10' N
 Long: 127° 41.45' W
 Depth: 23 ft
 B.T. Ser. No. 34

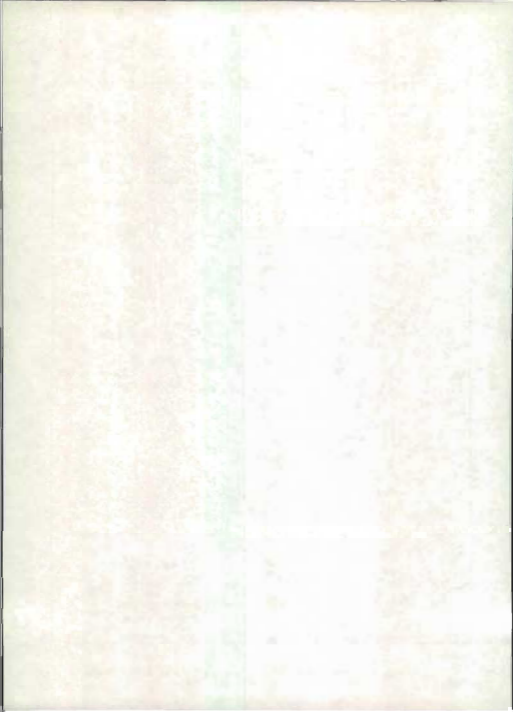
Weather: Partly clear
 Cloud: Type As Amt. 8
 Wind: Dir. 297 °T Spd. 5-7 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 58 °F. W. °F.
 Baro: 1015 mb.
 Secchi: 8 ft Col: yi^{gn}



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.9	2.02	0.88	9.58	93.3	7.14	0.10	0.10
2	12.69	18.30	13.60	7.90	82.4	7.79	1.25	1.24
4	12.46	19.65	14.68	7.57	79.4	7.86	1.38	1.36
6	11.92	21.26	15.00	6.00	63.0	7.73	1.50	1.49

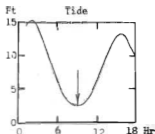




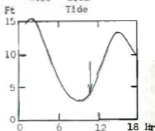


Stations: 0-1
 Time: 0916
 Date: 23/IV/62
 Lat: 52° 10.0' N
 Long: 128° 52.0' W
 Depth: 1860 ft
 B.T. Ser. No. 43

Weather: Partly cloudy
 Cloud: Type/c Amt. 8
 Winds: Dir. 025 °T Spd. 18 mph.
 Sea: 2 Swell: 0
 Air Temp: D. 50 °F. W. 49 °F.
 Baro: 1012 mb.
 Secchi: 26 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.4	27.30	21.34	10.14	101.60		2.00	
2	7.17	27.34	21.41	10.20	100.00	7.76	2.15	2.13
4	7.18	27.33	21.41	10.07	98.72	7.86	2.11	2.09
6	7.15	27.67	21.68	10.14	99.70	7.92	2.10	2.07
10	7.26	29.61	23.17	9.88	98.89	7.99	2.21	2.17
15	7.36	30.25	23.66	10.36	103.81	7.79	2.25	2.22
20	7.16	30.80	24.11	9.41	94.86	7.94	2.27	2.23
29	6.89	31.36	24.60	8.65	86.36	7.94	2.26	2.22
49	6.58	31.69	24.89	8.71	87.36	7.49	2.40	2.38
77	6.73	32.15	25.23	6.35	64.14	7.64	2.34	2.32
115	7.02	32.68	25.62	5.81	59.16	7.57	2.34	2.32
153		32.88		5.01			2.38	2.36
230	7.11	32.89	25.77	5.32	53.26	7.66	2.38	2.35
366		32.92		5.13			2.35	2.32



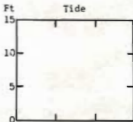
Stations: 0-2
 Time: 1053
 Date: 23/IV/62
 Lat: 52° 13.2' N
 Long: 128° 47.8' W
 Depth: 1350 ft
 B.T. Ser. No. 44

Weather: Moderate rain
 Cloud: Type Cu-Ns Amt. 10
 Winds: Dir. 020 °T Spd. 15 mph.
 Sea: 2 Swell: 0
 Air Temp: D. 49 °F. W. 49 °F.
 Baro: 1011 mb.
 Secchi: 28 ft Col: Green

Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.3	28.20	22.06	10.09	99.90	8.21		
2	7.1 *	28.17	22.07	10.07	102.44	7.96	1.87	1.83
4	7.12	28.22	22.10	10.07	99.51	7.91	1.97	1.84
6	7.14	28.84	22.58	10.07	99.80	7.97	1.98	1.94
9	7.20	29.35	22.98	10.05	100.40	7.86	1.95	1.92
14	7.20	30.78	24.10	9.88	99.69	7.91	1.99	1.95
19	7.07	30.80	24.13	9.36	93.35	7.84	2.10	2.07
28	6.83	31.34	24.57	8.66	87.21	7.74	2.13	2.11
41	6.80	31.41	24.64	8.66	87.21	7.62	2.14	2.12
83	6.60	31.90	25.05	7.07	71.06	7.44	2.23	2.21
125	6.7 *	32.33	25.38	6.08	63.07	7.54	2.19	2.17

*Temperature taken from B.T. trace.

(continued on next page)



Stations: 0-2 (Cont'd)

Time:

Date:

Lat: N

Long: W

Depth: ft

B.T. Ser. No.

Weather:

Cloud: Type Amt.

Wind: Dir. °T Spd. mph.

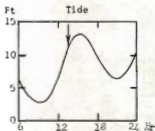
Sea: Swell:

Air Temp: D. °F. W. °F.

Baro: mb.

Secchi: ft Col:

Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
166		32.66		5.81		7.59	2.18	2.16
249	7.10	32.92	25.79	5.18	52.86	7.61	2.31	2.29
332	7.12	32.95	25.82	5.05	51.58	7.71	2.28	2.25



Stations: 0-3

Time: 1320-1353

Date: 23/IV/62

Lat: 52° 15.2' N

Long: 128° 46.4' W

Depth: 1380 ft

B.T. Ser. No. 45

Weather: Moderate rain

Cloud: Type Cu-Ns Amt. 10

Wind: Dir. 020 °T Spd. 10 mph.

Sea: 1 Swell: 0

Air Temp: D. 49 °F. W. 48 °F.

Baro: 1011 mb.

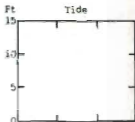
Secchi: 23 ft Col: Green

Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.4	25.02	19.56	10.11	98.25	7.96	1.63	1.60
2	7.15	25.92	20.30	10.14	98.64	7.90	1.67	1.64
4	7.12	27.30	21.38	10.14	99.41	8.08	1.79	1.75
6	7.09	28.12	22.04	10.11	99.80	8.06	1.87	1.83
10	7.19	29.96	23.45	9.56	95.69	8.05	2.02	1.97
14	7.00	30.92	24.23	9.11	91.74	7.85	2.08	2.04
19	7.00	31.19	24.45	9.01	90.10	8.06	2.10	2.05
29	6.84	31.37	24.61	8.67	87.39	7.97	2.35	2.31
45	6.84	31.67	24.85	7.93	80.10	7.77	2.36	2.33
89	6.64	32.16	25.25	6.25	63.06	7.70	2.41	2.39
134	6.96	32.61	25.57	5.68	57.72	7.70	2.06	2.03

(continued on next page)

Station: 0-3 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

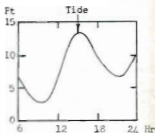
Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
178		32.82		5.50		7.67	2.23	2.20
267	7.08	32.95	25.82	5.06	51.63	7.58	2.25	2.23
356		32.96		4.11				

Station: 0-4
 Time: 1508
 Date: 23/IV/62
 Lat: 52° 17.20' N
 Long: 127° 45.9' W
 Depth: 272 ft
 B.T. Ser. No. 46

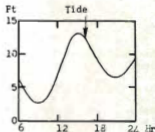
Weather: Clear
 Cloud: Type Ac Amt. 10
 Wind: Dir. 024 °T Spd. 8-10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53°F. W. 51°F.
 Baro: 1007 mb.
 Secchi: 25 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.8	21.41	16.69	10.09	96.55	7.64	1.45	1.44
2	7.17	27.89	21.84	10.19	100.39	8.10	2.06	2.02
4	7.09	29.65	23.23	9.84	98.20	8.06	2.15	2.10
6	7.05	30.15	23.62	9.65	96.60	8.06	2.19	2.14
10	7.11	30.43	23.83	9.46	95.08	7.97	2.24	2.20
15	6.97	30.89	24.21	9.21	92.56	7.94	2.24	2.20
20	6.94	31.02	24.31	9.08	90.34	7.87	2.24	2.20
30	6.43	31.37	24.65	7.86	78.44	7.91	2.26	2.22
50	6.52	31.70	24.90	6.82	68.34	7.70	2.28	2.26
80	6.71	32.07	25.17	6.41	64.75	7.72	2.28	2.26

Stations: O-5
 Time: 1625
 Date: 23/IV/62
 Lat: 52° 18.42' N
 Long: 127° 45.4' W
 Depth: 259 ft
 B.T. Ser. No. 46

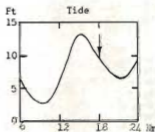
Weather: Drizzle
 Cloud: Type Sc Amt. 10
 Wind: Dir. 024 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53 °F. W. 51 °F.
 Baro: 1007 mb.
 Secchi: 23 ft Col: Br-gn



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.1	15.55	12.19	10.24	92.84	7.95	1.13	1.11
2	7.11	27.83	21.80	10.27	100.88	8.35	1.95	1.87
4	7.06	29.59	23.18	10.05	100.40	8.24	2.03	1.97
6	7.05	30.02	23.56	9.80	98.00	8.29	2.09	2.01
10	7.02	30.38	23.80	9.58	95.99	8.25	2.09	2.01
15	6.82	30.91	24.24	9.28	92.98	8.10	2.11	2.06
20	6.76	31.03	24.35	9.14	91.49	8.19	2.15	2.09
30	6.29	31.26	24.59	7.88	78.10	8.11	2.23	2.18
50	6.44	31.69	24.91	4.41	44.10	7.67	2.23	2.21
70	6.64	31.95	25.09	5.14	51.81	7.75	2.23	2.20

Stations: O-6
 Time: 1815-1820
 Date: 23/IV/62
 Lat: 52° 19.54' N
 Long: 127° 44.3' W
 Depth: 233 ft
 B.T. Ser. No. 47

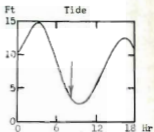
Weather: Moderate rain
 Clouds: Type Cu-Ns Amt. 8
 Wind: Dir. 024 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 50 °F. W. 50 °F.
 Baro: 1006 mb.
 Secchi: 23 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.8	15.93	12.41	10.06	95.96	7.90	1.06	1.05
2	7.11	27.92	21.88	10.28	100.18	8.18		
4	6.85	28.43	22.29	10.23	100.59	8.20	1.98	1.93
6	7.03	29.45	23.08	10.06	100.29	8.37	2.05	2.00
10	7.05	30.10	23.58	9.75	97.70	8.14	2.09	2.04
15	6.92	30.57	23.96	9.58	96.09	8.12	2.10	2.05
20	6.81	30.86	24.21	9.14	91.68	8.06	2.14	2.10
30	6.45	31.15	24.48	8.52	84.78	8.02	2.23	2.19
50	6.44	31.71	24.92	3.98	39.80	7.60	2.25	2.23
70	6.67	32.02	25.13	5.31	53.43	7.76	2.26	2.23

Stations: 0-7
 Time: 0819
 Date: 24/IV/62
 Lat: 52° 20.8' N
 Long: 127° 43.9' W
 Depth: 200 ft
 B.T. Ser. No. 48

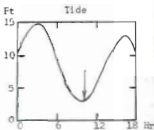
Weather: Showers
 Cloud: Type Cb Amt. 10
 Wind: Dir. 210 °T Spd. 25 mph.
 Sea: 2 Swell: 0
 Air Temp: D. 48 °F. W. 48 °F.
 Baro: 999 mb.
 Secchi: 21 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.2	15.16	11.94	11.09	98.14	8.16	0.27	0.25
2	7.13	27.08	21.21	10.32	101.17	8.13	1.55	1.51
4	7.20	28.47	22.30	9.97	98.71	8.15	1.82	1.77
6	7.01	29.14	22.84	10.14	100.49	8.23	1.84	1.79
10	6.85	30.21	23.70	10.18	101.59	8.04	1.88	1.84
15	6.60	30.62	24.04	9.62	95.72	8.06	1.98	1.93
20	6.62	30.86	24.24	9.07	90.43	8.14	1.95	1.90
30	6.07	31.22	24.57	5.23	51.58	7.74	2.11	2.09
50	6.46	31.69	24.91	2.17	21.70	7.67	2.11	2.09

Stations: 0-8
 Time: 1023
 Date: 24/IV/62
 Lat: 52° 21.4' N
 Long: 127° 43.1' W
 Depth: 167 ft
 B.T. Ser. No. 49

Weather: Slight intermit. rain
 Cloud: Type Cb Amt. 6
 Wind: Dir. 210 °T Spd. 8 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 50 °F. W. 48 °F.
 Baro: 999 mb.
 Secchi: 18 ft Col: Green

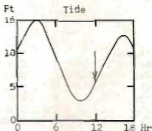


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.4	15.26	13.27	10.47	94.32	7.77	0.36	0.35
2	6.89	23.61	18.51	10.30	98.10	7.76	1.45	1.43
4	7.15	27.43	21.49	9.82	96.36	7.90	1.81	1.78
6	7.11	28.20	22.09	10.02	99.01	7.86	1.87	1.84
10	6.85	29.96	23.49	9.56	95.22	7.74	1.99	1.97
15	6.49	30.55	24.01	9.15	90.77	7.91	2.08	2.05
20	5.3*							
30	6.48	30.59	24.04	9.91	98.22	7.94	1.95	1.91
50	6.21	31.15	24.51	7.56	75.22	7.54	2.11	2.09

*Temperature taken from B.T. trace.

Stations: O-9
 Time: 1207
 Date: 24/IV/62
 Lat: 52° 21.1' N
 Long: 127° 43.0' W
 Depth: 190 ft
 B.T. Ser. No. 50

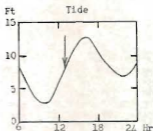
Weather: Mod. intermit. rain
 Cloud: Type Cb Amt. 10
 Wind: Dir. 10° T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 52°F. W. 50°F.
 Baro: 999 mb.
 Secchi: 16.5 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.7	15.91	12.50	10.76	96.94	8.01	0.88	0.86
2	7.03	23.72	18.59	10.72	102.58	7.97	1.52	1.49
4	7.17	27.32	21.40	10.15	99.61	7.89	1.82	1.79
6	7.11	28.21	22.10	10.15	100.20	7.92	1.86	1.83
10	6.84	29.85	23.41	9.82	97.61	7.99	2.03	1.99
15	6.68	30.51	24.00	9.60	95.62	7.88	2.07	2.03
20	6.41	30.78	24.19	9.04	89.50	7.59	2.08	2.06
30	6.20	31.11	24.48	7.99	73.17	7.58	2.09	2.07
50	6.35	31.59	24.83	2.78	27.72	7.26	2.19	2.19

Station: O-10
 Time: 1333
 Date: 24/IV/62
 Lat: 52° 21.1' N
 Long: 127° 42.2' W
 Depth: 161 ft
 B.T. Ser. No. 51

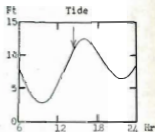
Weather: Mod. Intermit. rain
 Cloud: Type Cb Amt. 6
 Wind: Dir. 060° T Spd. 8-10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53°F. W. 50°F.
 Baro: 998 mb.
 Secchi: 11.5 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.5	18.40	14.46	10.34	94.17	8.08	0.36	0.34
2	7.00	24.07	18.86	10.06	96.45	7.97	1.57	1.53
4	7.15	27.50	21.59	10.06	98.91	8.02	1.87	1.83
6	7.10	28.44	22.29	9.93	98.32	8.09	1.98	1.94
10	7.02	29.25	22.92	10.12	101.49	8.06	2.03	1.99
15	6.73	30.15	23.65	9.81	97.51	7.99	2.15	2.11
20	6.44	30.63	24.07	8.55	84.65	8.00	2.10	2.06
30	6.16	31.02	24.42	7.47	73.74	7.78	2.17	2.13
40	6.15	31.32	24.66	2.24	22.19	7.32	2.29	2.29

Station: 0-11
 Time: 1434
 Date: 24/IV/62
 Lat: 52° 21.2' N
 Long: 127° 4'.8' W
 Depth: 98 ft
 B.T. Ser. No. 52

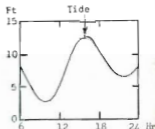
Weather: Slight rain, squall
 Cloud: Type 5c Amt. 6
 Wind: Dir. 250 *T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53°F. W. 50°F.
 Baro: 998 mb.
 Secchi: 6.5 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	5.1	5.23	4.18	11.97	96.61	7.00	0.43	0.43
2	6.92	23.36	18.31	10.03	95.52	7.93	1.77	1.75
4	7.11	27.12	21.24	9.89	96.96	7.85	1.95	1.92
6	7.10	27.93	21.88	9.99	98.42	7.81	1.98	1.96
10	7.01	29.11	22.81	9.83	97.52	8.03	2.06	2.02
15	6.78	29.94	23.49	9.45	93.75	7.76	2.11	2.08
20	6.57	30.43	23.90	8.65	85.64	7.87	2.11	2.09

Station: 0-12
 Time: 1605
 Date: 24/IV/62
 Lat: 52° 12.21' N
 Long: 127° 41.8' W
 Depth: 92 ft
 B.T. Ser. No. 53

Weather: Sl. intermit. rain
 Cloud: Type 5c Amt. 9
 Wind: Dir. 060 *T Spd. 5-8 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 54°F. W. 50°F.
 Baro: 998 mb.
 Secchi: 8 ft Col: Br-gn

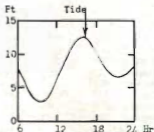


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	5.6	9.00	7.14	11.11	93.20	7.85	1.33	1.31
2	6.93	23.48	18.41	9.98	95.05	7.99	2.04	2.01
4	7.11	26.07	20.43	9.92	96.59	8.07	2.16	2.12
6	7.08	28.02	21.96	10.13	99.80	8.06	2.24	2.20
10	6.89	29.12	22.83	9.17	90.79	8.06	2.29	2.25
15	6.69	30.39	23.85	9.62	95.72	8.00	2.31	2.27
20	6.51	30.59	24.03	9.50	94.15	8.00	2.33	2.29
25	6.4 *	30.77	24.19	5.97	60.73	8.09	2.21	2.16

*Temperature taken from B.T. trace.

Stations 0-13
 Time: 1642
 Date: 24/IV/62
 Lat: 52° 20.9' N
 Long: 127° 41.8' W
 Depth: 82 ft
 B.T. Ser. No. 54

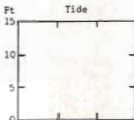
Weather: Sl. intermit. rain.
 Cloud: Type Sc Amt. 9
 Wind: Dir. 060° T Spd. 5 mph.
 Sea: - Swell: -
 Air Temp: D. 54°F. W. 50°F.
 Baro: 998 mb.
 Secchi: 8 ft Col: Br-90



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	5.9	9.17	7.27	11.19	94.51	7.97	0.81	0.79
2	6.90	22.66	17.76	9.63	91.28	8.09	1.59	1.56
4	7.10	26.32	20.62	9.85	96.00	8.15	1.85	1.80
6	7.11	28.04	21.96	10.00	98.72	8.14	1.97	1.93
10	6.89	29.42	23.06	9.09	90.09	8.06	2.08	2.04
15	6.48	30.51	23.61	8.86	87.72	8.01	2.12	2.08
20	6.42	30.55	24.09	8.04	79.60	7.91	2.16	2.12
25	6.22	30.88	24.30	6.20	61.26	7.79	2.16	2.13

Stations
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.

GOUSINS INLET

Surface Current Measurements

Station: G-10A Latitude: 52° 41.10' N Remarks:
 Date: 25/IV/62- Longitude: 127° 42.25' W
 26/IV/62 Location: In mid-harbour,
 Sounding: 160 ft. Ocean Falls

C. B. I. Drag Data

Time/Date	Current		Direction • T	Wind	
	Speed cm/sec	Speed Knots		Direction • T	Speed m.p.h.
0750/25/IV/62	36.9	0.717	284	-	0
0818f	34.2	0.664	292	-	0
0908f	36.3	0.705	292	-	6
1005f	35.6	0.692	294	080	8
1028f	34.2	0.664	294	080	8
1137f	36.9	0.717	290	080	9
1217f	35.6	0.692	293	120	5
1235f	36.9	0.717	300	120	10
1315f	35.6	0.692	268	-	6
1330f	33.5	0.651	270	180	9
1430f	0	0	060	100	6
1530f	0	0	350	-	0
1622f	33.5	0.651	270	-	0
1705f	36.3	0.705	314	086	6
1755f	36.9	0.717	285	090	6
1852f	38.3	0.744	282	085	6
2005f	36.9	0.717	280	120	8
2030f	37.6	0.730	280	085	7
2118f	34.2	0.664	284	-	0
2146f	34.2	0.664	282	-	0
2234f	13.1	0.254	296	138	4
2310f	36.3	0.705	302	090	6
2355/25/IV/62	34.9	0.678	283	100	6
0025/26/IV/62	32.2	0.625	258	100	6
0116f	33.5	0.651	290	050	6
0210f	25.2	0.490	272	025	4
0325f	40.4	0.785	268	160	4
0400f	39.0	0.758	268	280	12
0453f	26.3	0.511	270	-	7
0557f	39.0	0.758	280	280	4
0652/26/IV/62	36.9	0.717	292	310	4

COUSINS INLET

Ekman Current Meter Data

Station: C-10A (continued)

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction • T	Direction • T	Speed M.P.H.
		Cm/sec	Knots			
1437/25/IV/62	5	8.2	0.159	115	100	6
1445/	10	3.5	0.068	115	100	3-5
1454/	15	1.3	0.025	345	100	2-3
1503/	20	2.4	0.047	345	100	1-2
1512/	30	4.0	0.078	225	-	0
1521/	40	2.9	0.056	-	-	0
1531/	5	3.3	0.064	-	-	0
1540/	10	1.0	0.019	305	-	0
1549/	15	5.7	0.111	195	-	0
1558/	20	6.4	0.124	170	-	0
1607/	30	6.4	0.124	015	-	0
1615/	40	7.4	0.144	188	-	0
1709/	5	2.9	0.056	185	086	6
1718/	10	4.3	0.084	-	086	6
1726/	15	9.2	0.179	345	086	6
1734/	20	3.7	0.072	005	086	6
1743/	30	2.6	0.051	035	090	6
1750/	40	1.1	0.021	-	090	6
1801/	5	2.2	0.043	-	090	6
1808/	10	1.0	0.019	-	090	6
1818/	15	9.8	0.190	025	085	5
1826/	20	11.8	0.229	-	085	5
1859/	5	3.5	0.068	-	085	6
1907/	10	9.9	0.192	145	085	6
1914/	15	2.5	0.049	-	100	6-8
1945/	20	3.3	0.064	145	120	6-8
1952/	30	1.4	0.027	045	120	6-8
2001/	40	1.6	0.031	-	120	8
2033/	5	2.5	0.049	315	120	8
2040/	10	1.0	0.019	-	085	7
2048/	15	1.0	0.019	-	085	5-6
2056/	20	3.1	0.060	-	085	3-5
2104/	30	2.5	0.049	035	085	1-2
2112/	40	1.0	0.019	-	-	0
2151/	5	6.5	0.126	350	-	0
2158/	10	2.0	0.039	-	-	0
2205/	15	3.3	0.064	215	-	0

COUSINS INLET

Ekman Current Meter Data

Station: C-10A (continued)

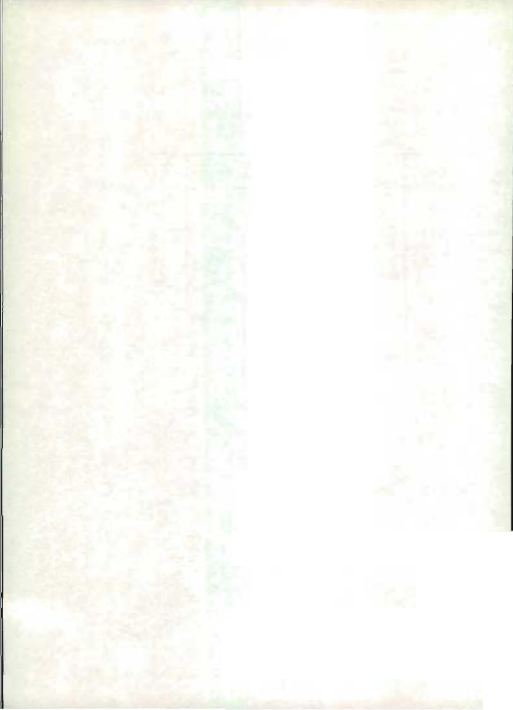
Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction ° T	Direction ° T	Speed m.p.h.
		Cm/sec	Knots			
2213/25/IV/62	20	2.6	0.051	355	140	1-2
2221/	30	1.0	0.019	-	138	2-3
2228/	40	4.6	0.089	145	138	4
2314/	5	4.1	0.080	195	090	6
2321/	10	4.4	0.085	015	095	6
2328/	15	2.0	0.039	-	095	6
2335/	20	3.7	0.072	195	100	6
2342/	30	2.1	0.041	025	100	6
2350/25/IV/62	40	1.0	0.019	-	100	6
0030/26/IV/62	5	7.2	0.140	115	100	6
0038/	10	17.1	0.332	103	100	6
0046/	15	6.4	0.124	-	090	6
0054/	20	9.3	0.181	268	060	6
0103/	30	8.3	0.161	220	060	6
0110/	40	7.1	0.138	325	050	6
0133/	5	9.5	0.185	143	180	3-4
0140/	10	15.5	0.301	125	180	3-4
0148/	15	1.7	0.033	325	180	3-4
0156/	20	3.2	0.062	-	200	4
0204/	40	4.3	0.084	285	200	4
0216/	30	8.3	0.161	215	205	4
0233/	5	9.0	0.175	175	205	4
0241/	10	15.0	0.291	212	180	3-4
0252/	10	10.1	0.196	-	180	3-4
0300/	20	4.6	0.089	-	180	3-4
0310/	30	7.0	0.136	125	160	4
0319/	40	7.6	0.148	-	160	4
0405/	5	3.5	0.068	259	280	12
0413/	10	21.3	0.414	141	280	10-12
0421/	15	4.2	0.082	165	280	8-10
0429/	20	1.7	0.033	-	300	6-8
0439/	30	1.8	0.035	-	000	6-7
0447/	40	1.0	0.019	-	000	7
0502/	5	6.5	0.126	319	000	5-7
0510/	10	0	0	-	000	5-7
0518/	15	0	0	-	300	4-6
0528/	20	2.2	0.043	142	300	4-6

COUSINS INLET

Elsen Current Meter Data

Station: C-10A (Continued)

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction • T	Direction • T	Speed M.P.H.
		Cs/sec	Knots			
0537/26/IV/62	30	1.6	0.031	-	280	4-5
0545/	40	4.2	0.082	100	280	4
0603/	5	4.6	0.099	345	280	4
0611/	10	7.2	0.140	172	280	3-5
0620/	15	1.8	0.035	055	300	3-5
0628/	20	1.8	0.035	-	300	3-5
0636/	30	5.2	0.101	005	300	3-5
0645/26/IV/62	40	7.4	0.144	148	310	4



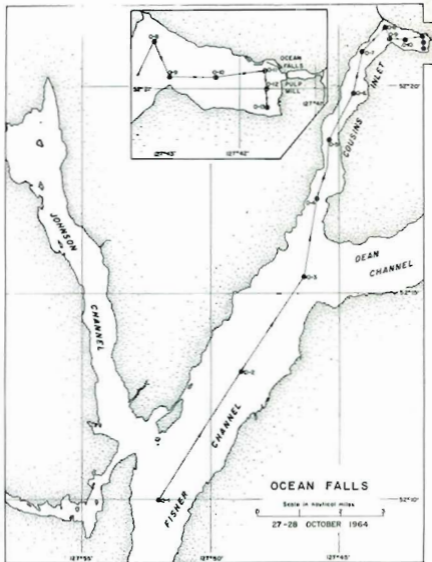
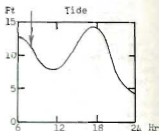


Fig. 11. Track chart of stations occupied in Fisher Channel-Cousins Inlet, 27-28 October 1964.



Stations: O-1
 Times: 0811
 Dates: 27/X/64
 Lat: 52° 10.00' N
 Longs: 127° 52.00' W
 Depth: 1908 ft
 B.T. Ser. No. 35

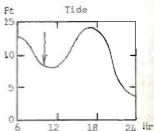
Weather: Clear
 Cloud: Type - Amt. 0
 Wind: Dir. 020° T Spd. 3 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 46 °F. W. 45 °F.
 Baro: 1017 mb.
 Secchi: 16.5 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.5	17.59	13.74	9.64	92.2	7.94	1.22	1.19
2	8.49	17.74	13.78	9.57	94.0	7.98	1.15	1.11
3.5	8.76	19.20	14.85	9.22	91.9	8.02	1.27	1.23
5.5	8.89	19.89	15.38	9.12	91.7	8.05	1.17	1.13
9	10.53	24.41	18.66	7.52	80.8	7.96	1.90	1.86
13.5	10.53	28.07	21.50	8.07	87.9	7.96	1.61	1.57
18	10.48	29.79	22.84	7.09	78.9	7.96	2.02	1.98
45	9.38	31.24	24.15	6.09	66.6	7.91	2.15	2.12
89	8.36	32.14	25.00	4.65	50.1	7.79	2.22	2.20
134	7.14	32.97	25.83	3.22	33.9	7.74	2.26	2.24
179	6.88	33.22	26.06	2.96	31.0	7.68	2.28	2.26
268	6.78	33.31	26.14	2.84	29.7	7.71	2.28	2.26
358	6.74	33.35	26.18	2.74	28.6	7.72	2.28	2.26

Stations: O-2
 Time: 1008
 Date: 27/X/64
 Lat: 52° 13.20' N
 Longs: 127° 48.80' W
 Depth: 1440 ft
 B.T. Ser. No. 36

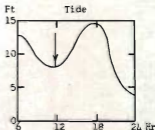
Weather: Clear, windy
 Clouds: Type - Amt. 0
 Wind: Dir. 360 °T Spd. 15 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 48 °F. W. 45 °F.
 Baro: 1016 mb.
 Secchi: 21 ft Col: Green



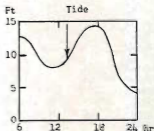
Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.0	20.51	15.76	9.18	92.9	7.94	1.02	0.99
1.5	9.02	20.55	15.86	9.00	91.2	7.96	1.02	0.98
3.0	9.18	21.44	16.54	8.87	90.6	7.99	1.50	1.46
4.5	9.29	21.87	16.86	8.74	89.7	7.99	1.61	1.57
8	9.86	23.93	18.38	7.97	84.2	7.93	1.69	1.66
12	10.55	29.56	22.64	7.18	80.0	7.92	2.01	1.98
16	10.60	29.57	22.15	7.13	79.6	7.94	2.07	2.04
39	9.76	31.08	23.96	6.23	68.8	7.93	2.16	2.13
79	9.87	31.81	24.51	5.34	59.5	7.82	2.20	2.17
118	7.90	32.39	25.26	3.75	40.1	7.75	2.26	2.23
158	7.24	32.91	25.77	3.23	34.1	7.71	2.28	2.26
236	6.84	33.26	26.10	2.95	30.9	7.69	2.23	2.31
315	6.74	33.34	26.17	2.81	29.3	7.65	2.30	2.28

Station: 0-3
 Time: 1212
 Date: 27/X/64
 Lat: 52° 15.40'N
 Long: 127° 46.30'W
 Depth: 1440 ft
 B.T. Ser. No. 37

Weather: Partly cloudy
 Cloud: Type St Amt. 4
 Wind: Dir. 360 °T Spd. 15 mph.
 Sea: 2 Swell: 0
 Air Temp: D. 45 °F. W. 42 °F.
 Baro: 1014 mb.
 Secchi: 10 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	8.6	13.99	10.82	9.39	90.2	7.73	0.89	0.87
1.5	8.62	16.30	12.62	9.62	93.8	7.93	0.93	0.90
3.5	8.66	16.83	13.02	9.64	94.5	7.95	1.13	1.09
5.0	8.92	18.50	14.29	9.33	92.9	7.99	1.24	1.20
8.5	10.27	27.18	20.86	7.32	79.7	7.91	1.86	1.83
13	10.16	28.48	21.87	6.73	73.6	7.92	1.93	1.90
17.5	10.50	29.75	22.80	6.90	76.8	7.93	2.05	2.02
26	10.26	30.68	23.56	6.74	74.6	7.94	2.09	2.06
43	9.53	31.27	24.14	5.93	65.2	7.88	2.15	2.12
87	8.52	31.96	24.85	4.68	50.5	7.80	2.18	2.16
130	7.58	32.66	25.52	3.46	36.7	7.72	2.24	2.22
173	6.91	33.20	26.03	2.98	31.2	7.71	2.25	2.23
260	6.77	33.32	26.15	2.85	29.8	7.67	2.29	2.27

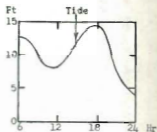


Station: 0-4
 Time: 1341
 Date: 27/X/64
 Lat: 52° 17.30' N
 Long: 127° 45.80' W
 Depth: 240 ft
 B.T. Ser. No. 38

Weather: Partly cloudy
 Cloud: Type St Amt. 4
 Wind: Dir. 020 °T Spd. 10 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 46 °F. W. 42 °F.
 Baro: 1014 mb.
 Secchi: 17 ft Col: Green

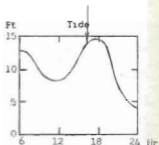
Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	8.9	13.15	10.13	9.35	90.0	7.52	0.89	0.88
2	8.96	17.38	13.41	9.38	92.9	7.95	1.15	1.11
4	9.58	21.24	16.32	8.14	83.8	7.87	1.43	1.40
6	10.35	26.73	20.49	7.11	77.3	7.90	1.83	1.80
10	10.46	28.59	21.90	7.11	78.5	7.94	1.94	1.91
15	10.46	29.34	22.49	6.75	74.9	7.93	2.01	1.98
20	10.21	30.33	23.30	5.87	65.4	7.91	2.09	2.06
30	9.94	31.00	23.88	6.17	68.4	7.92	2.09	2.06
50	9.06	31.55	24.44	5.10	55.8	7.86	2.16	2.13
70	8.38	32.00	24.89	3.88	41.8	7.77	2.18	2.16

Stations: 0-5 Weather: Clearing
 Times: 1455 Cloud: TypeSt-Cu Amt. 2
 Date: 27/X/64 Wind: Dir.020 °T Spd. 5 mph.
 Lat: 52° 18.70'N Sea: 0 Swell: 0
 Long: 127° 45.30'W Air Temp: D. 45 °F. W. 42 °F.
 Depth: 228 ft Baro: 1013 mb.
 B.T. Ser. No. 39 Secchi: 10 ft Col: Brownish-Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.0	12.25	9.42	8.95	86.0	7.44	0.80	0.79
2	9.05	15.51	11.94	8.81	86.5	7.66	0.93	0.91
4	9.76	20.02	15.36	8.44	86.6	7.88	1.38	1.35
6	10.33	25.05	19.19	6.72	72.2	7.82	1.73	1.71
10	10.45	28.41	21.77	6.93	76.0	7.92	1.94	1.91
15	10.41	29.34	22.50	6.04	66.9	7.92	2.03	2.00
20	10.03	30.00	23.07	4.72	52.1	7.82	2.06	2.03
30	9.92	30.73	23.66	5.19	57.4	7.85	2.09	2.06
50	9.13	31.50	24.38	4.48	48.9	7.82	2.15	2.12

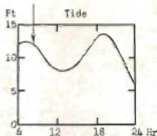
Stations: 0-6 Weather: Clear
 Times: 1630 Cloud: Type - Amt. 0
 Date: 27/X/64 Wind: Dir. 020 °T Spd. 5 mph.
 Lat: 52° 19.80' N Sea: 0 Swell: 0
 Long: 127° 44.40' W Air Temp: D. 45 °F. W. 42 °F.
 Depth: 216 ft Baro: 1012 mb.
 B.T. Ser. No. 40 Secchi: 11.5ft Col: Brownish-Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.0	10.89	8.36	8.13	77.4	7.31	0.83	0.83
2	9.42	17.80	13.69	8.44	84.7	7.86	1.24	1.21
4	10.06	21.06	16.12	7.64	79.5	7.85	1.48	1.45
6	10.41	26.11	20.00	5.98	64.9	7.84	1.83	1.80
10	10.44	28.45	21.80	6.11	67.4	7.90	1.95	1.92
15	10.24	29.22	22.43	5.93	65.4	7.92	2.06	2.03
20	9.92	29.98	23.07	4.10	45.2	7.79	2.11	2.08
30	9.52	30.88	23.84	4.08	44.7	7.76	2.18	2.15
50	8.89	31.53	24.45	3.17	34.5	7.70	2.18	2.16

Stations: O-7
 Time: 0801
 Date: 28/X/64
 Lat: 52° 20.80' N
 Long: 127° 44.00' W
 Depth: 180 ft
 B.T. Ser. No. 41

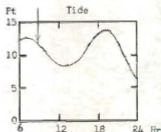
Weather: Light rain
 Cloud: Type St-Cu Amt. 10
 Wind: Dir. 360 °T Spd. 4 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 45 °F. W. 44 °F.
 Baro: 1010 mb.
 Secchi: 11.5 ft Col: Brownish-Green



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	8.5	2.70	1.99	10.25	91.8	6.93	0.10	0.10
2	10.00	19.85	15.20	7.39	76.3	7.70	1.33	1.31
4	10.38	25.48	19.52	5.55	59.9	7.76	1.73	1.70
6	10.38	27.51	21.10	5.16	56.5	7.80	1.92	1.89
10	10.16	29.17	22.41	4.98	48.1	7.75	2.02	1.99
15	9.74	29.91	23.05	2.83	31.0	7.65	2.08	2.06
20	9.47	30.34	23.42	2.12	23.1	7.61	2.15	2.13
30	9.12	30.86	23.89	2.32	25.2	7.59	2.15	2.13
50	8.90	31.56	24.53	0.00	00.0	7.37	2.24	2.23

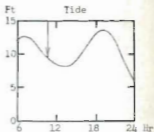
Station: O-8
 Time: 0907
 Date: 28/X/64
 Lat: 52° 21.40' N
 Long: 127° 43.10' W
 Depth: 200 ft
 B.T. Ser. No. 42

Weather: Light rain
 Cloud: Type Ns Amt. 10
 Wind: Dir. 360 °T Spd. 8 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 45 °F. W. 45 °F.
 Baro: 1010 mb.
 Secchi: 11.5 ft Col: Brownish-Green



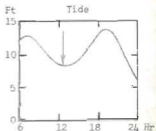
Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.8	6.33	4.90	9.37	84.2	7.22	0.39	0.39
2	10.08	20.19	15.46	7.25	75.4	7.77	1.40	1.37
4	10.41	26.67	20.44	5.06	55.1	7.79	1.87	1.84
6	10.39	27.57	21.14	5.06	55.3	7.79	1.87	1.84
10	10.20	29.00	22.37	3.15	34.6	7.62	-	-
15	9.80	29.92	23.04	2.70	29.6	7.63	2.09	2.07
20	9.40	30.41	23.49	1.99	21.7	7.58	2.10	2.08
30	9.09	30.85	23.89	0.75	8.1	7.44	2.12	2.11
40	8.78	31.21	24.21	0.60	6.5	7.43	2.17	2.16

Stations: 0-9 Weather: Rain
 Time: 1047 Cloud: Type Ms Amt. 10
 Date: 28/X/64 Wind: Dir. 360 °T Spd. 9 mph.
 Lat: 52° 21.10' N Sea: 0 Swell: 0
 Long: 127° 42.90' W Air Temp: D. 45 °F. W. 45 °F.
 Depth: 192 ft Baro: 1010 mb.
 B.T. Ser. No. 43 Secchi: 10 ft Col: Greenish-Brown



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.1	10.36	7.94	8.55	81.4	7.41	0.67	0.66
2	10.06	19.76	15.12	6.90	71.3	7.68	1.38	1.36
4	10.37	26.48	20.30	4.95	53.7	7.72	1.82	1.80
6	10.34	28.30	21.70	4.92	54.0	7.78	1.94	1.91
10	10.10	29.29	22.51	3.76	41.3	7.71	2.00	1.98
15	9.68	30.07	23.18	2.61	28.6	7.66	2.11	2.09
20	9.32	30.48	23.56	1.67	18.2	7.57	2.17	2.15
30	9.12	30.96	23.96	2.40	26.1	7.52	2.15	2.14
50	8.50	31.57	24.54	0.00	00.0	7.43	2.25	2.24

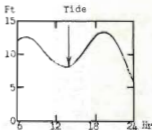
Stations: 0-10 Weather: Heavy rain
 Time: 1246 Cloud: Type Ms Amt. 10
 Date: 28/X/64 Wind: Dir. 360 °T Spd 0-1 mph.
 Lat: 52° 21.10' N Sea: 0 Swell: 0
 Long: 127° 42.30' W Air Temp: D. 45 °F. W. 45 °F.
 Depth: 144 ft Baro: 1010 mb.
 B.T. Ser. No. 44 Secchi: 10 ft Col: Brownish-Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	8.6	6.29	4.81	9.53	87.4	7.38	0.39	0.38
2	9.76	16.86	12.92	7.69	77.3	7.66	1.13	1.11
4	10.26	22.00	16.82	6.43	67.6	7.76	1.53	1.50
6	10.34	28.24	21.65	4.60	50.4	7.81	1.95	1.92
10	10.20	28.86	22.16	3.79	41.6	7.72	2.00	1.98
15	9.88	29.72	22.88	2.86	31.4	7.70	2.10	2.08
20	9.50	30.34	23.42	2.17	23.7	7.61	2.11	2.09
30	9.00	30.83	23.88	0.82	8.9	7.45	2.11	2.10
40	8.76	31.18	24.20	0.01	0.1	7.41	2.23	2.22

Stations: O-11
 Time: 1400
 Date: 28/X/64
 Lat: 52° 21.14' N
 Long: 127° 41.65' W
 Depth: 81 ft
 B.T. Ser. No. 45

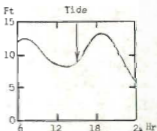
Weather: Rain
 Cloud: Type Ns Amt. 10
 Wind: Dir. 020 °T Spd. 1-2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 46 °F. W. 46 °F.
 Baro: 1010 mb.
 Secchi: 10 ft Col: Brownish-Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	8.4	3.73	2.80	9.91	89.0	7.14	0.32	0.32
2	9.63	16.45	12.61	7.33	73.3	7.51	1.12	1.11
4	10.09	20.99	16.07	6.39	66.5	7.65	1.45	1.43
6	10.31	24.75	18.96	4.81	51.6	7.64	1.79	1.77
10	10.16	28.96	22.24	2.96	32.5	7.57	2.00	1.98
15	9.97	29.57	22.75	2.65	29.1	7.58	2.09	2.08
20	9.58	30.19	23.29	1.65	18.0	7.48	2.13	2.12

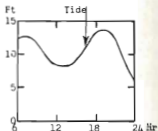
Station: O-12
 Time: 1513
 Date: 28/X/64
 Lat: 52° 21.00' N
 Long: 127° 41.63' W
 Depth: 72 ft
 B.T. Ser. No. 46

Weather: Rain
 Cloud: Type Ns Amt. 10
 Wind: Dir. 020 °T Spd. 1-2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 46 °F. W. 44 °F.
 Baro: 1010 mb.
 Secchi: 8 ft Col: Brownish-Green



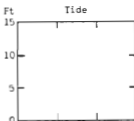
Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	8.5	1.63	1.14	9.52	84.8	6.63	0.04	0.04
2	9.74	17.87	13.70	7.49	75.7	7.61	1.24	1.22
4	10.03	20.25	15.50	7.01	72.6	7.66	1.40	1.38
6	10.24	23.62	18.09	5.72	60.7	7.69	1.65	1.63
10	10.37	27.63	21.19	3.97	43.4	7.63	1.95	1.93
15	10.15	29.09	22.34	3.53	38.8	7.65	2.05	2.03
20	9.79	29.89	23.04	0.90	9.9	7.44	2.18	2.17

Stations: 0-13 Weather: Rain
 Time: 1641 Cloud: Type Na Amt. 10
 Date: 28/X/64 Wind: Dir. - *T Spd. 0 mph.
 Lat: 52° 20.85'N Sea: 0 Swell: 0
 Long: 127° 41.62'W Air Temp: D. 42 °F. W. 42 °F.
 Depth: 72 ft Baro: 1009 mb.
 B.T. Ser. No. 47 Secchi: 2.5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.9	5.60	4.32	7.78	69.8	7.20	0.42	0.42
2	9.92	19.81	15.18	7.53	77.5	7.71	1.41	1.39
4	10.21	22.81	17.46	6.28	66.4	7.69	1.61	1.59
6	10.37	26.38	20.22	4.42	47.9	7.63	1.89	1.87
10	10.30	28.34	21.74	3.75	41.2	7.63	1.97	1.95
15	10.06	29.27	22.50	2.13	23.4	7.49	2.07	2.06
20	9.68	30.02	23.15	0.38	4.2	7.38	2.18	2.17

Stations: Weather:
 Time: Cloud: Type Amt.
 Date: Wind: Dir. *T Spd. mph.
 Lat: Sea: Swell:
 Long: W Air Temp: D. *F. W. *F.
 Depth: ft Baro: mb.
 B.T. Ser. No. Secchi: ft Col:



Depth	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.



The graph shows a wave-like pattern. The x-axis is labeled 'Time' and the y-axis is labeled 'Amplitude'. The curve starts at a low point, rises to a peak, falls to a trough, rises to a second peak, and falls to a second trough. The peaks are higher than the troughs.

The graph shows a wave-like pattern. The x-axis is labeled 'Time' and the y-axis is labeled 'Amplitude'. The curve starts at a low point, rises to a peak, falls to a trough, rises to a second peak, and falls to a second trough. The peaks are higher than the troughs.

The graph shows a wave-like pattern. The x-axis is labeled 'Time' and the y-axis is labeled 'Amplitude'. The curve starts at a low point, rises to a peak, falls to a trough, rises to a second peak, and falls to a second trough. The peaks are higher than the troughs.

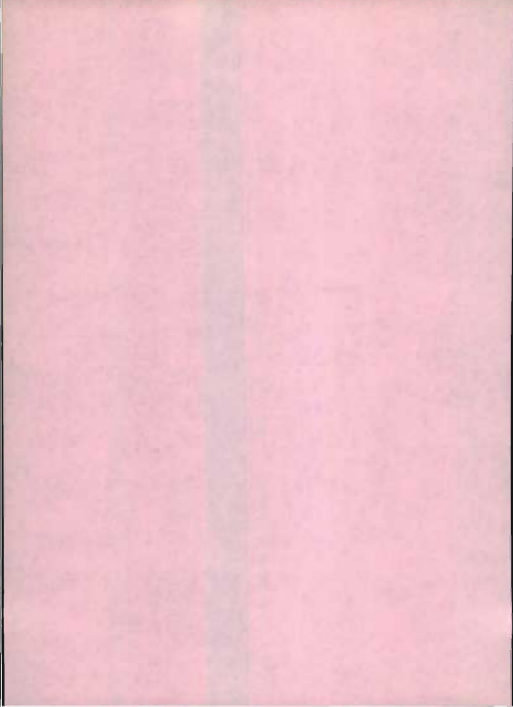


The graph shows a wave-like pattern. The x-axis is labeled 'Time' and the y-axis is labeled 'Amplitude'. The curve starts at a low point, rises to a peak, falls to a trough, rises to a second peak, and falls to a second trough. The peaks are higher than the troughs.

The graph shows a wave-like pattern. The x-axis is labeled 'Time' and the y-axis is labeled 'Amplitude'. The curve starts at a low point, rises to a peak, falls to a trough, rises to a second peak, and falls to a second trough. The peaks are higher than the troughs.

The graph shows a wave-like pattern. The x-axis is labeled 'Time' and the y-axis is labeled 'Amplitude'. The curve starts at a low point, rises to a peak, falls to a trough, rises to a second peak, and falls to a second trough. The peaks are higher than the troughs.

DOUGLAS CHANNEL - KITIMAT ARM



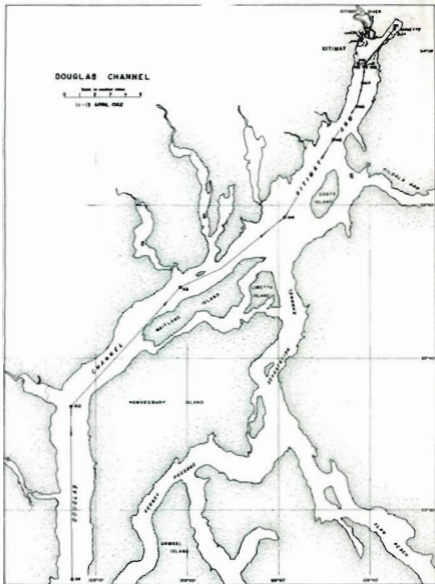
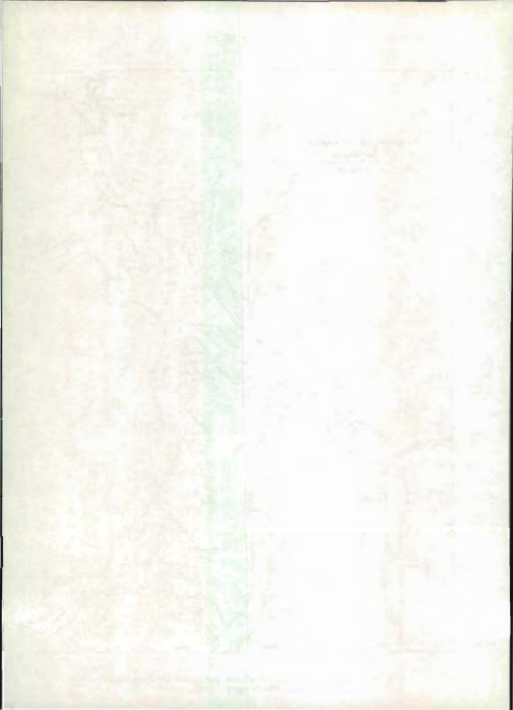
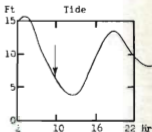


Fig. 12. Track chart of stations occupied in Douglas Channel-Ritimac Arm, 11-13 April 1962.



Stations: K-1
 Time: 1008
 Date: 11/IV/62
 Lat: 53° 25.3' N
 Long: 129° 12.5' W
 Depth: 1273 ft
 B.T. Ser. No. 1

Weather: Overcast
 Cloud: Type Cu-Ns Amt. 10
 Wind: Dir. 340° T Spd. 4-5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. °F. W. °F.
 Baro: 1022 mb.
 Secchi: 11.5 ft Col: Dark green

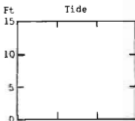


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.8	30.58	23.98	13.24	132.40	8.58	2.11	1.98
2	6.63	30.56	24.00	13.32	132.67	8.58	2.14	2.01
4	6.67	30.73	24.12	12.88	128.67	8.29	2.11	2.03
6	6.57	31.00	24.34	11.45	114.16	8.18	2.15	2.09
10	6.44	31.18	24.50	10.37	103.39	8.12	2.10	2.05
15	6.46	31.33	24.46	10.24	102.40	8.07	2.14	2.09
20	6.42	31.45	24.48	9.56	95.60	8.11	2.16	2.11
30	6.72	31.71	24.89	8.26	83.18	8.08	2.21	2.16
50	6.48	32.03	25.17	7.94	79.80	7.97	2.17	2.13
100	6.94	32.42	25.42	6.94	70.46	7.96	2.23	2.19

(continued below)

Stations: K-1 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:

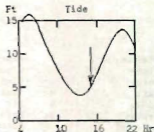


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
150	6.98	32.60	25.56	6.44	65.51	7.96	2.24	2.19
200	6.99	32.61	25.56	6.33	64.33	7.98	2.24	2.19
250	6.95*	32.69	25.63	6.36	66.53	7.94	2.25	2.21
300	6.91	32.75	25.68	6.04	61.38	7.94	2.23	2.19
350	7.13	32.80	25.71	5.31	54.18	7.88	2.24	2.20

* Interpolated value

Stations: K-2
 Time: 1514
 Date: 11/IV/62
 Lat: 53° 36.8' N
 Long: 129° 12.8' W
 Depth: 886 ft
 B.T. Ser. No. 2

Weather: Overcast, rain
 Cloud: Type Cu-Ns Amt. 10
 Wind: Dir. 00 °T Spd. 5-7 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 52 °F. W. 53 °F.
 Baro: 1022 mb.
 Secchi: 13 ft Col: Green

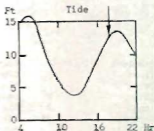


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.4	28.26	22.22	11.99	116.18	8.27	1.95	1.88
2	6.63	28.14	22.88	13.14	126.33	8.33	2.00	1.93
4	6.7	28.84	23.42	13.53	137.78	8.38	2.02	1.93
6	6.69	30.33	23.80	13.53	134.49	8.36	2.06	1.97
10	6.6	30.58	24.01	10.84	110.84	8.18	2.06	2.00
14	6.49	30.94	24.31	9.85	97.82	8.10	2.11	2.06
19	6.45	31.24	24.55	8.35	83.33	8.05	2.15	2.10
29	6.44	31.45	24.72	8.95	89.50	8.02	2.10	2.06
49	6.44	31.66	24.88	8.70	87.00	7.99	2.14	2.10
96	6.61	32.04	25.16	8.07	80.34	7.98	2.17	2.13
144	6.96	32.36	25.37	7.40	75.20	7.93	2.17	2.13
192	7.05	32.57	25.53	6.19	63.16	7.88	2.16	2.12

*Temperature taken from B.T. trace.

Stations: K-3
 Time: 1734
 Date: 11/IV/62
 Lat: 53° 44.6' N
 Long: 129° 00.7' W
 Depth: 1246 ft
 B.T. Ser. No. 3

Weather: Overcast
 Cloud: Type Cu-Ns Amt. 10
 Wind: Dir. 00 °T Spd. 2-4 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 44 °F. W. 46 °F.
 Baro: 1018 mb.
 Secchi: 11.5 ft Col: Green

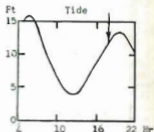


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.1	26.99	20.83	13.13	128.34	8.58	1.81	1.70
2	7.14	27.13	21.25	13.41	131.60	8.57	1.87	1.76
4	6.68	30.00	23.55	12.43	123.31	8.30	2.05	1.97
6	6.61	30.09	23.56	11.62	115.28	8.27	2.06	1.98
10	6.64	30.13	23.65	11.27	111.92	8.24	2.06	2.00
15	6.45	30.93	24.31	9.45	94.12	8.05	2.11	2.06
20	6.44	31.45	24.72	8.71	86.93	7.99	2.16	2.12
30	6.53	31.71	24.91	8.29	83.07	8.03	2.19	2.15
50	6.67	32.12	25.21	7.75	78.28	7.94	2.23	2.19
99	7.10	32.45	25.42	6.50	66.32	7.88	2.23	2.19

(continued on next page)

Stations: K-3 (cont'd)
 Times:
 Date:
 Lat: N
 Longs: W
 Depth: ft
 B.T. Ser. No.

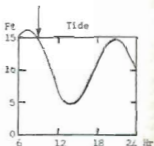
Weather:
 Cloud: Type Amt.
 Wind: Dir. *T Spd. mph.
 Sea: Swell:
 Air Temp: D. *F. W. *F.
 Baro: mb.
 Secchi: ft Col: Col:



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
149	7.12	32.59	25.53	5.97	60.92	7.86	2.24	2.20
173	7.10	32.62	25.55	5.98	61.02	7.86	2.23	2.19
217	7.09	32.67	25.60	5.71	58.26	7.85	2.25	2.21
260	7.10	32.70	25.62	5.56	56.73	7.83	2.24	2.21
306	7.16	32.74	25.64	5.30	54.19	7.82	2.26	2.23

Stations: K-4
 Times: 0909
 Date: 12/17/62
 Lat: 53° 49.2' N
 Longs: 128° 49.3' W
 Depth: 1194 ft
 B.T. Ser. No. 4

Weather: Clear
 Cloud: Type Cu-Ns Amt. 8
 Wind: Dir. 172 *T Spd. 6-9 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 44 *F. W. 43 *F.
 Baro: 1009 mb.
 Secchi: 13 ft Col: Green

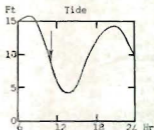


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.6	27.17	21.22	12.27	121.49	8.57	1.71	1.60
2	7.34	28.30	22.14	14.06	139.48	8.56	2.00	1.89
4	7.24	28.73	22.49	13.73	136.34	8.54	2.01	1.90
6	7.11	29.31	22.96	13.22	131.80	8.43	2.09	2.01
10	6.65	30.34	23.81	10.80	107.46	8.17	2.10	2.05
15	6.48	30.92	24.30	9.93	98.61	8.09	2.14	2.09
20	6.34	31.23	24.55	9.11	90.38	8.00	2.11	2.07
30	6.34	31.49	24.76	8.38	83.47	7.98	2.19	2.15
50	6.8 *	31.75	24.92	8.13	84.10	7.91	2.18	2.14
100	7.02	32.24	25.27	7.13	72.39	7.90	2.23	2.19
150	7.33	32.50	25.43	5.83	59.61	7.84	2.24	2.21
200	7.21	32.54	25.48	5.87	59.96	7.85	2.24	2.20
250	7.31	32.79	25.67	4.54	46.52	7.79	2.25	2.22

*Temperature taken from S.T. trace.

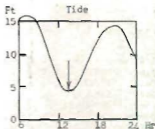
Station: K-5
 Time: 1100
 Date: 12/IV/62
 Lat: 53° 54.3' N
 Long: 128° 44.0' W
 Depth: 858 ft
 B.T. Ser. No. 5

Weather: Overcast, rain
 Cloud: Type Cu-Ns Amt. 10
 Wind: Dir. 180° T Spd 15-20 mph.
 Sea: 2 Swell: 1
 Air Temp: D. 44°F. W. 43°F.
 Baro: 1009 mb.
 Secchi: 15 ft Col: yl-gn



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.7	17.90	13.96	11.99	111.74	8.61	1.27	1.18
2	7.62	21.91	17.10	12.72	121.84	8.67	1.52	1.42
4	7.49	25.07	19.54	13.51	131.55	8.64	1.82	1.71
5	7.41	28.70	22.43	14.27	142.56	8.58	2.01	1.90
9	6.91	30.24	23.71	13.26	132.20	8.36	2.09	2.00
14	6.34	30.90	24.29	10.89	107.72	8.15	2.09	2.03
18	6.27	31.13	24.49	9.30	92.08	8.02	2.14	2.10
27	6.07	31.43	24.74	8.33	82.39	7.97	2.17	2.13
45	6.2 *	31.66	24.92	8.06	82.28	7.92	2.17	2.13
90	6.87	31.99	25.09	7.42	74.94	7.91	2.18	2.14
135	7.45	32.44	25.37	5.51	56.45	7.86	2.22	2.18
180	7.39	32.59	25.50	5.10	52.31	7.85	2.25	2.21
225	7.26	32.67	25.58	5.21	53.27	7.85	2.23	2.19

*Temperature taken from B.T. trace.



Station: K-6
 Time: 1332
 Date: 12/IV/62
 Lat: 53° 56.4' N
 Long: 128° 43.4' W
 Depth: 660 ft
 B.T. Ser. No. 6

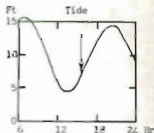
Weather: Moderate rain
 Cloud: Type Cb Amt. 10
 Wind: Dir. 200° T Spd. 14 mph.
 Sea: 2 Swell: 1
 Air Temp: D. 46°F. W. 46°F.
 Baro: 1012 mb.
 Secchi: 13 ft Col: yl-gn

Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.7	20.59	16.06	12.25	116.56	8.59	1.42	1.33
2	7.59	22.47	17.54	12.80	123.07	8.64	1.67	1.57
4	7.58	27.23	21.27	13.54	134.05	8.59	1.85	1.74
6	7.57	28.11	21.95	14.58	145.65	8.59	1.97	1.86
10	7.01	28.90	22.64	13.24	131.21	8.39	2.06	1.98
15	6.5 *	30.95	24.33	10.87	110.92	8.11	2.15	2.10
20	6.2 *	31.24	24.58	8.82	89.73	7.98	2.15	2.11
30	6.11	31.46	24.76	8.23	81.40	7.98	2.20	2.16
49	6.41	31.71	24.92	7.99	79.90	7.92	2.19	2.15
99	7.42	32.29	25.25	5.99	61.44	7.86	2.21	2.17
148	7.51	32.52	25.42	5.12	52.56	7.85	2.23	2.19
198	7.34	32.64	25.54	4.94	50.56	7.81	2.27	2.24

*Temperature taken from B.T. trace.

Station: F-7
 Time: 1543
 Date: 12/17/62
 Lat: 53° 57.0' N
 Long: 128° 40.7' W
 Depth: 558 ft
 B.T. Ser. No. 7

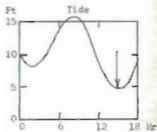
Weather: Rain, showers
 Cloud: Type Cu-Ns Amt. 10
 Wind: Dir. 200 *T Spd. 16 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 46°F. W. 46°F.
 Baro: 1013 mb.
 Secchi: 8 ft Col: yl-gn



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.8	11.53	9.06	11.85	103.95	7.48	0.91	0.90
2	6.67	11.35	8.94	11.71	102.27	8.14	0.60	0.59
4	7.51	20.96	16.37	12.64	118.03	8.48	1.52	1.45
6	7.46	26.86	21.91	13.36	131.50	8.58	1.94	1.83
10	7.20	29.42	23.02	13.79	137.90	8.47	2.07	1.98
15	6.42	30.79	24.19	13.60	125.12	8.26	2.14	2.06
20	6.04	31.23	24.99	8.94	88.08	8.00	2.17	2.13
30	6.13	31.99	24.79	8.07	79.90	7.94	2.18	2.14
50	6.41	31.71	24.92	7.99	79.80	7.91	2.20	2.16
100	7.40	32.32	24.26	5.70	58.46	7.82	2.32	2.19
150	7.51	32.53	25.43	4.88	49.10	7.82	2.27	2.24

Station: F-8
 Time: 1448
 Date: 12/17/62
 Lat: 53° 59.2' N
 Long: 128° 41.2' W
 Depth: 294 ft
 B.T. Ser. No. 10

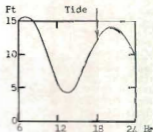
Weather: Clear
 Cloud: Type Ac Amt. 9
 Wind: Dir. 207 *T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. *F. W. *F.
 Baro: 1013 mb.
 Secchi: 5 ft Col: yl-br



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.8	4.54	3.56	11.82	99.16	7.49	0.26	0.25
2	7.64	20.88	16.28	12.65	118.34	8.58	1.35	1.26
4	7.9°	24.57	19.19	13.06	127.16	8.58	1.65	1.54
6	7.56	29.31	22.12	14.54	145.11	8.56	1.93	1.82
10	6.80	30.42	23.86	13.73	136.89	8.34	2.06	1.98
15	6.31	30.95	24.34	10.35	102.48	8.07	2.10	2.05
20	6.13	31.16	24.52	8.94	87.91	7.87	2.10	2.06
30	6.24	31.54	24.81	7.95	79.02	7.96	2.17	2.13
50	6.41	31.71	24.92	7.90	79.00	7.87	2.09	2.05
100	7.40	32.25	25.23	6.02	60.20	7.77	2.12	2.09

Station: K-9
 Time: 1809
 Date: 12/IV/62
 Lat: 53° 59.2' N
 Long: 128° 40.5' W
 Depth: 289 ft
 B.T. Ser. No. 8

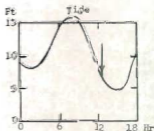
Weather: Slight rain
 Cloud: Type Cu-As Amt. 10
 Wind: Dir. 206° T Spd. 12 mph.
 Sea: 2 Swell: 0
 Air Temp: D. 47°F. W. 47°F.
 Baro: 1014 mb.
 Secchi: 8 ft Col: yl-gn



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.4	10.24	8.00	11.85	104.31	8.16	0.89	0.88
2	7.18	14.31	11.21	11.87	106.84	8.49	1.25	1.24
4	7.34	16.33	15.12	12.25	114.48	8.51	1.46	1.41
6	7.42	26.45	20.68	13.24	130.05	8.58	1.91	1.80
10	6.79	30.19	23.68	12.90	128.20	8.37	2.10	2.02
15	6.37	30.90	24.29	10.78	106.73	8.18	2.16	2.10
20	6.14	31.13	24.90	8.90	87.77	8.00	2.14	2.10
30	6.11	31.47	24.77	8.02	79.41	7.96	2.21	2.17
50	6.38	31.68	24.90	7.80	77.84	7.90	2.16	2.12
80	6.93	31.99	25.08	6.55	66.30	7.81	2.23	2.20

Station: K-9A
 Time: 1303
 Date: 13/IV/62
 Lat: 53° 59.2' N
 Long: 128° 45.4' W
 Depth: 324 ft
 B.T. Ser. No. 9

Weather: Overcast, dull
 Clouds: Type As Amt. 9
 Wind: Dir. 360° T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 46°F. W. 47°F.
 Baro: 1014 mb.
 Secchi: 5 ft Col: yl-br

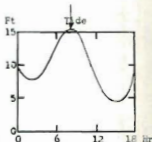


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.4	4.07	3.20	11.81	97.85	7.63	0.31	0.30
2	7.67	21.05	16.42	12.46	118.56	8.98	1.40	1.32
4	7.63	24.58	19.19	13.06	127.29	8.97	1.65	1.55
6	7.40	28.88	22.67	14.08	140.80	8.49	1.95	1.86
10	6.49	30.72	24.13	13.73	116.37	8.38	2.04	1.98
15	6.30	30.97	24.35	10.20	100.99	8.08	2.07	2.02
20	6.04	31.28	24.63	8.54	84.30	7.89	2.09	2.05
30	6.23	31.56	24.83	8.08	80.00	7.95	2.11	2.07
50	6.5*	31.74	24.94	7.81	80.27	7.85	2.10	2.06
80	7.29	32.21	25.21	5.79	59.08	7.78	2.12	2.09

*Temperature taken from B.T. trace.

Stations: K-10
 Times: 0838
 Date: 13/IV/62
 Lat: 53° 59.2' N
 Long: 128° 39.6' W
 Depth: 300 ft
 B.T. Ser. No. 8

Weather: Dull (Fog - lifting)
 Clouds: Type As Amt. 8
 Winds: Dir. 360 *T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 47 *F. W. 45 *F.
 Baro: 1015 mb.
 Secchi: 10 ft Col: Dark yellow-green

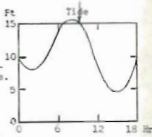


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	5.3	1.88	1.55	11.36	102.23	7.43	0.32	0.32
2	7.68	21.60	16.86	12.34	117.86	8.59	1.55	1.45
4	7.66	24.15	18.85	13.63	132.58	8.57	1.69	1.59
6	7.90	27.43	21.44	13.63	134.94	8.56	1.87	1.76
10	6.83	30.33	23.79	11.40	113.77	8.29	2.07	2.00
15	6.77	30.01	23.60	9.94	97.64	8.06	2.14	2.10
20	6.00	31.32	24.67	8.40	80.60	7.90	2.15	2.11
30	6.26	31.58	24.84	8.02	79.80	7.93	2.13	2.09
50	6.5	31.73	24.94	8.02	82.63	7.86	2.17	2.13
80	7.02	32.05	25.12	6.75	68.53	7.85	2.14	2.10

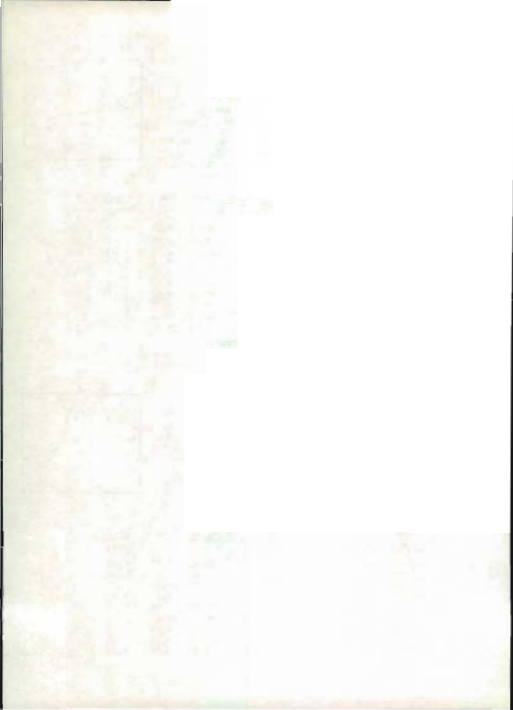
*Temperature taken from B.T. trace.

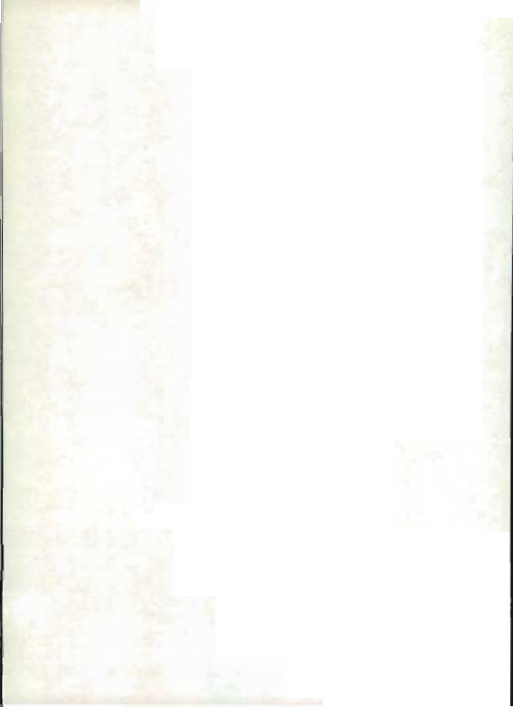
Stations: K-11
 Times: 0833-0952
 Date: 13/IV/62
 Lat: 54° 01.5' N
 Long: 128° 37.1' W
 Depth: 108 ft
 B.T. Ser. No. 12

Weather: Overcast, low clouds, fog-
 Clouds: Type Ac-Ns Amt. 10 like.
 Winds: Dir. - *T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 47 *F. W. 45 *F.
 Baro: mb.
 Secchi: 6.5 ft Col: Turbid: brown



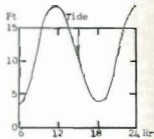
Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	5.6	2.27	1.81	12.00	96.54	7.27	0.05	0.05
2	6.06	9.29	7.35	11.77	109.23	8.15	0.89	0.89
4	6.61	12.39	9.75	11.89	104.30	8.37	0.95	0.89
6	6.69	15.84	12.44	11.64	104.80	8.19	1.81	1.77
10	6.07	27.98	22.04	11.17	107.71	7.96	1.94	1.90
15	6.39	29.87	23.48	9.15	89.71	8.40	0.71	0.62
20	6.97	30.86	24.32	8.04	78.75	7.85	1.98	1.94
25	6.03	31.22	24.58	6.44	63.45	7.74	2.06	2.04
30	6.23	31.27	24.60	5.88	58.22	7.72	2.08	2.06





Stations: K-1
 Time: 1517
 Date: 19/4/64
 Lat: 53° 25.40' N
 Long: 129° 12.50' W
 Depth: 1320 ft
 B.T. Ser. No. 11

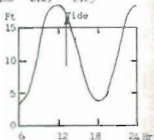
Weather: Cloudy, calm
 Cloud: Type Ac Amt. 10
 Wind: Dir. 030 °T Spd. 1-3 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 57 °F. W. 56 °F.
 Baro: 1021 mb.
 Secchi: 18 ft Col: Yellowish-Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.7	19.44	14.93	9.73	99.5	7.94	1.24	1.21
2	9.10	20.83	16.08	9.55	97.1	8.01	1.41	1.37
4	9.11	21.08	16.27	9.55	97.3	7.98	1.43	1.39
6	9.17	21.49	16.58	9.46	96.6	7.95	1.43	1.39
10	9.26	22.38	17.26	9.35	96.4	7.98	1.50	1.46
15	9.73	26.66	20.53	8.41	90.0	7.98	1.79	1.75
20	10.08	29.15	22.40	7.92	87.0	7.97	2.00	1.96
30	9.64	30.72	23.70	6.97	76.7	7.98	2.11	2.06
50	8.77	31.16	24.18	5.77	62.4	7.95	2.14	2.09
100	7.29	32.58	25.50	4.08	43.0	7.86	2.24	2.20
150	6.88	32.98	25.87	4.05	42.4	7.85	2.27	2.23
200	6.70	33.11	26.00	4.03	42.0	7.85	2.28	2.24
300	6.68	33.22	26.08	3.73	38.9	7.86	2.29	2.25

Stations: K-2
 Time: 1323
 Date: 19/4/64
 Lat: 53° 35.80' N
 Long: 129° 12.60' W
 Depth: 960 ft
 B.T. Ser. No. 10

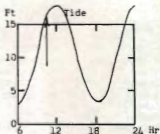
Weather: Cloudy, calm
 Cloud: Type Ac Amt. 9
 Wind: Dir. 225 °T Spd. 1-3 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 54 °F. W. 51 °F.
 Baro: 1021 mb.
 Secchi: 10 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.4	12.81	6.74	10.39	101.0	7.84	0.87	0.84
2	8.72	15.67	12.10	9.95	96.9	7.89	1.03	1.00
4	8.76	17.99	13.91	9.80	97.0	7.92	1.15	1.12
6	8.80	18.70	14.46	9.66	95.6	7.94	1.24	1.21
10	9.12	21.59	16.66	9.19	94.0	7.96	1.48	1.44
15	9.32	26.54	20.50	7.80	82.7	7.93	1.77	1.73
20	9.07	28.85	22.33	6.78	72.6	7.95	1.99	1.95
30	9.25	30.34	23.46	6.57	71.4	7.96	2.09	2.05
50	8.66	31.15	24.18	5.76	62.1	7.88	2.15	2.12
100	7.32	32.36	25.33	4.34	45.7	7.80	2.25	2.23
150	6.90	32.94	25.84	4.16	43.6	7.78	2.27	2.25
200	6.71	33.13	26.00	4.11	42.9	7.80	2.28	2.26
250	6.66	33.17	26.05	4.07	42.4	7.81	2.29	2.27

Stations: K-3
 Time: 1032
 Date: 19/1/64
 Lat: 53° 44.60' N
 Long: 129° 00.60' W
 Depth: 1170 ft
 B.T. Ser. No. 9

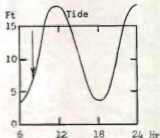
Weather: Mostly cloudy
 Cloud: Type Ac-Sc Amt. 9
 Wind: Dir. - *T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 49 °F. W. 46 °F.
 Baro: 1021 mb.
 Secchi: 9 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.7	14.06	10.76	10.18	111.5	7.81	0.93	0.90
1.5	8.32	14.06	10.91	8.62	82.3	7.87	0.93	0.90
2.5	8.28	14.38	11.15	10.16	97.1	7.89	0.93	0.90
4	8.38	16.15	12.53	9.66	93.6	7.90	1.10	1.07
6.5	8.46	18.54	14.38	8.85	87.3	7.95	1.22	1.18
10	8.74	19.89	15.39	7.78	77.8	7.94	1.30	1.27
13.5	8.68	20.91	16.18	8.60	86.6	7.97	1.50	1.46
27	8.97	29.97	23.21	-	-	7.92	2.05	2.02
60	8.88	30.02	23.26	5.70	61.3	7.92	2.15	2.12
94	8.79	31.79	24.66	4.76	51.6	7.85	2.16	2.13
127	7.33	32.36	25.32	4.28	45.1	7.82	2.24	2.22
194	6.79	33.05	25.93	4.23	44.2	7.87	2.28	2.25

Stations: K-4
 Time: 0822
 Date: 19/1/64
 Lat: 53° 50.60' N
 Long: 128° 47.40' W
 Depth: 1170 ft
 B.T. Ser. No. 8

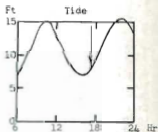
Weather: Clearing, bright
 Cloud: Type Sc Amt. 8
 Wind: Dir. 220 *T Spd. 9-11 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 49 °F. W. 44 °F.
 Baro: 1021 mb.
 Secchi: 8 ft Col: Brownish-Green



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	8.1	9.25	7.17	10.82	99.8	7.64	0.59	0.57
1.5	8.12	11.38	8.83	10.47	97.9	7.77	0.67	0.65
3.5	8.17	-	-	10.20	-	7.84	0.78	0.76
5.0	8.20	12.82	9.95	10.08	95.3	7.85	0.83	0.80
8.5	8.35	15.86	12.30	4.64	44.8	7.90	0.96	0.93
13	8.74	24.44	18.94	5.27	54.3	7.89	1.61	1.58
17	8.78	27.38	21.23	6.72	70.7	7.95	1.87	1.83
26	8.52	29.32	22.77	6.03	64.0	7.90	2.01	1.98
43	8.47	30.72	23.88	5.53	59.1	7.88	2.09	2.06
60	8.22	31.16	24.26	5.12	54.6	7.85	2.14	2.11
87	7.68	31.87	24.89	4.66	49.3	7.81	2.18	2.16
130	7.20	32.54	25.49	4.22	44.4	7.80	2.25	2.23
216	6.74	33.11	25.99	4.39	45.8	7.81	2.28	2.26

Station: K-5
 Time: 1723
 Date: 16/X/64
 Lat: 53° 54.30' N
 Long: 128° 44.00' W
 Depth: 750 ft
 B.T. Ser. No. 6

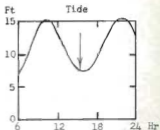
Weather: Slight Rain
 Cloud: Type Sc-Ns Amt. 10
 Wind: Dir. 185 °T Spd. 4 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 45 °F. W. 44 °F.
 Baro: 1014 mb.
 Secchi: 3 ft Col: Silty; Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.2	1.75	1.32	11.40	98.4	7.35	0.26	0.26
2	7.80	4.31	3.31	10.74	95.5	7.42	0.35	0.34
4	8.22	10.01	7.75	10.37	96.4	7.81	0.59	0.57
6	8.46	13.13	10.17	9.85	93.9	7.85	0.85	0.83
10	8.84	23.42	18.13	7.87	80.9	7.94	1.53	1.50
15	9.08	28.26	21.87	6.83	73.0	8.00	1.92	1.88
20	8.66	29.37	22.80	5.98	63.7	7.96	1.99	1.95
30	8.34	30.46	23.69	5.30	56.4	7.92	2.08	2.05
50	8.03	31.27	24.37	5.04	53.6	7.92	2.13	2.10
70	7.88	31.77	24.78	4.70	49.9	7.89	2.18	2.15
100	7.49	32.31	25.26	4.42	46.7	7.86	2.24	2.21
150	6.94	32.96	25.84	4.33	45.3	7.87	2.25	2.22
200	6.80	33.09	25.97	4.18	43.7	7.87	2.25	2.22

Station: K-6
 Time: 1523
 Date: 16/X/64
 Lat: 53° 56.40' N
 Long: 128° 41.40' W
 Depth: 678 ft
 B.T. Ser. No. 5

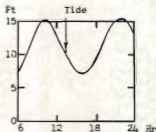
Weather: Slight rain
 Cloud: Type Ns Amt. 10
 Wind: Dir. 180 °T Spd. 4-5 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 44 °F. W. 43 °F.
 Baro: 1012.5 mb.
 Secchi: - ft Col: -



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.3	1.75	1.32	10.98	94.9	7.36	0.26	0.26
2	7.92	7.94	6.15	10.34	94.3	7.72	0.56	0.54
4	8.26	10.15	7.85	8.95	83.3	7.78	0.61	0.59
6	8.47	12.75	9.88	6.83	64.6	7.83	0.89	0.87
10	8.84	23.31	18.04	7.87	80.8	7.95	1.57	1.54
15	8.95	28.57	22.12	6.41	68.3	7.95	1.95	1.92
20	8.63	29.68	23.03	5.45	58.1	7.86	2.03	2.00
30	8.32	30.47	23.70	5.10	54.2	7.86	2.08	2.05
50	8.11	31.31	24.39	5.05	53.7	7.86	2.15	2.12
70	8.02	31.83	24.81	4.76	50.8	7.85	2.23	2.20
100	7.55	32.36	25.29	4.45	47.1	7.86	2.24	2.21
150	6.94	32.97	25.85	4.36	45.7	7.86	2.28	2.25
200	6.77	33.10	25.98	4.18	43.6	7.87	2.32	2.29

Stations: K-7
 Time: 1335
 Date: 16/X/64
 Lat: 53° 58.00'N
 Long: 128° 40.60'W
 Depth: 576 ft
 B.T. Ser. No. 4

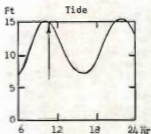
Weather: Slight rain
 Cloud: Type Ns Amt. 10
 Wind: Dir. 180 °T Spd. 4 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 44 °F. W. 44 °F.
 Baro: 1012 mb.
 Secchi: 3 ft Col: Silty Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.8	0.76	0.56	11.67	99.1	7.15	0.06	0.06
2	6.98	2.12	1.63	10.71	92.0	7.30	0.26	0.26
4	8.32	10.31	7.97	10.37	96.7	7.79	0.59	0.57
6	8.57	13.16	10.17	9.68	92.5	7.84	0.76	0.74
10	8.83	22.52	17.42	8.10	82.7	7.93	1.50	1.47
15	8.94	28.07	21.76	6.67	70.8	7.95	1.93	1.89
20	8.71	29.39	22.79	5.93	63.2	7.91	2.03	2.00
30	8.30	30.45	23.68	5.04	53.6	7.85	2.07	2.05
50	8.15	31.32	24.40	5.12	54.5	7.81	2.14	2.12
70	7.85	31.85	24.85	2.98	31.7	7.80	2.18	2.16
100	7.55	32.38	25.30	4.13	43.7	7.80	2.23	2.21
150	6.94	32.95	25.84	3.81	39.9	7.79	2.41	2.39

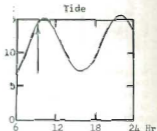
Stations: K-8
 Time: 1052
 Date: 25/X/64
 Lat: 53° 59.30' N
 Long: 128° 41.30' W
 Depth: 300 ft
 B.T. Ser. No. 3

Weather: Showers
 Cloud: Type Ns Amt. 10
 Wind: Dir. 160 °T Spd. 5 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 45 °F. W. 44 °F.
 Baro: 1011 mb.
 Secchi: 3 ft Col: Silty Brown



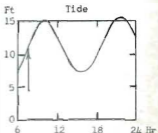
Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.1	1.22	0.92	12.13	104.1	7.06	0.30	0.30
2	7.30	4.06	3.14	11.60	101.8	7.33	0.30	0.30
4	8.38	11.33	8.77	10.96	103.0	7.78	0.80	0.78
6	8.50	12.49	9.66	10.64	101.1	7.86	0.80	0.77
10	8.81	21.79	16.86	8.73	88.7	7.88	1.45	1.42
15	8.90	27.03	20.94	7.32	77.1	7.98	1.83	1.79
20	8.88	29.08	22.53	6.44	68.7	8.04	2.00	1.96
30	8.35	30.34	23.60	5.40	57.4	7.85	2.07	2.04
50	8.13	31.26	24.35	5.33	56.8	7.84	2.15	2.11
70	8.02	31.75	24.75	5.00	53.4	7.86	2.17	2.14
80	7.85	31.99	24.96	4.94	52.6	7.81	2.18	2.16

Stations: K-9 Weather: Rain
 Time: 0915 Cloud: Type Ns Amt. 10
 Date: 16/X/64 Wind: Dir. 160 °T Spd. 4 mph.
 Lat: 53° 59.30'N Sea: 1 Swell: 0
 Long: 128° 40.50'W Air Temp: D. 45 °F. W. 44 °F.
 Depth: 276 ft Baro: 1010.5 mb.
 B.T. Ser. No. 2 Secchi: 3 ft Col: Silty; Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.8	0.76	0.56	11.40	96.9	7.04	0.06	0.06
2	7.77	9.08	7.06	10.44	95.3	7.63	0.48	0.46
4	8.47	11.93	9.22	10.11	95.6	7.80	0.59	0.57
6	8.52	12.95	10.02	9.93	94.6	7.84	0.72	0.70
10	8.82	22.53	17.44	8.06	82.3	7.92	1.43	1.40
15	8.86	28.02	21.72	6.71	71.2	7.93	1.86	1.83
20	8.79	29.28	22.70	5.87	62.6	7.91	1.99	1.96
30	8.31	30.45	23.68	5.05	53.7	7.83	2.05	2.03
50	8.14	31.25	24.34	5.11	54.4	7.83	2.12	2.10
70	7.98	31.78	24.77	4.74	50.4	7.80	2.19	2.17

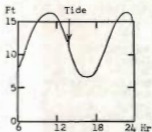
Stations: K-10 Weather: Rain
 Time: 0757 Cloud: Type Ns-Sc Amt. 10
 Date: 16/X/64 Wind: Dir. 130 °T Spd. 4 mph.
 Lat: 53° 59.20'N Sea: 1 Swell: 0
 Long: 128° 39.50'W Air Temp: D. 48 °F. W. 46 °F.
 Depth: 276 ft Baro: 1010 mb.
 B.T. Ser. No. 1 Secchi: 3 ft Col: Silty; Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.7	0.57	0.41	11.84	100.1	7.01	0.05	0.05
2	7.48	7.64	5.96	10.35	93.5	7.44	0.44	0.43
4	8.40	11.34	8.78	10.32	97.1	7.83	0.72	0.70
6	8.49	12.36	9.56	10.11	95.9	7.80	0.88	0.86
10	8.83	23.54	18.22	7.78	80.0	8.04	1.53	1.50
15	8.83	28.21	21.86	6.52	69.2	7.93	1.89	1.87
20	8.69	29.49	22.88	5.73	61.2	7.93	2.00	1.98
30	8.32	30.44	23.67	4.96	52.8	7.83	2.06	2.04
50	8.13	31.28	24.36	4.99	53.0	7.83	2.12	2.10
70	8.00	31.77	24.76	4.99	53.2	7.80	2.16	2.14

Stations: K-11
 Times: 1356-1421
 Date: 17/X/64
 Lat: 54° 01.45' N
 Long: 128° 37.20' W
 Depth: 113 ft
 B.T. Ser. No. 7

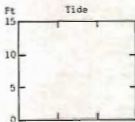
Weather: Sunny intervals
 Cloud: Type St Amt. 5
 Wind: Dir. - *T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. - *F. W. - *F.
 Baro: 1023 mb.
 Secchi: 3 ft Col: Muddy; Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.4	1.08	0.79	11.28	97.4	7.04	0.22	0.22
2	6.60	1.51	1.16	11.15	94.7	7.08	0.25	0.25
4	8.94	17.20	13.27	8.83	87.3	7.81	1.35	1.33
6	9.11	18.25	14.07	7.61	76.0	7.87	1.31	1.28
10	9.71	22.29	17.13	5.79	60.2	7.82	1.50	1.48
15	9.27	-	-	3.58	-	7.85	1.81	1.78
20	8.49	27.55	21.40	1.39	14.6	7.26	1.99	1.99
30	7.51	33.34	26.06	0.00	00.0	7.21	2.47	2.47

Stations:
 Time:
 Date:
 Lat:
 Long:
 Depth:
 B.T. Ser. No.

Weather:
 Cloud: Type Amt.
 Wind: Dir. *T Spd. mph.
 Sea: Swell:
 Air Temp: D. *F. W. *F.
 Baro: mb.
 Secchi: ft Col:



Depth	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.

KITIMAT HARBOUR

Surface Current Measurements

Station: K-9A

Latitude: 53° 59.50' N

Remarks: Ship had drifted seaward to about 53° 58.7' N, 128° 40.5' W with sounding of about 500 ft. at 0700 hrs., 18/X/64. Back on position with sounding of about 150 ft. by 0740 hrs.

Date: 17-19/X/64

Longitude: 128° 40.50' W

Sounding: 180 ft.

Location: In middle of north end of Kitimat Arm.

500 ft. = 150 ft.

C. B. I. Drag Data

Time/Date	Current			Wind	
	Speed		Direction ° T	Direction ° T	Speed m.p.h.
	Cm/sec	Knots			
1000/17/X/64	17.3	0.336	027	177	3
1014/	21.9	0.425	032	172	3
1040/	0.0	0.000	-	187	3
1125/	0.0	0.000	-	182	3
1137/	0.0	0.000	-	187	3
1203/	24.5	0.476	339	157	3
1236/	0.0	0.000	-	157	3
1306/	7.7	0.150	302	207	3
1330/	0.0	0.000	-	197	4
1405/	0.0	0.000	-	197	3
1428/	15.4	0.300	177	197	3
1502/	17.3	0.336	135	197	3
1540/	10.9	0.212	162	197	0-1
1628/	0.0	0.000	-	197	0-1
1704/	0.0	0.000	-	-	0
1733/	0.0	0.000	-	-	0
1806/	0.0	0.000	-	-	0
1835/	0.0	0.000	-	-	0
1859/	0.0	0.000	-	-	0
1934/	10.9	0.212	007	-	0
2005/	15.4	0.300	007	-	0
2030/	13.4	0.260	010	-	0
2105/	25.8	0.500	031	-	0
2131/	24.5	0.476	031	-	0
2201/	28.1	0.545	047	377	8-10
2230/	13.4	0.260	069	337	6
2310/	0.0	0.000	-	047	4-5
2335/	7.7	0.150	087	357	5-6
0001/18/X/64	7.7	0.150	067	337	4-5
0030/	0.0	0.000	-	337	4-5
0100/	0.0	0.000	-	307	2-3
0140/	0.0	0.000	-	307	2-3
0207/	0.0	0.000	-	307	2-3
0238/	0.0	0.000	-	-	0
0303/	0.0	0.000	-	-	0
0337	0.0	0.000	-	-	0

KITIMAT HARBOUR

C. B. I. Drag Data

Station: K-9A (continued)

Remarks: Drifted northward slightly into shallow water during last 8 hours.

Time/Date	Current			Wind	
	Speed	Direction • T	Direction • T	Speed M.P.H.	
Cm/sec	Knots				
0406/18/X/64	0.0	0.000	-	-	0
0438/	0.0	0.000	-	-	0
0505/	0.0	0.000	-	-	0
0535/	0.0	0.000	-	-	0
0605/	0.0	0.000	-	-	0
0635/	0.0	0.000	-	167	2-3
0710/	0.0	0.000	-	137	4-5
0738/	7.7	0.150	334	062	6
0805/	17.3	0.336	032	187	5-6
0833/	13.4	0.260	031	182	5-7
0855/	39.0	0.757	020	187	6-8
0931/	45.3	0.880	013	177	7-8
1000/	44.4	0.862	022	177	7-8
1031/	39.0	0.757	014	182	7-8
1049/	26.9	0.523	359	182	7-8
1130/	7.7	0.150	343	187	8-10
1132/	33.3	0.647	335	187	8-10
1220/	25.8	0.500	020	177	8-10
1253/	10.9	0.212	324	177	10-12
1301/	17.3	0.336	311	177	10
1340/	20.5	0.398	278	177	10-12
1405/	13.4	0.260	289	177	10-12
1430/	20.5	0.398	325	177	15
1506/	0.0	0.000	-	177	12
1540/	35.2	0.685	297	177	10
1630/	31.3	0.608	297	177	10
1657/	13.4	0.260	031	177	10
1727/	0.0	0.000	-	177	10
1803/	0.0	0.000	-	177	8
1831/	0.0	0.000	-	177	8
1902/	0.0	0.000	-	177	8
1931/	7.7	0.150	011	162	10
2000/	10.9	0.212	025	192	8-10
2033/	20.5	0.398	049	227	7-8
2100/	21.9	0.425	027	207	7-8
2130/	28.1	0.545	027	202	7-8
2200/	33.3	0.647	024	197	7-8
2234/	42.6	0.828	010	182	10-12
2244/	20.5	0.398	009	177	10-12
2301/	7.7	0.150	349	157	5-6
2337/	0.0	0.000	-	152	12
2400/	13.4	0.260	292	117	8-10
0035/19/X/64	7.7	0.150	019	182	10
0107/19/X/64	28.1	0.545	279	147	8-10

KITIMAT HARBOUR

Current Measurements

Station: K-9 A

Latitude: 53° 59.50' N

Remarks:

Date: 17-18/X/64

Longitude: 128° 40.50' W

Sounding: 180 ft.

Location: In middle of north
end of Kitimat Arm

Ekman Current Meter Data

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction • T	Direction • T	Speed m.p.h.
		Cm/sec	Knots			
0937/17/X/64	05	04.4	0.084	-	200	3-5
0948/	10	03.0	0.057	317	200	3-5
0958/	15	02.2	0.042	-	180	3-4
1007/	20	04.2	0.080	287	177	3
1016/	30	03.6	0.068	297	182	3
1028/	60	03.2	0.061	327	187	3
1131/	05	08.9	0.169	215	182	3
1139/	10	04.4	0.084	247	187	3
1144/	15	03.2	0.061	117	185	3
1155/	20	05.1	0.097	277	180	3
1206/	30	10.8	0.205	022	157	3
1218/	40	07.4	0.141	117	157	3
1227/	05	11.1	0.211	233	157	3
1235/	10	06.6	0.125	032	157	3
1243/	15	05.4	0.103	277	160	3
1251/	20	06.2	0.118	376	170	3
1258/	30	09.2	0.175	080	190	3
1307/	40	03.5	0.067	287	207	3
1316/	50	06.9	0.131	300	200	3-4
1351/	05	05.2	0.099	337	197	4
1358/	10	05.0	0.095	287	197	3-4
1406/	15	04.7	0.089	102	197	3
1414/	20	06.5	0.124	352	197	3
1422/	30	01.6	0.030	-	197	3
1430/	40	02.1	0.040	267	197	3
1438/	50	04.3	0.086	187	197	3
1454/	05	00.0	0.000	-	200	3
1503/	10	07.8	0.148	292	200	3
1510/	15	06.8	0.091	307	200	2-3
1518/	20	02.0	0.038	287	200	1-3
1528/	30	02.4	0.046	-	200	1-2
1538/	40	00.0	0.000	-	200	0-1
1636/	05	03.8	0.072	097	200	0-1
1648/	10	07.2	0.137	254	200	0-1
1656/	15	02.6	0.049	277	200	0-1
1705/	20	03.0	0.057	-	200	0-1
1717/	30	00.0	0.000	-	200	0-1
1736/	05	00.0	0.000	-	200	0-1

KITINAT HARBOUR

Ekman Current Meter Data

Station: K-9 A (Continued)

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction * T	Direction * T	Speed m.p.h.
		Cm/sec	Knots			
1744/17/X/64	10	02.3	0.044	227	200	0-1
1751/	15	00.0	0.000	-	200	0-1
1761/	20	01.8	0.034	-	200	0-1
1808/	30	00.0	0.001	-	200	0-1
1816/	05	04.4	0.084	117	200	0-1
1824/	10	00.0	0.000	-	200	0-1
1837/	15	05.2	0.099	347	200	0-1
1843/	20	05.8	0.110	257	200	0-1
1853/	30	05.4	0.103	302	200	0-1
1936/	15	04.1	0.078	282	-	0
1945/	20	02.0	0.038	-	-	0
1955/	30	00.1	0.002	-	-	0
2005/	40	00.1	0.002	-	-	0
2014/	50	00.0	0.000	-	-	0
2022/	05	04.4	0.004	072	-	0
2030/	10	00.0	0.000	-	-	0
2039/	15	00.2	0.004	-	-	0
2048/	20	01.9	0.036	-	-	0
2055/	30	02.6	0.049	227	-	0
2106/	05	06.0	0.114	117	-	0
2114/	10	06.3	0.119	282	-	0
2122/	15	03.4	0.065	157	-	0
2133/	20	06.6	0.125	344	-	0
2141/	30	04.5	0.086	267	015	2-3
2152/	40	16.6	0.315	227	015	6-8
2203/	05	05.2	0.099	357	017	8-10
2212/	10	00.0	0.000	302	005	6-8
2222/	15	02.1	0.040	207	350	6-7
2232/	20	00.1	0.002	-	337	6
2242/	30	04.8	0.091	077	340	5-6
2317/	05	03.4	0.065	237	047	4-5
2327/	10	03.3	0.063	217	020	4-5
2336/	15	04.0	0.076	042	357	5-6
2344/	20	10.6	0.201	025	350	5-6
2354/	30	11.0	0.209	035	345	5-6
0003/18/X/64	40	10.0	0.190	020	337	4-5
0013/	05	07.8	0.149	067	337	4-5
0022/	10	09.8	0.186	032	337	4-5
0032/	15	09.0	0.171	027	337	4-5
0043/	20	11.6	0.220	027	337	4-5
0053/	30	05.9	0.112	017	320	2-3
0102/	40	06.5	0.124	352	307	2-3
0127/	05	18.4	0.390	307	307	2-3
0135/	10	07.4	0.141	007	307	2-3

KITIMAT HARBOUR

Current Measurements

Station K-9 A(Continued)

Latitude: 53° 58.7'N
- 53° 59.5'

Remarks: Most zero current values are probably due to malfunctioning current meter. Ship had drifted seaward to about 53°58.7'N, 128°40.5'W with sounding of about 500 ft., at 0700 hrs. Back on position with a sounding of about 150 ft. by 0740.

Date: 18-19/X/64

Longitude: 128° 40.5'W

Sounding: 180 ft.

500 ft. - 150 ft. Location: In middle of north end of Kitimat Arm

Ekman Current Meter Data

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction * T	Direction * T	Speed M.P.H.
		Cm/sec	Knots			
0143/18/X/64	15	15.5	0.295	347	307	2-3
0151/	20	15.0	0.285	025	307	2-3
0159/	30	11.5	0.219	020	307	2-3
0208/	05	00.0	0.000	-	307	2-3
0216/	10	12.5	0.238	005	307	2-3
0223/	15	19.3	0.367	002	310	0-1
0232/	20	13.0	0.247	027	310	0-1
0240/	30	21.0	0.399	015	-	0
0303/	05	06.7	0.127	015	-	0
0312/	10	14.4	0.274	359	-	0
0319/	15	17.8	0.338	016	-	0
0327/	20	00.0	0.000	-	-	0
0340/	30	00.0	0.000	-	-	0
0408/	05	16.8	0.319	031	-	0
0415/	10	11.2	0.213	047	-	0
0423/	15	00.0	0.000	-	-	0
0430/	20	12.1	0.230	021	-	0
0439/	30	07.7	0.146	017	-	0
0447/	40	00.0	0.000	-	-	0
0457/	40	08.3	0.158	022	-	0
0506/	05	07.7	0.146	054	-	0
0513/	10	02.9	0.055	077	-	0
0524/	15	00.0	0.000	-	-	0
0531/	15	00.0	0.000	-	-	0
0540/	20	00.0	0.000	-	-	0
0548/	30	00.0	0.000	-	-	0
0558/	05	06.4	0.122	172	-	0
0605/	10	00.0	0.000	-	-	0
0611/	15	00.0	0.000	-	167	0-1
0620/	20	00.0	0.000	-	167	0-1
0628/	30	00.0	0.000	-	167	1-2
0637/	40	00.0	0.000	-	167	2-3
0745/	05	09.9	0.188	145	095	5-6
0754/	10	06.6	0.125	344	187	5-6

KITIMAT HARBOUR

Ekman Current Meter Data
Station: K-9 A (Continued)

Remarks: Most of zero currents were probably due to malfunctioning current meter. New meter put in operation at 1213 hrs.

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction ° T	Direction ° T	Speed m.p.h.
		Cm/sec	Knots			
0805/18/X/64	15	00.0	0.000	-	187	5-6
0816/	20	00.0	0.000	-	185	5-6
0826/	30	00.1	0.002	-	182	5-7
0834/	05	06.2	0.118	087	182	5-7
0846/	10	03.8	0.072	197	185	5-7
0856/	15	02.3	0.044	297	187	6-8
0906/	20	01.8	0.034	-	185	6-8
0915/	30	00.0	0.000	-	180	7-8
0933/	05	00.0	0.000	-	177	7-8
0941/	10	00.0	0.000	287	177	7-8
0950/	15	00.0	0.000	-	177	7-8
0959/	20	00.0	0.000	-	177	7-8
1008/	30	00.0	0.000	-	175	7-8
1018/	05	00.0	0.000	-	175	7-8
1025/	10	00.0	0.000	-	182	7-8
1033/	15	00.0	0.000	-	182	7-8
1042/	20	00.0	0.000	-	182	7-8
1050/	30	00.0	0.000	-	182	7-8
1139/	05	00.0	0.000	-	187	8-10
1152/	10	01.9	0.036	-	180	8-10
1213/	05	00.0	0.000	-	180	8-10
1223/	10	13.0	0.253	337	177	8-10
1235/	15	12.1	0.235	155	177	8-10
1246/	20	12.3	0.239	277	177	10-12
1255/	30	02.8	0.054	257	177	10-12
1303/	05	04.6	0.089	222	177	10
1326/	05	02.1	0.041	-	177	10
1333/	10	03.0	0.058	287	177	10-12
1342/	15	01.6	0.031	127	177	10-12
1349/	20	01.8	0.035	217	177	10-12
1406/	30	01.6	0.031	-	177	10-12
1418/	05	05.7	0.111	137	177	10-12
1426/	10	06.4	0.124	220	177	15
1434/	15	14.9	0.289	138	177	15
1442/	20	13.1	0.255	271	177	12-15
1450/	30	17.1	0.332	060	177	12-15
1510/	05	17.3	0.336	015	177	12
1519/	10	17.8	0.346	269	177	10-12
1528/	15	21.4	0.416	255	177	10-12
1538/	20	21.7	0.422	266	177	10
1544/	30	16.3	0.317	208	177	10
1633/	05	19.8	0.385	026	177	10
1640/	10	25.1	0.488	286	177	10
1651/	15	10.3	0.200	265	177	10

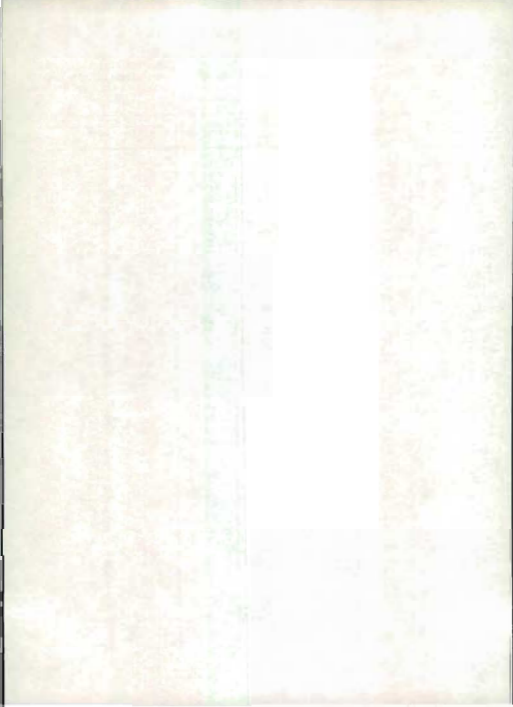
KITINAT HARBOUR

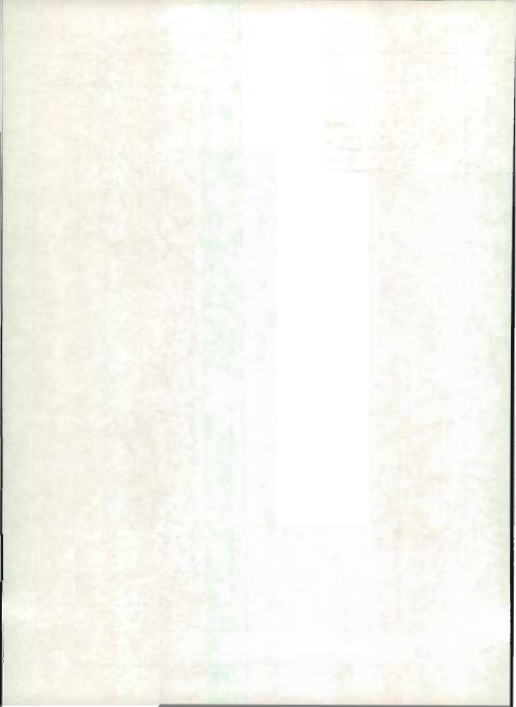
Ekman Current Meter Data

Remarks: Drifted north-
ward slightly into shallow
water during last 8 hours.

Station: K-9 A (Continued)

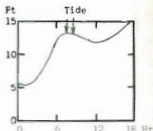
Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction * T	Direction * T	Speed m.p.h.
		Cm/sec	Knots			
1658/18/X/64	20	10.8	0.210	022	177	10
1706/	30	09.5	0.185	034	177	10
1714/	05	06.3	0.122	097	177	10
1721/	10	17.0	0.330	255	177	10
1729/	15	07.4	0.144	042	177	10
1738/	20	16.9	0.328	278	177	8-10
1746/	30	11.0	0.214	280	177	8-10
1808/	05	10.7	0.208	287	177	8
1816/	10	09.3	0.181	094	177	8
1824/	15	09.0	0.175	117	177	8
1833/	20	12.6	0.245	281	177	8
1841/	30	11.3	0.220	230	177	8
1903/	05	09.0	0.175	115	177	8
1913/	10	07.6	0.148	117	177	8
1922/	15	05.1	0.099	290	170	8-10
1933/	20	04.5	0.087	337	162	10
1942/	30	09.9	0.188	301	170	10
2003/	05	05.2	0.101	302	192	8-10
2016/	10	05.0	0.097	297	200	8-10
2024/	15	07.3	0.142	290	220	7-8
2035/	20	04.4	0.086	262	227	7-8
2044/	30	03.1	0.060	347	227	7-8
2106/	05	03.8	0.074	097	207	7-8
2115/	10	06.7	0.130	242	205	7-8
2123/	15	02.1	0.041	-	200	7-8
2132/	20	01.8	0.035	297	200	7-8
2141/	30	01.6	0.031	-	200	7-8
2207/	05	06.9	0.134	170	195	7-8
2216/	10	09.1	0.177	020	195	7-8
2225/	15	07.9	0.154	094	182	8-10
2234/	20	11.4	0.221	061	182	10-12
2244/	30	01.9	0.037	-	175	7-10
2308/	05	18.7	0.363	122	167	5-6
2317/	10	16.4	0.319	336	155	8-10
2328/	15	10.3	0.200	065	155	10-12
2337/	20	08.6	0.167	014	152	12
2347/	30	12.7	0.247	257	130	8-10
0009/19/X/64	05	20.0	0.389	127	117	8-10
0020/	10	12.6	0.245	071	150	8-10
0028/	15	12.8	0.249	247	180	10
0036/	20	14.0	0.272	051	182	10
0045/19/X/64	30	13.6	0.266	065	180	8-10





Stations: K-1
 Time: 0740(S); 0840(D)
 Date: 27/IX/67
 Lat: 53°25.40' N
 Long: 129°12.50' W
 Depth: 1332 ft
 B.T. Ser. No. 1

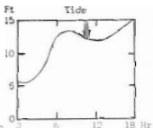
Weather: Fog in patches
 Cloud: Type St Amt. 8
 Winds Dir. 072 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 55 °F. W. - °F.
 Baro: 1013.9 mb.
 Secchi: 6 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.5	10.13	7.35	10.44	107.3			
2	11.26	14.10	10.59	10.09	103.3			
4	11.67	9.97	7.34	10.18	102.5			
6	11.32	14.83	11.14	9.93	102.3			
10	11.14	20.73	15.72	9.33	99.3			
15	10.51	27.05	20.73	7.83	85.7			
20	10.37	28.70	22.01	7.38	81.4			
30	10.09	30.46	23.43	6.76	74.9			
50	7.96	31.39	24.48	5.63	59.8			
70	7.32	32.03	25.07	5.44	57.2			
100	7.14	32.58	25.53	4.89	51.4			
150	-	32.16	-	5.28	-			
200	6.91	32.82	25.74	4.88	51.1			
300	6.62	33.12	26.02	4.65	48.4			

Stations: K-2
 Time: 1026(S); 1045(D)
 Date: 27/IX/67
 Lat: 53°36.82' N
 Long: 129°12.80' W
 Depth: 1032 ft
 B.T. Ser. No. 2

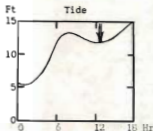
Weather: Intermittent rain
 Cloud: Type St Amt. 10
 Winds Dir. 072 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 55 °F. W. °F.
 Baro: 1013.9 mb.
 Secchi: 5 ft Col: Muddy; brown



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.6	10.05	7.41	10.50	105.5			
2	11.02	14.42	10.87	10.18	104.1			
4	10.69	20.21	15.38	8.89	93.4			
6	11.17	24.40	18.59	8.39	91.5			
10	11.20	25.72	19.57	8.41	92.7			
15	9.99	28.18	21.66	7.23	78.7			
20	11.09	26.76	20.33	7.69	85.1			
30	9.69	30.27	23.36	6.69	73.4			
49	8.27	31.28	24.34	5.82	62.2			
69	7.30	31.99	25.04	5.41	56.8			
99	7.12	32.55	25.51	4.88	51.2			
148	6.75	33.00	25.90	4.66	48.6			
198	6.66	33.11	26.00	4.66	48.5			
296	6.63	33.19	26.07	4.51	46.9			

Station: K-3
 Time: 1230(S); 1245(D)
 Date: 27/IX/67
 Lat: 53°44.80' N
 Long: 129°00.50' W
 Depth: 1182 ft
 B.T. Ser. No. 3

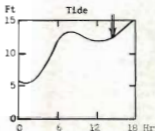
Weather: Continuous rain
 Cloud: Type Ns Amt. 10
 Winds: Dir. 252 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 55 °F. W. °F.
 Baro: 1011.9mb.
 Secchi: 26 ft Col: Muddy; brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.7	6.39	4.56	10.60	104.5			
2	11.13	15.76	11.88	9.94	102.5			
4	10.89	19.28	14.64	9.07	95.1			
6	10.32	22.53	17.25	8.30	87.7			
10	10.18	-	-	7.75	-			
15	9.78	-	-	7.13	-			
20	9.37	28.97	22.38	6.75	72.9			
30	8.95	30.18	23.38	6.10	65.8			
50	8.26	31.21	24.29	5.83	62.3			
70	7.45	-	-	5.22	-			
100	7.01	32.65	25.59	4.72	49.5			
150	6.76	-	-	4.58	-			
200	6.66	-	-	4.53	-			
300	6.63	-	-	4.41	-			

Station: K-4
 Time: 1413(S); 1430(D)
 Date: 27/IX/67
 Lat: 53°49.20' N
 Long: W
 Depth: ft
 B.T. Ser. No.

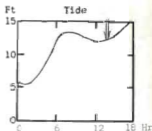
Weather: Continuous rain
 Cloud: Type Ns Amt. 10
 Winds: Dir. 252 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 54 °F. W. °F.
 Baro: 1011.2mb.
 Secchi: 2 ft Col: Muddy; brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.5	4.36	3.01	10.57	102.5			
2	12.14	-	-	10.27	-			
4	11.24	17.13	12.93	9.60	100.2			
6	11.07	-	-	9.33	-			
10	9.96	25.38	19.50	7.56	80.8			
15	9.23	-	-	7.00	-			
20	9.04	29.30	22.69	6.48	69.7			
30	8.65	30.11	23.37	6.49	69.5			
50	7.76	-	-	5.94	-			
70	7.21	-	-	5.40	-			
100	7.03	32.57	25.53	5.10	53.5			
150	6.72	33.05	25.95	4.56	47.6			
200	6.68	33.12	26.01	4.56	47.5			
299	6.63	33.17	26.05	4.44	46.2			

Stations: K-5
 Time: 1530(S); 1550(D)
 Date: 27/IX/67
 Lat: 53° 54.40' N
 Long: 128° 44.00' W
 Depth: 864 ft
 B.T. Ser. No. 5

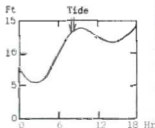
Weather: Continuous rain
 Cloud: Type Ns Amt. 10
 Winds Dir. 252 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53 °F. W. - °F.
 Baro: 1011.2 mb.
 Secchi: 2 ft Col: Muddy; brown



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.5	4.20	2.87	10.62	102.9			
2	12.52	14.57	10.76	9.78	103.3			
4	11.26	-	-	9.32	-			
6	10.91	20.70	15.71	8.74	92.7			
10	9.84	26.02	20.03	7.47	80.0			
15	9.14	28.22	21.82	7.24	77.4			
20	8.89	28.91	22.41	7.01	74.8			
30	8.66	30.17	23.42	6.39	68.4			
50	7.46	31.18	24.38	5.89	61.7			
70	6.99	32.05	25.59	4.93	51.6			
100	7.41	31.84	24.91	5.81	61.1			
150	6.93	32.92	25.82	4.73	49.6			
200	6.78	33.05	25.94	4.56	47.6			
250	6.72	33.15	26.03	4.43	46.2			

Stations: K-6
 Time: 0658(S); 0816(D)
 Date: 28/IX/67
 Lat: 53° 56.30' N
 Long: 128° 41.50' W
 Depth: 684 ft
 B.T. Ser. No. 6

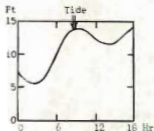
Weather: Intermittent rain
 Cloud: Type Ns-Ac Amt. 8
 Winds Dir. 162 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 51 °F. W. - °F.
 Baro: 1016.6 mb.
 Secchi: 2 ft Col: Muddy; brown



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/L)	% sat.		Total	Carb.
0	10.1	1.80	1.15	10.75	99.5			
2	10.99	3.39	2.31	10.47	99.9			
4	11.27	10.03	7.44	10.23	102.1			
6	11.28	18.50	13.98	9.23	97.2			
10	10.30	26.09	20.01	8.84	95.6			
15	9.49	28.22	21.77	9.43	100.6			
30	8.79	29.16	22.61	7.73	82.4			
30	8.26	30.10	23.42	6.85	72.6			
50	6.98	31.17	24.43	6.53	67.7			
70	7.21	32.08	25.03	5.53	58.8			
100	6.97	32.66	25.91	5.11	53.5			
150	6.79	32.89	25.81	5.01	52.3			
200	6.70	33.12	26.01	4.68	48.0			

Stations: K-7
 Time: 0835(S);0845(D)
 Date: 28/IX/67
 Lat: 53°57.80' N
 Long: 128°40.70' W
 Depth: 600 ft
 B.T. Ser. No. 7

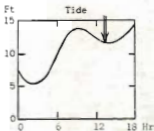
Weather: Partly cloudy
 Cloud: Type Ac-Sc Amt. 7
 Wind: Dir.162° *T Spd. 1 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 52 °F. W. - °F.
 Baro:1015.2 mb.
 Secchi: 2 ft Col: Muddy;brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.1	1.38	0.83	10.92	100.8			
2	11.98	1.30	0.57	10.83	104.4			
4	11.33	15.10	11.35	9.88	101.9			
6	11.29	18.75	14.17	9.17	96.7			
10	10.57	26.47	20.26	10.13	110.5			
15	9.36	28.34	21.89	9.32	100.1			
20	8.74	29.23	22.67	8.17	87.0			
30	8.16	30.16	23.48	6.66	70.5			
50	7.03	31.11	24.38	6.56	68.0			
70	7.19	31.96	25.03	5.56	58.2			
100	7.03	32.55	25.52	5.02	52.6			
150	6.79	33.00	25.89	4.85	50.7			
170	6.78	33.05	25.94	4.65	48.6			

Stations: K-8
 Time: 1317(S);1327(D)
 Date: 28/IX/67
 Lat: 53°59.25' N
 Long: 128°41.22' W
 Depth: 282 ft
 B.T. Ser. No. 9

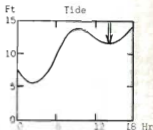
Weather: Partly cloudy
 Cloud: Type Ac-Sc Amt. 5
 Wind: Dir. 072 *T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 54 °F. W. °F.
 Baro: 1013.2 mb.
 Secchi: 2 ft Col: Muddy;thrown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.2	0.28	0.05	10.97	101.5			
2	9.77	0.30	0.01	10.85	98.8			
4	11.35	15.75	11.84	9.61	99.6			
6	11.28	18.69	14.12	9.07	95.6			
10	10.64	26.07	19.94	9.86	107.6			
15	9.50	28.19	21.74	9.57	103.1			
20	8.65	29.41	22.83	7.66	81.7			
30	8.21	30.16	23.48	6.74	71.5			
50	7.04	31.10	24.37	6.42	66.6			
70	7.21	32.10	25.14	5.44	57.1			

Stations: K-9
 Time: 1400(S); 1410(D)
 Date: 28/IX/67
 Lat: 53°59.30' N
 Long: 128°40.50' W
 Depth: 270 ft
 S.F. Ser. No. 10

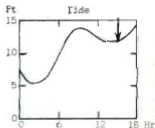
Weather: Partly cloudy
 Cloud: Type Ac-Cu Amt. 5
 Wind: Dir. 072 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 54 °F. W. - °F.
 Baro: 1012.5 mb.
 Secchi: 1 ft Col: Muddy brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.2	0.06	-0.21	11.22	103.2	7.48	0.00	0.00
2	9.44	0.20	-0.11	11.12	100.5	7.04	0.00	0.00
4	11.39	16.62	12.51	9.71	101.3	7.72	0.32	0.32
6	9.72	16.83	12.90	9.62	96.7	7.68	0.11	0.11
10	10.67	26.02	19.89	10.11	110.3	8.01	1.19	1.15
15	9.52	28.12	21.70	9.34	100.6	7.81	1.45	1.41
20	8.78	29.25	22.69	7.99	85.5	7.86	1.67	1.64
30	8.28	30.08	23.41	6.89	73.1	7.80	1.67	1.64
50	7.08	31.15	24.41	6.57	68.2	7.76	1.84	1.81
70	7.21	33.00	25.84	6.51	68.7	7.78	2.45	2.41

Stations: K-10
 Time: 1500(S); 1510(D)
 Date: 28/IX/67
 Lat: 53°59.20' N
 Long: 128°39.70' W
 Depth: 288 ft
 S.F. Ser. No. 11

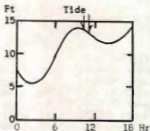
Weather: Partly cloudy
 Cloud: Type Ac-Cu Amt. 5
 Wind: Dir. 072 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 54 °F. W. - °F.
 Baro: 1012.2 mb.
 Secchi: 1 ft Col: Muddy brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.1	0.21	-0.09	10.88	99.8			
2	10.35	2.37	1.96	10.33	96.8			
4	11.38	16.98	12.79	9.43	98.5			
6	11.22	19.88	15.06	8.01	84.9			
10	10.28	26.77	20.54	9.53	103.4			
15	9.36	28.44	21.86	9.31	96.1			
20	8.76	29.23	22.70	9.37	87.2			
30	8.27	30.08	23.40	6.78	71.9			
50	7.13	31.13	24.19	6.25	65.0			
70	7.23	32.06	25.10	5.30	55.6			

Stations: K-11
 Time: 1016(S)-1101(D)
 Date: 28/IX/67
 Lat: 54°01.45' N
 Long: 128°37.20' W
 Depth: 125 ft
 B.T. Ser. No. 8

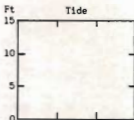
Weather: Partly cloudy
 Cloud: Type Sc-Ac Amt. 6
 Wind: Dir. - *T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53 *F. W. *F.
 Baro: 1014.0 mb.
 Secchi: 1 ft Col: Muddy; brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.8	0.16	-0.10	11.04	100.5	7.14	0.00	0.00
2	9.87	0.63	0.26	10.66	97.5	6.83	0.00	0.00
4	10.17	1.05	0.55	10.40	96.0	6.85	0.00	0.00
6	10.22	2.46	1.66	10.38	96.8	6.93	0.00	0.00
10	11.67	14.05	10.49	9.00	93.0	7.24	0.06	0.06
15	9.79	21.17	16.25	4.49	46.5	7.25	0.99	0.99
20	6.52	29.06	22.83	1.20	12.1	7.16	1.84	1.84
30	6.06	29.72	23.40	0.26	2.6	7.07	2.45	2.43
35	6.04	29.76	23.43	0.21	2.1	7.09	2.48	2.46

Stations:
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

Weather:
 Cloud: Type Amt.
 Wind: Dir. *T Spd. mph.
 Sea: Swell:
 Air Temp: D. *F. W. *F.
 Baro: mb.
 Secchi: ft Col:

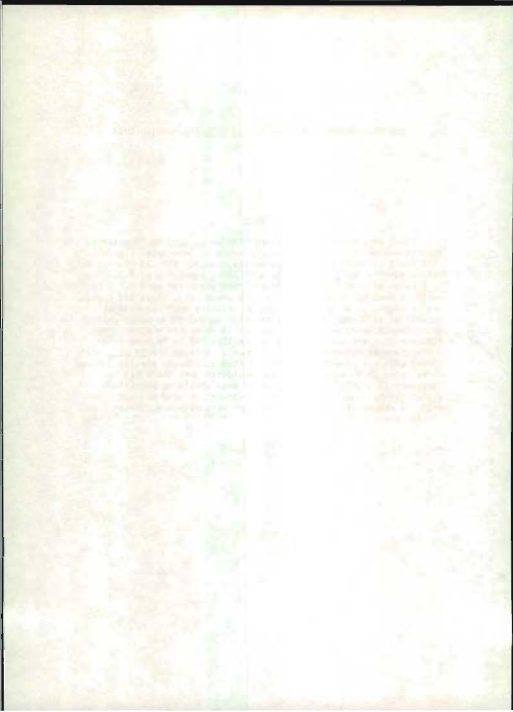


Depth	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.

DOUGLAS CHANNEL - KITIMAT ARM IN SITU SALINOMETER DATA

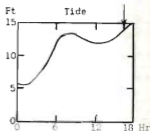
Note

These data have been collected with an in Situ Salinometer of the induction type (Model RSE-3), manufactured by Industrial Instruments Inc. (more recently Beckman Instruments, Inc.). This instrument has manufacturer's specifications of ± 0.3 ‰ in a range of 0-40 ‰ and a temperature precision of ± 0.5 C in the range of 0-40 C. However, in the data given here, there are obvious discrepancies of at least 1.0 ‰ in salinity when compared with salinities of deeper water obtained with an inductive bench salinometer using Nansen water bottle samples. It is uncertain whether these discrepancies are due to a shift in calibration or to some other inadvertent adjustment in the instrument. Because the in situ salinometer data are generally consistent from station to station (except where noted in a footnote), it is considered that there was no instrumental drift. Therefore, these data should be consistent within themselves. However, they should not be used for absolute salinity and density without correction with data from Nansen bottle samples.



Station: K-5
 Time: 1608
 Date: 27/IX/67
 Lat: 53° 54.40' N
 Long: 128° 44.00' W
 Depth: 864 ft
 B.T. Ser. No. 5

Weather: Continuous rain
 Cloud: Type No Amt. 10
 Wind: Dir. 252 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53.0°F. W. °F.
 Baro: 1011.2 mb.
 Secchi: 2 ft Col: Muddy; brown

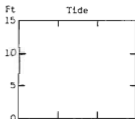


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
0	11.5	5.40	3.81			
2	10.95	11.83	8.87			
4	10.88	17.47	13.24			
6	10.74	20.54	15.62			
8	10.03	25.49	19.57			
10	9.44	27.92	21.55			
12	9.21	28.90	22.34			
15	8.73	29.84	23.15			
20	8.61	30.70	23.84			
25	8.51	31.51	24.49			
30	8.50	31.87	24.77			
35	7.81	32.14	25.08			
40	7.72	32.54	25.41			

(continued below)

Station: K-5 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

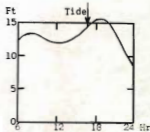
Weather:
 Clouds: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
45	7.16	32.81	25.70			
50	7.00	32.91	25.80			
55	6.84	32.98	25.87			
60	6.68	33.37	26.20			

Station: 1
 Time: 1647
 Date: 27/IX/67
 Lat: 53° 55.80' N
 Longs: 128° 43.00' W
 Depth: 324 ft
 B.T. Ser. No.

Weather: Continuous rain
 Cloud: Type Ns Amt. 10
 Wind: Dir. 162 °T Spd. 6 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53.0°F. W. °F.
 Baro: 1010.5 mb.
 Secchi: ft Col:



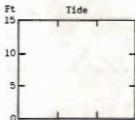
Depth (m)	T (°C)	S (‰)	σ _t
0	10.45	6.78	5.01
2	10.75	13.65	10.31
4	10.81	18.37	13.94
6	10.63	21.04	16.02
8	10.21	24.87	19.07
10	9.90	26.80	20.61
12	9.35	28.68	22.15
15	8.81	30.02	23.27
20	8.39	30.73	23.90
25	8.14	31.37	24.43
30	7.89	31.85	24.85
35	7.75	32.15	25.10

Dissolved oxygen (mg/l) % sat. pH Alkalinity Total Carb.

(continued below)

Station: 1 (cont'd)
 Time:
 Date:
 Lat: N
 Longs: W
 Depth: ft
 B.T. Ser. No.

Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:

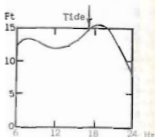


Depth (m)	T (°C)	S (‰)	σ _t
40	7.55	32.45	25.36
45	7.21	32.71	25.61
50	6.79	32.99	25.88
55	6.49	33.31	26.17
60	6.57	33.70	26.45

Dissolved oxygen (mg/l) % sat. pH Alkalinity Total Carb.

Station: 2
 Time: 1705
 Date: 27/IX/67
 Lat: 53° 55.50' N
 Long: 128° 42.12' W
 Depth: 780 ft
 B.T. Ser. No.

Weather: Intermittent rain
 Cloud: Type St-Ac Amt. 8
 Wind: Dir. 162 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53.0 °F. W. °F.
 Baro: 1010.5 mb.
 Secchi: ft Col:

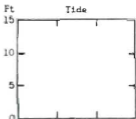


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.50	4.78	3.44					
2	10.82	15.80	11.96					
4	10.72	19.02	14.46					
6	10.55	22.71	17.34					
8	10.07	25.41	19.51					
10	10.03	27.51	21.14					
12	9.31	27.73	21.42					
15	8.87	29.42	22.80					
20	8.34	31.00	24.11					
25	8.04	31.48	24.54					
30	7.82	32.05	25.01					
35	7.55	32.33	25.27					

(continued below)

Station: 2 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
40	7.39	32.37	25.32					
45	6.97	32.75	25.68					
50	6.77	32.96	25.87					
55	6.52	33.11	26.01					
60	6.59	33.53	26.34					

Stations: 3

Time: 1819

Date: 27/IX/67

Lat: 53° 52.20' N

Long: 128° 41.30' W

Depth: 720 ft

B.T. Ser. No.

Weather: Intermittent rain

Cloud: Type St-Ac Amt. 8

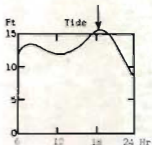
Wind: Dir. 162 *T Spd. mph.

Sea: 0 Swell: 0

Air Temp: D. 53.0 *F. W. *F.

Baro: 1010.5 mb.

Secchi: ft Coll:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.89	3.84*	2.67					
2	10.69	18.44	14.01					
4	10.54	20.91	15.94					
6	10.31	25.13	19.26					
8	9.67	27.13	20.90					
10	9.36	28.84	22.28					
12	9.07	29.67	22.97					
15	8.61	30.77	23.90					
20	8.20	31.44	24.48					
25	8.17	32.53	25.33					
30	7.85	32.90	25.67					
35	7.42	33.37	26.10					

(continued below)

Stations: 3 (cont'd)

Time:

Date:

Lat:

Long:

Depth:

B.T. Ser. No.

Weather:

Cloud: Type

Amt.

Wind: Dir.

*T Spd.

mph.

Sea:

Swell:

Air Temp: D.

*F. W.

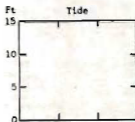
*F.

Baro:

mb.

Secchi:

ft Coll:

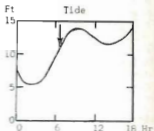


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
40	7.24	33.27	26.05					
45	7.05	33.78	26.48					
50	6.77	33.93	26.63					
55	6.41	34.20	26.88					
60	6.44	34.30	26.95					

* Salinity readings from the in situ salinometer for this station are suspected of being higher by nearly 1 ‰ than readings from other nearby stations at comparable depths.

Station: K-6
 Time: 0635
 Date: 28/IX/67
 Lat: 53° 56.30' N
 Long: 128° 41.50' W
 Depth: 684 ft
 B.T. Ser. No. 6

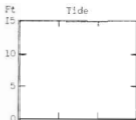
Weather: Intermittent rain
 Cloud: Type St-Ac Amt. 8
 Wind: Dir. 162 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 51.0 °F. W. °F.
 Baro: 1016.6 mb.
 Secchi: 2 ft Col: Muddy; brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.38	1.10	0.67					
2	10.63	3.76	2.63					
4	10.95	15.37	11.61					
6	10.77	19.38	14.73					
8	10.12	25.84	19.83					
10	9.71	27.71	21.35					
12	9.65	28.95	22.32					
15	9.01	29.86	23.12					
20	8.30	30.87	24.02					
25	8.08	31.42	24.48					
30	7.73	31.89	24.90					
35	7.55	32.36	25.29					

(continued below)

Station: K-6 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.
 Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
40	7.13	32.59	25.53					
45	6.89	32.86	25.77					
50	6.47	33.03	25.96					
55	6.47	33.12	26.03					
60	6.57	33.52	26.33					

Station: 4

Time: 0727

Date: 28/IX/67

Lat: 53° 56.10' N

Long: 128° 40.50' W

Depth: 660 ft

B.T. Ser. No.

Weather: Intermittent rain

Cloud: Type St-Ac Amt. 8

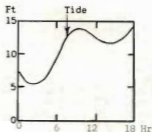
Wind: Dir. 162 °T Spd. 2 mph.

Sea: 0 Swell: 0

Air Temp: D. 51.0 °F. W. °F.

Baro: 1016.6 mb.

Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.43	3.72	2.62					
2	10.62	4.16	2.95					
4	10.71	13.36	10.08					
6	10.89	17.31	13.11					
8	10.25	25.06	19.20					
10	10.18	27.63	21.21					
12	9.61	28.76	22.17					
15	8.99	29.83	23.10					
20	8.35	30.92	24.05					
25	8.01	31.55	24.59					
30	7.79	31.77	24.80					
35	7.51	32.22	25.18					

(continued below)

Station: 4

Time:

Date:

Lat:

Long:

Depth: ft

B.T. Ser. No.

Weather:

Cloud: Type Amt.

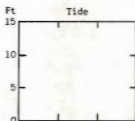
Wind: Dir. °T Spd. mph.

Sea: Swell:

Air Temp: D. °F. W. °F.

Baro: mb.

Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
40	7.20	32.49	25.45					
45	6.87	32.82	25.74					
50	6.59	33.13	26.02					
55	6.54	33.54	26.35					
60	6.52	33.79	26.55					

Station: 5

Time: 0746

Date: 28/IX/67

Lat: 53° 56.60' N

Long: 128° 42.40' W

Depth: 576 ft

B.T. Ser. No.

Weather: Cloudy

Cloud: Type Sc-Ac Amt. 7

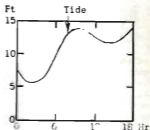
Wind: Dir. 162 °T Spd. 1 mph.

Sea: 0 Swell: 0

Air Temp: D. 52.0 °F. W. °F.

Baro: 1015.2 mb.

Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.31	3.70	2.62					
2	10.35	2.72	1.85					
4	10.83	16.34	12.37					
6	10.77	18.71	14.21					
8	10.44	23.10	17.66					
10	10.11	27.73	21.30					
12	9.64	29.01	22.36					
15	9.07	29.93	22.17					
20	8.49	30.88	24.00					
25	8.06	31.47	24.54					
30	7.89	32.07	25.02					
35	7.65	32.41	25.32					

(continued below)

Station: 5

Time:

Date:

Lat:

Long:

Depth:

B.T. Ser. No.

Weather:

Cloud: Type Amt.

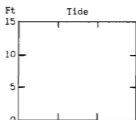
Wind: Dir. °T Spd. mph.

Sea: Swell:

Air Temp: D. °F. W. °F.

Baro: mb.

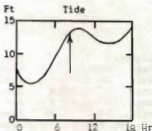
Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
40	7.40	32.71	25.59					
45	7.01	32.91	25.75					
50	6.54	33.41	26.25					
55	6.46	33.49	26.32					
60	6.45	33.69	26.48					

Station: K-7
 Time: 0810
 Date: 28/IX/67
 Lat: 53° 57.80' N
 Long: 128° 40.70' W
 Depth: 600 ft
 B.T. Ser. No. 7

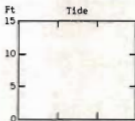
Weather: Cloudy
 Cloud: Type Sc-Ac Amt. 7
 Wind: Dir. 162 °T Spd. 1 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 52.0 °F. W. °F.
 Baro: 1015.2 mb.
 Secchi: 2 ft Col: Muddy; brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
0	9.36	1.08	0.66			
2	9.44	1.06	0.64			
4	10.69	15.47	11.72			
6	10.69	19.67	14.96			
8	10.00	25.37	19.49			
10	10.10	27.74	21.31			
12	9.54	28.90	22.30			
15	8.99	30.12	23.33			
20	8.26	30.99	24.12			
25	7.90	31.58	24.63			
30	7.72	32.20	25.14			
35	7.53	32.33	25.27			

(continued below)

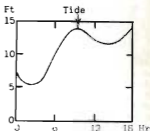
Station: K-7 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.
 Weather: Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
40	7.26	32.42	25.38			
45	6.82	32.99	25.89			
50	6.48	32.86	25.82			
55	6.45	33.02	25.95			
60	6.49	33.25	26.13			

Station: 6
 Time: 0930
 Date: 28/IX/67
 Lat: 53° 57.30' N
 Long: 128° 42.20' W
 Depth: 324 ft
 B.T. Ser. No.

Weather: Cloudy
 Cloud: Type Ac-Cu Amt. 6
 Wind: Dir. 072 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53.0 °F. W. °F.
 Baro: 1014.6 mb.
 Secchi: ft Col:

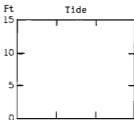


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
0	9.92	1.66	1.06			
2	10.02	2.40	1.63			
4	10.67	5.34	3.86			
6	10.76	19.84	15.08			
8	10.43	22.30	17.04			
10	10.20	27.65	21.22			
12	9.27	29.31	22.66			
15	8.91	30.00	23.25			
20	8.39	30.74	23.90			
25	8.01	31.63	24.66			
30	7.76	31.90	24.90			
35	7.45	32.43	25.36			

(continued below)

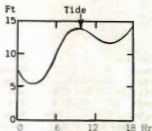
Station: 6 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
40	7.18	32.62	25.55			
45	7.00	33.02	25.88			
50	6.58	33.27	25.34			
55	6.50	33.55	26.36			
60	6.48	33.80	26.56			

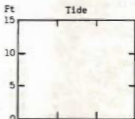
Station: 7 Weather: Cloudy
 Time: 0944 Cloud: Type Ac-Cu Amt. 6
 Date: 28/IX/67 Wind: Dir. 072 *T Spd. 2 mph.
 Lat: 53° 57.23'N Sea: 0 Swell: 0
 Long: 128° 41.60'W Air Temp: D. 53.0°F. W. °F.
 Depth: 624 ft Baro: 1014.6 mb.
 B.T. Ser. No. Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
0	9.69	1.43	0.91			
2	9.62	1.86	1.24			
4	10.49	3.63	2.54			
6	10.79	18.32	13.90			
8	10.52	24.70	18.88			
10	10.18	27.58	21.17			
12	9.63	28.94	22.31			
15	8.74	30.40	23.58			
20	8.31	31.29	24.35			
25	8.04	31.59	24.62			
30	7.71	31.44	24.55			
35	7.31	32.28	25.26			

(continued below)

Station: 7 (cont'd) Weather:
 Time: Cloud: Type Amt.
 Date: Wind: Dir. *T Spd. mph.
 Lat: N Sea: Swell: °F. W. °F.
 Long: W Air Temp: D. °F. W. °F.
 Depth: ft Baro: mb.
 B.T. Ser. No. Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
40	7.10	32.96	25.82			
45	6.88	33.79	26.50			
50	6.53	32.94	25.88			
55	6.41	33.38	26.24			
60	6.57	33.77	26.53			

Station: 8

Time: 0955

Date: 28/IX/67

Lat: 53° 57.10' N

Long: 128° 41.00' W

Depth: 660 ft

B.T. Ser. No.

Weather: Cloudy

Cloud: Type Ac-Cu Amt. 6

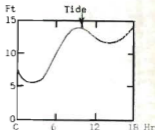
Wind: Dir. 072 °T Spd. 3 mph.

Sea: 0 Swell: 0

Air Temp: D. 53.0 °F. W. °F.

Baro: 1014.6 mb.

Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.04	3.22	2.27					
2	10.26	3.86	2.75					
4	10.66	8.58	6.38					
6	10.70	18.63	14.16					
8	10.46	23.44	17.92					
10	10.00	28.18	21.67					
12	9.38	24.49	22.78					
15	8.75	30.34	23.53					
20	8.28	31.25	24.32					
25	7.96	31.70	24.72					
30	7.77	32.22	25.15					
35	7.41	32.39	25.34					

(continued below)

Station: 8 (cont'd)

Time:

Date:

Lat:

Long:

Depth:

B.T. Ser. No.

Weather:

Cloud: Type Amt.

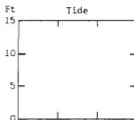
Wind: Dir. °T Spd. mph.

Sea: Swell:

Air Temp: D. °F. W. °F.

Baro: mb.

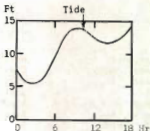
Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
40	7.04	32.77	25.68					
45	6.75	33.50	26.29					
50	6.50	33.24	26.12					
55	6.47	33.72	26.50					
60	6.58	34.00	26.70					

Station: 9
 Time: 1010
 Date: 28/IX/67
 Lat: 53° 57.08' N
 Long: 128° 40.50' W
 Depth: 654 ft
 B.T. Ser. No.

Weather: Cloudy
 Cloud: Type Ac-Cu Amt. 6
 Wind: Dir. 072 *T Spd. 3 mph.
 Sea: 0 Swell: 0
 Air Temp: 53.0°F. W. °F.
 Baro: 1014.6 mb.
 Secchi: ft Col:

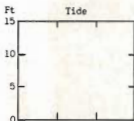


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
0	10.17	4.68	3.40			
2	10.70	17.92	13.61			
4	10.69	19.28	14.66			
6	10.49	23.50	17.96			
8	10.04	28.18	21.66			
10	9.42	29.35	22.67			
12	8.90	30.22	23.42			
15	8.44	30.89	24.02			
20	8.12	31.54	24.57			
25	7.80	32.10	25.05			
30	7.64	32.16	25.12			
35	7.40	32.70	25.58			

(continued below)

Station: 9 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

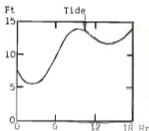
Weather:
 Cloud: Type Amt.
 Wind: Dir. *T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
40	7.07	33.04	25.89			
45	6.70	33.12	26.00			
50	6.51	33.20	26.08			
55	6.51	33.37	26.22			
60	6.57	33.66	26.44			

Stations: 10
 Time: 1020
 Date: 28/IX/67
 Lat: 53° 57.00' N
 Long: 128° 39.80' W
 Depth: 396 ft
 B.T. Ser. No.

Weather: Cloudy
 Cloud: Type Ac-Cu Amt. 6
 Wind: Dir. 072 °T Spd. 3 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53.0°F. W. °F.
 Baro: 1014.6 mb.
 Secchi: ft Col:

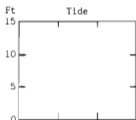


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.24	3.22	2.25					
2	10.39	4.62	3.33					
4	10.90	16.90	12.80					
6	10.62	20.90	15.92					
8	10.44	25.14	19.24					
10	9.65	28.00	21.60					
12	9.50	29.00	22.38					
15	8.74	30.30	23.51					
20	8.21	31.55	24.56					
25	7.94	32.00	24.95					
30	7.70	32.40	25.30					
35	7.38	33.02	25.83					

(continued below)

Stations: 10 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

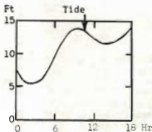
Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
40	7.17	32.94	25.80					
45	6.81	33.14	26.00					
50	6.58	33.34	26.19					
55	6.44	33.62	26.42					
60	6.54	33.67	26.45					

Stations 11
 Times: 1035
 Date: 28/IX/67
 Lat: 53° 57.83'N
 Long: 128° 39.30'W
 Depth: 336 ft
 B.T. Ser. No.

Weather: Cloudy
 Clouds: Type Ac-Cu Amt. 6
 Winds Dir. 072 °T Spd. 3 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 54.0 °F. W. °F.
 Baro: 1014.6 mb.
 Secchi: ft Col:

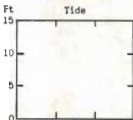


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.38	3.72	2.63					
2	10.43	4.73	3.41					
4	10.94	17.37	13.15					
6	10.66	18.67	14.10					
8	10.26	26.03	19.96					
10	9.68	28.32	21.82					
12	9.35	29.50	22.79					
15	8.95	30.18	23.38					
20	8.30	31.22	24.29					
25	7.88	32.16	25.08					
30	7.62	32.50	25.39					
35	7.58	32.36	25.28					

(continued below)

Stations 11 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

Weather:
 Cloud: Type Amt.
 Winds Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
40	7.08	32.96	25.82					
45	6.84	33.14	25.99					
50	6.60	33.70	26.47					
55	6.50	33.76	26.52					
60	6.54	34.05	26.75					

Stations: 12

Time: 1053

Date: 28/IX/67

Lat: 53° 58.00' N

Long: 128° 41.90' W

Depth: 516 ft

B.T. Ser. No.

Weather: Cloudy

Clouds: Type Ac-C. Amt. 6

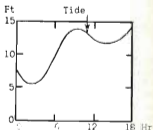
Wind: Dir. 072 °T Spd. 2 mph.

Sea: 0 Swell: 0

Air Temp: D. 54.0 °F. W. °F.

Baro: 1014.6 mb.

Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
0	9.75	2.81	1.98			
2	9.72	1.59	1.02			
4	10.80	16.84	12.76			
6	10.65	19.04	14.48			
8	10.57	22.22	16.96			
10	10.37	26.29	20.14			
12	9.64	29.28	22.51			
15	9.03	29.87	23.13			
20	8.32	31.15	24.24			
25	7.88	31.72	24.79			
30	7.68	32.12	25.08			
35	7.42	32.13	25.13			

(continued below)

Station: 12 (cont'd)

Time:

Date:

Lat:

Long:

Depth:

B.T. Ser. No.

N

W

ft

Weather:

Clouds: Type Amt.

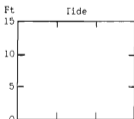
Wind: Dir. °T Spd. mph.

Sea: Swell:

Air Temp: D. °F. W. °F.

Baro: mb.

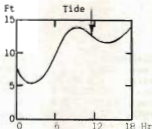
Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
40	7.15	32.79	25.68			
45	6.92	32.67	25.62			
50	6.56	33.04	25.98			
55	6.42	33.04	25.97			
60	6.55	33.48	26.30			

Stations: 13
 Time: 1130
 Date: 28/IX/67
 Lat: 53° 58.67' N
 Long: 128° 41.70' W
 Depth: 264 ft
 B.T. Ser. No.

Weather: Cloudy
 Cloud: Type Ac-Cu Amt. 6
 Wind: Dir. 072 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 54.0°F. W. °F.
 Baro: 1014.6 mb.
 Secchi: ft Col:

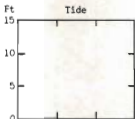


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen (mg/l)	% sat.	pH	Alkalinity Total Carb.
0	9.70	0.76	0.38				
2	9.82	1.19	0.71				
4	10.22	2.43	1.64				
6	10.70	17.94	13.63				
8	10.60	23.00	17.56				
10	10.22	26.82	20.57				
12	9.70	28.81	22.20				
15	9.08	29.83	23.09				
20	8.40	30.80	23.95				
25	7.93	31.56	24.62				
30	7.68	32.00	24.99				
35	7.39	32.24	25.22				

(continued below)

Stations: 13 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen (mg/l)	% sat.	pH	Alkalinity Total Carb.
40	7.20	32.40	25.37				
45	6.78	32.88	25.80				
50	6.48	32.87	25.83				
55	6.36	32.86	25.84				
60	6.92	33.22	26.10				

Stations: 14

Time: 1200

Date: 28/IX/67

Lat: 53° 58.55' N

Long: 128° 41.10' W

Depth: 504 ft

B.T. Ser. No.

Weather: Cloudy

Cloud: Type Sc-Ac Amt. 7

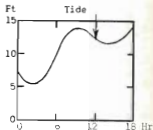
Wind: Dir. 072 *T Spd. 3 mph.

Sea: 0 Swell: 0

Air Temp: D.54.0°F. W. °F.

Baro: 1014.6 mb.

Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.78	1.24	0.75					
2	10.00	1.72	1.10					
4	10.92	16.16	12.22					
6	10.72	19.70	14.98					
8	10.60	25.46	19.46					
10	10.40	27.14	20.80					
12	9.83	28.50	21.94					
15	9.10	29.91	23.15					
20	8.33	31.18	24.26					
25	7.80	32.02	24.99					
30	7.55	32.41	25.33					
35	7.39	32.77	25.64					

(continued below)

Stations: 14 (cont'd)

Time:

Date:

Lat: N

Long: W

Depth: ft

B.T. Ser. No.

Weather:

Cloud: Type Amt.

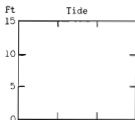
Wind: Dir. *T Spd. mph.

Sea: Swell:

Air Temp: D. °F. W. °F.

Baro: mb.

Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
40	7.06	33.00	25.86					
45	6.81	33.17	26.03					
50	6.53	33.33	26.19					
55	6.40	33.53	26.36					
60	6.50	33.94	26.67					

Station: 15

Time: 1210

Date: 28/IX/67

Lat: 53° 58.50' N

Long: 128° 40.53' W

Depth: 480 ft

B.T. Ser. No.

Weather: Cloudy

Cloud: Type Sc-Ac Amt. 7

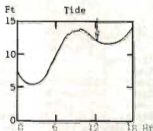
Wind: Dir. 072 °T Spd. 3 mph.

Sea: 0 Swell: 0

Air Temp: D. 54.0°F. W. °F.

Baro: 1013.9 mb.

Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.76	1.84	1.22					
2	9.76	2.06	1.39					
4	10.66	17.24	13.09					
6	10.60	20.04	15.26					
8	10.59	24.68	18.86					
10	9.84	28.04	21.58					
12	9.35	29.61	22.88					
15	8.86	30.25	23.46					
20	8.25	31.44	24.47					
25	7.90	32.00	24.96					
30	7.60	32.55	25.43					
35	7.40	32.86	25.70					

(continued below)

Station: 15 (cont'd)

Time:

Date:

Lat: N

Long: W

Depth: ft

B.T. Ser. No.

Weather:

Cloud: Type Amt.

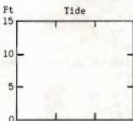
Wind: Dir. °T Spd. mph.

Sea: Swell:

Air Temp: D. °F. W. °F.

Baro: mb.

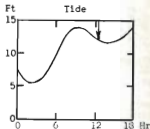
Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
40	7.10	33.04	25.89					
45	6.74	33.16	26.02					
50	6.51	33.32	26.18					
55	6.40	33.54	26.37					
60	6.56	33.74	26.50					

Stations: 16
 Time: 1223
 Date: 28/IX/67
 Lat: 53° 58.50' N
 Long: 128° 40.00' W
 Depth: 468 ft
 B.T. Ser. No.

Weather: Cloudy
 Cloud: Type Sc-Ac Amt. 7
 Wind: Dir. 072 *T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53.0 *F. W. *F.
 Baro: 1013.2 mb.
 Secchi: ft Col:

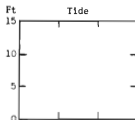


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.72	1.60	1.04					
2	10.11	3.18	2.22					
4	10.34	16.34	12.37					
6	10.64	21.48	16.36					
8	10.40	26.95	20.65					
10	9.74	24.48	21.94					
12	9.27	29.90	23.12					
15	8.76	30.33	23.93					
20	8.24	31.37	24.42					
25	7.84	31.93	24.91					
30	7.69	32.38	25.29					
35	7.27	32.72	25.62					

(continued below)

Stations: 16 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

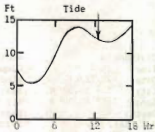
Weather:
 Cloud: Type Amt.
 Wind: Dir. *T Spd. mph.
 Sea: Swell:
 Air Temp: D. *F. W. *F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
40	7.04	32.84	25.74					
45	6.72	32.90	25.83					
50	6.54	33.13	26.03					
55	6.40	33.40	26.26					
60	6.55	33.66	26.45					

Stations: 17
 Time: 1232
 Date: 28/IX/67
 Lat: 53° 38.30'N
 Long: 128° 39.47'W
 Depth: 408 ft
 B.T. Ser. No.

Weather: Cloudy
 Cloud: Type Sc-Ac Amt. 7
 Wind: Dir. 072 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53.0°F. W. °F.
 Baro: 1013.2 mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t
0	9.94	2.52	1.73
2	9.96	2.77	1.93
4	10.76	17.92	13.60
6	10.60	20.19	15.38
8	10.20	26.84	20.60
10	9.85	28.78	22.15
12	9.32	29.49	22.79
15	8.66	30.84	23.94
20	8.18	31.78	24.75
25	7.84	31.79	24.80
30	7.73	32.20	25.14
35	7.48	32.73	25.59

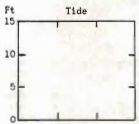
Dissolved oxygen pH
 (mg/l) % sat.

Alkalinity
 Total Carb.

(continued below)

Stations: 17 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

Weather:
 Clouds: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



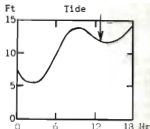
Depth (m)	T (°C)	S (‰)	σ_t
40	7.16	33.28	26.07
45	6.87	33.10	25.97
50	6.51	33.33	26.19
55	6.38	33.46	26.31
60	6.49	34.09	26.76

Dissolved oxygen pH
 (mg/l) % sat.

Alkalinity
 Total Carb.

Stations: K-8
 Time: 1254
 Date: 28/IX/67
 Lat: 53° 59.25' N
 Long: 128° 41.02' W
 Depth: 282 ft
 B.T. Ser. No. 9

Weather: Partly cloudy
 Cloud: Type Sc-Ac Amt. 5
 Wind: Dir. 072 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 54.0 °F. W. °F.
 Baro: 1013.2 mb.
 Secchi: 2 ft Col: Muddy; brown

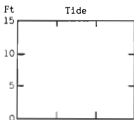


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen (mg/l)	pH	Alkalinity Total Carb.
0	9.43	0.40	0.12	% sat.		
2	10.32	3.28	2.29			
4	10.67	19.16	14.57			
6	10.54	24.86	19.01			
8	10.03	26.64	20.47			
10	9.64	28.42	21.92			
12	9.32	29.05	22.45			
15	8.76	29.92	23.21			
20	8.21	30.86	24.03			
25	7.90	31.60	24.65			
30	7.54	31.94	24.96			
35	7.30	32.36	25.33			

(continued below)

Stations: K-8 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

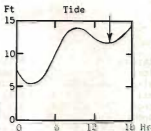
Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen (mg/l)	pH	Alkalinity Total Carb.
40	7.00	32.26	25.28	% sat.		
45	6.80	32.76	25.70			
50	6.50	32.72	25.71			
55	6.45	33.03	25.96			
60	6.53	33.05	25.97			

Station: K-9
 Time: 1412
 Date: 28/IX/67
 Lat: 53° 59.30'N
 Long: 128° 40.50'W
 Depth: 270 ft
 B.T. Ser. No. 10

Weather: Partly cloudy
 Cloud: Type Ac-Cu Amt. 5
 Wind: Dir. 072 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D.54.0°F. W. °F.
 Baro: 1012.5 mb.
 Secchi: 1 ft Col: Muddy; brown

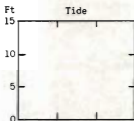


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen (mg/l)	% sat.	pH	Alkalinity Total Carb.
0	9.05	0.00	- 0.16				
2	9.76	1.00	0.57				
4	10.95	16.80	12.71				
6	10.70	19.06	14.49				
8	10.70	25.10	19.17				
10	10.32	27.45	21.06				
12	9.84	28.62	22.03				
15	9.26	29.55	22.85				
20	8.66	30.75	23.87				
25	8.24	31.47	24.50				
30	7.96	31.51	24.57				
35	7.68	32.04	25.02				

(continued below)

Station: K-9 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen (mg/l)	% sat.	pH	Alkalinity Total Carb.
40	7.30	32.30	25.28				
45	7.00	32.38	25.30				
50	6.90	32.40	25.41				
55	6.61	32.46	25.50				
60	6.66	32.96	25.88				

Stations: K-10

Time: 1438

Date: 28/IX/67

Lat: 53° 59.20' N

Long: 128° 39.70' W

Depth: 288 ft

B.T. Ser. No. 11

Weather: Partly cloudy

Cloud: Type Ac-Cu Amt. 5

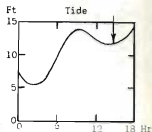
Wind: Dir. 072 °T Spd. 2 mph.

Sea: 0 Swell: 0

Air Temp: D. 54.0°F. W. °F.

Baro: 1012.2 mb.

Secchi: 1 ft Col: Muddy; brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.30	0.00	- 0.18					
2	9.72	0.72	0.35					
4	10.80	16.32	12.36					
6	10.77	18.93	14.39					
8	10.60	25.78	19.71					
10	10.00	27.82	21.40					
12	9.68	28.80	22.20					
15	9.17	30.00	23.21					
20	8.43	31.26	24.30					
25	8.10	31.42	24.48					
30	7.88	32.04	24.99					
35	7.64	32.20	25.15					

(continued below)

Stations: K-10 (cont'd)

Time:

Date:

Lat:

Long:

Depth:

B.T. Ser. No.

Weather:

Cloud: Type

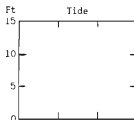
Wind: Dir. °T Spd. mph.

Sea: Swell: Amt.

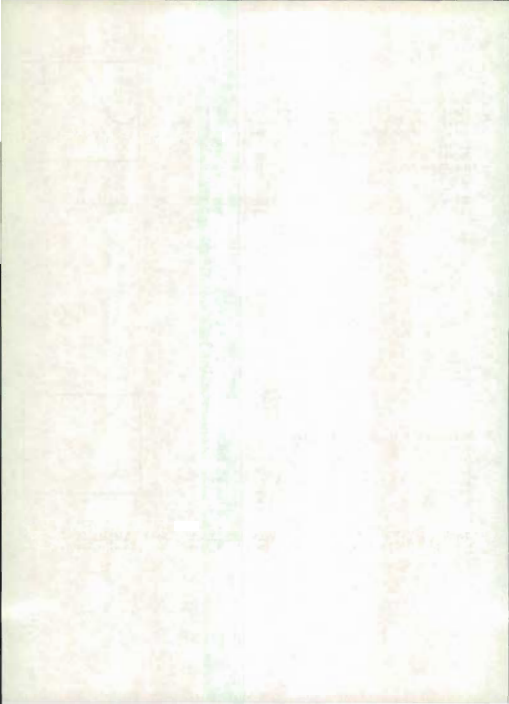
Air Temp: D. °F. W. °F.

Baro: mb.

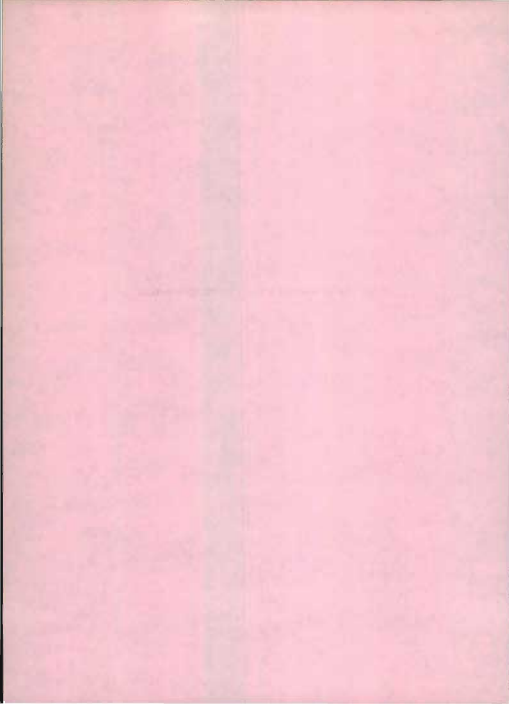
Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
40	7.20	32.80	25.68					
45	6.93	32.85	25.76					
50	6.70	33.07	25.96					
55	6.64	33.00	25.91					
60	6.71	33.21	26.07					



PRINCE RUPERT HARBOUR AND ITS CONTIGUOUS WATERS



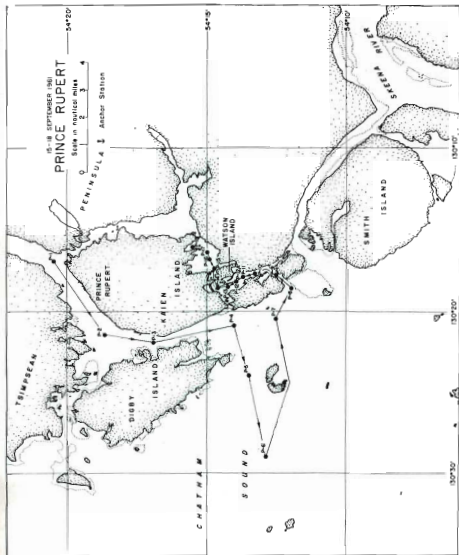
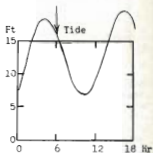


Fig. 15. Track chart of stations occupied in Prince Rupert Harbour and contiguous waters, 15-18 September 1961.

5/11

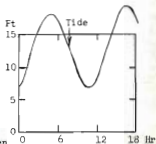




Station: P-1 Weather: Clear and sunny
 Time: 0618 Cloud: Type - Amt. 0
 Date: 15/IX/61 Wind: Dir. 117 °T Spd. 4-5 mph.
 Lat: 54° 20.5' N Sea: 0 Swell: 0
 Long: 130° 16.9' W Air Temp: D. 50 °F. W. °F.
 Depth: 192 ft Baro: 1010 mb.
 B.T. Ser. No. 1 Secchi: ft Col: ft Col:
 Bottom: Mud. Smooth. Dark green with black streaks.

Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.0	27.95	21.17	6.01	68.3	7.72		
2	10.18	30.15	23.16	5.66	60.6	7.84		
4	9.86	30.09	23.17	5.38	57.2	7.97		
6	9.88	31.14	23.99	5.39	57.9	7.97		
10	10.5*	31.18	23.92	5.41	60.9	7.95		
15	10.0*	31.22	24.03	5.26	52.7	7.93		
20	9.77	31.21	24.06	5.26	56.3	7.92		
30	9.77	31.22	24.07	5.32	55.8	7.93		
50	9.77	31.22	24.07	5.31	55.7	8.07		

* Temperature taken from B.T. trace.

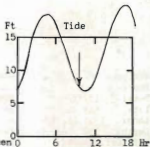


Station: P-2 Weather: Mostly clear and sunny
 Time: 0750 Cloud: Type Fs Amt. 2
 Date: 15/IX/61 Wind: Dir. 117 °T Spd. 3-4 mph.
 Lat: 54° 18.7' N Sea: 0 Swell: 0
 Long: 130° 21.45' W Air Temp: D. 52 °F. W. °F.
 Depth: 228 ft Baro: 1010 mb.
 B.T. Ser. No. 2 Secchi: 18 ft Col: Brownish-green
 Bottom: Mud. Smooth. Small clam shell. Dark greyish brown
 with black streaks.

Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.0	27.66	20.94	6.63	72.6	7.78		
2	11.79	27.77	21.06	6.61	72.2	7.82		
4	11.52	28.28	21.49	6.16	67.1	7.92		
6	11.32	28.45	21.66	6.06	65.7	7.82		
10	10.95	28.95	22.11	5.90	63.8	7.82		
15	10.49	29.85	22.89	5.95	63.6	7.93		
20	10.35	30.39	23.32	6.05	65.3	7.94		
30	9.97	30.89	23.79	5.62	60.2	7.92		
50	9.74	31.39	24.20	5.62	60.1	7.95		

Stations: P-3
 Time: 0936
 Date: 15/IX/61
 Lat: 54° 16.9' N
 Long: 129° 21.85' W
 Depth: 132 ft
 B.T. Ser. No. 3
 Bottom: Stones, gravel, shells and mud. Greyish brown.

Weather: Haze, partly cloudy
 Cloud: Type Fc Amt. 3
 Wind: Dir. - *T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 52 *F. W. *F.
 Baro: 1010 mb.
 Secchi: 18 ft Col: Yellowish green 0

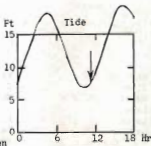


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.1	28.16	21.30	7.16	78.8	7.92	1.97	1.94
2	11.68	28.18	21.39	7.06	77.0	7.97	1.97	1.93
4	11.5	28.43	21.62	6.78	76.4	7.93	1.97	1.94
6	11.31	28.51	21.70	6.52	70.6	7.87	1.95	1.92
10	11.05	28.91	22.06	6.20	67.1	7.83	1.98	1.95
15	10.85	29.35	22.44	6.13	66.4	7.87	2.01	1.98
20	10.58	29.91	22.92	6.02	65.0	7.86	2.03	2.00
30	9.98	31.03	23.89	5.76	62.4	7.86	2.11	2.07
40	9.79	31.32	24.14	5.54	59.4	7.87	2.12	2.08

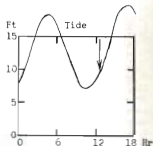
*Temperature taken from B.T. trace.

Stations: P-4
 Time: 1124
 Date: 15/IX/61
 Lat: 54° 13.97' N
 Long: 130° 20.8' W
 Depth: 138 ft
 B.T. Ser. No. 4
 Bottom: Mud. Smooth. Greyish brown with black streaks.

Weather: Partly cloudy, sunny
 Cloud: Type Fc Amt. 3
 Wind: Dir. - *T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 52 *F. W. *F.
 Baro: 1010 mb.
 Secchi: 13 ft Col: Brownish-green



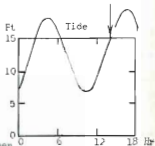
Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.4	26.21	19.75	7.68	84.0	7.98	1.81	1.77
2	11.53	26.92	20.45	7.49	80.8	7.96	1.86	1.82
4	11.51	27.65	21.01	7.32	79.3	7.93	1.98	1.95
6	11.35	28.15	21.42	7.16	77.6	7.96	1.99	1.95
10	10.57	29.84	22.87	6.11	65.9	7.91	2.06	2.03
15	9.94	31.07	23.92	5.74	61.7	7.91	2.18	2.14
20	9.94	31.22	24.04	5.76	61.8	7.92	2.16	2.12
30	9.76	31.41	24.22	5.64	60.4	7.92	2.18	2.14
40	9.27	31.87	24.66	5.23	55.6	7.88	2.18	2.14



Stations: P-5
 Time: 1237
 Date: 15/IX/61
 Lat: 54° 13.5' N
 Long: 130° 24.0' W
 Depth: 171 ft
 B.T. Ser. No. 5
 Bottom: Mud. Smooth. Grayish brown with black streaks.

Weather: Partly cloudy, sunny
 Cloud: Type Fe Amt. 4
 Wind: Dir. 252 °T Spd. 8 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 52 °F. W. °F.
 Baro: 1010 mb.
 Secchi: 11 ft Col: Dark green

Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.0	26.34	19.74	8.60	95.1	8.03	1.99	1.95
2	12.17	26.55	20.06	8.34	91.0	8.05	1.89	1.84
4	11.65	27.81	21.11	7.29	79.3	7.97	1.97	1.93
6	11.55	27.92	21.22	7.16	77.8	7.96	1.98	1.94
10	11.20	28.63	21.82	7.18	77.9	7.96	1.98	1.94
15	10.45	30.36	23.29	6.24	67.5	7.96	2.11	2.06
20	10.06	31.03	23.87	5.82	62.5	7.97	2.16	2.11
30	9.78	31.70	24.44	5.73	61.6	7.93	2.23	2.18
50	9.02	32.05	24.83	5.07	53.7	7.87	2.21	2.17



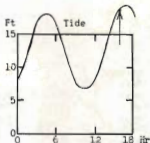
Stations: P-6
 Time: 1418
 Date: 15/IX/61
 Lat: 54° 12.85' N
 Long: 130° 29.0' W
 Depth: 334 ft
 B.T. Ser. No. 6
 Bottom: Mud. Smooth. Grayish-brown with black streaks.

Weather: Partly cloudy, sunny
 Cloud: Type Fe Amt. 3
 Wind: Dir. 252 °T Spd. 5.5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 58 °F. W. °F.
 Baro: 1010 mb.
 Secchi: 14 ft Col: Yellowish-green

Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.7	26.74	20.11	7.93	87.6	7.99	1.97	1.93
2	11.90	27.00	20.45	7.84	85.2	8.00	1.92	1.88
4	11.83	27.04	20.48	7.75	84.2	8.00	1.94	1.90
6	11.29	27.78	21.16	7.03	76.0	7.94	1.94	1.91
10	11.14	28.72	21.90	7.05	76.4	7.97	1.99	1.95
15	11.16	29.34	22.38	6.97	75.8	8.00	2.03	1.99
20	11.07	30.96	23.64	7.24	79.5	8.01	2.15	2.10
30	10.03	31.54	24.28	6.15	66.4	7.96	2.20	2.15
50	9.34	32.06	24.70	5.52	58.7	7.90	2.20	2.16
100	7.46	32.73	25.63	3.91	40.0	7.78	2.28	2.25

Station: F-7
 Time: 1551
 Date: 15/IX/61
 Lat: 54° 12.5' N
 Long: 130° 20.35' W
 Depth: 84 ft
 B.T. Ser. No. 7

Weather: Partly cloudy, sunny
 Cloud: Type Fe Amt. 4
 Wind: Dir. 252 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 66 °F. W. °F.
 Baro: 1011 mb.
 Secchi: 10 ft Col: Dark green

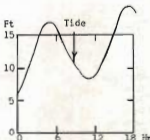


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.8	26.35	19.96	7.48	80.9	7.98	1.84	1.80
2	11.20	26.46	20.15	7.42	78.2	7.99	1.87	1.83
4	11.10	26.45	20.24	7.37	78.3	8.00	1.92	1.88
6	11.05	26.68	20.34	7.43	79.2	7.99	1.92	1.88
10	10.95	27.95	21.34	6.04	64.8	7.86	1.98	1.95
15	10.8	30.30	23.19	6.82	70.6	7.98	2.10	2.05
20	10.39	31.38	24.10	6.24	67.6	7.98	2.17	2.12

*Temperature taken from B.T. trace.

Station: F-8
 Time: 0840
 Date: 16/IX/61
 Lat: 54° 11.95' N
 Long: 130° 18.6' W
 Depth: 62 ft
 B.T. Ser. No. 8

Weather: Intermittent rain
 Cloud: Type Ms Amt. 10
 Wind: Dir. 162 °T Spd. 8-10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 56 °F. W. °F.
 Baro: 1010.5 mb.
 Secchi: 7 ft Col: Greyish-green

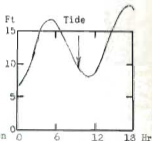


Bottom: Mud with sand, decomposed organic material, wood fragments. Brown with much black.

Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.4	25.36	19.26	7.36	78.3	7.90	1.77	1.74
2	11.14	26.31	20.04	6.22	66.2	7.82	1.90	1.87
4	11.21	26.66	20.30	5.59	59.8	7.75	1.92	1.89
6	11.11	28.52	21.74	4.68	50.6	7.72	2.01	1.99
10	10.98	29.07	22.19	5.21	56.3	7.78	2.05	2.02
15	10.78	29.84	22.83	6.22	67.5	7.96	2.10	2.06
20	10.68	30.62	23.45	6.74	73.2	7.99	2.17	2.12

Station: P-9
 Time: 0935
 Date: 16/IX/61
 Lat: 54° 12.5' N
 Long: 130° 17.75' W
 Depth: 78 ft
 B.T. Ser. No. 9
 Bottom: Gravel, shells,

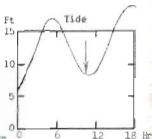
Weather: Rain - intermittent
 Clouds: Type Ns Amt. 10
 Winds: Dir. 162 °T Spd. 8 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 56 °F. W. °F.
 Baro: 1010.5 mb.
 Secchi: 6 ft Col: Brownish-green



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.7	26.63	20.19	3.10	33.5	7.42	1.92	1.91
2	11.54	27.09	20.58	2.39	24.8	7.42	1.97	1.96
4	11.55	27.27	20.71	2.22	24.0	7.39	1.99	1.98
6	11.54	27.43	20.84	2.16	23.4	7.37	2.00	1.99
10	11.49	27.69	21.05	2.29	24.8	7.41	1.99	1.98
15	11.37	28.07	21.36	3.00	32.5	7.50	1.99	1.98
20	11.40	28.11	21.37	2.96	31.9	7.53	2.00	1.99

Station: P-10
 Time: 1026
 Date: 16/IX/61
 Lat: 54° 13.25' N
 Long: 130° 17.6' W
 Depth: 72 ft
 B.T. Ser. No. 10
 Bottom: Gravel, shells, shale fragments. Brownish-grey with black streaks.

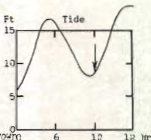
Weather: Rain - intermittent
 Clouds: Type Ns Amt. 10
 Winds: Dir. 162 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 56 °F. W. °F.
 Baro: 1011 mb.
 Secchi: 4 ft Col: Greenish-brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.7	26.77	20.30	2.76	29.9	7.42	1.94	1.93
2	11.57	26.91	20.44	2.71	29.3	7.46	1.94	1.93
4	11.62	27.18	20.63	2.06	22.3	7.36	1.98	1.97
6	11.65	27.56	20.92	1.28	13.9	7.31	1.97	1.97
10	11.67	27.73	21.05	1.09	11.9	7.26	2.00	2.00
15	11.68	27.75	21.07	1.02	11.1	7.31	2.00	2.00
20	11.25	28.62	21.80	3.84	41.7	7.33	2.02	2.02

Stations: F-11
 Time: 1201
 Date: 16/IX/61
 Lat: 54° 13.65' N
 Long: 130° 17.9' W
 Depth: 59 ft
 B.T. Ser. No. 11
 Bottom: Sand, mud, shells, shale fragments. Greyish-green.

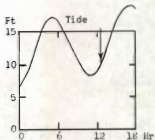
Weather: Overcast
 Cloud: Type Ns Amt. 10
 Wind: Dir. 100 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 56 °F. W. °F.
 Baro: 1011 mb.
 Secchi: 4 ft Col: Yellowish-brown



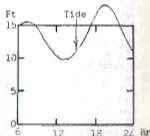
Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.1	27.67	20.93	0.32	3.5	7.65	1.95	1.93
2	11.81	27.67	20.98	0.17	1.8	7.22	1.99	1.99
4	11.79	27.67	20.99	0.19	2.1	7.21	1.97	1.97
6	11.78	27.67	20.99	0.24	2.6	7.20	1.99	1.99
10	11.76	27.69	21.00	1.16	12.6	7.20	2.00	2.00
15	11.62	27.82	21.12	1.18	12.8	7.31	2.00	2.00

Station: F-12
 Time: 1257
 Date: 16/IX/61
 Lat: 54° 13.05' N
 Long: 130° 18.1' W
 Depth: 72 ft
 B.T. Ser. No. 12
 Bottom: Sand, mud, few shells and wood fragments. Brownish-grey with black streaks.

Weather: Overcast
 Cloud: Type Ns Amt. 10
 Wind: Dir. 100 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 56 °F. W. °F.
 Baro: 1011 mb.
 Secchi: 4 ft Col: Dark brown

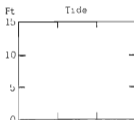


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.2	27.58	20.84	0.09	1.0	7.12	2.00	2.00
2	11.80	27.63	20.94	0.21	2.3	7.16	2.05	2.05
4	11.88	27.64	20.95	0.20	2.2	7.19	2.00	2.00
6	11.87	27.64	20.95	0.15	1.6	7.15	1.99	1.99
10	11.76	27.70	21.00	0.27	2.9	7.21	2.00	2.00
15	11.72	27.79	21.08	0.51	5.5	7.22	2.00	2.00
20	11.18	28.85	21.95	3.09	43.3	7.64	2.05	2.03



Stations: P-12A Weather: Overcast
 Time: 1505 Cloud: Type Sc Amt. 10
 Date: 18/IX/61 Wind: Dir. 27 °T Spd. 3-4 mph.
 Lat: 34° 13.95' N Sea: 0 Swell: 0
 Long: 130° 18.1' W Air Temp: D. 60 °F. W. °F.
 Depth: 72 ft Baro: 1025 mb.
 B.T. Ser. No. 19 Secchi: 4 ft Col: Dark brown
 Bottom: Mud, sand, wood chips, decomposed organic material,
 Brownish-grey with black patches.

Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.7	25.16	18.88	1.72	18.8	7.22	1.83	1.83
2	11.91	26.67	20.18	0.02	0.2	7.16	1.95	1.95
4	11.91	26.70	20.20	0.06	0.6	7.12	1.94	1.94
6	11.92	26.74	20.25	0.02	0.2	7.14	1.90	1.90
10	11.76	26.92	20.41	0.03	0.3	7.14	1.95	1.95
15	11.49	27.72	21.08	1.23	13.3	7.28	1.98	1.98
20	10.88	29.46	22.52	5.78	62.5	7.86	2.07	2.04

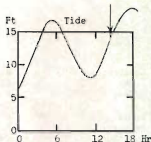


Station: Weather: Amt.
 Time: Cloud: Type mph.
 Date: Wind: Dir. °T Spd.
 Lat: N Sea: Swell:
 Long: W Air Temp: D. °F. W. °F.
 Depth: ft Baro: mb.
 B.T. Ser. No. Secchi: ft Col:

Depth	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.

Stations: P-13
 Time: 1407
 Date: 16/IX/61
 Lat: 54° 14.2' N
 Long: 130° 18.4' W
 Depth: 52 ft
 B.T. Ser. No. 13
 Bottom: Mud, sand. Rich in decomposed organic material.
 Wood chips. Grey with black patches.

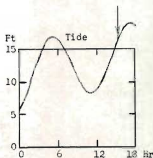
Weather: Overcast
 Cloud: Type Ns Amt. 10
 Wind: Dir. 100 °T Spd. 8-10mph.
 Sea: 0 Swell: 0
 Air Temp: D. 56 °F. W. °F.
 Baro: 1012 mb.
 Secchi: 3 ft Col: Dark brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.7	27.62	20.78	0.70	7.8	7.21	1.99	1.99
2	11.95	27.53	20.85	0.02	0.2	7.18	2.00	2.00
4	11.95	27.53	20.85	0.10	1.1	7.16	1.99	1.99
6	11.89	27.58	20.90	0.16	1.7	7.15	1.99	1.99
10	11.74	27.69	21.00	0.34	3.7	7.19	2.00	2.00
14	11.72	27.73	21.04	0.44	4.8	7.25	1.98	1.98

Station: P-14
 Time: 1512
 Date: 16/IX/61
 Lat: 54° 14.59' N
 Long: 130° 18.4' W
 Depth: 79 ft
 B.T. Ser. No. 14
 Bottom: Mud, stones, gravel, wood chips and bark, shells.
 Rich in decomposed organic material. Black.

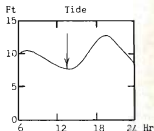
Weather: Overcast
 Cloud: Type Ns Amt. 10
 Wind: Dir. 100 °T Spd. 8-10mph.
 Sea: 0 Swell: 0
 Air Temp: D. 56 °F. W. °F.
 Baro: 1012 mb.
 Secchi: 3 ft Col: Dark brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.1	27.34	20.68	0.86	9.4	7.26	1.99	1.99
2	11.89	27.37	20.73	0.60	6.5	7.25	1.97	1.97
4	11.90	27.48	20.82	0.30	3.3	7.20	1.98	1.98
6	11.90	27.56	20.89	0.04	0.4	7.14	1.97	1.97
10	11.69	27.76	21.07	0.54	5.4	7.24	1.98	1.98
15	11.57	28.02	21.28	1.10	11.9	7.32	2.02	2.02
20	11.35	28.48	21.68	2.89	32.6	7.52	2.04	2.03

Station: P-15
 Time: 1340
 Date: 17/IX/61
 Lat: 54° 14.7' N
 Long: 137° 17.4' W
 Depth: 80 ft
 B.T. Ser. No. 15

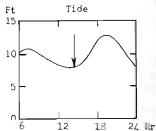
Weather: Overcast, light rain.
 Cloud: Type Ns Amt. 10
 Wind: Dir. 210 KT Spd. 8-10mph.
 Sea: 0 Swell: 0
 Air Temp: D. 55 $^{\circ}\text{F}$. W. $^{\circ}\text{F}$.
 Baro: 1000 mb.
 Secchi: 1.5 ft Col: Dark brown



Depth (m)	T ($^{\circ}\text{C}$)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.7	11.00	8.59	0.00	0.0	6.01		
2		26.85		0.00	0.0			
6		27.20		0.00	0.0			
10	11.07	27.24	20.62	0.00	0.0	7.05		
15		27.24		0.00	0.0			
20		27.24		0.00	0.0			

Station: P-16
 Time: 1438
 Date: 17/IX/61
 Lat: 54° 14.0' N
 Long: 137° 16.8' W
 Depth: 82 ft
 B.T. Ser. No. 16

Weather: Rain
 Cloud: Type Ns Amt. 10
 Wind: Dir. 252 KT Spd 10-12mph.
 Sea: 0 Swell: 0
 Air Temp: D. 55 $^{\circ}\text{F}$. W. $^{\circ}\text{F}$.
 Baro: 1000 mb.
 Secchi: 5 ft Col: Dark brown

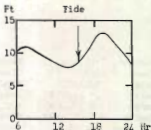


Depth (m)	T ($^{\circ}\text{C}$)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.3	26.71	20.15	0.46	5.0	6.95		
2	12.3*	26.83	20.27	0.20	3.3	7.07		
6	12.2*	27.01	20.42	0.15	1.7	7.12		
10	12.06	27.32	20.67	0.08	0.0	7.12		
15	11.8*	27.43	20.81	0.00	0.0	6.98		
20	11.8*	27.40	20.85	0.00	0.0	7.01		

*Temperature taken from B.T. trace.

Stations: F-17
 Time: 1535
 Date: 17/IX/61
 Lat: 54° 14.0' N
 Long: 130° 16.4' W
 Depth: 24.5 ft
 B.T. Ser. No. 17

Weather: Overcast
 Cloud: Type Ms Amt. 10
 Wind: Dir. 252° T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53°F. W. *F.
 Baro: 1009 mb.
 Secchi: 3 ft Col: Dark brown

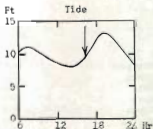


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.7	23.35	17.50	1.14	12.2	6.92		
2	12.3 *	24.93	19.57	0.00	00.0	6.86		
4	12.2 *	26.64	20.13	0.55	6.2	7.07		
6	12.00	27.18	20.57	0.00	0.0	7.07		

*Temperature taken from B.T. trace.

Stations: F-18
 Time: 1610
 Date: 17/IX/61
 Lat: 54° 15.4' N
 Long: 130° 16.0' W
 Depth: 49 ft
 B.T. Ser. No. 18

Weather: Overcast
 Cloud: Type Ms Amt. 10
 Wind: Dir. 252° T Spd. 10-12 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53°F. W. *F.
 Baro: 1012 mb.
 Secchi: 4 ft Col: Dark brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.7	21.93	16.42	3.28	35.1	7.04		
2	12.3 *	24.82	19.48	0.02	0.2	6.88		
6	12.2 *	26.30	20.31	1.57	17.8	7.16		
10	12.1*	27.82**	20.49	1.49				
14	12.0 *	27.35	20.71	0.25	2.8	7.05		

*Temperature taken from B.T. trace.

** Interpolated value

PORPOISE HARBOUR

Surface Current Measurements

Station: P-14. Latitude: 54° 14.50' N Remarks:
 Date: 17-18/IX/61 Longitude: 130° 18.40' W
 Sounding: 77 ft. Location: Off west end of
 Zwardi Rapids

C. B. I. Drag Data

Time/Date	Current			Wind	
	Speed		Direction ° T	Direction ° T	Speed M.P.H.
	Cm/sec	Knots			
0805/17/IX/61	138.4	2.688	258	077	10-15
0900/	156.4	3.028	267	087	10
0932/	126.3	2.453	241	207	10
1035/	128.7	2.500	197	207	10-15
1105/	35.2	0.684	267	207	15-18
1146/	0	0	281	207	18-22
1225/	73.9	1.436	291	207	15-22
1244/	0	0	283	207	10-15
1336/	45.5	0.884	277	207	10-15
1351/	64.6	1.255	027	217	5-10
1410/	64.6	1.255	032	242	10-15
1444/	79.6	1.546	022	242	10-15
1536/	73.9	1.436	030	242	10-15
1615/	61.2	1.189	037	242	3-6
1648/	57.6	1.119	032	230	4-6
1713/	35.2	0.684	007	214	4-6
1805/	0	0	028	067	1-3
1845/	35.2	0.684	225	-	0
1917/	28.7	0.557	230	-	0
1941/	57.6	1.119	239	087	6-5
2021/	126.3	2.453	239	-	0
2051/	145.9	2.834	222	-	0
2126/	156.4	3.038	227	107	3
2155/	79.6	1.546	217	087	3
2228/	29.7	0.557	237	087	4-7
2254/	107.4	2.096	237	077	4-7
2349/17/IX/61	148.5	2.885	237	087	3-4
0050/18/IX/61	167.9	3.262	220	347	3-4
0118/	153.7	2.986	242	097	6
0135/	112.1	2.178	215	066	3-3
0212/	79.6	1.546	225	087	3-3
0252/	35.2	0.684	227	017	4-5
0337/	0	0	227	017	4-5
0423/	0	0	235	017	4-5

FORTOISE HARBOUR

C. B. I. Drag Data

Station: P-14A (continued)

Time/Date	Current			Wind	
	Speed		Direction ° T	Direction ° T	Speed M.P.H.
	Cm/sec	Knots			
0509/18/IX/61	0	0	107	037	5-6
0548/	28.7	0.557	037	217	5-6
0622/	53.9	1.047	282	102	4-5
0652/	0	0	352	067	8-10
0721/	35.2	0.684	348	070	3-4
0753/	0	0	342	-	0
0836/	0	0	212	067	3-4
0858/	97.7	1.899	222	087	4
0934/	131.0	2.545	222	127	4-5
1002/	183.7	3.568	237	147	5-6
1035/	28.7	0.557	254	207	7
1120/	0	0	227	287	7
1125/	82.3	1.600	235	287	7
1148/	0	0	252	227	2-3
1205/	79.6	1.546	260	197	2-3
1221/	64.6	1.255	117	217	2-3
1258/18/IX/61	0	0	110	200	1-2

FORFOISE HARBOUR

Current Measurements

Station: P-14A Latitude: 54° 14.59' N Remarks: Zero values for
 Date: 17-18/IX/61 Longitude: 13° 0' 18.40' W current are probably a
 Sounding: 72 ft. Location: Off west end of result of malfunctioning
 Zanardi Rapids current meter.

Ekman-Merz Current Meter Data

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction ° T	Direction Speed	
		Cm/sec	Knots		° T	m.p.h.
0833/17/IX/61	5	0	0	-	077	10-15
0957/	10	0	0	-	087	10
1007/	5	62.0	1.204	021	207	10-15
1017/	2	60.9	1.183	021	207	10-15
1117/	10	38.5	0.748	046	207	15-18
1129/	5	28.5	0.553	032	207	16-18
1138/	2	18.5	0.359	003	207	18-22
1221/	10	0	0	-	207	18-22
1228/	5	41.0	0.796	051	207	17-22
1236/	2	0.9	0.017	010	207	10-15
1305/	10	16.5	0.321	345	207	10-18
1313/	5	24.0	0.466	137	207	10-15
1321/	2	97.0	1.884	221	207	10-15
1357/	10	12.0	0.233	049	217	5-10
1405/	5	17.5	0.339	160	240	10-12
1412/	2	8.5	0.165	217	242	10-15
1449/	10	10.4	0.202	330	242	10-15
1456/	5	0	0	-	242	10-15
1503/	5	4.0	0.078	047	242	10-15
1510/	2	20.0	0.389	213	242	10-15
1622/	10	20.0	0.389	265	242	3-6
1630/	5	0	0	-	242	3-6
1636/	5	13.0	0.252	294	230	4-6
1642/	2	12.8	0.249	314	230	4-6
1704/	10	15.0	0.291	244	214	4-6
1710/	5	10.0	0.194	252	214	4-6
1718/	2	12.5	0.243	053	214	4-6

FORFOISE HARBOUR

Ekman-Merz Current Meter Data

Station: P-14A (continued)

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction ° T	Direction ° T	Speed m.p.h.
		Cm/sec	Knots			
1734/17/IX/61	10	6.6	0.128	233	214	4-6
1742/	5	0	0	-	100	1-3
1750/	5	9.5	0.185	241	067	1-3
1758/	2	2.0	0.039	272	067	1-3
1820/	10	0	0	097	-	0
1829/	5	2.0	0.039	282	-	0
1838/	2	9.0	0.155	359	-	0
1852/	10	11.0	0.214	027	-	0
1905/	5	0	0	-	-	0
1918/	5	40.3	0.783	026	-	0
1931/	2	27.0	0.524	002	087	6-7
2059/	10	45.0	0.874	038	090	2-3
2009/	5	64.0	1.243	020	-	0
2017/	2	58.5	1.136	018	-	0
2059/	10	55.8	1.084	035	-	0
2109/	5	77.0	1.496	039	100	1-3
2118/	2	49.5	0.962	019	107	3
2202/	10	49.2	0.956	029	100	1-3
2210/	5	54.0	1.049	043	100	1-3
2216/	2	35.0	0.680	039	090	1-3
2303/	20	9.5	0.185	111	087	3
2310/	15	4.1	0.080	-	077	6-7
2319/	15	27.0	0.524	028	077	6-7
2326/	10	53.0	1.030	100	087	3-4
2332/	5	28.0	0.544	037	087	3-4
2340/	2	47.2	0.917	358	087	3-4
0008/17/IX/61	20	25.0	0.486	037	087	3-4
0008/18/IX/61	15	0.1	0.003	-	087	1-2
0014/	15	21.0	0.408	297	-	0
0022/	10	37.0	0.719	072	-	0
0031/	5	0	0	-	-	0
0036/	5	37.0	0.719	039	-	0
0042/	2	63.0	1.224	028	347	3-4
0108/	20	14.1	0.274	187	350	4-5
0116/	15	38.5	0.748	332	000	4-5

TORTOISE HARBOUR

Eiman-Hertz Current Meter Data

Station: P-14A (continued)

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction ° T	Direction Speed	
		Cm/sec	Knots		° T	mph
0123/18/IX/61	10	0	0	-	007	6
0128/	5	31.2	0.606	042	066	2-3
0146/	20	0	0	-	066	2-3
0153/	15	3.0	0.058	097	050	2-3
0200/	10	14.2	0.296	039	020	2-3
0206/	5	15.5	0.301	275	007	2-3
0222/	20	0	0	-	010	2-3
0224/	15	12.3	0.239	300	010	2-3
0237/	10	0.8	0.015	-	015	3-4
0244/	5	2.0	0.039	317	017	4-5
0305/	20	0	0	-	017	4-5
0313/	15	6.7	0.130	298	017	4-5
0321/	10	6.0	0.117	179	017	4-5
0329/	5	7.1	0.138	197	017	4-5
0350/	20	0	0	-	017	4-5
0358/	15	5.0	0.097	264	017	4-5
0407/	10	0	0	-	207	1-3
0415/	5	23.0	0.447	189	207	1-3
0440/	20	6.2	0.120	137	207	1-3
0447/	15	0	0	-	017	4-5
0454/	10	0	0	-	017	4-5
0501/	5	18.0	0.350	167	037	5-6
0516/	20	23.0	0.447	167	037	5-6
0528/	15	21.0	0.408	092	040	5-6
0535/	10	0	0	-	200	5-6
0542/	5	10.0	0.194	184	217	5-6
0559/	20	18.2	0.351	185	217	5-6
0605/	15	8.1	0.157	287	217	5-6
0611/	10	16.0	0.311	239	102	4-5
0617/	5	14.5	0.282	247	102	4-5
0657/	20	10.0	0.194	091	067	8-10
0704/	15	24.0	0.466	210	067	5-8
0710/	10	12.0	0.233	250	070	3-4
0717/	5	8.0	0.155	228	070	3-4

PORPOISE HARBOUR

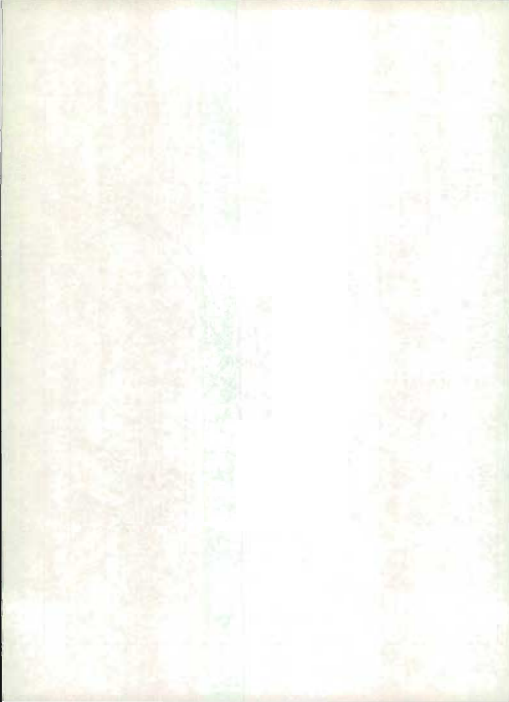
Ekman-Merz Current Meter Data

Station: P-14A (continued)

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction ° T	Direction ° T	Speed M.P.H.
		Cm/sec	Knots			
0805/18/IX/61	20	0	0	-	-	0
0810/	20	0	0	-	-	0
0817/	15	9.1	0.177	-	102	4-5
0824/	10	0	0	-	067	3-4
0832/	5	11.0	0.214	037	067	3-4
0908/	20	10.5	0.204	052	087	3-4
0916/	15	4.0	0.078	042	087	3-4
0922/	10	19.0	0.369	052	127	4-5
0928/	5	52.2	1.014	038	127	4-5
1008/	20	0.1	0.002	-	147	5-6
1016/	15	10.0	0.194	041	150	5-6
1026/	15	7.0	0.136	147	200	6-7
1035/	10	21.0	0.408	017	207	7
1045/	5	14.0	0.272	207	207	7
1122/	20	6.2	0.120	027	287	7
1129/	15	12.3	0.239	257	287	7
1135/	10	0	0	-	287	4-5
1141/	5	21.0	0.408	144	246	3-4
1153/	20	13.3	0.258	337	227	3-4
1203/	15	13.0	0.253	227	197	2-3
1210/	10	0	0	-	210	2-3
1216/	5	44.2	0.859	050	217	2-3
1232/	20	1.7	0.033	-	217	2-3
1239/	15	10.0	0.194	124	217	2-3
1246/	10	20.3	0.394	050	210	2-3
1254/	5	10.0	0.196	012	200	1-2
1317/	20	6.0	0.117	042	200	1-2
1325/	15	6.0	0.117	-	-	0
1336/	10	0	0	-	-	0
1343/18/IX/61	5	8.5	0.165	120	-	0



Fig. 16. Track chart of stations occupied in Prince Rupert Harbour and contiguous waters, 14-21 April 1962.



Stations: P-1

Time: 1317

Date: 14/IV/62

Lat: 54° 20.27' N

Long: 130° 16.0' W

Depth: 108 ft

B.T. Ser. No. 13

Weather: Clear

Cloud: Type Ac Amt. 7

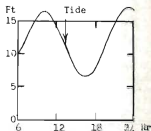
Wind: Dir. 220 °T Spd. 10-12 mph.

Sea: 1 Swell: 0

Air Temp: D. 51 °F. W. 48 °F.

Baro: 1000 mb.

Secchi: 5 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.7	29.40	22.95	9.26	91.50	7.89	2.04	2.01
2	6.32	29.31	23.05	9.26	90.70	8.01	2.05	2.01
4	6.30	29.28	23.03	9.29	90.99	7.91	1.99	1.96
6	6.07	29.46	23.27	9.06	89.30	7.87	2.07	2.04
10	6.08	29.62	23.32	9.13	89.16	7.87	2.02	1.99
15	6.05	29.68	23.37	9.04	88.20	7.90	2.07	2.03
20	5.85	30.43	23.98	8.99	86.74	7.91	2.08	2.04
30	5.85	30.92	24.37	8.91	87.27	7.96	2.14	2.10
50	5.80	31.22	24.61	9.21	90.12	7.96	2.11	2.07

Stations: P-2

Time: 1450

Date: 14/IV/62

Lat: 54° 19.44' N

Long: 130° 21.5' W

Depth: 259 ft

B.T. Ser. No. 14

Weather: Clear

Cloud: Type Ac Amt. 7

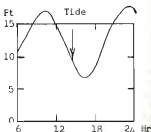
Wind: Dir. 220 °T Spd. 14 mph.

Sea: 2 Swell: 0

Air Temp: D. 51 °F. W. 48 °F.

Baro: 999 mb.

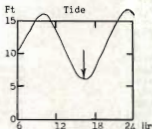
Secchi: 15 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.8	29.03	22.77	9.90	97.83	7.99	2.02	1.98
2	6.57	29.02	22.79	9.86	96.86	7.95	2.03	1.99
4	6.55	29.02	22.79	9.85	96.57	7.99	2.03	1.99
6	6.46	29.05	22.83	9.79	95.98	8.00	2.01	1.97
10	5.86	30.85	24.31	9.03	88.36	7.96	2.08	2.03
15	5.82	30.98	24.42	9.20	90.11	7.98	2.15	2.10
20	5.79	31.18	24.59	9.40	91.89	8.01	2.15	2.10
30	5.78	31.43	24.78	9.45	92.65	8.04	2.17	2.12
50	5.76	31.46	24.81	9.50	93.14	8.02	2.15	2.10

Station: F-3
 Time: 1612
 Date: 14/IV/62
 Lat: 54° 17.54' N
 Long: 130° 31.01' W
 Depth: 144 ft
 B.T. Ser. No. 15

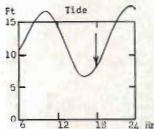
Weather: Squall
 Cloud: Type fc Amt. 0
 Wind: Dir. 185 *T Spd. 9-15mph.
 Sea: 2 Swell: 0
 Air Temp: D. 51 *F. W. 48 *F.
 Baro: 998 mb.
 Secchi: 16 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.7	28.95	22.72	9.81	96.56	7.56	1.99	1.95
2	6.42	29.00	22.79	9.73	95.11	7.97	2.01	1.97
4	6.40	29.98	22.78	9.70	94.82	7.96	2.00	1.96
6	6.36	29.05	22.84	9.69	94.81	7.96	2.00	1.96
10	6.20	29.55	23.25	9.36	91.60	7.93	2.05	2.01
15	6.05	29.86	23.52	9.20	89.84	7.94	2.06	2.03
20	5.90	30.41	23.96	9.06	88.39	7.94	2.10	2.06
30	5.87	30.73	24.22	9.01	88.07	7.98	2.11	2.07
40	5.87	31.62	24.92	9.39	92.42	7.99	2.14	2.10

Station: F-4
 Time: 1751
 Date: 14/IV/62
 Lat: 54° 14.05' N
 Long: 130° 20.31' W
 Depth: 144 ft
 B.T. Ser. No. 16

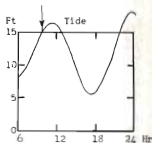
Weather: Overcast
 Cloud: Type Ac Amt. 9
 Wind: Dir. 90 *T Spd. 10-12mph.
 Sea: 3 Swell: 1
 Air Temp: D. 50 *F. W. 48 *F.
 Baro: 996 mb.
 Secchi: 11.5 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.5	28.07	22.05	9.81	95.71	7.92	1.95	1.92
2	6.30	28.10	22.10	9.77	94.85	8.01	1.99	1.95
4	6.30	28.10	22.11	9.81	95.24	7.98	1.99	1.95
6	6.28	28.11	22.11	9.91	96.31	7.98	1.99	1.95
10	6.34	28.34	22.28	9.81	95.52	7.95	2.00	1.96
15	5.96	29.96	23.62	9.47	92.21	7.99	2.06	2.02
20	5.79	31.23	24.62	9.45	92.47	8.00		
30	5.77	31.51	24.85	9.48	92.94	8.04	2.18	2.14
40	5.77	31.58	24.90	9.59	94.02	8.03	2.17	2.13

Stations P-5
 Time: 0951
 Date: 15/IV/62
 Lat: 54° 13.3' N
 Long: 130° 24.0' W
 Depth: 150 ft
 B.T. Ser. No. 17

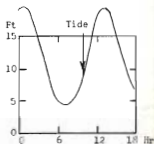
Weather: Overcast
 Cloud: Type $\frac{1}{2}$ Amt. 10
 Wind: Dir. 50 *T Spd 18-25mph.
 Sea: 3 Swell: 1
 Air Temp: D. 45 *F. W. 45 *F.
 Baro: 1006 mb.
 Secchi: 18 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.3	30.26	23.80	9.87	97.05	8.02	2.07	2.03
2	6.02	30.25	23.82	9.83	96.09	8.04	2.06	2.02
4	6.01	30.31	23.86	9.85	96.47	8.05	2.00	1.96
6	6.00	30.39	23.94	9.86	96.57	8.05	2.05	2.01
10	5.98	31.00	24.41	9.62	94.31	8.03	2.07	2.03
15	5.93	31.35	24.70	9.56	93.73	8.02	2.11	2.07
20	5.90	31.49	24.82	9.57	93.92	8.02	2.11	2.07
30	5.80	31.60	24.91	9.65	94.70	8.05	2.15	2.10
40	5.80	31.75	25.03	9.68	95.28	8.04	2.14	2.10

Stations P-6
 Time: 0953
 Date: 18/IV/62
 Lat: 54° 12.00' N
 Long: 130° 29.00' W
 Depth: 360 ft
 B.T. Ser. No. 34

Weather: Mostly clear
 Cloud: Type Cs Amt. 3
 Wind: Dir. 340 *T Spd. 3 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 46 *F. W. 45 *F.
 Baro: 1017 mb.
 Secchi: 23 ft Col: Green

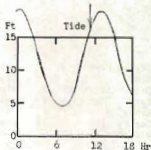


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.3	28.76	22.62	10.02	97.66	7.96	1.98	1.96
2	6.06	29.22	23.02	9.97	96.98	7.99	2.07	2.03
4	6.00	30.41	23.68	9.70	95.10	7.98	2.11	2.07
6	6.02	30.82	23.69	9.90	97.15	8.00	2.15	2.11
10	6.00	31.30	24.71	9.86	97.33	7.99	2.16	2.12
15	6.00	31.65	24.93	9.82	96.94	7.99	2.20	2.16
20	5.96	31.70	24.98	9.82	96.75	7.99	2.19	2.15
30	5.9 *	31.76	25.03	9.83	96.45	7.99	2.18	2.14
40	5.92	31.77	25.04	9.75	96.15	8.00	2.15	2.11
100	5.70	31.96	25.20	8.96	88.10	8.05	2.18	2.14

*Temperature taken from B.T. trace.

Station: P-7
 Time: 1112
 Date: 18/IV/62
 Lat: 54° 12.5' N
 Long: 130° 20.04' W
 Depth: 82 ft
 B.T. Ser. No. 35

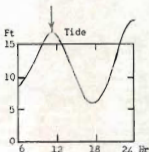
Weather: Clear
 Cloud: Type Cc Amt. 1
 Winds: Dir. 300° T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 49°F. W. 45°F.
 Baro: 1017 mb.
 Secchi: 15 ft Col: Green



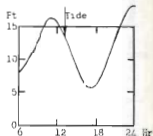
Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.9	27.49	21.56	10.11	98.92	7.98	1.95	1.91
2	6.13	29.26	23.03	9.75	94.94	7.98	2.05	2.01
4	6.10	29.43	23.16	9.67	94.16	7.98	2.08	2.04
6	6.08	29.80	23.46	9.33	91.11	7.93	2.09	2.05
10	6.10	30.38	23.92	9.82	96.27	7.99	2.16	2.12
15	6.06	31.13	24.51	9.82	96.56	8.00	2.17	2.13
20	5.94	31.49	24.81	9.75	95.87	7.99	2.18	2.14

Station: P-8
 Time: 1125
 Date: 15/IV/62
 Lat: 54° 11.57' N
 Long: 130° 18.6' W
 Depth: 76 ft
 B.T. Ser. No. 18

Weather: Squall, drizzle
 Cloud: Type Ns Amt. 10
 Winds: Dir. 150° T Spd. 12-13 mph.
 Sea: 3 Swell: 1
 Air Temp: D. 45°F. W. 45°F.
 Baro: 1008 mb.
 Secchi: 10 ft Col: Green



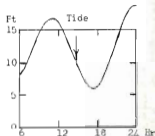
Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.2	26.58	20.93	9.85	94.62	7.95	1.84	1.80
2	6.16	27.09	21.33	9.45	90.87	7.95	1.87	1.83
4	6.13	28.28	22.27	9.31	90.30	7.96	1.95	1.91
6	6.10	29.04	22.86	9.62	93.40	7.98	1.99	1.95
10	6.15	29.40	23.14	9.35	91.40	7.93	2.04	2.01
15	6.10	29.95	23.57	9.08	88.85	7.93	2.06	2.02
20	6.09	30.26	23.82	9.39	91.97	7.97	2.07	2.03



Stations P-9
 Time: 1329
 Date: 15/IV/62
 Lat: 54° 12.3' N
 Long: 130° 17.75' W
 Depth: 66 ft
 B.T. Ser. No. 19

Weather: Squall
 Cloud: Type Cu-Ms Amt. 10
 Wind: Dir. 166 °T Spd. 20 mph.
 Sea: 3 Swell: 1
 Air Temp: D. 44 °F. W. 45 °F.
 Baro: 1008 mb.
 Secchi: 6.5 ft Col: Brown

Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.5	27.74	21.80	6.16	59.92	7.63	1.95	1.93
2	6.26	27.80	21.87	6.69	64.83	7.58	1.99	1.97
4	6.30	28.43	22.45	4.84	47.08	7.41	2.01	2.00
6	6.28	28.67	22.55	3.58	34.86	7.36	2.05	2.03
10	6.29	29.51	23.21	3.99	39.08	7.32	2.06	2.06
15	6.19	29.66	23.17	5.77	56.23	7.52	2.05	2.04
20	6.11	29.84	23.48	7.89	77.12	7.76	2.06	2.03



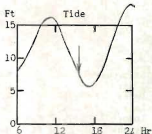
Stations P-10
 Time: 1455
 Date: 15/IV/62
 Lat: 54° 13.14' N
 Long: 130° 17.6' W
 Depth: 66 ft
 B.T. Ser. No. 20

Weather: Slight rain
 Cloud: Type Cu-Ms Amt. 10
 Wind: Dir. 170 °T Spd. 14 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 44 °F. W. 44 °F.
 Baro: 1010 mb.
 Secchi: 6.5 ft Col: Brown

Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.4	28.75	22.60	4.41	43.07	7.35	2.05	2.04
2	6.36	28.72	22.59	3.54	34.47	7.28	2.06	2.06
4	6.38	28.71	22.57	3.59	34.99	7.29	2.06	2.06
6	6.36	28.78	22.62	2.32	22.63	7.17	2.05	2.05
10	6.37	28.93	22.74	2.37	23.12	7.21	2.05	2.05
15	6.28	28.99	22.80	3.33	32.46	7.28	2.05	2.05
20	6.09	29.91	23.55	7.10	69.47	7.73	2.10	2.08

Station: P-11
 Time: 1552
 Date: 15/IV/62
 Lat: 54° 13.65' N
 Long: 130° 17.9' W
 Depth: 60 ft
 B.T. Ser. No. 21

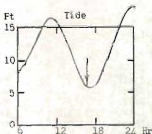
Weather: Slight rain
 Cloud: Type Cu-Ns Amt. 10
 Wind: Dir. 170 °T Spd. 14 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 44 °F. W. 44 °F.
 Baro: 1010 mb.
 Secchi: 3.5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.4	28.82	22.66	2.20	21.48	7.15	2.06	2.06
2	6.30	28.81	22.66	2.00	19.49	7.15	2.06	2.06
4	6.40	28.86	22.69	2.01	19.65	7.13	2.24	2.24
6	6.36	28.87	22.70	2.02	19.68	7.15	2.05	2.05
10	6.38	28.85	22.69	2.40	23.41	7.16	2.06	2.06
15	6.29	29.12	22.90	3.17	30.99	7.20	2.06	2.06
20	6.08	29.96	23.59	7.36	72.09	7.71	2.09	2.08

Station: P-12
 Time: 1633
 Date: 15/IV/62
 Lat: 54° 13.95' N
 Long: 130° 18.1' W
 Depth: 44 ft
 B.T. Ser. No. 22

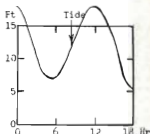
Weather: Slight rain
 Cloud: Type Cu-Ns Amt. 10
 Wind: Dir. 120 °T Spd. 9-10 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 48 °F. W. 47 °F.
 Baro: 1011 mb.
 Secchi: 3 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.5	28.71	22.55	1.68	16.45	7.16	2.06	2.06
2	6.41	28.70	22.54	1.42	13.88	7.10	2.07	2.07
4	6.41	28.71	22.56	1.45	14.17	7.12	2.06	2.06
6	6.38	28.78	22.63	1.67	16.31	7.12	2.08	2.08
10	6.38	28.91	22.72	2.21	21.60	7.17	2.16	2.16
15	6.32	29.01	22.81	2.59	25.32	7.22	2.13	2.13
18	6.29	29.12	22.91	3.29	32.19	7.27	2.17	2.17

Station: P-13
 Time: 0834
 Date: 16/IV/62
 Lat: 54° 14.2' N
 Long: 130° 18.4' W
 Depth: 57 ft
 B.T. Ser. No. 23

Weather: Slight rain
 Cloud: Type Cu-ns Amt. 10
 Wind: Dir. 045 °T Spd. 3-5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 40 °F. W. 47 °F.
 Baro: 1013 mb.
 Secchi: 3 ft Col: Dark brown

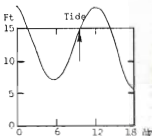


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.5	24.49	19.24	1.63	15.51	7.19	2.10	2.50
2	6.37	24.52	22.42	1.39	13.55	7.18	2.09	2.09
4	6.35	24.56	22.46	1.50	14.61	7.17	2.07	2.07
6	6.34	24.58	22.48	1.46	14.22	7.16	2.09	2.09
10	6.37	28.60	22.56	1.80	17.56	7.15	2.09	2.09
15	6.4	28.78	22.62	2.13	21.39	7.18	2.09	2.09

*Temperature taken from B.T. trace.

Station: P-14
 Time: 0836
 Date: 16/IV/62
 Lat: 56° 14.55' N
 Long: 130° 18.4' W
 Depth: 68 ft
 B.T. Ser. No. 24

Weather: Slight rain
 Cloud: Type Cu-ns Amt. 10
 Wind: Dir. 045 °T Spd. 5-8 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 48 °F. W. 47 °F.
 Baro: 1013 mb.
 Secchi: 3 ft Col: Brown

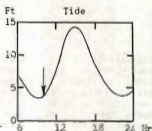


Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.5	24.57	22.44	1.81	17.71	7.23	2.07	2.07
2	6.38	24.57	22.46	1.63	14.87	7.18	2.10	2.10
4	6.36	24.73	22.59	2.08	20.27	7.20	2.07	2.07
6	6.31	24.70	22.64	2.31	22.56	7.20	2.09	2.09
10	6.33	28.90	22.72	2.73	26.63	7.22	2.07	2.07
15	6.3	28.06	22.78	2.97	29.79	7.25	2.09	2.09
20	6.28	28.05	22.84	3.31	32.32	7.28	2.08	2.08

*Temperature taken from B.T. trace.

Station: P-15
 Time: 0950-1008
 Date: 19/IV/62
 Lat: 54° 14.65' N*
 Long: 130° 17.35' W*
 Depth: 33 ft
 S.T. Ser. No. 39

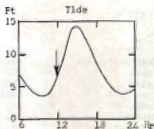
Weather: Clear, sunny
 Cloud: Type C1 Amt. 1
 Wind: Dir. 20 *T Spd. 2-3 mph.
 Sea: 0 Swell: 0
 Air Temp: D. *F. W. *F.
 Baro: mb.
 Secchi: 1 ft Col: Dark reddish-brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.1	15.30	11.53	0	0	6.05	2.24	2.04
1	6.71	27.97	21.96	0.94	9.19	7.02	2.05	2.05
2	6.57	28.23	22.17	1.64	16.00	7.07	2.05	2.05
4	6.41	28.59	22.48	2.64	25.76	7.18	2.04	2.04
6	6.38	28.69	22.55	2.68	26.12	7.25	2.03	2.03
8	6.41	28.70	22.55	2.29	22.39	7.32	2.03	2.03
10	6.42	28.80	22.64	1.93	17.91	7.22	2.05	2.05

Station: P-16
 Time: 1139-1227
 Date: 19/IV/62
 Lat: 54° 14.85' N*
 Long: 130° 16.90' W*
 Depth: 154 ft
 S.T. Ser. No. 40

Weather: Clear, sunny
 Cloud: Type C1 Amt. 1
 Wind: Dir. 270 *T Spd. 3-4 mph.
 Sea: 0 Swell: 0
 Air Temp: D. *F. W. *F.
 Baro: mb.
 Secchi: 8 ft Col: Brown, turbid

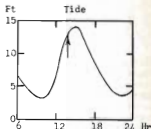


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.1	28.79	22.55	2.22	22.00	7.14	2.01	2.01
2	6.48	28.79	22.62	2.09	20.47	7.18	2.03	2.03
4	6.40	28.79	22.62	2.00	19.59	7.17	2.06	2.06
6	6.47	28.79	22.63	2.07	20.25	7.18	2.03	2.03
10	6.43	28.80	22.63	1.97	19.29	7.21	2.02	2.02
15	6.45	28.81	22.64	1.97	19.29	7.23	2.07	2.07
20	6.49	28.81	22.64	1.97	19.29	7.23	2.03	2.03
30	6.46	28.79	22.62	2.26	22.14	7.20	2.02	2.02
40	6.46	28.79	22.63	2.00	19.59	7.23	2.05	2.05

* Positions estimated by visual sighting on landmarks.

Station: P-17
 Time: 1354
 Date: 19/IV/62
 Lat: 54° 14.90' N*
 Long: 130° 16.40' W*
 Depth: 36 ft
 B.T. Ser. No. 41

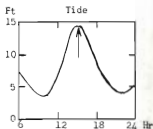
Weather: Clear, sunny
 Cloud: Type C1-Cu Amt. 2
 Wind: Dir. 270° T Spd. 3-5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: 5 ft Col: Brown; turbid



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.3	28.83	22.56	2.55	25.42	7.15	2.04	2.04
1	6.55	28.89	22.70	2.35	23.04	7.23	2.06	2.06
2	6.50	28.88	22.69	2.31	22.65	7.22	2.06	2.06
4	6.51	28.90	22.71	2.34	22.94	7.25	2.02	2.02
6	6.47	28.92	22.72	2.40	23.53	7.22	2.01	2.01
8	6.49	28.93	22.73	2.40	23.53	7.16	2.06	2.06
10	6.48	28.92	22.72	2.44	23.92	7.16	2.03	2.03

Station: P-18
 Time: 1516
 Date: 19/IV/62
 Lat: 54° 15.30' N*
 Long: 130° 15.90' W*
 Depth: 72 ft
 B.T. Ser. No. 42

Weather: Partly cloudy, sunny
 Cloud: Type C1, Cu, St Amt. 5
 Wind: Dir. - ° T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: 6.5 ft Col: Brown; turbid

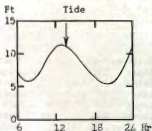


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.2	28.73	22.49	4.14	41.03	7.28	2.00	2.00
2	6.55	28.74	22.57	3.98	38.94	7.31	2.03	2.03
4	6.54	28.75	22.58	4.06	39.80	7.28	2.01	2.01
6	6.54	28.76	22.59	4.20	41.18	7.32	1.99	1.99
10	6.51	28.76	22.60	4.16	40.74	7.28	1.99	1.99
15	6.51	28.77	22.61	4.33	42.41	7.27	2.00	2.00
20	6.54	28.78	22.61	4.38	42.94	7.27	2.00	2.00

* Positions estimated by visual sighting on landmarks.

Stations: 1-19
 Time: 1339
 Date: 16/IV/62
 Lat: 54° 15.3' N
 Long: 13° 15.2' W
 Depth: 56 ft
 B.T. Ser. No. 25

Weather: Slight rain
 Cloud: Type Cu¹ts Amt. 10
 Wind: Dir. 080 °T Spd. 8-12 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 46°F. W. 47°F.
 Baro: 1013 mb.
 Secchi: 8 ft Col: 9n-br

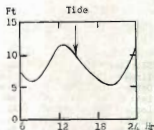


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.9	28.05	21.99	7.58	74.39	7.60	1.99	1.97
2	6.25	28.27	22.24	7.29	70.77	7.58	1.96	1.94
4	6.25	28.44	22.38	6.77	65.73	7.56	2.00	1.98
6	6.25	28.59	22.50	5.41	52.63	7.43	2.02	2.01
10	6.26	28.62	22.55	5.06	49.27	7.37	2.02	2.01
15	6.3 *	28.66	22.55	4.62	46.15	7.35	2.02	2.02

*Temperature taken from B.T. trace.

Stations: 1-20
 Time: 1423
 Date: 16/IV/62
 Lat: 54° 15.05' N
 Long: 13° 15.2' W
 Depth: 213 ft
 B.T. Ser. No. 25

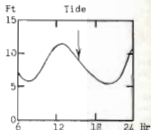
Weather: Squall
 Cloud: Type Cu Amt. 10
 Wind: Dir. 102 °T Spd. 25 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 52°F. W. 50°F.
 Baro: 1012 mb.
 Secchi: 11.5 ft Col: 9n-br



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.5	28.02	22.01	8.12	79.07	7.62	1.94	1.92
2	6.16	28.03	22.05	8.05	77.85	7.67	1.96	1.92
4	6.12	28.20	22.20	7.92	76.66	7.66	1.94	1.92
6	6.03	28.42	22.46	7.91	76.72	7.70	2.01	1.99
10	6.01	28.88	22.75	7.88	76.43	7.69	2.00	1.98
15	6.00	29.03	22.86	7.96	77.28	7.70	2.01	1.99
20	6.05	29.15	22.96	7.62	73.98	7.69	2.06	2.04
30	6.89	29.43	23.20	7.04	68.42	7.66	2.06	2.04
50	6.67	29.96	23.62	7.03	68.19	7.64	2.10	2.08

Station: F-21
 Time: 1521
 Date: 16/IV/62
 Lat: 54° 15.8' N
 Long: 130° 11.5' W
 Depth: 118 ft
 B.T. Ser. No. 26

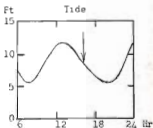
Weather: Squall
 Cloud: Type Cu Amt. 10
 Wind: Dir. 102° T Spd. 10-25 mph.
 Sea: 2 Swell: 0
 Air Temp: D. 53°F. W. 50°F.
 Baro: 1012 mb.
 Secchi: 8 ft Col: gr-or



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.5	27.18	21.36	7.76	75.19	7.60	1.75	1.73
2	6.33	27.60	21.71	7.23	70.06	7.56	1.90	1.88
4	6.32	27.84	21.90	7.32	71.07	7.58	1.90	1.88
6	6.17	28.65	22.54	6.61	64.17	7.54	2.00	1.99
10	6.10	28.83	22.70	7.13	69.22	7.59	2.08	2.06
15	6.07	28.96	22.81	7.57	73.57	7.69	2.06	2.04
20	5.99	29.15	22.96	6.73	65.28	7.58	2.07	2.05
30	5.99	29.18	22.98	6.66	64.66	7.59	2.08	2.06

Station: P-22
 Time: 1605
 Date: 16/IV/62
 Lat: 54° 15.3' N
 Long: 130° 12.05' W
 Depth: 72 ft
 B.T. Ser. No. 27

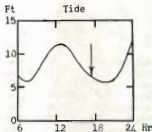
Weather: Squall
 Cloud: Type Cu Amt. 10
 Wind: Dir. 102° T Spd. 25 mph.
 Sea: 2 Swell: 0
 Air Temp: D. 53°F. W. 50°F.
 Baro: 1012 mb.
 Secchi: 8 ft Col: br-gr



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.5	24.49	19.24	8.00	76.05	7.57	1.79	1.78
2	6.18	28.69	22.58	6.53	63.39	7.55	2.03	2.01
4	6.13	28.86	22.72	6.49	63.07	7.51	2.04	2.03
6	6.12	28.91	22.76	6.55	63.65	7.55	2.06	2.04
10	6.09	28.99	22.82	6.68	64.92	7.56	2.05	2.03
15	6.04	29.09	22.91	6.80	66.08	7.57	2.04	2.02
20	5.93	29.28	23.06	6.26	60.72	7.54	2.04	2.03

Stations: P-23
 Time: 1745
 Date: 16/IV/62
 Lat: 54° 15.05' N
 Long: 130° 11.5' W
 Depth: 89 ft
 B.T. Ser. No. 29

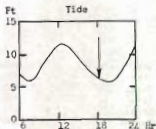
Weather: Squall
 Cloud: Type Cu Amt. 10
 Winds: Dir. 090 *T Spd. 8-10 mph.
 Sea: - Swell: -
 Air Temp: D. 53°F. W. 50°F.
 Baro: 1012 mb.
 Secchi: 8 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.9	22.73	17.82	9.57	60.63	7.69	1.72	1.70
2	6.38	28.17	22.15	7.25	70.46	7.61	1.98	1.96
4	6.20	28.34	22.30	7.02	68.16	7.56	2.00	1.98
6	6.15	28.66	22.56	6.68	64.58	7.54	2.00	1.99
10	6.16	28.78	22.66	6.64	64.53	7.54	2.00	1.99
15	6.10	28.96	22.80	6.55	63.59	7.55	2.01	1.99
20	6.02	29.07	22.89	6.58	63.88	7.55	2.00	1.98
25	5.92	29.30	23.10	5.73	55.58	7.49	2.07	2.06

Stations: P-24
 Time: 1835
 Date: 16/IV/62
 Lat: 54° 16.6' N
 Long: 130° 09.4' W
 Depth: 49 ft
 B.T. Ser. No. 30

Weather: Squall
 Cloud: Type Cu Amt. 10
 Winds: Dir. 100 *T Spd. 3-5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 49°F. W. 47°F.
 Baro: 1011 mb.
 Secchi: 8 ft Col: br-gn

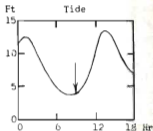


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.5	28.28	22.21	8.05	78.54	7.58	1.75	1.73
2	6.23	28.76	22.62	6.42	62.51	7.53	2.01	2.00
4	6.5*	28.82	22.64	6.32	63.65	7.51	2.05	2.04
6	6.51	28.87	22.68	6.65	65.13	7.53	2.01	2.00
10	6.27	28.90	22.74	6.22	60.62	7.49	2.05	2.04
15	6.11	29.07	22.89	5.87	57.16	7.49	2.07	2.06

*Temperature taken from B.T. trace.

Station: P-25
 Time: 0850
 Date: 17/IV/62
 Lat: 54° 16.7' N
 Long: 130° 14.7' W
 Depth: 168 ft
 B.T. Ser. No. 31

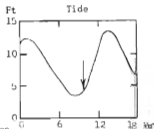
Weather: Overcast
 Cloud: Type Cu-Ns Amt. 10
 Wind: Dir. 117° T Spd. 25-30mph.
 Sea: 1 Swell: 0
 Air Temp: D. 55°F. W. 53°F.
 Baro: 1007 mb.
 Secchi: 10 ft Col: br-gn



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.4	28.28	22.22	8.11	79.97	7.60	1.98	1.96
2	6.15	28.24	22.23	7.88	76.06	7.60	1.95	1.93
4	6.15	28.23	22.22	7.96	77.13	7.60	1.90	1.88
6	6.13	28.25	22.24	7.83	75.70	7.59	1.96	1.94
10	6.13	28.40	22.35	7.58	73.45	7.57	2.01	1.99
15	6.06	28.92	22.77	7.89	76.61	7.68	2.05	2.03
20	5.96	29.22	23.01	7.66	74.30	7.70	2.06	2.04
30	5.72	29.52	23.27	6.80	66.02	7.60	2.10	2.08
50	5.66	29.94	23.62	6.95	67.41	7.61	2.10	2.08

Station: P-26
 Time: 0945
 Date: 17/IV/62
 Lat: 54° 17.5' N
 Long: 130° 14.8' W
 Depth: 148 ft
 B.T. Ser. No. 32

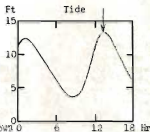
Weather: Overcast
 Cloud: Type Cu-Ns Amt. 10
 Wind: Dir. 117° T Spd. 15-20mph.
 Sea: 2 Swell: 0
 Air Temp: D. 54°F. W. 52°F.
 Baro: 1005.5 mb.
 Secchi: 10 ft Col: sl-b; dark gn



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.4	28.15	22.12	8.05	78.31	7.61	1.99	1.97
2	6.18	28.14	22.15	7.96	77.06	7.62	1.98	1.96
4	6.35	28.15	22.16	7.99	77.35	7.65	2.01	1.99
6	6.30	28.18	22.18	7.95	77.35	7.66	2.00	1.98
10	6.09	28.34	22.32	7.97	77.23	7.70	2.03	2.01
15	5.98	28.75	22.64	7.89	76.45	7.72	2.01	1.99
20	5.99	29.00	22.84	7.65	74.20	7.67	2.08	2.06
30	5.96	29.32	23.10	7.58	73.59	7.67	2.10	2.08
40	5.74	29.77	23.48	7.03	68.25	7.63	2.12	2.10

Station: P-27
 Time: 1312
 Date: 17/IV/62
 Lat: 54° 19.0' N
 Long: 130° 15.4' W
 Depth: 131 ft
 B.T. Ser. No. 33

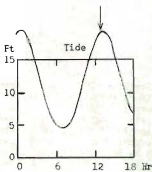
Weather: Overcast, rain
 Cloud: Type Cu-Ms Amt. 10
 Wind: Dir. 160 °T Spd. 5 mph.
 Sea: 2 Swell: 0
 Air Temp: D. 36 °F. W. 54 °F.
 Baro: 1007 mb.
 Secchi: 16 ft Col: Yellowish-brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.4	29.53	23.21	8.93	87.63	8.04	2.11	2.07
2	6.11	29.55	23.26	8.96	87.41	7.83	2.12	2.09
4	6.10	29.56	23.27	8.86	86.43	7.82	2.09	2.06
6	6.08	29.52	23.24	8.88	86.72	7.82	2.09	2.06
10	6.13	29.51	23.23	8.92	87.02	7.84	2.08	2.05
15	6.12	29.51	23.23	8.88	86.63	7.84	2.09	2.06
20	6.10	29.51	23.24	8.87	86.54	7.82	2.08	2.05
30	6.12	29.55	23.26	8.87	86.54	7.85	2.10	2.06

Station: P-28
 Time: 1242
 Date: 18/IV/62
 Lat: 54° 11.7' N
 Long: 130° 15.9' W
 Depth: 92 ft
 B.T. Ser. No. 36

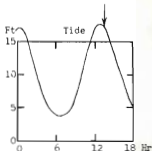
Weather: Clear
 Cloud: Type Cc Amt. 1
 Wind: Dir. 240 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 49 °F. W. 45 °F.
 Baro: 1015 mb.
 Secchi: 6.5 ft Col: Muddy; green



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.2	25.24	19.75	9.94	96.41	7.94	1.95	1.92
2	6.47	27.42	21.56	9.33	90.58	7.93	1.94	1.91
4	6.35	28.26	22.21	9.82	95.43	7.87	1.98	1.95
6	6.28	28.73	22.60	9.57	93.27	7.87	1.98	1.95
10	6.24	29.15	22.93	8.69	84.95	7.87	1.99	1.96
15	6.19	29.37	23.11	9.02	88.00	7.90	1.99	1.96
20	6.15	29.61	23.30	9.11	88.88	7.94	2.02	1.98
25	6.07	30.14	23.73	9.50	92.95	7.96	2.08	2.04

Stations: P-29
 Time: 1335
 Date: 18/IV/62
 Lat: 54° 10.7' N
 Long: 130° 11.25' W
 Depth: 33 ft
 B.T. Ser. No. 38

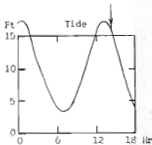
Weather: Mostly clear
 Cloud: Type Cc Amt. 2
 Winds: Dir. 295 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 50 °F. W. 47 °F.
 Baro: 1015 mb.
 Secchi: 6.5 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	8.0	25.12	19.57	10.43	102.76	7.52	1.71	1.68
2	6.43	26.43	20.78	10.28	98.90	7.93	1.79	1.76
4	6.35	26.82	21.09	10.28	99.03	7.94	1.81	1.78
6	6.26	27.03	21.27	10.23	98.55	7.93	1.76	1.73
8	6.20	27.32	21.50	10.20	98.36	7.96	1.73	1.69
10	6.16	27.61	21.73	10.14	97.78	7.95	1.71	1.67

Stations: P-30
 Time: 1430
 Date: 18/IV/62
 Lat: 54° 8.0' N
 Long: 130° 6.8' W
 Depth: 69 ft
 B.T. Ser. No. 37

Weather: Partly cloudy
 Cloud: Type Cc Amt. 5
 Winds: Dir. 295 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 47 °F. W. 45 °F.
 Baro: 1014 mb.
 Secchi: 3 ft Col: Muddy; green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.1	20.21	15.83	11.03	103.10	7.94	1.10	1.00
2	6.42	21.83	17.20	10.79	100.46	7.97	1.27	1.24
4	6.26	23.06	18.14	10.68	99.91	8.07	1.30	1.27
6	6.25	23.99	18.88	10.57	99.24	7.96	1.40	1.37
10	6.13	24.32	19.16	10.43	98.39	7.97	1.47	1.43
15	6.11	24.78	19.51	10.26	96.88	7.99	1.59	1.54
20	6.14	26.96	21.23	10.20	97.79	7.98	1.63	1.59

CHATHAM SOUND

Surface Current Measurements

Station: P-4A Latitude: 54° 14.00' N Remarks:
 Date: 20/IV/62 - Longitude: 130° 20.80' W
 21/IV/62
 Sounding: 150 ft. Location: At southern entrance to
 Prince Rupert Harbour

C. B. I. Drag Data

Time/Date	Current		Wind		
	Speed		Direction • T	Direction • T	Speed M.P.H.
	Gm/sec	Knots			
1923/20/IV/62	21.4	0.416	257	127	10
1958/	0	0	027	177	15
2030/	0	0	277	117	17
2105/	0	0	347	137	13
2131/	15.1	0.293	287	107	12
2210/	0	0	329	127	14
2237/	19.6	0.381	352	142	16
2307/	33.0	0.641	317	117	18
2334/20/IV/62	29.1	0.565	333	133	18
0002/21/IV/62	37.7	0.732	337	119	18
0051/	33.0	0.641	351	129	18
0121/	46.2	0.897	341	135	12
0150/	38.8	0.754	337	135	13
0218/	23.2	0.451	341	140	12
0300/	0	0	341	138	13
0325/	30.5	0.592	294	179	18
0406/	19.6	0.381	329	170	10
0430/	0	0	283	163	10
0503/	0	0	232	165	10
0528/	34.2	0.664	238	165	13
0559/	35.4	0.688	217	117	13
0640/	22.4	0.436	344	237	24
0704/	17.5	0.340	251	107	16
0733/21/IV/62	0	0	342	117	15

CHATHAM SOUND

Current Measurements

Station: P-4A Latitude: 54° 14.00' N Remarks:
 Date: 20/IV/62- Longitude: 130° 20.80' W
 21/IV/62
 Sounding: 150 ft. Location: At southern entrance to
 Prince Rupert Harbour

Eman Current Meter Data

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction ° T	Direction Speed	
		Cm/sec	Knots		° T	m.p.h.
1931/20/IV/62	5	30.0	0.583	147	127	10
1937/	10	62.6	1.216	180	130	10-12
1943/	15	33.5	0.651	167	150	12-14
1951/	20	44.8	0.870	177	177	15
2035/	5	13.4	0.260	244	117	17
2043/	10	34.3	0.666	184	120	15
2050/	15	15.4	0.299	211	130	14
2057/	20	5.6	0.109	247	137	13
2106/	30	20.5	0.398	144	137	13
2135/	5	6.3	0.122	212	107	12
2141/	10	11.3	0.220	247	107	12
2149/	15	9.2	0.179	334	107	12
2156/	20	22.1	0.429	037	127	14
2204/	30	9.7	0.188	047	127	14
2241/	5	13.6	0.264	287	142	16
2246/	10	14.5	0.282	005	142	16
2251/	15	8.6	0.167	307	130	17
2257/	20	22.2	0.431	185	117	18
2303/	30	20.2	0.392	017	117	17
2336/	5	20.2	0.392	-	133	18
2341/	10	13.9	0.270	304	133	18
2345/	15	5.3	0.103	-	130	18
2351/	20	1.0	0.019	-	120	18
2357/20/IV/62	30	14.9	0.289	257	119	18
0056/21/IV/62	5	31.7	0.616	017	129	18
0101/	10	14.7	0.286	340	129	18
0106/	15	14.5	0.282	302	129	18
0111/	20	11.9	0.231	277	130	15
0116/	30	14.6	0.284	004	135	12

CHATHAM SOUND

Ekman Current Meter Data

Station: P-4A (continued)

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction ° T	Direction Speed	
		Cm/sec	Knots		° T	m.p.h.
0155/21/IV/62	5	16.4	0.319	007	135	13
0159/	10	9.7	0.188	332	135	12
0203/	15	6.4	0.124	297	138	12
0208/	20	13.1	0.254	237	138	12
0212/	30	18.3	0.355	270	140	12
0303/	5	22.9	0.445	137	138	13
0307/	10	17.4	0.338	237	140	13
0312/	15	26.7	0.519	177	170	15
0316/	20	23.5	0.456	197	175	16
0320/	30	15.7	0.305	127	179	18
0409/	5	1.0	0.019	-	170	10
0414/	10	30.9	0.600	183	179	18
0419/	15	53.1	1.031	185	170	16
0422/	20	28.6	0.556	165	165	12-14
0426/	30	6.5	0.126	047	163	10
0507/	5	39.0	0.758	177	165	10
0510/	10	62.1	1.206	177	165	10-12
0514/	15	66.5	1.292	335	165	11
0518/	20	50.5	0.981	177	165	12
0521/	30	3.2	0.062	-	165	12
0524/	30	10.6	0.206	212	165	13
0607/	5	42.7	0.829	167	117	13
0612/	10	65.0	1.263	175	125	13
0620/	15	57.7	1.121	173	127	13
0629/	20	32.8	0.637	167	127	14
0636/	30	5.8	0.113	327	127	14
0708/	5	36.3	0.705	175	107	16
0713/	10	56.2	1.092	175	110	15
0718/	15	46.8	0.909	158	115	15
0722/	20	44.2	0.859	163	115	15
0728/21/IV/62	30	25.3	0.491	169	117	15

FORPOISE HARBOUR

C. B. I. Drag Data

Station: F-14A (continued)

Time/Date	Current			Wind	
	Speed		Direction ° T	Direction ° T	Speed m.p.h.
	Cm/sec	Knots			
0340/20/IV/62	46.2	0.897	250	170	20
0407/	48.2	0.936	265	185	14
0458/	49.2	0.956	258	247	6
0515/	45.1	0.876	240	190	7
0602/	40.9	0.794	262	143	12
0616/	50.2	0.975	230	140	13
0700/	35.4	0.689	278	350	3
0716/	39.9	0.775	230	030	7
0800/	30.5	0.592	230	030	8
0815/	35.4	0.689	204	340	8
0855/	33.0	0.641	240	180	13
0910/	17.5	0.340	270	165	8
1005/	0	0	202	-	0
1034/	0	0	060	165	5
1100/	27.8	0.540	285	185	13
1121/	27.8	0.540	333	185	7
1215/	19.6	0.381	050	193	16
1236/	15.1	0.293	032	130	8
1300/	12.4	0.241	047	187	7
1334/	8.7	0.169	287	157	17
1358/	0	0	049	177	12
1425/	0	0	035	147	12
1500/	17.5	0.340	277	127	10
1542/	87.0	1.690	287	137	9
1606/	94.6	1.838	237	147	10
1628/	94.6	1.838	247	162	12
1703/	49.2	0.956	237	147	14
1740/20/IV/62	92.6	1.800	247	157	14

FORPOISE HARBOUR

Current Measurements

Station: P-14A Latitude: 54° 14.60' N Remarks:
 Date: 19/IV/62- Longitude: 130° 18.40' W
 20/IV/62
 Sounding: 60 ft. Location: Off west end of
 Zanardi Rapids

Ekman Current Meter Data

Time/Date	Depth (Metres)	Current			dir	
		Speed		Direction ° T	Direction ° T	Speed m.p.h.
		Cm/sec	Knots			
0919/19/IV/62	5	11.6	0.225	124	158	3-5
0929/	10	1.0	0.019	-	158	3-5
0942/	10	0	0	-	158	3-5
0953/	10	5.4	0.104	-	158	3-5
1002/	15	21.1	0.410	343	170	4-5
1011/	20	20.5	0.398	-	170	4-5
1034/	5	24.3	0.472	360	170	4-5
1042/	10	21.7	0.422	359	200	4-5
1047/	15	19.6	0.381	007	200	4-5
1053/	20	2.0	0.039	037	225	6
1108/	5	18.7	0.354	010	225	6
1113/	10	12.6	0.245	027	225	5-6
1118/	15	11.7	0.227	027	225	5-6
1124/	20	12.6	0.245	027	225	5-6
1215/	5	13.6	0.264	104	225	4-5
1221/	10	7.0	0.136	060	225	4-5
1226/	15	30.4	0.591	127	225	3-4
1232/	20	30.2	0.761	002	225	3-4
1302/	5	16.8	0.326	070	200	1-2
1309/	10	15.2	0.295	067	200	1-2
1314/	15	28.1	0.546	014	-	0
1320/	20	23.1	0.449	127	-	0
1345/	5	22.0	0.427	173	-	0
1354/	10	12.8	0.249	347	-	0
1357/	15	9.6	0.186	262	-	0
1402/	20	9.7	0.188	127	-	0
1450/	5	90.8	1.764	247	-	0
1455/	10	44.8	0.870	185	-	0

PORPOISE HARBOUR

Ekman Current Meter Data

Station: P-14A (continued)

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction ° T	Direction ° T	Speed m.p.h.
		Cm/sec	Knots			
1500/19/IV/62	15	58.0	1.127	297	-	0
1506/	20	54.6	1.061	235	252	2-5
1538/	5	60.2	1.169	284	250	3-5
1543/	10	62.4	1.212	220	250	3-5
1548/	15	26.8	0.521	202	250	3-5
1553/	20	47.6	0.925	262	250	3-5
1601/	5	87.9	1.707	239	225	3-5
1606/	10	67.2	1.305	239	225	3-5
1610/	15	38.5	0.748	274	200	4-6
1719/	5	71.9	1.397	246	200	4-6
1724/	10	0	0	-	200	4-6
1739/	10	76.6	1.488	232	180	3-7
1747/	15	75.3	1.463	237	180	3-7
1806/	5	19.0	0.369	245	180	4-7
1810/	10	61.5	1.195	257	180	4-7
1815/	15	43.8	0.851	221	180	4-7
1836/	5	65.9	1.280	220	200	5-7
1841/	10	39.8	0.773	257	200	5-7
1846/	15	51.7	1.004	251	207	7-9
1928/	5	36.3	0.705	247	207	8
1935/	10	34.7	0.674	237	207	8
1941/	15	24.0	0.466	272	187	10-13
2005/	5	40.6	0.789	222	187	10-13
2011/	10	34.7	0.674	237	187	10-13
2019/	15	28.1	0.546	232	187	13-16
2109/	5	9.8	0.190	197	167	10
2114/	10	8.8	0.171	222	197	8
2120/	15	12.7	0.247	353	187	8
2205/	5	34.7	0.680	299	147	15
2211/	10	16.2	0.315	232	147	15
2217/	15	12.6	0.245	077	147	12
2310/	5	20.1	0.390	192	157	14
2317/	10	15.7	0.305	167	160	13

FORFOISE HARBOUR

Eiman Current Meter Data

Station: F-14A (continued)

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction • T	Direction • T	Speed M.P.H.
		Cm/sec	Knots			
2325/19/IV/62	15	11.9	0.231	062	162	13
0009/20/IV/62	5	13.4	0.260	102	141	15
0016/	10	16.0	0.311	070	140	15
0022/	15	25.6	0.497	005	107	14
0113/	5	26.8	0.521	167	117	14
0118/	10	16.5	0.321	293	117	14
0125/	15	10.5	0.204	237	137	10
0211/	5	9.9	0.192	207	137	14
0216/	10	8.6	0.167	305	137	14
0223/	15	13.1	0.254	167	097	7
0311/	5	47.0	0.913	234	102	7
0317/	10	48.9	0.950	280	207	13
0321/	15	42.0	0.816	260	207	13
0355/	5	42.9	0.833	247	170	20
0400/	10	91.1	1.770	217	185	14
0404/	15	47.6	0.925	357	185	14
0502/	5	70.3	1.366	215	247	6
0505/	10	0	0	-	247	6
0510/	15	62.4	1.212	225	190	7
0606/	5	86.7	1.634	214	143	12
0609/	10	62.7	1.218	220	140	13
0613/	15	21.5	0.418	307	140	13
0705/	5	12.8	0.249	300	350	3
0709/	10	40.5	0.787	275	030	7
0713/	15	40.4	0.785	157	030	7
0803/	5	26.4	0.571	207	340	8
0806/	10	26.6	0.517	260	340	8
0810/	15	26.2	0.509	200	340	8
0858/	5	26.4	0.513	214	180	13
0902/	10	32.7	0.625	232	180	13
0905/	15	25.3	0.491	031	175	10
0908/	20	19.6	0.381	267	165	8

FORFOISE HARBOUR

Ekman Current Meter Data

Station: P-14A (continued)

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction ° T	Direction ° T	Speed m.p.h.
		Cm/sec	Knots			
1010/20/IV/62	5	6.9	0.134	132	-	0
1016/	10	4.5	0.087	027	-	0
1022/	15	10.1	0.196	164	165	3-4
1029/	20	9.9	0.192	307	165	4-5
1104/	5	20.4	0.396	190	185	13
1109/	10	21.0	0.408	332	185	10-12
1114/	15	16.3	0.317	027	185	7-8
1118/	20	11.1	0.216	327	185	7
1218/	5	22.4	0.435	297	193	16
1223/	10	11.9	0.231	012	175	12-14
1227/	15	16.0	0.311	057	160	10-12
1232/	20	35.2	0.684	012	130	8
1307/	5	13.7	0.266	197	187	7
1312/	10	18.2	0.354	140	175	8-10
1319/	15	39.0	0.758	116	160	12-15
1326/	20	25.8	0.501	052	157	17
1402/	5	21.4	0.416	052	177	12
1407/	10	16.3	0.317	052	177	12
1412/	15	23.6	0.458	023	160	12
1417/	20	23.2	0.451	042	147	12
1505/	5	6.5	0.126	207	127	10
1510/	10	5.7	0.111	-	127	10
1518/	10	0	0	-	127	10
1527/	10	54.6	1.061	237	130	9-10
1530/	15	29.0	0.563	187	130	9-10
1535/	20	37.4	0.726	237	137	9
1611/	5	57.9	1.125	217	047	10
1614/	10	48.3	0.938	250	050	10
1618/	15	57.7	1.121	189	160	14-12
1622/	20	55.8	1.084	287	162	12
1716/	5	52.2	1.014	177	147	14
1722/	10	73.7	1.432	244	147	14
1727/	15	29.5	0.573	231	157	14
1733/20/IV/62	20	16.3	0.317	092	157	14

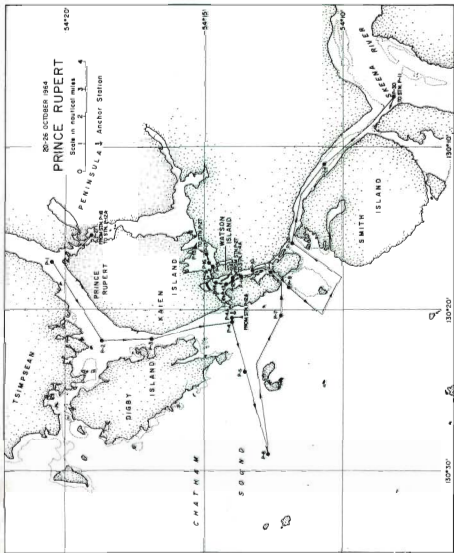
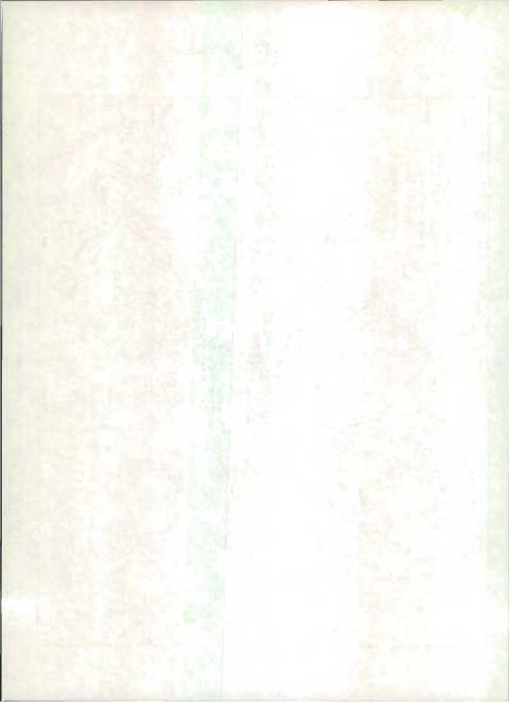
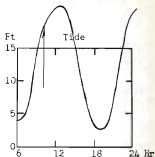


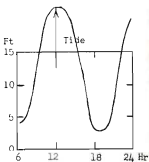
Fig. 17. Track chart of stations occupied in Prince Rupert Harbour and contiguous waters, 20-26 October 1964.





Stations: P-1 Weather: Rain, mist
 Times: 1013 Cloud: TypeNs Amt. 10
 Date: 20/X/64 Wind: Dir. 230 °T Spd. 5 mph.
 Lat: 54° 20.50' N Sea: 0 Swell: 0
 Long: 130° 17.00' W Air Temp: D. 54 °F. W. 52 °F.
 Depth: 162 ft Baro: 1017 mb.
 B.T. Ser. No. 12 Secchi: - ft Col: -

Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.5	16.56	12.58	9.19	94.1	7.77	1.13	1.10
2	10.00	22.21	17.02	8.25	86.4	7.85	1.50	1.47
4	10.02	23.93	18.36	7.79	82.5	7.81	1.63	1.60
6	10.04	24.92	19.12	7.55	80.7	7.81	1.71	1.68
10	9.92	25.24	19.40	7.77	82.8	7.85	1.73	1.70
15	9.95	26.68	20.51	7.96	85.7	7.86	1.86	1.83
20	10.06	28.41	21.83	6.95	76.0	7.91	1.95	1.92
30	10.17	30.36	23.33	6.70	74.1	7.95	2.09	2.06
40	10.21	30.83	23.69	6.49	72.3	7.94	2.10	2.07

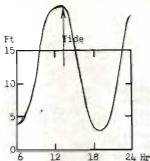


Stations: P-2 Weather: Drizzle, fog
 Time: 1214 Cloud: TypeNs Amt. 10
 Date: 20/X/64 Wind: Dir. 090 °T Spd. 6 mph.
 Lat: 54° 18.60' N Sea: 0 Swell: 0
 Long: 130° 21.50' W Air Temp: D. 53 °F. W. 51 °F.
 Depth: 228 ft Baro: 1019 mb.
 B.T. Ser. No. 13 Secchi: 6.5 ft Col: Brownish-Green

Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.8	15.65	11.84	9.46	96.8	7.66	1.07	1.05
2	9.79	22.77	17.49	8.70	91.0	7.85	1.53	1.52
4	9.80	23.63	18.16	8.46	89.0	7.86	1.61	1.58
6	9.80	24.63	18.94	8.46	89.5	7.87	1.69	1.66
10	9.88	23.87	18.34	8.10	85.6	7.86	1.79	1.76
15	9.85	25.66	19.73	7.94	84.7	7.88	1.81	1.78
20	9.82	26.25	20.20	8.15	87.3	7.92	1.83	1.80
30	10.08	30.01	23.07	7.65	84.5	7.97	2.09	2.05
50	10.14	30.50	23.44	7.15	79.3	7.94	2.13	2.10

Station: F-3
 Time: 1337
 Date: 20/X/64
 Lat: 54° 16.90' N
 Long: 130° 21.80' W
 Depth: 144 ft
 B.T. Ser. No. 14

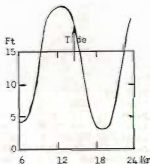
Weather: Cloudy, clearing
 Cloud: Type Ns-Ac Amt. 8
 Wind: Dir. - *T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 51 °F. W. 51 °F.
 Baro: 1019 mb.
 Secchi: 6.5 ft Col: Brownish-Green



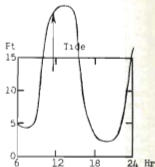
Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.6	21.18	16.14	8.95	94.3	7.84	1.50	1.47
2	9.83	22.94	17.62	8.67	90.9	7.88	1.93	1.90
4	9.81	23.11	17.75	8.58	90.0	7.85	1.61	1.58
6	9.79	23.58	18.14	8.54	89.7	7.87	1.69	1.67
10	9.68	24.74	19.04	8.20	86.8	7.86	1.73	1.70
15	9.74	26.44	20.37	7.84	83.9	7.89	1.87	1.84
20	9.88	28.41	21.86	7.93	86.3	7.95	2.00	1.96
30	10.10	30.36	23.34	7.68	85.0	7.99	2.14	2.10
40	10.14	30.79	23.67	7.70	85.6	7.96	2.13	2.09

Station: F-4
 Time: 1442
 Date: 20/X/64
 Lat: 54° 14.00' N
 Long: 130° 20.80' W
 Depth: 162 ft
 B.T. Ser. No. 15

Weather: Clearing
 Cloud: Type St-Ac Amt. 5
 Wind: Dir. 240 *T Spd. 6 mph.
 Sea: 1 Swell: 0
 Air Temp: D. 51 °F. W. 51 °F.
 Baro: 1019 mb.
 Secchi: 6.5 ft Col: Brownish-Green



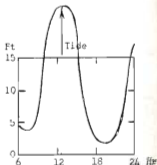
Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.7	22.36	17.18	9.00	93.7	7.87	1.53	1.50
2	9.47	22.46	17.30	8.92	92.4	7.89	1.57	1.54
4	9.54	25.40	19.58	8.04	85.1	7.89	1.83	1.80
6	9.62	25.98	20.02	7.92	84.3	7.87	1.84	1.81
10	9.82	27.75	21.36	7.86	85.1	7.90	1.95	1.92
15	9.92	29.41	22.63	7.97	87.3	7.95	2.08	2.04
20	10.06	30.16	23.19	7.94	87.7	7.95	2.10	1.98
30	10.08	30.85	23.73	7.94	88.2	8.01	2.15	2.11
40	10.17	31.18	23.97	7.71	86.0	7.97	2.18	2.14



Stations: P-5
 Times: 1154
 Date: 21/X/64
 Lat: 54° 13.40' N
 Long: 130° 24.00' W
 Depth: 150 ft
 B.T. Ser. No. 16

Weather: Mostly cloudy
 Cloud: Type As Amt. 9
 Wind: Dir. 090 *T Spd. 6 mph.
 Sea: 1 Swell: 1
 Air Temp: D. 53 *F. W. 49 *F.
 Baro: 1018 mb.
 Secchi: 10 ft Col: Green

Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.5	23.89	18.40	8.58	89.8	7.87	1.67	1.64
2	9.60	25.81	19.89	8.23	87.5	7.86	1.83	1.80
4	9.62	26.52	20.44	8.37	89.4	7.92	1.87	1.84
6	9.70	27.09	20.87	8.33	89.5	7.95	1.87	1.83
10	9.87	28.63	22.03	8.06	87.9	7.95	1.99	1.95
15	9.93	29.43	22.64	8.12	89.0	7.95	2.03	1.99
20	10.12	30.91	23.77	7.94	88.2	7.97	2.10	2.06
30	10.18	31.18	23.97	8.01	89.4	7.98	2.16	2.12
40	10.17	31.25	24.02	7.89	88.0	7.98	2.16	2.12



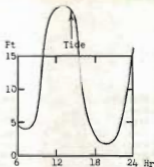
Stations: P-6
 Times: 1253
 Date: 21/X/64
 Lat: 54° 12.80' N
 Long: 130° 28.90' W
 Depth: 210 ft
 B.T. Ser. No. 17

Weather: Mostly cloudy
 Cloud: Type As Amt. 8
 Wind: Dir. 090 *T Spd. 7 mph.
 Sea: 1 Swell: 1
 Air Temp: D. 54 *F. W. 50 *F.
 Baro: 1017 mb.
 Secchi: 11.5 ft Col: Green

Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.7	24.51	18.88	8.92	94.2	7.93	1.65	1.62
2	9.40	25.58	19.73	8.72	92.1	7.97	1.69	1.65
4	9.56	27.90	21.52	8.31	89.4	7.97	1.89	1.85
6	9.80	29.30	22.56	8.13	88.8	7.97	2.00	1.96
10	10.00	30.24	23.26	8.04	88.7	7.99	2.09	2.05
15	10.15	30.83	23.70	8.08	89.8	8.02	2.11	2.07
20	10.22	30.96	23.79	8.08	90.2	8.00	2.13	2.09
30	10.28	31.38	24.11	8.05	90.1	8.05	2.15	2.11
50	10.35	31.51	24.20	8.15	91.5	8.03	2.16	2.12
70	10.30	31.56	24.24	8.02	89.9	8.03	2.18	2.14

Station: F-7
 Time: 1435
 Date: 21/X/64
 Lat: 54° 12.40' N
 Long: 130° 20.30' W
 Depth: 144 ft
 B.T. Ser. No. 18

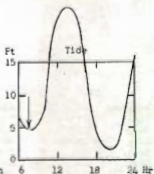
Weather: Cloudy
 Cloud: Type As Amt. 8
 Wind: Dir. 090 °T Spd. 7 mph.
 Sea: 1 Swell: 1
 Air Temp: D. 55 °F. W. 50 °F.
 Baro: 1016 mb.
 Secchi: 6.5 ft Col: Turbid; Green



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.5	19.66	15.12	8.38	85.2	7.96	1.38	1.34
2	9.08	20.63	15.93	9.12	92.5	7.97	1.50	1.46
4	9.34	23.44	18.08	8.52	88.6	7.94	1.65	1.62
6	9.62	26.34	20.30	7.90	84.2	7.93	1.86	1.83
10	9.97	29.12	22.40	7.79	85.2	7.97	2.04	2.00
15	10.12	30.93	23.78	7.79	86.6	7.96	2.11	2.07
20	10.10	31.06	23.89	7.64	85.1	7.97	2.15	2.11
30	10.10	31.18	23.98	7.57	84.4	7.98	2.16	2.12
40	10.12	31.34	24.10	7.47	83.4	7.97	2.16	2.12

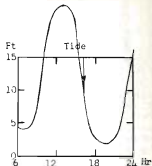
Station: F-8
 Time: 0744
 Date: 22/X/64
 Lat: 54° 12.00' N
 Long: 130° 18.45' W
 Depth: 60 ft
 B.T. Ser. No. 21

Weather: Drizzle
 Cloud: Type Ns Amt. 10
 Wind: Dir. 095 °T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 50 °F. W. 49 °F.
 Baro: 1021 mb.
 Secchi: 3 ft Col: Turbid; Green



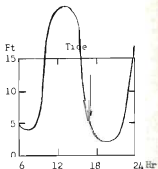
Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.2	20.78	16.02	8.52	86.7	7.71	1.48	1.46
2	9.54	23.43	18.20	6.27	65.4	7.55	1.65	1.63
4	9.74	24.48	18.83	5.04	53.2	7.43	1.71	1.70
6	9.84	25.23	19.40	4.31	45.9	7.35	1.76	1.75
10	9.84	25.69	19.76	4.65	49.6	7.45	1.81	1.80
15	9.86	26.94	20.73	5.91	63.6	7.65	1.87	1.85

Station: P-9 Weather: Cloudy
 Time: 1620 Cloud: Type As Amt. 8
 Date: 21/A/64 Wind: Dir. 090 °T Spd. 5 mph.
 Lat: 54° 12.60' N Sea: 0 Swell: 0
 Long: 130° 17.70' W Air Temp: D. 55 °F. W. 50 °F.
 Depth: 90 ft Baro: 1017 mb.
 B.T. Ser. No. 19 Secchi: 3 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.0	24.41	18.74	4.39	46.7	7.36	1.71	1.70
2	9.84	25.20	19.38	4.23	45.0	7.41	1.79	1.78
4	9.81	25.21	19.38	4.65	49.4	7.44	1.79	1.78
6	9.81	25.45	19.58	3.95	42.1	7.48	1.71	1.70
10	9.82	25.56	19.67	4.78	51.0	7.50	1.81	1.80
15	9.82	26.02	20.03	5.01	53.6	7.51	1.86	1.85
20	9.83	27.45	21.13	6.37	68.9	7.76	1.94	1.91

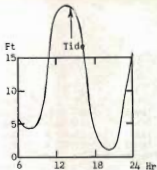
Station: P-10 Weather: Cloudy
 Time: 1717 Cloud: Type As Amt. 9
 Date: 21/A/64 Wind: Dir. 090 °T Spd. 5 mph.
 Lat: 54° 13.15' N Sea: 0 Swell: 0
 Long: 130° 17.60' W Air Temp: D. 55 °F. W. 50 °F.
 Depth: 60 ft Baro: 1017 mb.
 B.T. Ser. No. 20 Secchi: 3 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.0	24.61	18.90	4.02	42.8	7.30	1.73	1.73
2	9.88	24.64	18.94	3.80	40.3	7.35	1.71	1.70
4	9.89	24.80	19.06	3.81	40.5	7.34	1.79	1.79
6	9.93	25.00	19.21	3.25	34.6	7.33	1.81	1.81
10	9.94	25.40	19.52	3.15	33.7	7.34	1.83	1.83
15	9.96	25.45	19.56	3.53	37.8	7.36	1.83	1.83

Station: P-11
 Time: 1429
 Date: 22/X/64
 Lat: 54° 13.65' N
 Long: 130° 17.65' W
 Depth: 60 ft
 B.T. Ser. No. 25

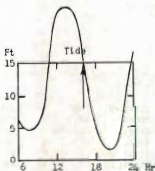
Weather: Showers
 Cloud: Type As-Ac Amt. 8
 Wind: Dir. - *T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 51 °F. W. 50 °F.
 Baro: 1022 mb.
 Secchi: 5 ft Col: Brown



Depth (m.)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.7	23.31	17.92	7.36	77.1	7.69	1.61	1.59
2	9.61	24.00	18.47	6.26	65.7	7.62	1.69	1.67
4	9.64	24.15	18.59	6.07	63.8	7.57	1.71	1.69
6	9.65	24.17	18.60	5.98	62.9	7.58	1.73	1.71
10	9.72	25.64	19.74	6.03	64.1	7.59	1.86	1.84
15	9.82	27.72	21.33	7.13	77.1	7.87	1.87	1.84
20	9.84	28.13	21.66	7.23	78.4	-	1.97	-

Station: P-12
 Time: 1610
 Date: 22/X/64
 Lat: 54° 13.95' N
 Long: 130° 18.10' W
 Depth: 60 ft
 B.T. Ser. No. 26

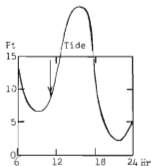
Weather: Unsettled, showers
 Cloud: Type As-Ac Amt. 8
 Wind: Dir. - *T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 51 °F. W. 50 °F.
 Baro: 1022 mb.
 Secchi: 5 ft Col: Brown



Depth (m.)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.9	24.58	18.89	5.43	57.6	7.52	1.71	1.70
2	9.78	24.61	18.92	5.16	54.6	7.46	1.75	1.74
4	9.86	24.94	19.18	4.08	43.4	7.38	1.77	1.76
6	9.92	25.36	19.49	3.95	42.2	7.48	1.81	1.80
10	9.85	25.75	19.80	4.36	46.6	7.51	1.83	1.82
15	9.78	26.49	20.39	6.24	66.7	7.72	1.89	1.87
20	9.80	27.68	21.31	7.20	77.8	7.86	1.95	1.92

Station: P-12A
 Time: 1126
 Date: 24/1/64
 Lat: 54° 13.95' N
 Long: 130° 18.05' W
 Depth: 60 ft
 B.T. Ser. No. 34

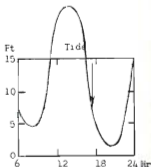
Weather: Rain
 Cloud: Type Ns Amt. 10
 Winds: Dir. 180 °T Spd. 8 mph.
 Sea: 0 Swell: 0
 Air Temp: D. - °F. W. - °F.
 Baro: 1012 mb.
 Secchi: 3 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.2	23.20	17.91	5.07	52.4	7.32	1.67	1.67
2	9.56	24.44	18.82	2.81	29.5	7.22	1.73	1.73
4	9.62	24.56	18.91	2.64	27.8	7.25	1.81	1.81
6	9.68	24.79	19.08	2.44	25.8	7.30	1.79	1.79
10	9.71	24.86	19.12	2.32	24.6	7.26	1.79	1.79
15	9.74	23.98	18.45	3.18	33.5	7.42	1.73	1.72

Station: P-13
 Time: 1710
 Date: 22/1/64
 Lat: 54° 14.20' N
 Long: 130° 18.35' W
 Depth: 54 ft
 B.T. Ser. No. 27

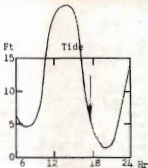
Weather: Clearing
 Cloud: Type As-Ac Amt. 7
 Winds: Dir. - °T Spd. 0 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 52 °F. W. 50 °F.
 Baro: 1021.5 mb.
 Secchi: 6 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.0	25.21	19.36	3.79	40.4	7.26	1.79	1.79
2	9.89	25.10	19.29	4.00	42.6	7.33	1.83	1.83
4	9.90	25.18	19.36	3.92	41.7	7.35	1.86	1.85
6	9.92	25.35	19.48	3.75	40.0	7.34	1.86	1.86
11	9.89	26.37	20.28	4.73	50.8	7.48	2.41	2.40
16	9.84	26.55	20.43	5.42	58.2	7.62	1.89	1.87

Stations: P-14
 Time: 1806
 Date: 22/X/64
 Lat: 54° 14.60' N
 Long: 130° 18.35' W
 Depth: 60 ft
 B.T. Ser. No. 28

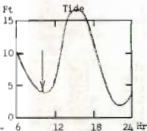
Weather: Clouding over
 Cloud: Type As-Ac Amt. 9
 Wind: Dir. 350 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 49 °F. W. 0 °F.
 Baro: 1021 mb.
 Secchi: - ft Col: -



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.0	24.87	19.10	3.20	34.1	7.21	1.79	1.79
2	9.90	25.10	19.29	3.77	40.1	7.31	1.81	1.81
4	9.91	25.10	19.28	3.72	39.6	7.33	1.83	1.83
6	9.92	25.10	19.28	3.69	39.3	7.31	1.84	1.84
10	9.89	25.16	19.34	3.90	41.5	7.35	1.84	1.83
15	9.90	25.36	19.50	4.12	43.9	7.39	1.84	1.83
20	9.88	25.89	19.92	4.62	49.4	7.47	1.86	1.85

Stations: P-15
 Time: 1005
 Date: 23/X/64
 Lat: 54° 14.65' N
 Long: 130° 17.35' W
 Depth: 79 ft
 B.T. Ser. No. 29

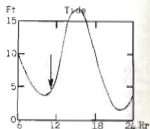
Weather: Unsettled, showers
 Cloud: Type Ac-Ns Amt. 10
 Wind: Dir. 045 °T Spd. 1-2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. - °F. W. - °F.
 Baro: - mb.
 Secchi: 0.8 ft Col: Dark Reddish-Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.6	7.53	5.17	0.00	00.0	4.62	2.15	2.15
2	10.07	24.42	18.74	1.16	12.3	6.97	1.76	1.76
4	10.05	24.47	18.78	1.33	14.1	6.99	2.01	2.01
6	9.98	24.71	18.90	1.85	19.7	7.13	1.79	1.79
10	9.98	24.79	19.04	1.81	19.3	7.20	1.76	1.76
15	10.02	24.82	19.06	1.74	18.6	7.21	1.73	1.73
20	10.02	24.82	19.06	1.87	20.0	7.15	1.73	1.73

Station: P-16
 Time: 1117-1127
 Date: 23/X/64
 Lat: 54° 14.82' N
 Long: 130° 16.90' W
 Depth: 87 ft
 B.T. Ser. No. 30

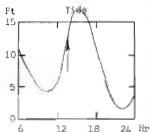
Weather: Blustery
 Cloud: Type Ac-Ns Amt. 10
 Wind: Dir. 045 °T Spd10-15mph.
 Sea: 2 Swell: 0
 Air Temp: D. - °F. W. - °F.
 Baro: - mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (°/‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.1	24.57	18.85	3.41	36.4	7.23	1.76	1.76
2	10.05	24.65	18.92	2.66	28.3	7.19	1.79	1.79
4	10.03	24.70	18.96	2.04	21.7	7.15	1.79	1.79
6	10.01	24.70	18.97	2.12	22.6	7.19	1.83	1.83
10	10.00	24.75	19.00	1.95	20.7	7.20	1.79	1.79
15	10.04	24.77	19.01	1.76	18.8	7.18	1.73	1.73
20	10.02	24.85	19.08	1.76	18.8	7.25	1.71	1.71

Station: P-17
 Time: 1336
 Date: 23/X/64
 Lat: 54° 14.90' N
 Long: 130° 16.40' W
 Depth: 54 ft
 B.T. Ser. No. 31

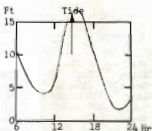
Weather: Windy, showers
 Cloud: Type Ac-Ns Amt. 10
 Wind: Dir. 045 °T Spd15-20mph.
 Sea: 2 Swell: 0
 Air Temp: D. - °F. W. - °F.
 Baro: - mb.
 Secchi: 4 ft Col: Brown



Depth (m)	T (°C)	S (°/‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.9	24.91	19.14	2.26	24.0	7.17	1.79	1.79
2	9.97	24.96	19.17	2.15	22.9	7.13	1.79	1.79
4	9.96	24.98	19.19	2.09	22.3	7.14	1.79	1.79
6	9.94	24.97	19.18	2.08	22.1	7.11	1.81	1.81
10	9.97	24.98	19.19	2.22	23.6	7.23	1.79	1.79
15	10.00	24.98	19.18	2.06	22.0	7.19	1.86	1.86
20	10.00	24.97	19.18	2.12	22.6	7.21	1.94	1.94

Stations: P-18
 Times: 1454
 Date: 23/X/64
 Lat: 54° 15.30' N
 Long: 130° 15.90' W
 Depth: 85.3 ft
 B.T. Ser. No. 32

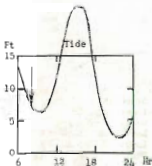
Weather: Unsettled, clearing
 Cloud: Type Ac-Ns Amt. 8
 Wind: Dir. 270 °T Spd. 5-6 mph.
 Sea: 0 Swell: 0
 Air Temp: D. - °F. W. - °F.
 Baro: - mb.
 Secchi: 6 ft Col: Light Brown



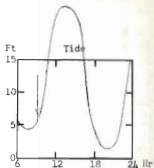
Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.2	24.57	18.83	3.87	41.3	7.31	1.73	1.73
2	10.14	24.55	18.82	3.79	40.4	7.29	1.73	1.73
4	10.09	24.58	18.86	3.40	36.2	7.29	1.73	1.73
6	10.05	24.62	18.89	3.03	32.2	7.24	1.71	1.71
10	10.08	24.63	18.90	3.09	32.9	7.33	1.71	1.71
15	10.09	24.66	18.92	2.74	29.2	7.22	1.77	1.77
20	10.02	24.75	19.00	2.05	21.8	7.28	1.79	1.79

Stations: P-27
 Times: 0822
 Date: 24/X/64
 Lat: 54° 19.00' N
 Long: 130° 15.44' W
 Depth: 120 ft
 B.T. Ser. No. 33

Weather: Cloudy, calm
 Cloud: Type Sc Amt. 8
 Wind: Dir. 180 °T Spd. 6 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 47°F. W. 45°F.
 Baro: 1012 mb.
 Secchi: 11.5 ft Col: Light Brown



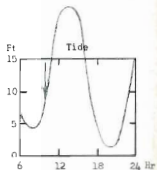
Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	9.9	25.08	19.28	7.24	77.0	7.64	1.79	1.77
2	9.94	25.12	19.30	7.24	77.1	7.69	1.79	1.77
4	9.96	25.12	19.30	7.22	77.0	7.69	1.73	1.71
6	9.96	25.10	19.28	7.17	76.4	7.69	1.73	1.71
10	9.96	25.12	19.30	7.15	76.2	7.69	1.76	1.74
15	9.96	25.13	19.31	7.20	76.8	7.69	1.76	1.74
20	9.96	25.16	19.33	7.17	76.4	7.71	1.73	1.71
30	9.94	25.22	19.37	7.20	76.8	7.73	1.73	1.71



Stations: P-28
 Time: 0905
 Date: 22/X/64
 Lat: 54° 11.80' N
 Long: 130° 16.00' W
 Depth: 30 ft
 B.T. Ser. No. 22

Weather: Rain
 Cloud: Type Ns-Ac Amt. 10
 Wind: Dir. 095 °T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 43°F. W. 48°F.
 Baro: 1021.5 mb.
 Secchi: 1 ft Col: Silty; brown

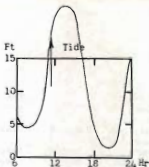
Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.5	4.06	3.13	11.30	99.6	7.61	0.55	0.53
2	7.28	4.01	3.10	11.29	98.9	7.63	0.55	0.53
4	7.54	6.56	5.11	10.97	98.2	7.71	0.58	0.56
6	7.72	8.11	6.30	10.75	97.5	7.65	0.57	0.65
8	8.01	10.51	8.16	10.65	98.9	7.85	0.88	0.85



Station: P-29
 Time: 0959
 Date: 22/X/64
 Lat: 54° 10.70' N
 Long: 130° 11.20' W
 Depth: 18 ft
 B.T. Ser. No. 23

Weather: Rain
 Cloud: Type Ns Amt. 10
 Wind: Dir. 095 °T Spd. 3 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 47°F. W. 47°F.
 Baro: 1022 mb.
 Secchi: 0.8 ft Col: Silty; grey

Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	7.3	2.93	2.25	11.39	99.2	7.56	0.36	0.34
2	7.22	3.55	2.74	11.33	99.2	7.64	0.55	0.53
4	7.32	4.26	3.30	11.19	98.3	7.57	0.59	0.57
6	7.44	5.63	4.37	11.03	98.0	7.65	0.77	0.75



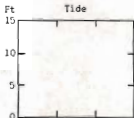
Stations: P-30
 Times: 1139
 Date: 22/A/64
 Lat: 54° 08.00' N
 Long: 130° 06.80' W
 Depth: 30 ft
 B.T. Ser. No. 24

Weather: Rain
 Cloud: Type Ns Amt. 10
 Wind: Dir. 095 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 47 °F. W. 47 °F.
 Baro: 1022.5 mb.
 Secchi: 0.8 ft Col: Silty; grey

Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	6.8	0.32	0.22	11.77	99.9	7.47	0.32	0.31
2	6.69	0.57	0.42	11.72	99.2	7.47	0.32	0.31
4	6.70	0.76	0.58	11.43	96.9	7.50	0.32	0.31
6	6.71	0.83	0.62	11.94	101.2	7.27	0.36	0.36
8	6.72	0.94	0.71	11.89	101.0	7.53	0.32	0.31

Stations:
 Time:
 Date:
 Lat:
 Long:
 Depth:
 B.T. Ser. No.

Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.

PRINCE RUPERT HARBOUR

Surface Current Measurements

Station: P-4A

Latitude: 54° 14.00' N

Remarks:

Date: 24 26/X/64

Longitude: 130° 20.50' W

Sounding: 132 ft.

Location: At southern entrance
to Prince Rupert Harbour.

C. S. I. Drag Data

Time/date	Current			Wind	
	Speed		Direction ° T	Direction ° T	Speed m.p.h.
	Cm/sec	Knots			
1730/24/X/64	24.5	0.476	192	087	4
1800/	58.4	1.135	160	087	10
1840/	66.1	1.283	155	087	10
1857/	43.5	0.845	204	097	8
1927/	43.5	0.845	203	097	8
1955/	48.9	0.950	210	097	8
2032/	30.2	0.587	269	097	3
2104/	36.7	0.712	216	057	6-7
2135/	12.2	0.237	028	177	3-4
2200/	28.1	0.545	306	117	3-4
2231/	62.7	1.417	021	157	4-5
2258/	61.6	1.196	011	167	4-5
2330/	47.5	0.923	030	157	6-7
2400/	45.1	0.877	012	157	3-4
0031/25/X/64	62.1	1.207	032	157	7-8
0101/	50.7	0.985	025	157	8-10
0133/	58.4	1.135	039	142	7-8
0159/	44.4	0.862	044	137	7-8
0233/	41.2	0.801	039	142	5-7
0259/	21.2	0.412	049	177	7-8
0332/	15.4	0.300	037	177	5
0401/	0.0	0.000	-	177	5
0431/	0.0	0.000	-	177	8
0502/	18.9	0.368	324	177	8
0524/	34.3	0.666	210	177	4
0600/	34.3	0.666	203	-	0
0625/	43.5	0.845	205	097	8
0713/	64.9	1.261	207	097	8
0733/	63.8	1.239	195	097	8
0801/	61.6	1.196	197	097	8
0833/	63.8	1.239	202	097	8
0859/	61.6	1.196	211	097	4
0933/	39.0	0.757	223	067	5-6
0958/	39.0	0.757	243	072	3-4
1026/	13.4	0.260	331	067	7-8
1100/	13.4	0.260	355	097	6-7
1132/	25.1	0.488	358	097	8-10
1201/	40.3	0.784	007	107	7-8
1230/	43.9	0.854	007	097	4-5

PRINCE RUPERT HARBOUR

C. B. I. Drag Data

Station: P-4A (continued)

Time/Date	Current			Wind	
	Speed		Direction • T	Direction • T	Speed m.p.h.
	Cm/sec	Knots			
1300/25/X/64	53.5	1.039	357	092	10-12
1330/	53.5	1.039	354	082	10-12
1400/	56.4	1.096	035	107	7-8
1431/	32.3	0.627	055	137	7-8
1500/	31.8	0.618	035	127	8-10
1537/	20.5	0.398	032	097	8
1618/	0.0	0.000	-	097	5
1702/	32.3	0.627	191	097	5
1727/	26.9	0.523	207	097	5
1801/	53.5	1.039	200	097	5
1836/	46.6	0.906	195	097	5
1903/	58.4	1.135	189	097	5
1932/	66.1	1.283	192	097	1-2
2009/	67.3	1.307	188	097	2-3
2032/	53.5	1.039	213	097	1-2
2100/	36.2	0.703	205	077	3-4
2133/	24.5	0.476	199	082	6-7
2201/	57.4	1.115	196	137	3-4
2230/	33.3	0.647	235	347	0-1
2300/	17.3	0.336	330	127	5-6
2332/	43.9	0.852	011	137	7-8
2400/	57.4	1.115	014	127	5-6
0029/26/X/64	58.4	1.135	023	157	3-5
0100/	38.5	0.748	011	147	4-5
0135/	36.2	0.703	025	137	3-4
0200/	42.6	0.828	024	157	5-6
0231/	51.6	1.003	041	152	5-6
0303/	48.0	0.932	040	162	7-8
0340/	34.3	0.666	057	157	5
0403/	13.4	0.260	033	147	5
0430/	0.0	0.000	-	147	5
0500/	0.0	0.000	-	147	5
0529/	0.0	0.000	-	147	1-2
0603/	17.3	0.336	245	147	1-2
0627/	20.5	0.398	221	147	1-2
0703/	29.2	0.567	203	097	4-5
0730/	18.9	0.368	204	097	2-3
0800/26/X/64	24.5	0.476	192	097	3-4

PRINCE RUPERT HARBOUR

Current Measurements

Station: P-4 A Latitude: 54° 14.00 N Remarks:
 Date: 24-25-26/X/64 Longitude: 130° 20.50 W
 Sounding: 132 ft. Location: At Southern entrance to
 Prince Rupert Harbour.

Ekman Current Meter Data

Time/Date	Depth (Metres)	Current			Wind	
		speed		Direction * T	Direction * T	Speed m.p.h.
		Cp/sec	Knots			
1743/24/X/64	05	83.1	1.614	177	087	6-8
1754/	10	33.4	0.649	190	087	10
1827/	15	34.4	0.668	147	087	10
1833/	20	30.3	0.586	277	087	10
1840/	30	26.2	0.509	152	097	8
1903/	05	87.9	1.708	167	097	8
1908/	10	65.6	1.274	164	097	8
1912/	15	40.1	0.779	172	097	8
1917/	20	22.4	0.435	170	097	8
1922/	30	04.8	0.093	097	097	8
2001/	05	66.5	1.292	164	097	8
2005/	10	94.9	1.843	167	097	8
2009/	15	85.4	1.659	177	097	6-8
2015/	20	23.4	0.455	187	097	4-6
2022/	30	04.0	0.078	087	097	3-4
2114/	05	62.1	1.206	173	097	6-7
2123/	10	81.0	1.573	190	100	4-6
2129/	15	38.2	0.742	216	177	3-4
2141/	20	11.2	0.218	027	177	3-4
2148/	30	30.5	0.593	030	170	3-4
2205/	05	35.0	0.680	202	117	3-4
2209/	10	24.3	0.472	197	120	3-4
2215/	15	30.3	0.589	257	140	4-5
2220/	20	37.9	0.736	067	150	4-5
2225/	30	14.9	0.289	207	157	4-5
2302/	05	30.9	0.600	345	167	4-5
2307/	10	45.7	0.888	357	167	4-5
2311/	15	14.2	0.276	317	160	5-6
2316/	20	06.0	0.117	077	160	5-6
2322/	30	05.9	0.115	037	157	6-7
0005/25/X/64	05	48.6	0.944	347	157	3-4
0009/	10	40.2	0.781	005	157	4-5
0014/	15	31.6	0.614	360	157	5-6
0019/	20	10.1	0.196	356	157	6-7
0025/	30	10.0	0.194	317	157	7-8
0106/	05	27.8	0.540	017	117	8-10
0110/	10	28.4	0.552	347	117	8-10
0115/	15	26.8	0.521	057	120	8-10

PRINCE RUFERT HARBOUR

Ekman Current Meter Data

Station: P-4 A (Continued)

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction • T	Direction • T	Speed m.p.h.
		Cm/sec	Knots			
0121/25/X/64	20	11.1	0.216	037	130	7-8
0127/	30	28.1	0.546	357	142	7-8
0206/	05	18.0	0.350	027	137	7-8
0211/	10	28.4	0.552	357	137	7-8
0216/	15	06.7	0.130	277	140	6-7
0220/	20	15.6	0.303	357	140	5-7
0227/	30	31.4	0.610	370	142	5-7
0320/	05	12.0	0.233	297	177	6-7
0326/	10	15.8	0.307	027	177	5-6
0331/	15	20.2	0.392	347	177	5
0338/	20	24.9	0.484	002	177	5
0345/	30	34.2	0.664	007	177	5
0407/	05	12.7	0.247	207	177	5
0412/	10	09.2	0.179	267	177	5-6
0418/	15	08.6	0.167	212	177	5-6
0422/	20	15.8	0.307	347	177	6-8
0427/	30	26.4	0.513	341	177	8
0510/	05	24.6	0.478	162	177	6-8
0515/	10	13.0	0.253	207	177	5-6
0520/	15	04.2	0.082	-	177	4-5
0526/	20	07.5	0.146	247	177	4
0532/	30	15.5	0.301	347	177	4
0606/	05	57.1	1.109	167	-	0
0610/	10	24.0	0.466	177	-	0
0614/	15	07.3	0.142	-	100	1-2
0618/	20	11.4	0.221	247	100	4-6
0622/	30	10.5	0.204	207	097	8
0714/	05	94.6	1.838	173	097	8
0719/	10	66.5	1.292	170	097	8
0722/	15	19.9	0.387	177	097	8
0726/	20	10.1	0.196	197	097	8
0730/	30	16.1	0.313	257	097	8
0806/	05	87.6	1.702	151	097	8
0811/	10	51.7	1.004	226	097	8
0815/	15	17.7	0.344	157	097	8
0819/	20	12.0	0.233	352	097	8
0823/	30	12.0	0.233	227	097	8
0911/	05	87.6	1.702	163	097	6-8
0916/	10	38.2	0.742	177	090	6-8
0920/	15	13.3	0.258	147	090	6-8
0923/	20	12.2	0.237	117	080	6-7
0929/	30	09.5	0.185	277	067	5-6
1003/	05	58.6	1.138	187	072	3-5
1007/	10	29.4	0.571	207	070	3-5

PRINCE RUPERT HARBOUR

Ekman Current Meter Data

Station: P-4 A (Continued)

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction ° T	Direction ° r	Speed m.p.h.
		Cm/sec	Knots			
1011/25/X/64	15	12.0	0.233	157	067	4-6
1014/	20	10.0	0.194	067	067	6-7
1019/	30	23.5	0.457	342	067	7-8
1110/	05	25.6	0.497	210	097	6-7
1113/	10	05.4	0.105	-	097	6-7
1116/	15	16.1	0.313	050	097	6-7
1121/	20	16.4	0.318	027	097	6-8
1126/	30	16.1	0.313	000	097	8-10
1132/	05	15.3	0.297	282	097	8-10
1205/	05	37.5	0.728	347	107	7-8
1209/	10	42.0	0.816	000	105	6-7
1214/	15	08.9	0.173	357	100	5-6
1218/	20	28.1	0.546	020	100	4-5
1224/	30	10.3	0.200	352	097	4-5
1306/	05	09.2	0.179	010	092	10-12
1310/	10	41.6	0.808	162	090	10-12
1314/	15	21.2	0.412	027	087	10-12
1318/	20	14.7	0.286	020	085	10-12
1323/	30	15.0	0.291	322	082	10-12
1407/	05	27.5	0.534	014	107	7-8
1411/	10	19.0	0.369	032	110	7-8
1415/	15	06.0	0.117	-	117	7-8
1419/	20	10.0	0.194	352	120	7-8
1427/	30	10.2	0.198	012	137	7-8
1517/	05	16.1	0.313	352	117	8-10
1522/	10	07.9	0.154	-	097	8
1526/	15	02.6	0.051	197	097	7-8
1532/	20	10.3	0.200	317	097	6-7
1537/	30	25.1	0.488	362	097	5-6
1625/	05	09.8	0.190	202	097	5
1630/	10	19.6	0.361	182	097	5
1635/	15	07.3	0.142	167	097	5
1640/	20	13.9	0.270	327	097	5
1644/	30	25.9	0.503	347	097	5
1706/	05	22.4	0.435	197	097	5
1710/	10	22.4	0.435	177	097	5
1714/	15	07.3	0.142	-	097	5
1719/	20	07.0	0.136	317	097	5
1722/	30	13.8	0.268	357	097	5
1807/	05	35.3	0.686	174	097	5
1811/	10	21.2	0.412	177	097	5
1815/	15	08.2	0.159	207	097	5
1821/	20	04.9	0.095	-	097	5
1828/	30	04.3	0.084	267	097	5
1908/	05	58.6	1.138	176	097	5
1912/	10	88.6	1.721	175	097	4-5

PRINCE ROBERT HARBOUR

Ekman Current Meter Data

Station: F-4 A (Continued)

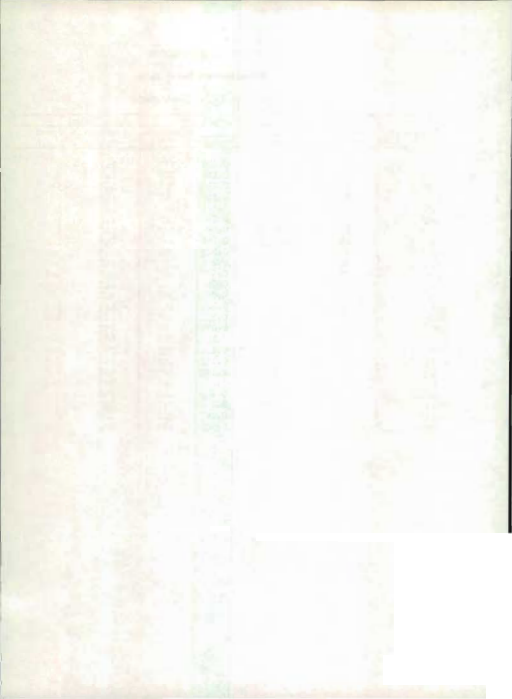
Time/Date	Depth (Metres)	Current		Wind		
		Speed		Direction • T	Direction • T	Speed m.p.h.
		Cm/sec	knots			
1916/25/X/64	15	14.2	0.276	147	097	3-4
1921/	20	05.7	0.111	137	097	1-2
1925/	30	14.2	0.276	217	097	1-2
2014/	05	90.8	1.764	187	097	2-3
2019/	10	68.1	1.323	167	097	2-3
2023/	15	29.7	0.577	182	097	1-2
2027/	20	12.0	0.233	167	097	1-2
2031/	30	03.8	0.074	-	097	1-2
2111/	05	68.1	1.323	177	077	3-7
2115/	10	44.5	0.864	175	077	3-7
2119/	20	18.0	0.350	177	080	4-7
2126/	15	32.2	0.626	177	082	6-7
2129/	30	05.4	0.105	-	082	6-7
2138/	30	07.9	0.154	282	105	5-6
2206/	05	53.3	1.035	165	137	3-4
2210/	10	61.5	1.195	179	137	3-4
2214/	15	30.0	0.583	184	320	2-3
2219/	20	09.5	0.185	177	340	0-1
2222/	30	14.2	0.276	042	347	0-1
2306/	05	21.8	0.424	292	127	5-6
2310/	10	23.7	0.460	237	127	5-6
2315/	15	04.8	0.093	-	130	5-6
2318/	20	17.1	0.332	012	130	5-6
2323/	30	13.6	0.264	037	135	7-8
2328/	15	11.1	0.216	252	137	7-8
0006/26/X/64	05	27.8	0.540	357	127	5-6
0010/	10	40.4	0.785	347	127	5-6
0014/	15	18.8	0.365	310	130	5-6
0019/	20	11.4	0.221	-	140	4-5
0023/	30	09.3	0.181	057	157	3-5
0109/	05	41.0	0.796	357	147	4-5
0113/	10	42.6	0.828	005	147	4-5
0117/	15	20.8	0.404	077	145	4-5
0121/	20	07.0	0.136	-	140	3-4
0125/	30	08.9	0.173	032	137	3-4
0130/	20	09.5	0.185	042	137	3-4
0208/	05	32.5	0.631	357	140	3-4
0213/	10	17.1	0.332	027	140	4-5
0222/	15	04.8	0.093	-	145	4-5
0225/	20	12.3	0.239	040	150	5-6
0235/	30	22.1	0.429	002	152	5-6
0319/	05	26.2	0.509	332	162	7-8
0323/	10	01.6	0.031	-	162	6-7
0327/	15	11.4	0.221	032	160	5-6
0333/	20	13.4	0.260	347	160	5-6
0338/	30	21.3	0.414	015	157	5

PRINCE RUPERT HARBOUR

Ekman Current Meter Data

Station: P-4 A (Continued)

Time/Date	Depth (Metres)	Current			Wind	
		Speed		Direction * T	Direction * T	Speed m.p.h.
		Cm/sec	Knots			
0407/26/X/64	05	13.3	0.258	337	147	5
0413/	10	07.5	0.146	327	147	5
0418/	15	11.1	0.216	347	147	5
0422/	20	07.5	0.146	337	147	5
0428/	30	26.8	0.521	020	147	5
0506/	05	14.4	0.280	217	147	5
0510/	10	04.8	0.093	197	147	5
0516/	15	08.2	0.159	297	147	1-2
0520/	20	21.9	0.425	030	147	1-2
0525/	30	14.2	0.276	330	147	1-2
0608/	05	29.7	0.577	167	147	1-2
0611/	10	04.5	0.087	-	147	1-2
0616/	15	04.3	0.084	307	147	1-2
0621/	20	10.9	0.212	342	147	1-2
0625/	30	11.9	0.231	327	147	1-2
0707/	05	33.8	0.657	167	097	4-5
0713/	10	08.1	0.157	227	097	3-5
0718/	15	05.7	0.111	257	097	2-3
0723/	20	07.9	0.154	247	097	2-3
0728/	30	09.8	0.190	247	097	2-3
0805/	05	64.0	1.242	169	097	3-4
0809/	10	37.2	0.723	160	100	3-4
0813/	15	03.8	0.074	227	100	3-4
0818/	20	08.6	0.167	217	100	3-4
0823/26/X/64	30	16.9	0.328	164	100	3-4



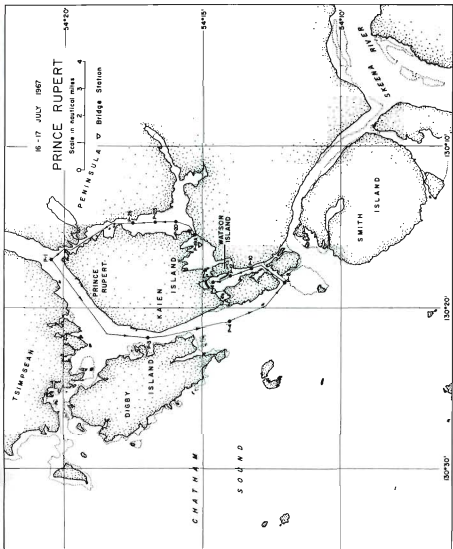
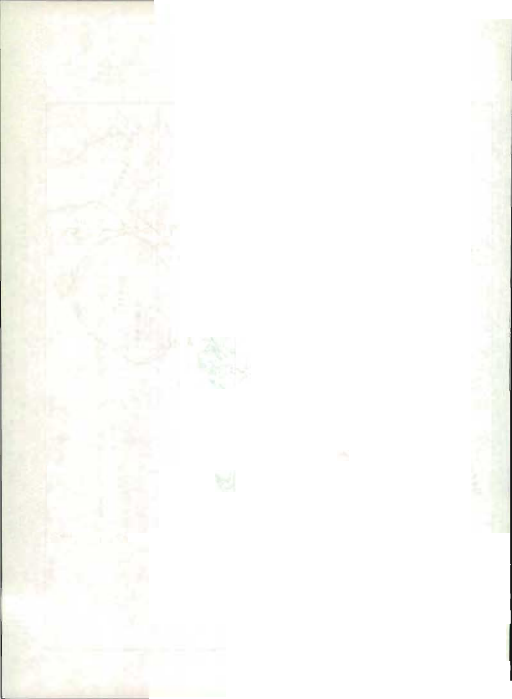
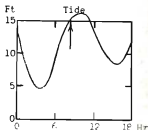


Fig. 18. Track chart of stations occupied in Prince Rupert Harbour and contiguous waters, 16-17 July 1967, and bridge station occupied 10 July - 5 August 1967.



Stations: P-1
 Time: 0806
 Date: 17/VII/67
 Lat: 54° 20.45'N
 Long: 130° 17.02'W
 Depth: 184 ft
 B.T. Ser. No. 20

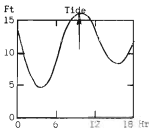
Weather: Overcast
 Cloud: Type Sc Amt. 10
 Wind: Dir. 020 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D.53.7°F. W.50.9°F.
 Baro: 1013.0 mb.
 Secchi: 8 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.4	22.11	16.74	9.71	104.7			
4	10.37	25.39	19.44	6.74	72.7			
10	9.04	28.14	21.78	6.65	73.0			
20	8.13	30.25	23.56	6.75	71.5			

Stations: P-3
 Time: 0931
 Date: 17/VII/67
 Lat: 54° 16.95'N
 Long: 130° 21.83'W
 Depth: 151 ft
 B.T. Ser. No. 21

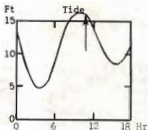
Weather: Overcast
 Cloud: Type Cb Amt. 10
 Wind: Dir. 030 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D.54.3°F. W.50.2°F.
 Baro: 1013.0 mb.
 Secchi: 8 ft Col: Greenish-brownish



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.8	23.07	17.58	8.38	89.9			
4	10.40	23.85	18.25	8.12	86.8			
10	9.88	26.48	20.37	7.52	80.8			
20	8.56	30.74	23.88	7.94	85.1			

Stations: P-4
 Times: 1044
 Date: 17/VII/67
 Lat: 54° 13.97' N
 Long: 130° 20.85' W
 Depth: 174 ft
 B.T. Ser. No. 22

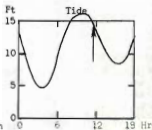
Weather: Overcast
 Cloud: Type Cb Amt. 10
 Wind: Dir. 150 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53.6°F. W. 49.8°F.
 Baro: 1013.0 mb.
 Secchi: 8 ft Col: Silty; green



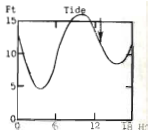
Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.9	19.24	14.61	9.09	95.4			
4	10.47	22.93	17.52	8.26	87.8			
10	9.74	27.79	21.41	7.71	83.2			
20	9.06	30.49	23.62	7.44	80.6			

Stations: P-8
 Times: 1142
 Date: 17/VII/67
 Lat: 54° 12.00' N
 Long: 130° 18.45' W
 Depth: 85 ft
 B.T. Ser. No. 23

Weather: Overcast
 Cloud: Type Cb Amt. 10
 Wind: Dir. 165 °T Spd. 7 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 54.8°F. W. 50.9°F.
 Baro: 1013.0 mb.
 Secchi: 5 ft Col: Silty; green



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.1	15.13	11.41	9.40	96.5			
4	10.50	23.47	17.94					
10	9.61	29.89	23.06	7.58	82.8			
20	9.37	30.46	23.54					



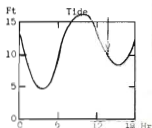
Stations: P-10
 Time: 1258
 Date: 17/VII/67
 Lat: 54° 13.18'N
 Long: 130° 17.60'W
 Depth: 75 ft
 B.T. Ser. No. 24

Weather: Overcast
 Cloud: Type Cb Amt. 10
 Wind: Dir. 180 °T Spd. 3 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 55.3°F. W. 51.4°F.
 Baro: 1014.0 mb.
 Secchi: 5 ft Col: Grey-brown

Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.1	21.00	15.93	6.39	68.1			
4	10.81	24.63	18.79					
10	10.42	25.80	19.76	2.38	25.8			
20	9.85	29.54	22.74					

Stations: P-12
 Time: 1341
 Date: 17/VII/67
 Lat: 54° 13.97'N
 Long: 130° 18.07'W
 Depth: 66 ft
 B.T. Ser. No. 25

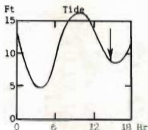
Weather: Overcast
 Cloud: Type Cb Amt. 10
 Wind: Dir. 180 °T Spd. 3 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53.3°F. W. 51.3°F.
 Baro: 1015.0 mb.
 Secchi: 1 ft Col: Red-brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	14.1	20.09	14.73	0.00	0.0			
4	10.84	25.03	19.10	0.46	5.0			
10	10.51	26.06	19.96	0.77	8.4			
19	9.93	29.26	22.51	5.14	56.3			

Stations: P-14
 Time: 1435
 Date: 17/VII/67
 Lat: 54° 14.55'N
 Long: 130° 18.42'W
 Depth: 75 ft
 B.T. Ser. No. 26

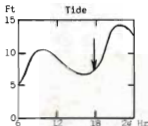
Weather: Overcast
 Cloud: Type Cb Amt. 10
 Wind: Dir. 020 *T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 54.4°F. W. 52.3°F.
 Baro: 1015.0 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.2	25.01	19.02	0.00	0.0			
4	10.88	25.17	19.20					
10	10.60	29.24	22.39	0.49	5.5			
20	9.92	25.91	19.93					

Stations: P-20
 Time: 1738
 Date: 16/VII/67
 Lat: 54° 15.93'N
 Long: 130° 14.63'W
 Depth: 171 ft
 B.T. Ser. No. 17

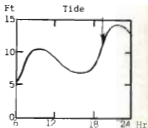
Weather: Cloudy
 Cloud: Type Cc Amt. 7
 Wind: Dir. 215 *T Spd. 8 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 57.6°F. W. 52.7°F.
 Baro: 1018.0 mb.
 Secchi: 7 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.5	24.51	18.59	1.68	18.5			
4	10.86	24.81	18.93	5.37	58.3			
10	10.69	25.09	19.17	3.33	36.1			
20	10.76	25.34	19.35	4.82	52.4			
50	10.21	25.87	19.85	1.91	20.6			

Stations: P-25
 Time: 1915
 Date: 16/VII/67
 Lat: 54° 16.70' N
 Long: 130° 14.70' W
 Depth: 174 ft
 B.T. Ser. No. 18

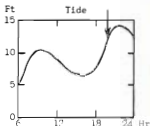
Weather: Overcast, cool;
 no rain.
 Cloud: Type Cc Amt. 9
 Wind: Dir. 025 *T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 55.0°F. W. 51.6°F.
 Baro: 1017.0 mb.
 Secchi: 7 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.3	21.55	15.99	3.71	41.6			
4	10.98	24.66	18.79	3.90	42.4			
10	10.83	24.90	18.99	3.74	40.6			
20	10.67	25.15	19.22	4.70	51.6			
50	10.38	25.69	19.68	4.86	52.8			

Stations: P-26
 Time: 1953
 Date: 16/VII/67
 Lat: 54° 17.50' N
 Long: 130° 14.75' W
 Depth: 105 ft
 B.T. Ser. No. 19

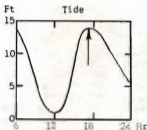
Weather: Overcast
 Cloud: Type Cc Amt. 9
 Wind: Dir. 030 *T Spd. 4 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 64.7°F. W. 51.3°F.
 Baro: 1016.5 mb.
 Secchi: 10 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.2	24.48	18.61	3.84	41.9			
4	10.70	25.07	19.15	4.85	52.6			
10	10.61	25.21	19.27	5.04	54.7			
20	10.52	25.31	19.36	5.35	57.8			

Stations P-19A-1*
 Time: 1710
 Date: 11/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 2

Weather: Overcast; rain showers
 Cloud: Type St-Sc Amt. 10
 Wind: Dir. 140 *T Spd. 13 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 58.4°F. W. 56.1°F.
 Baro: 1020.9 mb.
 Secchi: ft Col: Too much current

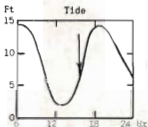


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.92	24.35	18.56	0.45	4.9			
4	10.91	24.36	18.57	0.24	2.6			
10	10.81	24.43	18.64	0.00	0.0			

* Barometric pressure, winds, and air temperatures were taken from records maintained by the Meteorological Branch of the Department of Transport at Prince Rupert Airport.

Stations P-19A-2
 Time: 1535
 Date: 12/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 5

Weather: Rain and fog
 Cloud: Type St-Sc Amt. 10
 Wind: Dir. 270 *T Spd. 6 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 59.0°F. W. 55.0°F.
 Baro: 1019.3 mb.
 Secchi: 3 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.76	24.51	18.71	0.00	0.0			
4	10.77	24.46	18.67	0.00	0.0			
10	10.79	24.46	18.67	0.00	0.0			

* All stations designated as P-19A were taken from the old highway bridge across Galloway Rapids. This series consisted of daily stations, usually occupied at high tide, for 25 days, taken consecutively, except for one missed day.

Stations P-19A-3

Time: 1809

Date: 13/VII/67

Lat: 54° 15.26' N

Long: 130° 15.43' W

Depth: 36 ft

B.T. Ser. No. 8

Weather: Overcast; rain

Cloud: Type Si-Sc Amt. 10

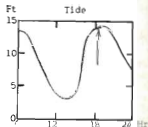
Wind: Dir. 160 *T Spd. 10 mph.

Sea: 0 Swell: 0

Air Temp: D. 55.0°F. W. 53.6°F.

Baro: 1021.6 mb.

Secchi: 4 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.75	24.47	18.68	0.00	0.0			
4	10.70	24.70	18.86	0.00	0.0			
10	10.71	24.68	18.84	0.00	0.0			

Stations P-19A-4

Time: 1850

Date: 14/VII/67

Lat: 54° 15.26' N

Long: 130° 15.43' W

Depth: 36 ft

B.T. Ser. No. 11

Mostly overcast;

Weather: no rain

Cloud: Type Sc Amt. 9

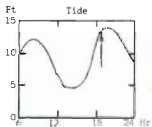
Wind: Dir. 200 *T Spd. 9 mph.

Sea: 0 Swell: 0

Air Temp: D. 56.2°F. W. 53.2°F.

Baro: 1024.0 mb.

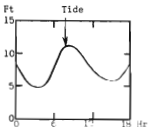
Secchi: 4 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.91	24.70	18.83	0.00	0.0			
4	10.75	24.78	18.92	0.00	0.0			
10	10.76	24.77	18.91	0.00	0.0			

Stations: P-19A-5
 Time: 0749
 Date: 15/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 12

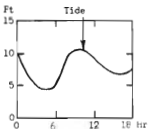
Weather: Overcast; spitting rain
 Cloud: Type Cu-Sc Amt. 9
 Wind: Dir. 050 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53.3°F. W. 51.0°F.
 Baro: 1020.2 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.90	24.60	18.75	0.00	0.0			
4	10.80	24.69	18.84	0.00	0.0			
10	10.81	24.73	18.87	0.00	0.0			

Stations: P-19A-6
 Time: 1015
 Date: 16/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 15

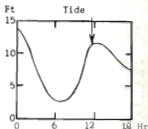
Weather: Mostly overcast
 Cloud: Type Cu Amt. 9
 Wind: Dir. 180 °T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 55.6°F. W. 52.7°F.
 Baro: 1018.7 mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.04	24.32	18.51	0.00	0.0			
4	10.81	24.73	18.87	0.00	0.0			
9	10.88	24.72	18.85	0.00	0.0			

Station: P-19A-7
 Time: 1149
 Date: 18/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 27

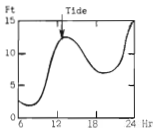
Weather: Overcast; spitting rain
 Cloud: Type St-Sc Amt. 10
 Wind: Dir. 220 °T Spd. 7 mph.
 Sea: 0 Swell: 0
 Air Temp: D-54.8°F. W-52.6°F.
 Baro: 1011.4 mb.
 Secchi: 6 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.21	24.63	18.73	0.00	0.0			
4	11.11	24.79	18.86	0.00	0.0			
10	10.96	24.94	19.01	0.00	0.0			

Station: P-19A-8
 Time: 1244
 Date: 19/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 30

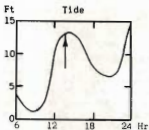
Weather: Overcast; rain showers
 Cloud: Type St-Cu Amt. 10
 Wind: Dir. 230 °T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D-58.0°F. W-57.0°F.
 Baro: 1016.0 mb.
 Secchi: 4 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.15	24.04	18.28	0.00	0.0			
4	11.13	24.55	18.68	0.00	0.0			
10	10.97	24.90	18.98	0.00	0.0			

Station: P-19A-9
 Time: 1349
 Date: 20/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 33

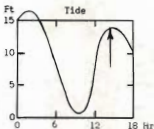
Weather: Some sun
 Cloud: Type Sc Amt. 8
 Wind: Dir. 270 *T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 57.5°F. W. 54.0°F.
 Baro: 1023.4 mb.
 Secchi: 3 ft Col: Brown



Depth (m)	T (°C)	S (°/‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.71	24.67	18.68	0.00	0.0			
4	11.55	24.75	18.76	0.00	0.0			
10	11.50	24.84	18.84	0.00	0.0			

Station: P-19A-10
 Time: 1412
 Date: 21/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 36

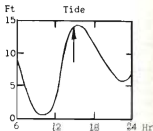
Weather: Mostly overcast;
 sunny periods
 Cloud: Type Cu-Ac Amt. 7
 Wind: Dir. 250 *T Spd. 8 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 59.8°F. W. 55.4°F.
 Baro: 1023.2 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (°/‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.43	25.03	19.01	0.00	0.0			
4	11.37	25.13	19.09	0.00	0.0			
10	11.35	25.13	19.10	0.00	0.0			

Stations: P-19A-11
 Time: 1455
 Date: 22/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 39

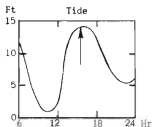
Weather: Sunny
 Cloud: Type Cu-C1 Amt. 3
 Wind: Dir. 290 °T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 63.0°F. W. 57.0°F.
 Baro: 1018.4 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.77	25.12	19.02	0.00	0.0			
4	11.61	25.35	19.22	0.00	0.0			
10	11.56	25.32	19.20	0.00	0.0			

Station: P-19A-12
 Time: 1541
 Date: 23/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 42

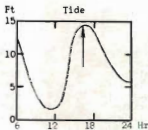
Weather: Sunny periods
 Cloud: Type Sc-Ac Amt. 8
 Wind: Dir. 270 °T Spd. 12 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 57.2°F. W. 55.1°F.
 Baro: 1018.1 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.89	25.43	19.24	0.00	0.0			
4	11.75	25.58	19.37	0.00	0.0			
10	11.73	25.60	19.39	0.00	0.0			

Stations: P-19A-13
 Time: 1615
 Date: 24/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 45

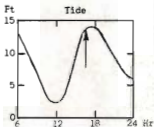
Weather: Sunny
 Cloud: Type Cu-Ci Amt. 6
 Wind: Dir. 270 *T Spd. 11 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 60.0°F. W. 57.0°F.
 Baro: 1019.7 mb.
 Secchi: 6 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.84	25.83	19.56	0.00	0.0			
4	11.76	25.82	19.57	0.00	0.0			
10	11.77	25.83	19.57	0.00	0.0			

Stations: P-19A-14
 Time: 1635
 Date: 25/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 49

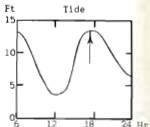
Weather: Sunny; hazy
 Cloud: Type St Amt. 3
 Wind: Dir. 270 *T Spd. 3 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 58.4°F. W. 55.3°F.
 Baro: 1020.6 mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.12	25.75	19.44	0.00	0.0			
4	12.00	25.84	19.53	0.00	0.0			
10	11.91	25.89	19.59	0.00	0.0			

Stations: P-19A-15
 Time: 1712
 Date: 26/VII/67
 Lat: 54° 15.25' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 52

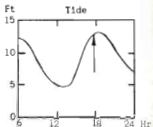
Weather: Overcast; no rain
 Clouds: Type St-Ac Amt. 10
 Wind: Dir. 180 °T Spd. 9 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 62.7°F. W. 58.7°F.
 Baro: 1017.4 mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.12	25.87	19.54	0.00	0.0			
4	12.01	25.95	19.61	0.00	0.0			
10	11.95	26.01	19.68	0.00	0.0			

Stations: P-19A-16
 Time: 1745
 Date: 27/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 55

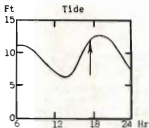
Weather: Overcast; heavy rain
 Clouds: Type Ns Amt. 10
 Wind: Dir. 150 °T Spd. 18 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 58.0°F. W. 57.0°F.
 Baro: 1013.0 mb.
 Secchi: 4 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.87			0.00	0.0			
4	11.86			0.00	0.0			
10	11.86	26.09	19.75	0.00	0.0			

Station: P-19A-17
 Time: 1735
 Date: 28/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 58

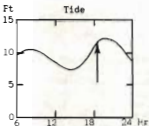
Mostly overcast;
 Weather: rain showers
 Cloud: Type Cu-Sc Amt. 10
 Wind: Dir. 160 *T Spd. 12 mph.
 Sea: 0 Swell: 0
 Air Temp: D.58.6°F. W.53.9°F.
 Baro: 1015.8 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (°/‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.22			0.00	0.0			
4	12.05			0.00	0.0			
10	11.94	25.53	19.29	0.00	0.0			

Station: P-19A-18
 Time: 1828
 Date: 29/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 61

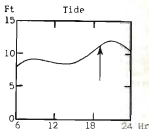
Mostly overcast;
 Weather: some rain
 Cloud: Type Cu-Sc Amt. 9
 Wind: Dir. 230 *T Spd. 9 mph.
 Sea: 0 Swell: 0
 Air Temp: D.58.2°F. W.54.5°F.
 Baro: 1017.5 mb.
 Secchi: 4 ft Col: Brown



Depth (m)	T (°C)	S (°/‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.30			0.00	0.0			
4	12.10			0.00	0.0			
10	11.99	25.20	19.04	0.00	0.0			

Station: P-19A-19
 Time: 1858
 Date: 30/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 64

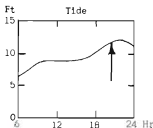
Weather: Some sun; no rain
 Cloud: Type Cu-Ac Amt. 8
 Wind: Dir. 290 °T Spd. 8 mph.
 Sea: 0 Swell: 0
 Air Temp: D.57.0°F. W.54.7°F.
 Baro: 1020.4 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	14.05			0.00	0.0			
4	12.14			0.00	0.0			
10	11.88	25.22	19.08	0.00	0.0			

Station: P-19A-20
 Time: 2020
 Date: 31/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 67

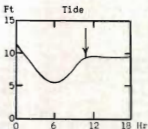
Weather: Hazy; sunny
 Cloud: Type Cu-Sc Amt. 5
 Wind: Dir. 270 °T Spd. 8 mph.
 Sea: 0 Swell: 0
 Air Temp: D.57.5°F. W.55.0°F.
 Baro: 1023.1 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.69	24.08	17.87	0.00	0.0			
4	12.06	25.23	19.06	0.00	0.0			
10	11.97	25.24	19.08	0.00	0.0			

Station: P-19A-21
 Time: 1058
 Date: 1/VIII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 69

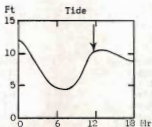
Weather: Hazy; sunny
 Cloud: Type Cu-Ac Amt. 7
 Wind: Dir. 270 *T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D.59.8°F. W.55.2°F.
 Baro: 1024.5 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.34	25.11	18.91	0.00	0.0			
4	12.24	25.15	18.96	0.00	0.0			
9	12.19	25.16	18.98	0.00	0.0			

Station: P-19A-22
 Time: 1145
 Date: 2/VIII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 72

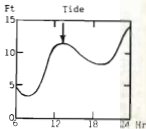
Weather: Hazy; sunny
 Cloud: Type Cu-Ac Amt. 8
 Wind: Dir. 320 *T Spd. 7 mph.
 Sea: 0 Swell: 0
 Air Temp: D.61.5°F. W.56.7°F.
 Baro: 1022.0 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.61	25.16	18.90	0.00	0.0			
4	12.46	25.24	18.99	0.00	0.0			
10	12.33	25.35	19.10	0.00	0.0			

Stations: P-19A-23
 Time: 1303
 Date: 3/VIII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 75

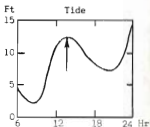
Weather: Hazy; sunny
 Cloud: Type Cu Amt. 2
 Wind: Dir. 250 *T Spd. 11 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 62.3°F. W. 57.6°F.
 Baro: 1018.4 mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.76	25.47	19.11	0.00	0.0			
4	12.69	25.55	19.19	0.00	0.0			
10	12.67	25.58	19.21	0.00	0.0			

Stations: P-19A-24
 Time: 1335
 Date: 4/VIII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 77

Weather: Overcast; little rain
 Cloud: Type St Amt. 10
 Wind: Dir. 270 *T Spd. 7 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 58.0°F. W. 57.0°F.
 Baro: 1021.7 mb.
 Secchi: 4 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.58	25.80	19.40	0.00	0.0			
4	12.58	25.88	19.46	0.00	0.0			
10	12.58	26.11	19.64	0.00	0.0			

SURFACE SAMPLES

Station P-19A

Lat: 54° 15.26' N

Location: Galloway Rapids at the
old highway bridge.

Long: 130° 15.43' W

Depth: 36 ft.

Date	Time	Tide*	B.T. Ser. No.	T (°C)	S (‰)	σ_t	Dissolved oxygen	
							mg/l	% Sat.
12/VII/67	0820	Ebb	3	11.11	24.26	18.46	3.60	39.2
	1406	Flood	4	10.99	24.56	18.71	2.93	31.8
13/VII/67	0930	Ebb	6	11.10	24.24	18.45	2.83	30.8
	1521	Flood	7	11.04	24.34	18.53	0.58	6.3
14/VII/67	1014	Ebb	9	11.09	24.28	18.47	1.97	21.4
	1636	Flood	10	11.06	24.61	18.74	0.00	0.0
15/VII/67	1110	Ebb	13	11.29	21.25	16.10	3.28	35.4
	1640	Flood	14	10.92	24.56	18.72	1.05	11.4
16/VII/67	1207	Ebb	16	12.06	22.26	16.75	2.58	28.3
18/VII/67	1435	Ebb	28	11.56	24.20	18.33	1.27	13.9
	19/VII/67	1010	Flood	29	11.14	21.06	15.97	0.00
19/VII/67	1520	Ebb	31	11.04	23.98	18.25	1.69	18.3
	20/VII/67	1050	Flood	32	11.24	24.52	18.64	1.95
20/VII/67	1700	Ebb	34	11.35	24.86	18.89	1.95	21.4
	21/VII/67	1117	Flood	35	11.30	24.40	18.53	0.79
21/VII/67	1725	Ebb	37	11.26	24.90	18.93	1.69	18.5
	22/VII/67	1208	Flood	38	11.55	24.89	18.87	1.14
22/VII/67	1845	Ebb	40	11.28	25.12	19.08	1.57	17.3
	23/VII/67	1230	Flood	41	11.71	25.17	19.07	0.74
23/VII/67	1705	Ebb	43	11.33	25.36	19.27	1.64	18.1
	24/VII/67	1230	Flood	44	11.55	25.39	19.26	0.94
24/VII/67	1845	Ebb	46	11.70	25.43	19.27	1.17	13.0

* Samples taken on maximum stage of tide, ebb or flood, as designated.

SURFACE SAMPLES
Station P-19A (continued)

Date	Time	Tide*	B.T. Ser. No.	T (°C)	S (°/∞)	σ_t	Dissolved oxygen	
							mg/l	% Sat.
25/VII/67	0755	Ebb	47	12.20	24.36	19.36	2.06	23.0
	1400	Flood	48	12.03	25.40	19.19	0.00	0.0
26/VII/67	0835	Ebb	50	11.86	25.46	19.26	0.93	10.4
	1445	Flood	51	13.00	25.30	18.94	0.00	0.0
27/VII/67	0912	Ebb	53	11.66	25.59	19.39	1.32	14.7
	1700	Flood	54	11.77	25.90	19.61	0.53	5.9
28/VII/67	0945	Ebb	56	11.55	25.25	19.15	2.68	29.6
	1530	Flood	57	11.84	25.37	19.19	0.00	0.0
29/VII/67	1105	Ebb	59	12.34	23.81	17.90	3.40	37.9
	1630	Flood	60	13.26	22.79	16.94	0.00	0.0
30/VII/67	1106	Ebb	62	12.94	22.82	17.04	2.98	32.7
	1627	Flood	63	13.55	23.75	17.63	0.00	0.0
31/VII/67	1230	Ebb	65	13.36	22.52	16.72	3.11	35.1
	1830	Flood	66	13.93	24.12	17.85	0.00	0.0
1/VIII/67	0805	Flood	68	12.06	25.19	19.02	0.00	0.0
	1415	Ebb	70	12.68	24.42	18.32	2.40	27.1
2/VIII/67	1200	Flood	71	12.63	24.59	18.46	0.00	0.0
	1505	Ebb	73	12.57	25.19	18.93	1.24	14.0
3/VIII/67	1023	Flood	74	12.71	25.28	18.98	0.78	8.8
	1550	Ebb	76	11.93	25.65	19.23	2.08	23.3
4/VIII/67	1635	Ebb	78	12.43	25.63	19.29	0.00	0.0
5/VIII/67	1145	Flood	79	12.86	25.87	19.41	0.00	0.0
	1720	Ebb	81	12.40	25.91	19.51	0.99	11.2

* Samples taken on maximum stage of tide, ebb or flood, as designated.

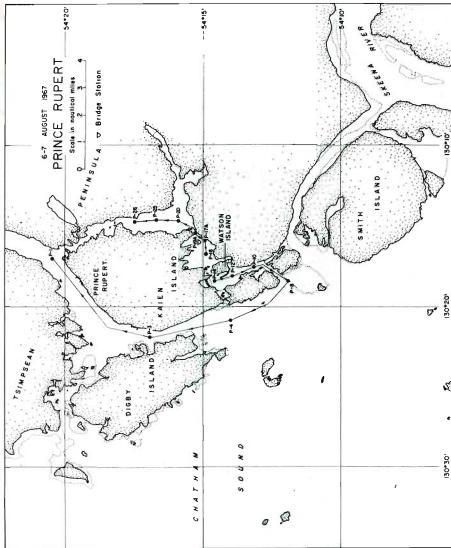
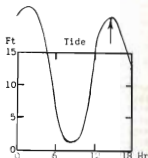


Fig. 19. Track chart of stations occupied in Prince Rupert Harbour and contiguous waters, 6-7 August 1967.



Station: P-1
 Time: 1428
 Date: 7/VIII/67
 Lat: 54° 20.43' N
 Long: 130° 17.00' W
 Depth: 190 ft
 B.T. Ser. No. 93

Weather: Overcast
 Cloud: Type Sc Amt. 10
 Wind: Dir. 160 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 61.0°F. W. 55.5°F.
 Baro: 1026.0 mb.
 Secchi: 10 ft Col: Brown

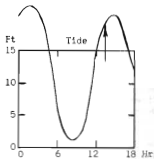


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity
				(mg/l)	% sat.		Total Carb.
0	12.5	26.79	20.18	5.65	64.4		
4	12.28	26.96	20.35	5.43	61.8		
10	10.43	28.52	21.86	6.45	71.1		
20	9.03	30.92	23.95	6.13	66.6		

^a Barometric pressure, winds, and air temperatures were taken from records maintained by the Meteorological Branch of the Department of Transport at Prince Rupert Airport.

Station: P-3
 Time: 1316
 Date: 7/VIII/67
 Lat: 54° 16.97' N
 Long: 130° 21.85' W
 Depth: 154 ft
 B.T. Ser. No. 92

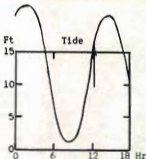
Weather: Overcast
 Cloud: Type Sc Amt. 9
 Wind: Dir. 160 °T Spd. 3 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 60.0°F. W. 55.3°F.
 Baro: 1026.0 mb.
 Secchi: ft Col: Current too strong.



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity
				(mg/l)	% sat.		Total Carb.
0	13.6	26.77	19.95	9.89	115.4		
4	12.31	27.35	20.64	8.92	101.7		
9	11.03	28.75	21.94	7.49	83.9		
23	9.59	30.73	23.72	6.61	72.6		

Station: P-4
 Time: 1220
 Date: 7/VIII/67
 Lat: 54° 14.00' N
 Long: 130° 20.83' W
 Depth: 171 ft
 B.T. Ser. No. 91

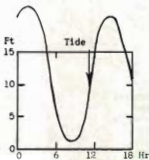
Weather: Overcast
 Cloud: Type Sc Amt. 10
 Winds: Dir. 170 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 61.0°F. W. 55.5°F.
 Baro: 1026.0 mb.
 Secchi: 13 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	14.7	25.99	19.14	10.49	124.6			
4	12.74	26.55	19.96	9.89	113.3			
10	11.90	27.83	21.09	8.44	95.7			
20	10.69	28.99	22.18	7.81	86.9			

Station: P-8
 Time: 1102
 Date: 7/VIII/67
 Lat: 54° 11.95' N
 Long: 130° 18.47' W
 Depth: 87 ft
 B.T. Ser. No. 90

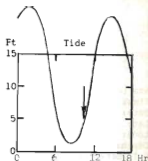
Weather: Overcast
 Cloud: Type Sc Amt. 10
 Winds: Dir. 170 °T Spd. 3 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 61.0°F. W. 55.0°F.
 Baro: 1026.0 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.9	26.31	19.74	4.57	52.4			
4	12.15	26.94	20.37	4.83	54.8			
10	11.87	27.48	20.82	2.34	26.4			
20	11.10	28.58	21.79	5.33	59.6			

Stations: P-10
 Time: 1019
 Date: 7/VIII/67
 Lat: 54° 13.15' N
 Long: 130° 17.58' W
 Depth: 69 ft
 B.T. Ser. No. 89

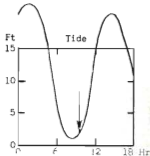
Weather: Overcast
 Cloud: Type Sc Amt. 10
 Wind: Dir. 180 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 59.0°F. W. 55.0°F.
 Baro: 1025.0 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.5	26.83	20.21	0.00	0.0			
4	12.38	26.87	20.27	0.00	0.0			
10	12.26	26.92	20.33	0.00	0.0			
20	12.12	27.16	20.53	0.00	0.0			

Stations: P-12
 Time: 0928
 Date: 7/VIII/67
 Lat: 54° 13.95' N
 Long: 130° 18.08' W
 Depth: 64 ft
 B.T. Ser. No. 88

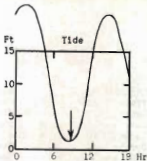
Weather: Overcast
 Cloud: Type Sc Amt. 10
 Wind: Dir. 170 °T Spd. 1 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 57.0°F. W. 54.3°F.
 Baro: 1022.0 mb.
 Secchi: 3 ft Col: Brown.



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.5	26.72	20.14	0.00	0.0			
4	12.38	26.78	20.20	0.00	0.0			
10	12.35	26.82	20.23	0.00	0.0			
18	12.23	27.01	20.40	0.00	0.0			

Station: P-14
 Time: 0841
 Date: 7/VIII/67
 Lat: 54° 14.60'N
 Long: 130° 18.40'W
 Depth: 57 ft
 B.T. Ser. No.87

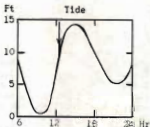
Weather: Overcast
 Cloud: Type Sc Amt. 10
 Wind: Dir. 160 *T Spd. 1 mph.
 Sea: 0 Swell: 0
 Air Temp: D.56.0°F. W.54.8°F.
 Baro: 1022.0 mb.
 Secchi: 3 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.5	26.60	20.04	0.00	0.0			
4	12.51	26.61	20.05	0.00	0.0			
10	12.51	26.60	20.04	0.00	0.0			
17	12.53	26.59	20.03	0.00	0.0			

Station: P-16
 Time: 1227
 Date: 6/VIII/67
 Lat: 54° 14.93' N
 Long: 130° 16.77' W
 Depth: 138 ft
 B.T. Ser. No. 82

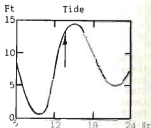
Weather: Overcast
 Cloud: Type Sc Amt. 10
 Wind: Dir. 270 *T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D.56.0°F. W.55.8°F.
 Baro: 1016.3 mb.
 Secchi: 3 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.73	25.91	19.47	0.00	0.0			
4	12.57	26.49	19.94	0.00	0.0			
10	12.56	26.49	19.95	0.00	0.0			
20	12.56	26.53	19.98	0.00	0.0			
40	12.59	26.53	19.98	0.00	0.0			

Stations: P-17A
 Time: 1352
 Date: 6/VIII/67
 Lat: 54° 14.97' N
 Long: 130° 19.97' W
 Depth: 82 ft
 B.T. Ser. No. 83

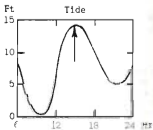
Weather: Overcast
 Cloud: Type St-Sc Amt. 10
 Wind: Dir. 220 °T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 59.0°F. W. 56.0°F.
 Baro: 1016.3 mb.
 Secchi: 3 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.84	26.25	19.71	0.00	0.0			
4	12.70	26.34	19.80	0.00	0.0			
10	12.85	26.30	19.74	0.00	0.0			
20	12.61	26.51	19.95	0.00	0.0			

Stations: P-20
 Time: 1457
 Date: 6/VIII/67
 Lat: 54° 15.93' N
 Long: 130° 14.71' W
 Depth: 187 ft
 B.T. Ser. No. 84

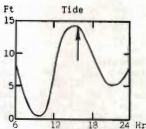
Weather: Overcast
 Cloud: Type St-Sc Amt. 10
 Wind: Dir. 250 °T Spd. 12 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 59.3°F. W. 56.5°F.
 Baro: 1016.6 mb.
 Secchi: 7 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.2	25.56	19.09	1.57	18.0			
4	12.03	25.82	19.51	0.91	10.2			
10	11.85	26.05	19.73	0.58	6.5			
20	11.53	26.32	19.99	4.41	49.1			
50	11.53	26.80	20.36	4.99	55.7			

Station: P-25
 Time: 1558
 Date: 6/VIII/67
 Lat: 54° 16.69' N
 Long: 130° 14.68' W
 Depth: 197+ ft
 B.T. Ser. No. 85

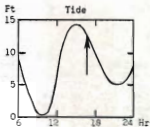
Weather: Partly cloudy
 Cloud: Type St-Sc Amt. 8
 Wind: Dir. 220 °T Spd. 9 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 58.9°F. W. 56.4°F.
 Baro: 1016.6 mb.
 Secchi: 7 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.6	25.77	19.37	1.73	19.6			
4	12.19	25.95	19.59	2.33	26.2			
10	11.76	26.33	19.96	4.42	49.4			
20	11.47	26.55	20.19	4.91	54.7			
50	11.57	26.87	20.40	5.12	57.3			

Station: P-26
 Time: 1651
 Date: 6/VIII/67
 Lat: 54° 17.48' N
 Long: 130° 14.74' W
 Depth: 154 ft
 B.T. Ser. No. 86

Weather: Overcast
 Cloud: Type St-Sc Amt. 10
 Wind: Dir. 260 °T Spd. 9 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 58.5°F. W. 55.8°F.
 Baro: 1016.6 mb.
 Secchi: 7 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.0	25.51	19.09	1.98	22.6			
4	12.21	25.94	19.58	3.42	38.6			
10	11.96	26.33	19.93	4.29	48.2			
20	11.44	26.51	20.16	4.63	51.5			
40	11.67	26.88	20.39	5.05	56.6			

PRINCE RUPERT HARBOUR AND CONTIGUOUS WATERS IN SITU SALINOMETER DATA

Note

These data have been collected with an in situ Salinometer of the induction type (Model RS5-3), manufactured by Industrial Instruments Inc. (more recently Beckman Instruments, Inc.). This instrument has manufacturer's specifications of a salinity precision of ± 0.3 ‰ in a range of 0-40 ‰ and a temperature precision of ± 0.5 C in the range of 0-40 C. However, in the data given here, there are obvious discrepancies of at least 1.0 ‰ in salinity when compared with salinities of deeper water obtained with an inductive bench salinometer using Fjarlie water bottle samples. It is uncertain whether these discrepancies are due to a shift in calibration or to some other inadvertent adjustment in the instrument. Because the in situ salinometer data are generally consistent from station to station (except where noted in a footnote), it is considered that there was no instrumental drift. Therefore, these data should be consistent within themselves. However, they should not be used for absolute salinity and density without correction with data from Fjarlie bottle samples.

The σ_t values were computed with an IBM 1130 computer programmed by Mr. J.A. Thomson from the equation given by Fofonoff and Tabata.

Fofonoff, N.P., and S. Tabata. MS, 1968. "Program for oceanographic computations and data processing on the electronic digital computer AINAC III-E DP-1 Oceanographic Station Data Program". Manuscript Report (Oceanographic and Limnological) No. 25, 38 p.

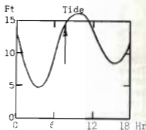
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Station: P-1
 Time: 0744
 Date: 17/VII/67
 Lat: 54° 20.45'N
 Long: 130° 17.02'W
 Depth: 184 ft
 B.T. Ser. No. 20

Weather: Overcast
 Cloud: Type Sc Amt. 10
 Wind: Dir. 020 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 53.7°F. W. 50.9°F.
 Baro: 1013.0mb.
 Secchi: 8 ft Col: Brown

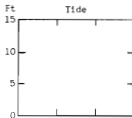


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.86	22.67	17.26					
2	10.66	23.30	17.78					
4	10.07	26.24	20.15					
6	9.92	26.60	20.45					
8	9.63	27.26	21.01					
10	9.13	28.28	21.88					
12	8.86	29.38	22.77					
15	8.01	30.97	24.14					
20	7.71	31.76	24.80					
25	7.61	32.16	25.13					
30	7.55	32.43	25.35					
35	7.37	32.70	25.58					

(continued below)

Stations: P-1 (cont'd)
 Time:
 Date:
 Lat:
 Long:
 Depth:
 B.T. Ser. No.

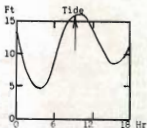
Weather:
 Cloud: Type
 Wind: Dir. °T Spd. mph.
 Sea:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
40	7.30	32.74	25.62					
45	7.13	32.92	25.79					
50	7.14	33.00	25.85					

Stations: P-3
 Time: 0906
 Date: 17/VII/67
 Lat: 54° 16.95'N
 Long: 130° 21.83'W
 Depth: 151 ft
 B.T. Ser. No. 21

Weather: Overcast
 Cloud: Type Cb Amt. 10
 Wind: Dir. 030 *T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D.54.3°F. W.50.2°F.
 Baro: 1013.0 mb.
 Secchi: 8 ft Col: Greenish-brown



Depth (m)	T (°C)	S (‰)	σ _t
0	10.32	25.48	19.52
2	10.16	24.43	18.73
4	10.01	25.36	19.48
6	9.93	25.83	19.85
8	9.89	26.25	20.19
10	9.57	27.12	20.91
11.5	9.36	28.90	22.33
14.5	9.01	30.77	23.84
19.5	8.63	32.25	25.05
24	7.90	33.08	25.81
29	7.90	33.02	25.76
34	7.72	33.40	26.08
38.5	7.63	33.43	26.12
43.5	7.66	33.22	25.95

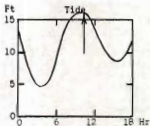
Dissolved oxygen
 (mg/l) % sat.

pH

Alkalinity
 Total Carb.

Stations: P-4
 Time: 1016
 Date: 17/VII/67
 Lat: 54° 13.97'N
 Long: 130° 20.85'W
 Depth: 174 ft
 B.T. Ser. No. 22

Weather: Overcast
 Cloud: Type Cb Amt. 10
 Wind: Dir. 150 *T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D.53.6°F. W.49.8°F.
 Baro: 1013.0 mb.
 Secchi: 8 ft Col: Silty;green



Depth (m)	T (°C)	S (‰)	σ _t
0	10.35	19.45	14.85
2	10.01	23.53	18.06
4	10.02	23.95	18.38
6	9.65	27.76	21.39
8	9.56	28.18	21.74
10	9.36	30.38	23.48
12	9.12	31.57	24.44
15	8.96	31.92	24.74
20	8.77	32.40	25.14
25	8.44	32.73	25.45

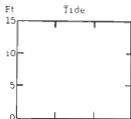
Dissolved oxygen
 (mg/l) % sat.

pH

Alkalinity
 Total Carb.

Stations: P-4 (cont'd)
 Times:
 Dates:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

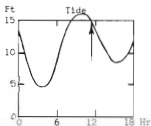
Weather:
 Cloud: Type
 Wind: Dir. *T Spd. mph.
 Sea: Swell:
 Air Temp: D. *F. W. *F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
30	8.14	32.93	25.65					
35	7.95	33.13	25.84					
40	7.72	33.26	25.97					
45	7.70	33.24	25.96					
50	7.31	33.66	26.35					

Station: P-8
 Time: 1120
 Date: 17/VII/67
 Lat: 54° 12.00'N
 Long: 130° 18.45'W
 Depth: 85 ft
 B.T. Ser. No. 23

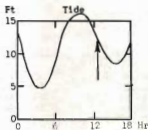
Weather: Overcast
 Cloud: Type Cb Amt. 10
 Wind: Dir. 165 *T Spd. 7 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 54.8°F. W. 50.9°F.
 Baro: 1013.0 mb.
 Secchi: 5 ft Col: Silty; green



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.73	15.42	11.67					
2	10.28	20.64	15.78					
4	10.02	25.97	19.95					
6	9.73	28.25	21.76					
8	9.31	31.65	24.48					
10	9.46	31.89	24.64					
12	9.36	32.06	24.79					
15	9.01	32.21	24.96					
20	8.90	32.44	25.16					
25	8.86	32.86	25.49					

Stations: P-10
 Time: 1237
 Date: 17/VII/67
 Lat: 54° 13.18'N
 Long: 130° 17.60'W
 Depth: 75 ft
 B.T. Ser. No. 24

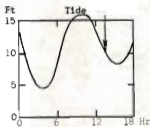
Weather: Overcast
 Cloud: Type Cb Amt. 10
 Winds: Dir. 180 °T Spd. 3 mph.
 Sea: 0 Swell: 0
 Air Temp: D.55.3°F. W.51.0°F.
 Baro: 1014.0 mb.
 Secchi: 5 ft Col: Grey-brown



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.53	24.80	18.96					
2	10.46	25.30	19.36					
4	10.31	25.77	19.75					
6	10.09	26.52	20.36					
8	9.91	26.82	20.63					
10	9.85	27.49	21.15					
12	9.76	27.71	21.34					
15	9.55	29.29	22.60					
20	9.31	31.60	24.44					

Stations: P-12
 Time: 1325
 Date: 17/VII/67
 Lat: 54° 13.97'N
 Long: 130° 18.07'W
 Depth: 66 ft
 B.T. Ser. No. 25

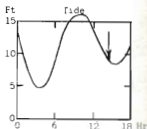
Weather: Overcast
 Cloud: Type Cb Amt. 10
 Winds: Dir. 180 °T Spd. 3 mph.
 Sea: 0 Swell: 0
 Air Temp: D.53.3°F. W.51.3°F.
 Baro: 1015.0 mb.
 Secchi: 1 ft Col: Red-brown



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.74	25.57	19.53					
2	10.50	26.06	19.94					
4	10.33	26.57	20.37					
6	10.29	26.47	20.30					
8	10.18	26.90	20.65					
10	10.14	27.45	21.08					
12	9.97	28.19	21.68					
15	9.75	29.92	23.06					
19	9.46	30.84	23.82					

Station: P-14
 Time: 1412
 Date: 17/VII/67
 Lat: 54° 14.55'N
 Long: 130° 18.42'W
 Depth: 75 ft
 B.T. Ser. No. 26

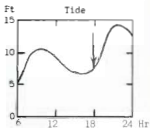
Weather: Overcast
 Clouds: Type Cb Amt. 10
 Wind: Dir. 020 *T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 54.4°F. W. 52.3°F.
 Baro: 1015.0 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.44	26.48	20.28					
2	10.46	26.44	20.25					
4	10.40	26.75	20.49					
6	10.38	26.92	20.63					
8	10.33	27.55	21.13					
10	10.27	27.53	21.12					
12	10.21	27.56	21.15					
15	10.27	29.76	22.85					
20	9.41	31.21	24.12					

Station: P-20
 Time: 1750
 Date: 16/VII/67
 Lat: 54° 15.93'N
 Long: 130° 14.63'W
 Depth: 171 ft
 B.T. Ser. No. 17

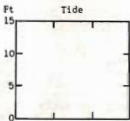
Weather: Cloudy
 Clouds: Type Cc Amt. 7
 Wind: Dir. 215 *T Spd. 8 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 57.6°F. W. 52.7°F.
 Baro: 1018.0 mb.
 Secchi: 7 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.02	25.48	19.41					
2	10.69	25.54	19.51					
4	10.46	25.60	19.59					
6	10.45	25.65	19.63					
8	10.51	25.74	19.69					
10	10.37	25.65	19.65					
12	10.32	25.61	19.78					

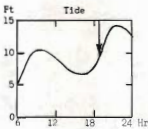
(continued on next page)

Stations: P-20 (cont'd) Weather:
 Time: Cloud: Type Amt.
 Date: Wind: Dir. °T Spd. mph.
 Lat: N Sea: Swells:
 Long: W Air Temp: D. °F. W. °F.
 Depth: ft Baro: mb.
 B.T. Ser. No. Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
15	10.27	25.71	19.71					
20	10.40	25.90	19.84					
25	10.21	25.94	19.90					
30	10.25	25.99	19.93					
35	10.11	26.20	20.11					
40	10.02	26.21	20.13					
45	9.94	26.17	20.12					
50	9.84	26.36	20.28					

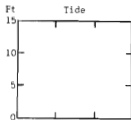
Overcast, cool;
 Stations: P-25 Weather: no rain
 Time: 1854 Cloud: Type Cc Amt. 9
 Date: 16/VII/67 Wind: Dir. 025 °T Spd. 5 mph.
 Lat: 54° 16.70'N Sea: 0 Swell: 0
 Long: 130° 14.70'W Air Temp: D. 55.0°F. W. 51.6°F.
 Depth: 174 ft Baro: 1017.0 mb.
 B.T. Ser. No. 18 Secchi: 7 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.67	22.61	16.92					
2	11.19	24.91	18.94					
4	10.74	25.28	19.30					
6	10.53	25.41	19.44					
8	10.45	25.57	19.57					
10	10.52	25.52	19.52					
12	10.53	25.31	19.36					

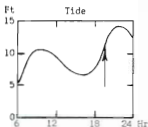
(continued on next page)

Station: P-25 (cont'd) Weather:
 Time: Cloud: Type Amt.
 Date: Wind: Dir. °T Spd. mph.
 Lat: N Sea: Swell:
 Long: W Air Temp: D. °F. W. °F.
 Depth: ft Baro: mb.
 B.T. Ser. No. Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
15	10.44	25.48	19.50					
20	10.34	25.66	19.66					
25	10.54	25.81	19.74					
30	10.42	25.98	19.89					
35	10.25	25.89	19.85					
40	10.23	26.00	19.94					
45	10.14	26.18	20.09					
50	9.95	26.18	20.12					

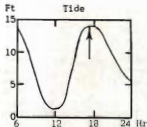
Station: P-26 Weather: Overcast
 Time: 1927 Cloud: Type Cc Amt. 9
 Date: 16/VII/67 Wind: Dir. 030 °T Spd. 4 mph.
 Lat: 54° 17.50' N Sea: 0 Swell: 0
 Long: 130° 14.75' W Air Temp: D: 54.7 °F. W: 51.3 °F.
 Depth: 105 ft Baro: 1016.5 mb.
 B.T. Ser. No. 19 Secchi: 10 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.64	24.70	18.87					
2	10.73	24.80	18.93					
4	10.34	25.35	19.42					
6	10.25	25.41	19.48					
8	10.25	25.64	19.55					
10	10.17	25.89	19.86					
12	10.13	25.86	19.85					
15	10.14	25.66	19.69					
20	10.17	25.81	19.80					
25	10.09	25.84	19.84					
30	10.12	26.00	19.96					

Stations: P-19A-1*
 Time: 1723
 Date: 11/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 2

Weather: Overcast; rain showers
 Clouds: Type St-Sc Amt. 10
 Wind: Dir. 140 °T Spd. 13 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 58.4°F. W. 56.1°F.
 Baro: 1020.9 mb.
 Secchi: ft Col: Too much current

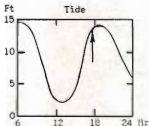


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.58	24.93	19.06					
2	10.54	25.35	19.39					
4	10.55	25.35	19.39					
6	10.62	25.15	19.22					
8	10.57	25.13	19.21					
10	10.45	25.20	19.29					

* Barometric pressure, winds, and air temperatures were taken from records maintained by the Meteorological Branch of the Department of Transport at Prince Rupert Airport.

Stations: P-19A-2
 Time: 1745
 Date: 12/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 5

Weather: Rain and fog
 Clouds: Type St-Sc Amt. 10
 Wind: Dir. 270 °T Spd. 6 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 55.6°F. W. 54.1°F.
 Baro: 1019.0 mb.
 Secchi: 3 ft Col: Brown

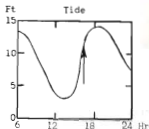


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.42	25.28	19.35					
2	10.45	25.50	19.52					
4	10.40	23.81	18.22					
6	10.35	24.24	18.56					
8	10.34	24.10	18.45					
10	10.36	24.39	18.67					

* All stations designated as P-19A were taken from the old highway bridge across Galloway Rapids. This series consisted of daily stations, usually occupied at high tide, for 25 days taken consecutively, except for one missed day.

Station: P-19A-3
 Time: 1619
 Date: 13/VII/67
 Lat: 54° 15.26'N
 Long: 130° 15.43'W
 Depth: 36 ft
 B.T. Ser. No. 8

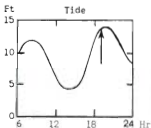
Weather: Overcast; rain
 Cloud: Type Sc Amt. 10
 Wind: Dir. 160 °T Spd. 18 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 56.0°F. W. 51.0°F.
 Baro: 1022.0 mb.
 Secchi: 4 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.38	25.64	19.64					
2	10.33	25.50	19.54					
4	10.33	25.47	19.51					
6	10.30	25.62	19.63					
8	10.32	25.65	19.65					
10	10.53	25.51	19.51					

Station: P-19A-4
 Time: 1901
 Date: 14/VIII/67
 Lat: 54° 15.26'N
 Long: 130° 15.43'W
 Depth: 36 ft
 B.T. Ser. No. 11

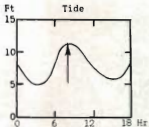
Weather: Mostly overcast;
 no rain
 Cloud: Type Sc Amt. 9
 Wind: Dir. 200 °T Spd. 9 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 66.2°F. W. 53.2°F.
 Baro: 1024.0 mb.
 Secchi: 4 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.45	25.47	19.49					
2	10.39	25.48	19.51					
4	10.39	25.62	19.62					
6	10.34	25.61	19.62					
8	10.30	25.66	19.67					
10	10.30	25.75	19.74					

Stations: P-19A-5
 Time: 0802
 Date: 15/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 12

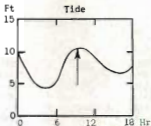
Weather: Overcast; spitting rain
 Cloud: Type Cu-Sc Amt. 9
 Wind: Dir. 050 *T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D.53.3°F. W.51.1°F.
 Baro: 1020.2 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.34	25.42	19.47					
2	10.40	25.36	19.42					
4	10.32	25.27	19.36					
6	10.33	25.32	19.40					
8	10.30	25.45	19.50					
10	10.28	25.31	19.40					

Stations: P-19A-6
 Time: 0916
 Date: 16/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 15

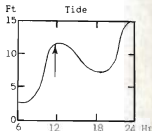
Weather: Mostly overcast
 Cloud: Type Cu-Sc Amt. 9
 Wind: Dir. 180 *T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D.55.1°F. W.52.4°F.
 Baro: 1018.7 mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.69	26.09	19.94					
2	10.52	26.09	19.96					
4	10.47	26.11	19.99					
6	10.37	26.14	20.03					
8	10.37	26.21	20.08					
9	10.25	26.19	20.08					

Station: P-19A-7
 Time: 1156
 Date: 18/VII/67
 Lat: 54° 15.26'N
 Long: 130° 15.43'W
 Depth: 36 ft
 B.T. Ser. No. 27

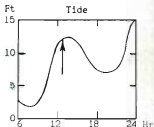
Weather: Overcast; spitting rain
 Cloud: Type St-Sc Amt. 10
 Wind: Dir. 220 °T Spd. 7 mph.
 Sea: 0 Swell: 0
 Air Temp: D.54.8°F. W.52.6°F.
 Baro: 1011.4 mb.
 Secchi: 6 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.65	25.78	19.70					
2	10.64	25.73	19.67					
4	10.65	25.89	19.79					
6	10.62	25.89	19.79					
8	10.59	26.07	19.98					
10	10.61	26.11	19.97					

Station: P-19A-8
 Time: 1253
 Date: 19/VII/67
 Lat: 54° 15.26'N
 Long: 130° 15.43'W
 Depth: 36 ft
 B.T. Ser. No. 30

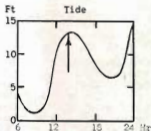
Weather: Overcast; rain showers
 Cloud: Type St-Cu Amt. 10
 Wind: Dir. 230 °T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D.58.0°F. W.57.0°F.
 Baro: 1016.0 mb.
 Secchi: 4 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.80	25.58	19.53					
2	10.73	25.55	19.51					
4	10.67	25.74	19.67					
6	10.63	25.87	19.78					
8	10.66	25.93	19.82					
10	10.55	25.90	19.81					

Station: P-19A-9
 Time: 1355
 Date: 20/VII/67
 Lat: 54° 15.26'N
 Long: 130° 15.43'W
 Depth: 36 ft
 B.T. Ser. No. 33

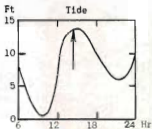
Weather: Some sun
 Cloud: Type Sc Amt. 8
 Wind: Dir. 270 *T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D.57.5°F. W.54.0°F.
 Baro: 1023.4 mb.
 Secchi: 3 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.14	25.89	19.71					
2	11.10	25.86	19.69					
4	11.11	26.00	19.80					
6	11.05	26.02	19.83					
8	11.02	26.20	19.97					
10	11.03	26.16	19.94					

Station: P-19A-10
 Time: 1417
 Date: 21/VII/67
 Lat: 54° 15.26'N
 Long: 130° 15.43'W
 Depth: 36 ft
 B.T. Ser. No. 36

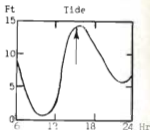
Mostly overcast:
 Weather: sunny periods
 Cloud: Type Cu-Ac Amt. 7
 Wind: Dir. 250 *T Spd. 7 mph.
 Sea: 0 Swell: 0
 Air Temp: D.59.8°F. W.55.2°F.
 Baro: 1023.2 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	10.94	26.15	19.94					
2	10.95	26.29	20.05					
4	10.95	26.26	20.03					
6	10.90	26.31	20.07					
8	10.92	26.46	20.19					
10	10.98	26.50	20.21					

Station: P-19A-11
 Time: 1504
 Date: 22/VII/67
 Lat: 54° 15.26'N
 Long: 130° 15.43'W
 Depth: 36 ft
 B.T. Ser. No. 39

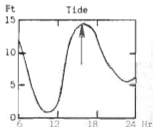
Weather: Sunny
 Clouds: Type Cu-Ci Amt. 3
 Wind: Dir. 290 °T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D.63.0°F. W.57.0°F.
 Baro: 1018.4 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.63	26.36	19.99					
2	11.25	26.72	20.33					
4	11.25	26.75	20.36					
6	11.31	26.70	20.31					
8	11.40	26.66	20.26					
10	11.31	26.83	20.41					

Station: P-19A-12
 Time: 1545
 Date: 23/VII/67
 Lat: 54° 15.26'N
 Long: 130° 15.43'W
 Depth: 36 ft
 B.T. Ser. No. 42

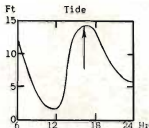
Weather: Sunny periods
 Clouds: Type Sc-Ac Amt. 8
 Wind: Dir. 270 °T Spd. 12 mph.
 Sea: 0 Swell: 0
 Air Temp: D.57.2°F. W.55.1°F.
 Baro: 1018.1 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.87	26.09	19.74					
2	11.66	26.47	20.07					
4	11.75	26.24	19.88					
6	11.53	26.32	19.98					
8	11.45	26.64	20.24					
10	11.44	26.69	20.28					

Station: P-19A-13
 Time: 1612
 Date: 24/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 45

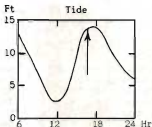
Weather: Sunny periods
 Cloud: Type Cu-Ci Amt. 6
 Wind: Dir. 270 °T Spd. 11 mph.
 Sea: 0 Swell: 0
 Air Temp: D.60.0°F. W.57.0°F.
 Baro: 1019.7 mb.
 Secchi: 6 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.64	26.55	20.14					
2	11.46	26.71	20.29					
4	11.40	26.71	20.30					
6	11.50	26.71	20.28					
8	11.51	26.63	20.22					
10	11.49	26.75	20.32					

Station: P-19A-14
 Time: 1640
 Date: 25/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 49

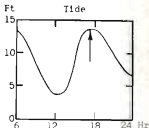
Weather: Sunny, hazy
 Cloud: Type St Amt. 3
 Wind: Dir. 270 °T Spd. 12 mph.
 Sea: 0 Swell: 0
 Air Temp: D.58.4°F. W.55.3°F.
 Baro: 1020.6 mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.78	26.74	20.26					
2	11.72	26.90	20.39					
4	11.71	26.88	20.38					
6	11.68	26.88	20.39					
8	11.70	26.91	20.40					
10	11.77	26.85	20.35					

Station: P-19A-15
 Time: 1721
 Date: 26/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 52

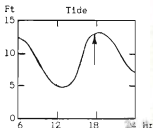
Weather: Overcast, no rain
 Cloud: Type St-Ac Amt. 10
 Wind: Dir. 180 °T Spd. 9 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 62.7°F. W. 58.7°F.
 Baro: 1017.4 mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.78	26.67	20.21					
2	11.75	26.73	20.26					
4	11.72	26.86	20.36					
6	11.67	27.02	20.50					
8	11.61	27.03	20.51					
10	11.57	27.06	20.54					

Station: P-19A-16
 Time: 1742
 Date: 27/VII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 55

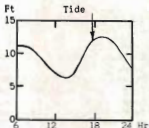
Weather: Overcast; heavy rain
 Cloud: Type Ns Amt. 10
 Wind: Dir. 150 °T Spd. 18 mph.
 Sea: 0 Swell: 0
 Air Temp: D 58.0°F. W 57.0°F.
 Baro: 1013.0 mb.
 Secchi: 4 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.48	27.10	20.59					
2	11.42	26.90	20.44					
4	11.44	27.03	20.54					
6	11.43	27.08	20.58					
8	11.48	27.17	20.64					
10	11.45	27.13	20.62					

Stations P-19A-17
 Time: 1747
 Date: 28/VII/67
 Lat: 54° 15.26'N
 Long: 130° 15.43'W
 Depth: 36 ft
 B.T. Ser. No. 58

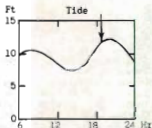
Mostly overcast;
 Weather: rain showers
 Cloud: Type Cu-Sc Amt. 10
 Wind: Dir. 160 °T Spd. 12 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 58.6°F. W. 53.0°F.
 Baro: 1015.8 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.67	26.25	19.90					
2	11.66	26.45	20.06					
4	11.53	26.38	20.02					
6	11.56	26.63	20.21					
8	11.53	26.63	20.22					
10	11.54	26.67	20.25					

Stations P-19A-18
 Time: 1840
 Date: 29/VII/67
 Lat: 54° 15.26'N
 Long: 130° 15.43'W
 Depth: 36 ft
 B.T. Ser. No. 61

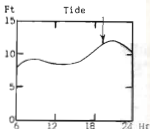
Mostly overcast;
 Weather: some rain
 Cloud: Type Cu-Sc Amt. 9
 Wind: Dir. 230 °T Spd. 5 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 58.2°F. W. 54.5°F.
 Baro: 1017.5 mb.
 Secchi: 4 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	11.90	25.76	19.48					
2	11.67	26.01	19.71					
4	11.66	26.10	19.79					
6	11.53	26.20	19.89					
8	11.60	26.23	19.90					
10	11.51	26.25	19.93					

Stations: P-19A-19
 Times: 1905
 Date: 30/VII/67
 Lat: 54° 15.26'N
 Long: 130° 15.43'W
 Depth: 36 ft
 B.T. Ser. No. 64

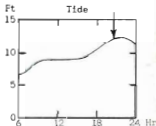
Weather: Some sun; no rain
 Cloud: Type Cu-Ac Amt. 8
 Wind: Dir. 290 °T Spd. 8 mph.
 Sea: 0 Swell: 0
 Air Temp: D.57.0°F. W.54.7°F.
 Baro: 1020.4 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.76	24.76	18.56					
2	11.93	25.92	19.60					
4	11.61	26.19	19.86					
6	11.55	26.25	19.92					
8	11.52	26.32	19.98					
10	11.46	26.31	19.98					

Stations: P-19A-20
 Times: 2030
 Date: 31/VII/67
 Lat: 54° 15.26'N
 Long: 130° 15.43'W
 Depth: 36 ft
 B.T. Ser. No. 67

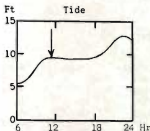
Weather: Hazy; sunny
 Cloud: Type Cu-Sc Amt. 5
 Wind: Dir. 270 °T Spd. 8 mph.
 Sea: 0 Swell: 0
 Air Temp: D.57.5°F. W.55.0°F.
 Baro: 1023.1 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.80	25.35	19.01					
2	11.80	25.97	19.66					
4	11.94	26.09	19.68					
6	11.64	26.19	19.81					
8	11.57	26.23	19.90					
10	11.60	26.35	19.99					

Stations: P-19A-21
 Time: 1120
 Date: 1/VIII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 69

Weather: Hazy; sunny
 Cloud: Type Cu-Ac Amt. 7
 Wind: Dir. 270 °T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 59.8°F. W. 55.2°F.
 Baro: 1024.5 mb.
 Secchi: 5 ft Col: Brown



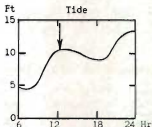
Depth (m)	T (°C)	S (‰)	σ _t
0	13.56	22.53	16.70
2	11.89	25.85	19.55
4	11.82	25.94	19.64
6	11.73	26.14	19.81
8	11.60	26.27	19.93
10	11.47	26.45	20.09

Dissolved oxygen
 (mg/l) % sat.

pH Alkalinity
 Total Carb.

Stations: P-19A-22
 Time: 1203
 Date: 2/VIII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 72

Weather: Hazy; sunny
 Cloud: Type Cu-Ac Amt. 8
 Wind: Dir. 320 °T Spd. 7 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 61.5°F. W. 56.7°F.
 Baro: 1022.0 mb.
 Secchi: 5 ft Col: Brown



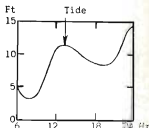
Depth (m)	T (°C)	S (‰)	σ _t
0	12.27	25.81	19.46
2	12.18	25.87	19.52
4	12.13	25.95	19.59
6	12.08	26.06	19.68
8	12.09	26.07	19.68
10	12.07	26.26	19.84

Dissolved oxygen
 (mg/l) % sat.

pH Alkalinity
 Total Carb.

Stations: P-19A-23
 Time: 1310
 Date: 3/VIII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 75

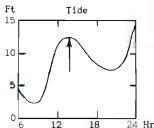
Weather: Hazy; sunny
 Clouds: Type Cu Amt. 2
 Wind: Dir. 250° T Spd. 11 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 62.3°F. W. 57.6°F.
 Baro: 1018.4 mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
0	12.55	26.44	19.89			
2	12.41	26.42	19.90			
4	12.38	26.43	19.92			
6	12.36	26.40	19.90			
8	12.31	26.52	20.00			
10	12.31	26.54	20.01			

Stations: P-19A-24
 Time: 1345
 Date: 4/VIII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 77

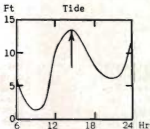
Weather: Overcast; little rain
 Clouds: Type St Amt. 10
 Wind: Dir. 270° T Spd. / mph.
 Sea: 0 Swell: 0
 Air Temp: D. 58.0°F. W. 47.0°F.
 Baro: 1021.7 mb.
 Secchi: 4 ft Col: B wn



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
0	12.25	26.87	20.28			
2	12.23	26.77	20.20			
4	12.24	26.70	20.15			
6	12.20	26.86	20.28			
8	12.21	26.87	20.29			
10	12.28	26.96	20.36			

Station: P-19A-25
 Time: 1430
 Date: 5/VIII/67
 Lat: 54° 15.26' N
 Long: 130° 15.43' W
 Depth: 36 ft
 B.T. Ser. No. 80

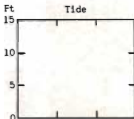
Weather: Clear; hazy; sunny
 Cloud: Type St-Cu Amt. 2
 Wind: Dir. 270 *T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 60.8°F. W. 57.3°F.
 Baro: 1020.3 mb.
 Secchi: ft Col:



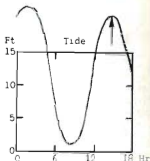
Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.43	27.19	20.49					
2	12.47	27.26	20.54					
4	12.37	27.25	20.55					
6	12.35	27.21	20.52					
8	12.44	27.26	20.55					
10	12.37	27.48	20.73					

Station:
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

Weather:
 Cloud: Type Amt.
 Wind: Dir. *T Spd. mph.
 Sea: Swell:
 Air Temp: D. *F. W. *F.
 Baro: mb.
 Secchi: ft Col:



Depth	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.



Stations: P-1
 Time: 1431
 Date: 7/VIII/67
 Lat: 54° 20.45' N
 Long: 130° 17.00' W
 Depth: 190 ft
 B.T. Ser. No. 93

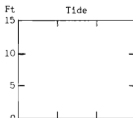
Weather: Overcast
 Cloud: Type Sc Amt. 10
 Wind: Dir. 160 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 61.0°F. W. 55.5°F.
 Baro: 1026.0 mb.
 Secchi: 10 ft Col: Brown

Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.33	27.59	20.82					
2	12.02	27.69	20.95					
4	11.94	28.20	21.36					
6	11.32	28.10	21.39					
8	10.85	29.12	22.26					
10	10.34	29.62	22.73					
12	9.46	30.42	23.49					
15	9.10	31.28	24.22					
20	8.80	32.30	25.06					
25	8.64	32.40	25.16					
30	8.72	32.48	25.21					
35	8.54	32.50	25.26					

(continued below)

Station: P-1 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:

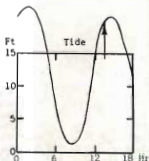


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
40	8.36	32.51	25.29					
45	8.38	32.52	25.30					
50	8.36	32.50	25.28					
55	8.30	32.52	25.31					

^a Barometric pressure, winds, and air temperatures were taken from records maintained by the Meteorological Branch of the Department of Transport at Prince Rupert Airport.

Stations P-3
 Time: 1320
 Date: 7/VIII/67
 Lat: 54° 16.97' N
 Long: 130° 21.85' W
 Depth: 154 ft
 B.T. Ser. No. 92

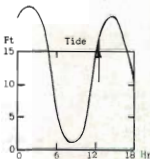
Weather: Overcast
 Cloud: Type Sc Amt. 9
 Wind: Dir. 160 °T Spd. 3 mph.
 Sea: 0 Swell: 0
 Air Temp: D.60.0°F. W.55.3°F.
 Baro: 1026.0 mb.
 Secchi: ft Col: Current too strong.



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	13.09	22.74	16.95					
0	12.20	28.02	21.17					
1.5	11.76	28.57	21.68					
3	11.72	29.09	22.09					
4.5	11.74	29.10	22.09					
8	10.35	31.09	23.87					
10	10.26	31.20	23.97					
12.5	9.92	31.91	24.58					
16.5	9.21	32.25	24.96					
20.6	8.98	32.57	25.24					
24.5	8.59	32.98	25.63					
28.5	8.44	32.91	25.59					
32.5	8.22	33.21	25.86					
37	8.00	33.29	25.96					

Stations P-4
 Time: 1225
 Date: 7/VIII/67
 Lat: 54° 14.00' N
 Long: 130° 20.83' W
 Depth: 171 ft
 B.T. Ser. No. 91

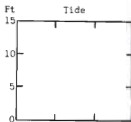
Weather: Overcast
 Cloud: Type Sc Amt. 10
 Wind: Dir. 170 °T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D.61.0°F. W.55.5°F.
 Baro: 1026.0 mb.
 Secchi: 13 ft Col: Green



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	14.36	27.54	20.40					
2	13.61	27.73	20.69					
4	13.59	27.90	20.82					
6	12.57	28.39	21.39					
8	12.32	28.69	21.67					
10	11.66	29.50	22.41					
12	11.45	29.70	22.61					

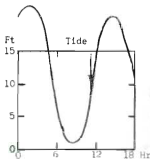
(continued on next page)

Stations: P-4 (cont'd) Weather:
 Time: Cloud: Type Amt.
 Date: Wind: Dir. °T Spd. mph.
 Lat: N Sea: Swell:
 Long: W Air Temp: D. °F. W. °F.
 Depth: ft Baro: mb.
 B.T. Ser. No. Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
15	11.37	29.77	22.67					
20	10.98	30.36	23.20					
25	9.56	32.32	24.96					
30	8.92	32.68	25.34					
35	8.54	32.68	25.40					
40	8.07	32.97	25.70					
45	7.40	33.60	26.29					
50	7.29	33.55	26.26					

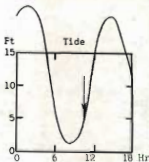
Stations: P-8 Weather: Overcast
 Time: 1106 Cloud: Type Sc Amt. 10
 Date: 7/VIII/67 Wind: Dir. 170 °T Spd. 3 mph.
 Lat: 54° 11.95' N Sea: 0 Swell: 0
 Long: 130° 18.47' W Air Temp: D. 61.0 °F. W. 55.0 °F.
 Depth: 87 ft Baro: 1026.0 mb.
 B.T. Ser. No. 90 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.07	27.70	20.95					
2	12.03	28.30	21.42					
4	11.66	28.60	21.72					
6	11.73	28.83	21.88					
8	11.67	29.10	22.10					
10	11.54	29.23	22.23					
12	11.45	29.03	22.09					
15	11.43	29.01	22.08					
20	10.71	30.18	23.10					
25	10.10	31.86	24.51					

Station: P-10
 Time: 1023
 Date: 7/VIII/67
 Lat: 54° 13.15' N
 Long: 130° 17.58' W
 Depth: 69 ft
 B.T. Ser. No. 89

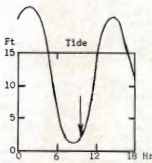
Weather: Overcast
 Cloud: Type Sc Amt. 10
 Wind: Dir. 180 *T Spd. 2 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 59.0 *F. W. 55.0 *F.
 Baro: 1025.0 mb.
 Secchi: 5 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.25	28.17	21.28					
2	12.15	27.16	20.52					
4	12.22	28.16	21.28					
6	12.04	28.20	21.34					
8	11.92	28.38	21.50					
10	11.79	28.48	21.60					
12	11.78	28.51	21.63					
15	11.76	28.54	21.65					
20	10.73	30.37	23.25					

Station: P-12
 Time: 0932
 Date: 7/VIII/67
 Lat: 54° 13.95' N
 Long: 130° 18.08' W
 Depth: 64 ft
 B.T. Ser. No. 88

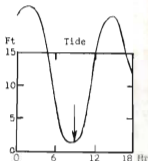
Weather: Overcast
 Cloud: Type Sc Amt. 10
 Wind: Dir. 170 *T Spd. 1 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 57.0 *F. W. 54.8 *F.
 Baro: 1022.0 mb.
 Secchi: 3 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.09	28.02	21.19					
2	12.04	28.19	21.33					
4	12.01	28.31	21.43					
6	11.97	28.53	21.61					
8	11.97	28.72	21.76					
10	12.04	28.64	21.68					
12	12.09	28.44	21.52					
15	11.87	28.64	21.71					
18	11.80	28.76	21.82					

Station: P-14
 Time: 0851
 Date: 7/VIII/67
 Lat: 54° 14.60' N
 Long: 130° 18.40' W
 Depth: 57 ft
 B.T. Ser. No. 87

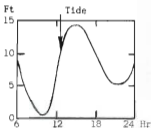
Weather: Overcast
 Cloud: Type Sc Amt. 10
 Wind: Dir. 160 °T Spd. 1 mph.
 Sea: 0 Swell: 0
 Air Temp: D.56.0°F. W.54.8°F.
 Baro: 1022.0 mb.
 Secchi: 3 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
0	12.14	27.49	20.78			
2	12.12	27.67	20.92			
4	12.14	27.81	21.02			
6	12.11	27.81	21.03			
8	12.12	27.90	21.10			
10	12.09	27.92	21.12			
12	12.09	27.84	21.06			
15	12.05	27.88	21.09			
17	12.09	27.81	21.03			

Station: P-16
 Time: 1238
 Date: 6/VIII/67
 Lat: 54° 14.93' N
 Long: 130° 16.77' W
 Depth: 138 ft
 B.T. Ser. No. 82

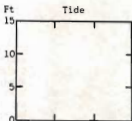
Weather: Overcast
 Cloud: Type St Amt. 10
 Wind: Dir. 270 °T Spd. 10 mph.
 Sea: 0 Swell: 0
 Air Temp: D.58.6°F. W.55.5°F.
 Baro: 1016.3 mb.
 Secchi: 3 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen (mg/l) % sat.	pH	Alkalinity Total Carb.
0	12.33	27.47	20.73			
2	12.31	27.64	20.86			
4	12.25	27.67	20.90			
6	12.24	27.67	20.90			
8	12.19	27.64	20.88			
10	12.32	27.68	20.89			
12	12.23	27.67	20.90			

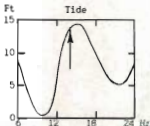
(continued on next page)

Stations: P-16 (cont'd) Weather: _____
 Time: _____ Cloud: Type _____ Amt. _____
 Date: _____ Wind: Dir. _____ *T Spd. mph. _____
 Lat: _____ N Sea: _____ Swell: _____
 Long: _____ W Air Temp: D. _____ *F. W. _____ *F.
 Depth: _____ ft Baro: _____ mb.
 B.T. Ser. No. Secchi: _____ ft Col: _____



Depth (m)	T (°C)	S (°/∞)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
15	12.23	27.84	21.03					
20	12.26	27.82	21.01					
25	12.18	28.01	21.17					
30	12.30	27.84	21.02					
35	12.33	28.16	21.26					

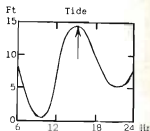
Stations: P-17A Weather: Overcast
 Time: 1400 Cloud: Type St-Sc Amt. 10
 Date: 6/VIII/67 Wind: Dir. 220 *T Spd. 10 mph.
 Lat: 54° 14.97'N Sea: 0 Swell: 0
 Long: 130° 15.97'W Air Temp: D. 59.0°F. W. 56.0°F.
 Depth: 82 ft Baro: 1016.3 mb.
 B.T. Ser. No. 83 Secchi: 3 ft Col: Brown



Depth (m)	T (°C)	S (°/∞)	σ _t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.63	27.51	20.70					
2	12.52	27.74	20.90					
4	12.47	27.70	20.88					
6	12.50	27.68	20.86					
8	12.55	27.81	20.95					
10	12.42	27.85	21.00					
12	12.43	27.88	21.02					
15	12.32	27.85	21.02					
20	12.33	27.85	21.02					
25	12.29	27.88	21.05					

Station: P-20
 Time: 1505
 Date: 6/VIII/67
 Lat: 54° 15.93' N
 Long: 130° 14.71' W
 Depth: 187 ft
 B.T. Ser. No. 84

Weather: Overcast
 Cloud: Type St-Sc Amt. 10
 Wind: Dir. 290 °T Spd. 12 mph.
 Sea: 0 Swell: 0
 Air Temp: D. 59.3°F. W. 56.5°F.
 Baro: 1016.6 mb.
 Secchi: 7 ft Col: Brown

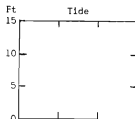


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.94	26.86	20.15					
2	11.90	27.18	20.58					
4	11.76	27.12	20.56					
6	11.50	27.25	20.70					
8	11.44	27.40	20.83					
10	11.52	27.76	21.09					
12	11.47	27.81	21.14					
15	11.42	27.90	21.22					
20	11.50	27.94	21.24					
25	11.15	28.14	21.45					
30	11.19	28.21	21.50					

(continued below)

Station: P-20 (cont'd)
 Time:
 Date:
 Lat: N
 Long: W
 Depth: ft
 B.T. Ser. No.

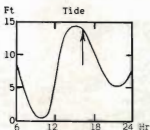
Weather:
 Cloud: Type Amt.
 Wind: Dir. °T Spd. mph.
 Sea: Swell:
 Air Temp: D. °F. W. °F.
 Baro: mb.
 Secchi: ft Col:



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
35	11.17	28.14	21.45					
40	11.35	28.31	21.55					
45	11.23	28.31	21.57					
50	11.13	28.62	21.82					
55	11.12	28.45	21.69					

Station: P-25
 Time: 1603
 Date: 6/VIII/67
 Lat: 54° 16.69'N
 Long: 130° 14.68'W
 Depth: 197+ ft
 B.T. Ser. No. 85

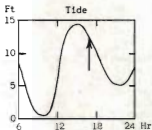
Weather: Partly cloudy
 Cloud: Type St-Sc Amt. 8
 Wind: Dir. 220 °T Spd. 9 mph.
 Sea: 0 Swell: 0
 Air Temp: D.58.9°F. W.56.0°F.
 Baro: 1016.6 mb.
 Secchi: 7 ft Col: Brown



Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.53	26.87	20.23					
2	12.51	26.98	20.32					
4	12.38	27.02	20.37					
6	12.09	27.14	20.51					
8	11.58	27.25	20.69					
10	11.45	27.60	20.98					
12	11.42	27.64	21.02					
15	11.35	27.91	21.24					
20	11.23	27.91	21.26					
25	11.13	28.12	21.44					
30	11.19	28.24	21.52					
35	11.02	28.40	21.67					
40	11.10	28.44	21.69					
45	11.04	28.46	21.72					

Station: P-26
 Time: 1658
 Date: 6/VIII/67
 Lat: 54° 17.48'N
 Long: 130° 14.74'W
 Depth: 154 ft
 B.T. Ser. No. 86

Weather: Overcast
 Cloud: Type St-Sc Amt. 10
 Wind: Dir. 260 °T Spd. 9 mph.
 Sea: 0 Swell: 0
 Air Temp: D.58.5°F. W.55.8°F.
 Baro: 1016.6 mb.
 Secchi: 7 ft Col: Brown

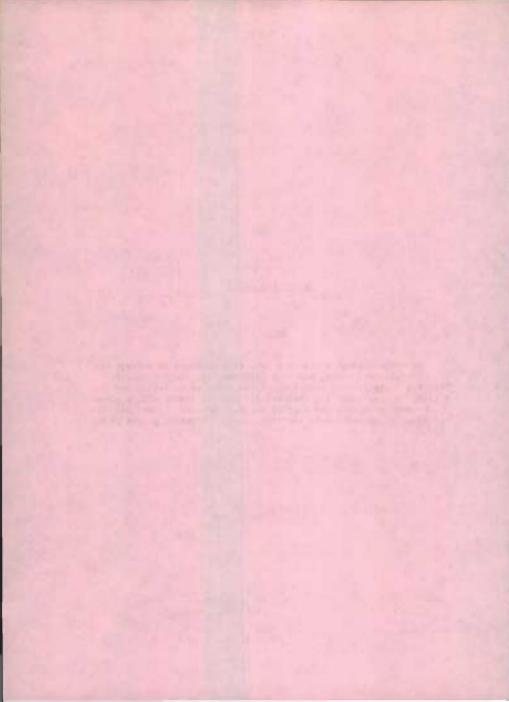


Depth (m)	T (°C)	S (‰)	σ_t	Dissolved oxygen		pH	Alkalinity	
				(mg/l)	% sat.		Total	Carb.
0	12.54	26.81	20.18					
2	12.50	26.96	20.30					
4	11.99	27.18	20.56					
6	11.82	27.10	20.53					
8	11.77	27.20	20.62					
10	11.71	27.25	20.67					
12	11.47	27.62	20.99					
15	11.33	27.64	21.03					
20	11.32	27.74	21.11					

BATHYTHERMOGRAMS

Note

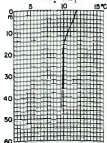
Bathythermograph traces are generally arranged in surveys by: (1) chronological order, and then (2) area from south to north. They are listed, where possible, in the order of serial number for a given survey. However, standard pre-printed sheets with a given depth range were used for copying the B.T. traces, so that stations not taken in sequence were sometimes grouped together on one page.



PRINCE RUPERT AREA SURVEYS
2-18 September 1961

0555/15/IX/61

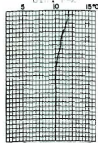
STN. P-1



Ser. No. 1

0737/15/IX/61

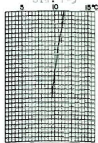
STN. P-2



Ser. No. 2

0858/15/IX/61

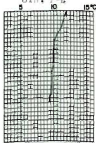
STN. P-3



Ser. No. 3

1104/15/IX/61

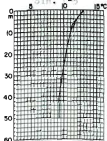
STN. P-4



Ser. No. 4

1200/15/IX/61

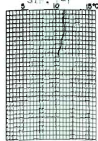
STN. P-5



Ser. No. 5

1529/15/IX/61

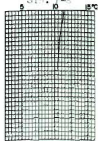
STN. P-7



Ser. No. 7

0817/16/IX/61

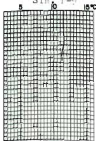
STN. P-8



Ser. No. 8

0913/16/IX/61

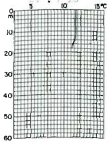
STN. P-9



Ser. No. 9

0958/16/IX/61

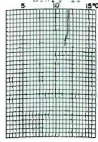
STN. P-10



Ser. No. 10

1136/16/IX/61

STN. P-11



Ser. No. 11

1222/16/IX/61

STN. P-12



Ser. No. 12

1316/16/IX/61

STN. P-13

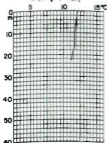


Ser. No. 13



PRINCE RUPERT AREA AND FISHER CHANNEL - COUSINS INLET SURVEYS
15-21 September 1961

1522/16/IX/61
STN. P-14



Ser. No. 14

1317/17/IX/61
STN. P-15



Ser. No. 15

1423/17/IX/61
STN. P-16



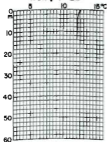
Ser. No. 16

1524/17/IX/61
STN. P-17



Ser. No. 17

1556/17/IX/61
STN. P-18



Ser. No. 18

1438/18/IX/61
STN. P-12A



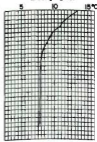
Ser. No. 19

1030/20/IX/61
STN. O-7



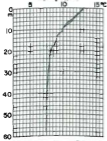
Ser. No. 26

1200/20/IX/61
STN. O-8



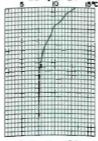
Ser. No. 27

1304/20/IX/61
STN. O-9



Ser. No. 28

1410/20/IX/61
STN. O-10



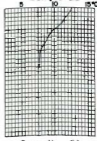
Ser. No. 29

1535/20/IX/61
STN. O-12



Ser. No. 30

0712/21/IX/61
STN. O-11



Ser. No. 31

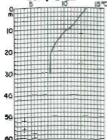
Handwritten text, likely bleed-through from the reverse side of the page. The text is extremely faint and illegible due to the quality of the scan and the nature of the bleed-through.

Handwritten text, likely bleed-through from the reverse side of the page. The text is extremely faint and illegible due to the quality of the scan and the nature of the bleed-through.

FISHER CHANNEL - COUSINS INLET SURVEY
19-21 September 1962

0758/21/IX/61

STN. 0-12A



Ser. No. 32

0850/21/IX/61

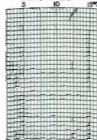
STN. 0-13



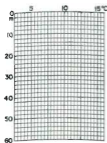
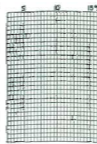
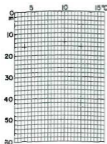
Ser. No. 33

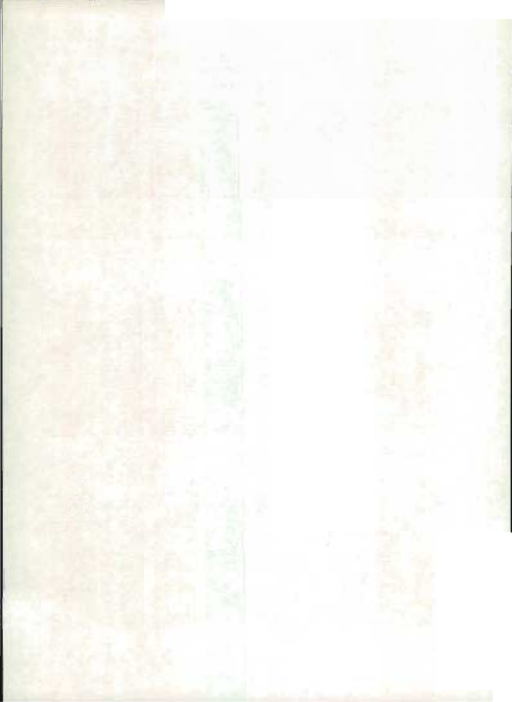
0954/21/IX/61

STN. 0-14

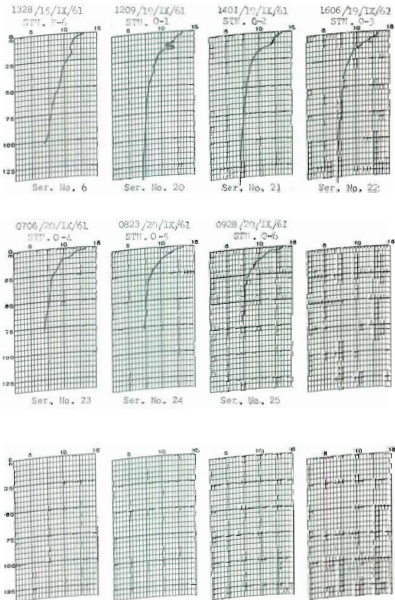


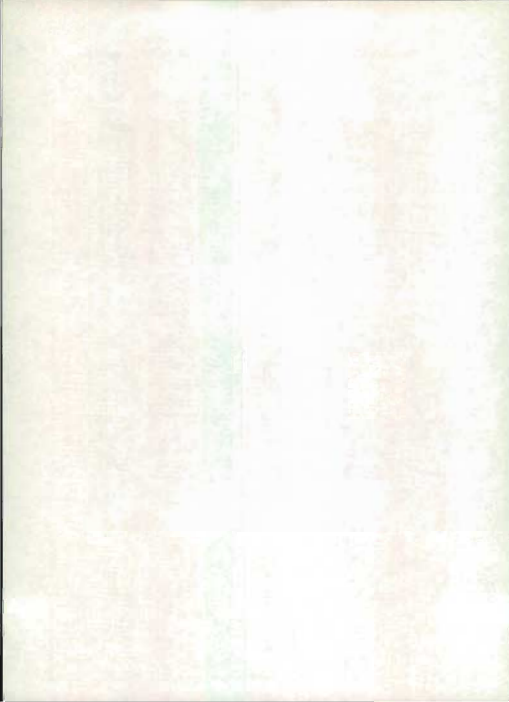
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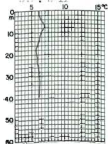




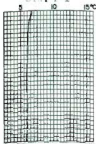
PRINCE RUPERT AREA AND FISHER CHANNEL - COUSINS INLET SURVEYS
15-21 September 1961



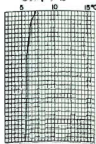


DOUGLAS CHANNEL - KITIMAT ARM AND PRINCE RUPERT AREA SURVEYS
11-19 April 19620955/13/IV/62
STN. P-11

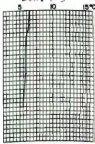
Ser. No. 12

1310/14/IV/62
STN. P-1

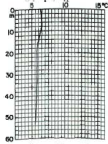
Ser. No. 13

1431/14/IV/62
STN. P-2

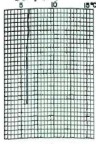
Ser. No. 14

1553/14/IV/62
STN. P-3

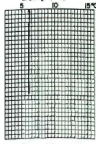
Ser. No. 15

1734/14/IV/62
STN. P-4

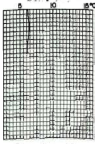
Ser. No. 16

0520/15/IV/62
STN. P-5

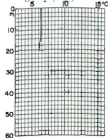
Ser. No. 17

1101/15/IV/62
STN. P-8

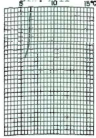
Ser. No. 18

1318/15/IV/62
STN. P-9

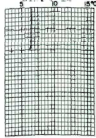
Ser. No. 19

1414/15/IV/62
STN. P-10

Ser. No. 20

1537/15/IV/62
STN. P-11

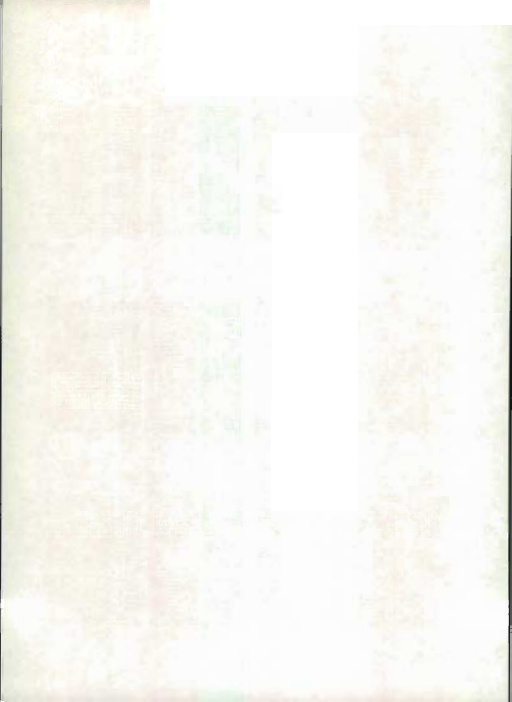
Ser. No. 21

1621/15/IV/62
STN. P-12

Ser. No. 22

0802/16/IV/62
STN. P-13

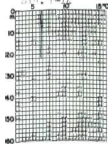
Ser. No. 23



PRINCE RUPERT AREA SURVEY
14-19 April 1962

0909/16/IV/62

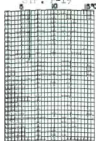
STN. P-18



Ser. No. 24

1309/16/IV/62

STN. P-19



Ser. No. 25

1409/16/IV/62

STN. P-20



Ser. No. 26

1451/16/IV/62

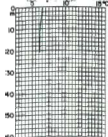
STN. P-21



Ser. No. 27

1552/16/IV/62

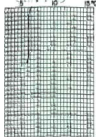
STN. P-22



Ser. No. 28

1719/16/IV/62

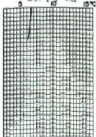
STN. P-23



Ser. No. 29

1821/16/IV/62

STN. P-24



Ser. No. 30

0846/17/IV/62

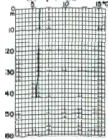
STN. P-25



Ser. No. 31

0912/17/IV/62

STN. P-26



Ser. No. 32

1244/17/IV/62

STN. P-27



Ser. No. 33

0916/18/IV/62

STN. P-6



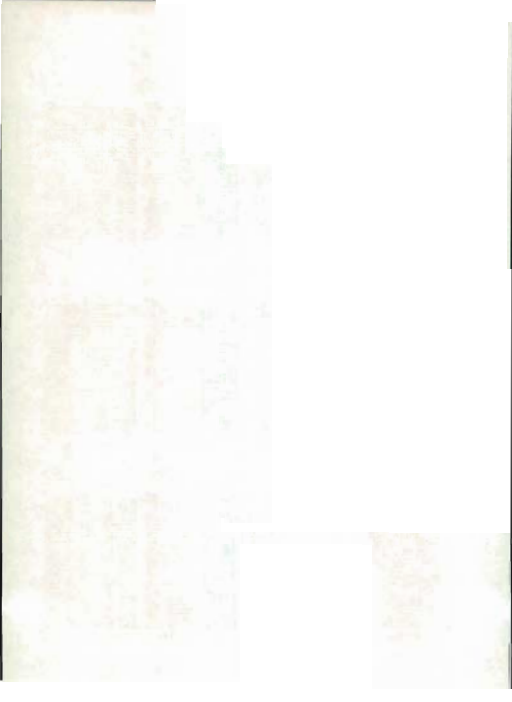
Ser. No. 34

1106/18/IV/62

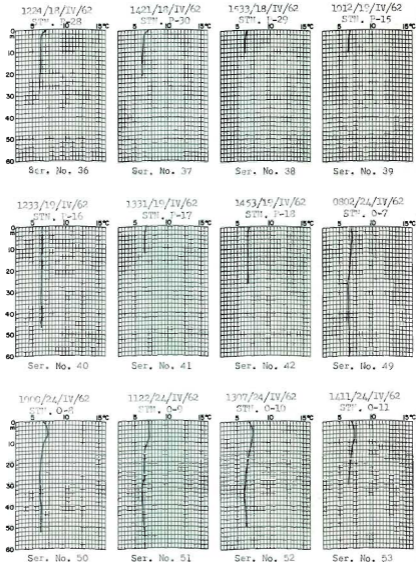
STN. P-7

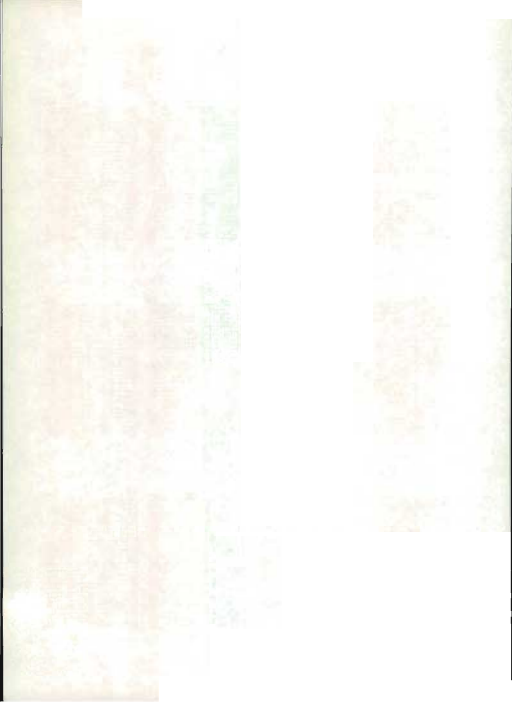


Ser. No. 35



PRINCE RUPERT AREA AND FISHER CHANNEL - COUSINS INLET SURVEYS
14-24 April 1962



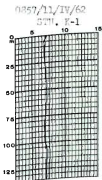




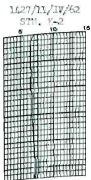
11



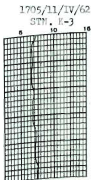
DOUGLAS CHANNEL - KITIMAT ARM AND FISHER CHANNEL - COUSINS INLET SURVEYS
11-24 April 1962



Ser. No. 1



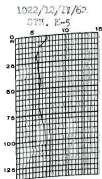
Ser. No. 2



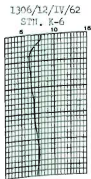
Ser. No. 3



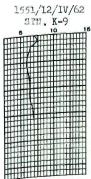
Ser. No. 4



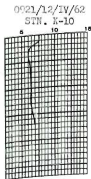
Ser. No. 5



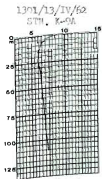
Ser. No. 6



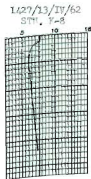
Ser. No. 7



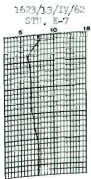
Ser. No. 8



Ser. No. 9



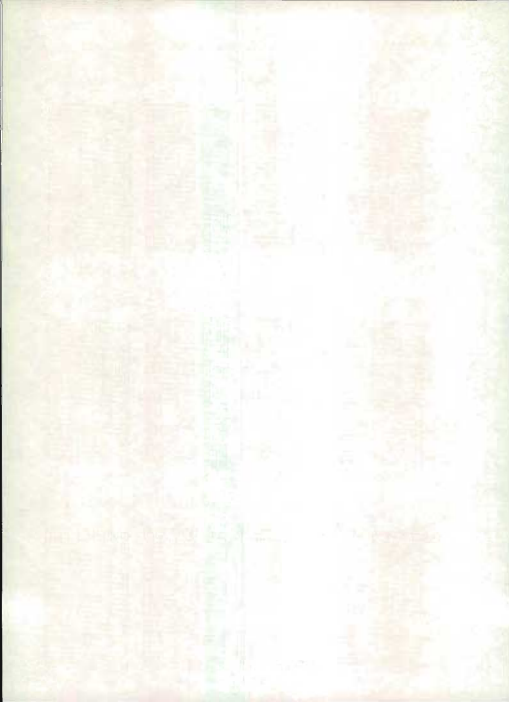
Ser. No. 10



Ser. No. 11

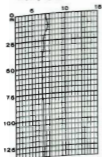


Ser. No. 43



FISHER CHANNEL - COUSINS INLET SURVEY
23-24 April 1962

1033/23/IV/62
STM. 0-2



Ser. No. 44

1303/23/IV/62
STM. 0-3



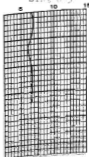
Ser. No. 45

1449/23/IV/62
STM. 0-4



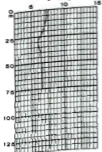
Ser. No. 46

1610/23/IV/62
STM. 0-5

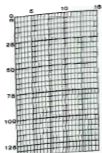
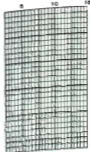


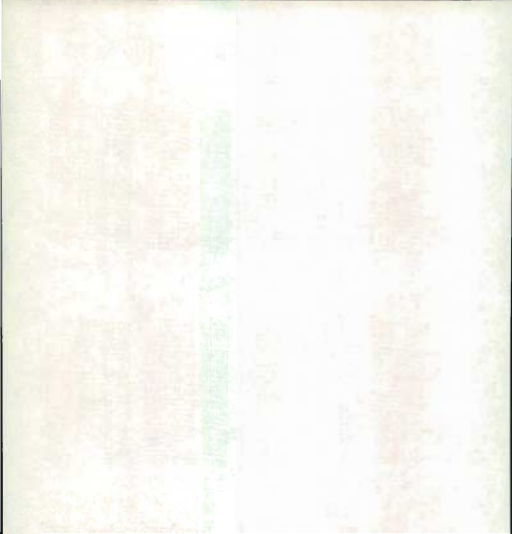
Ser. No. 47

1755/23/IV/62
STM. 0-6



Ser. No. 48





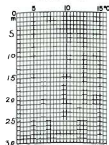
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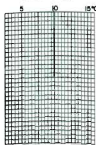
PRINCE RUPERT AREA AND FISHER CHANNEL - COUSINS INLET SURVEYS
20-28 October 1964

1625/21/X/64
STN. P-9



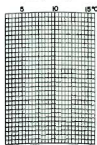
Ser. No. 19

1725/21/X/64
STN. P-10



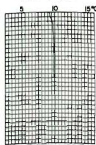
Ser. No. 20

0836/24/X/64
STN. P-27



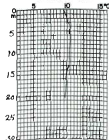
Ser. No. 33

1139/24/X/64
STN. P-12A



Ser. No. 34

1525/20/X/64
STN. O-12

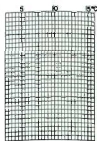
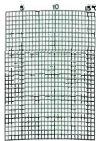
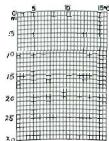


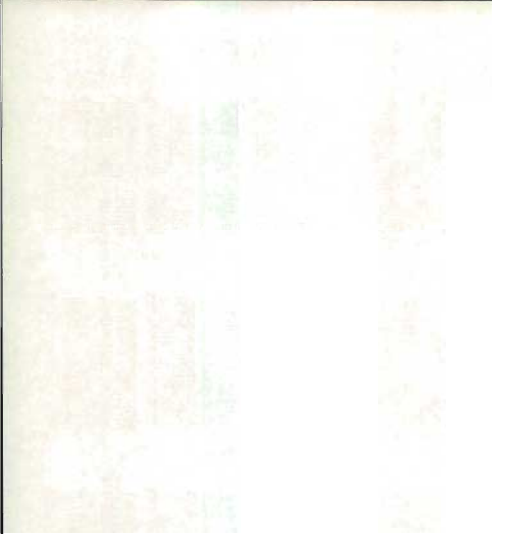
Ser. No. 46

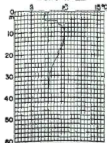
1646/28/X/64
STN. O-13



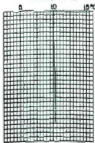
Ser. No. 47



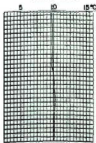


DOUGLAS CHANNEL - KITIMAT ARM AND PRINCE RUPERT AREA SURVEYS
16-24 October 19641332/17/X/64
-TH. K-11

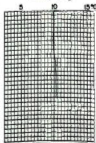
Ser. No. 7

1022/20/X/64
-TH. P-1

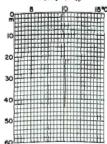
Ser. No. 12

1230/20/X/64
-TH. P-2

Ser. No. 13

1342/20/X/64
-TH. P-3

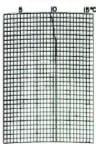
Ser. No. 14

1455/20/X/64
-TH. P-4

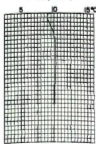
Ser. No. 15

1200/21/X/64
-TH. P-5

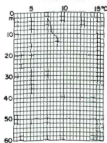
Ser. No. 16

1305/21/X/64
-TH. P-6

Ser. No. 17

1441/21/X/64
-TH. P-7

Ser. No. 18

0910/22/X/64
-TH. P-28

Ser. No. 22

1004/22/X/64
-TH. P-29

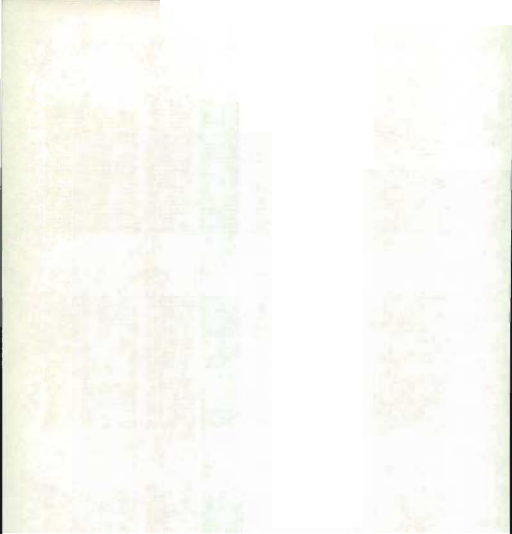
Ser. No. 23

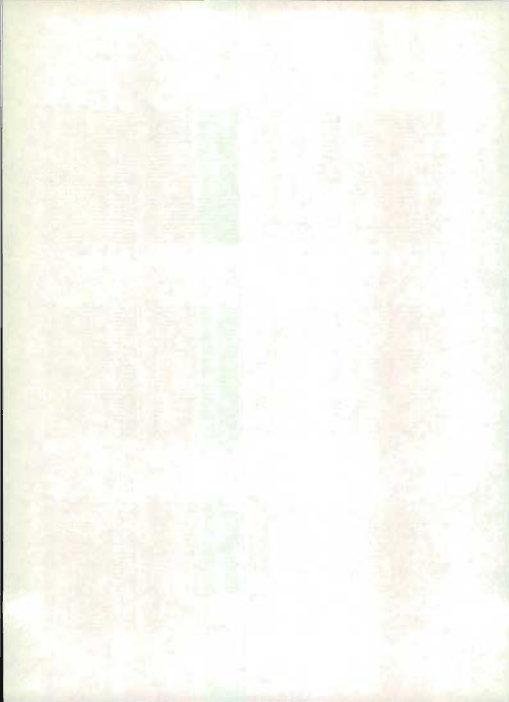
1145/22/X/64
-TH. P-30

Ser. No. 24

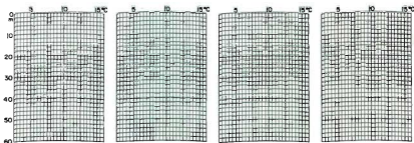
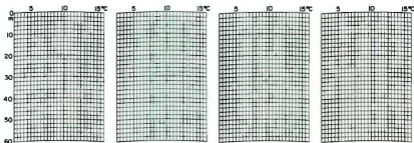
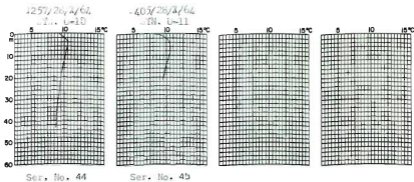
1435/22/X/64
-TH. P-31

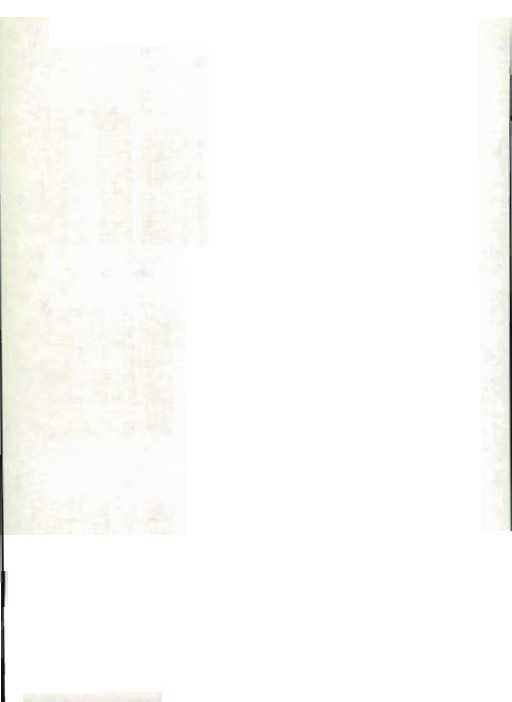
Ser. No. 25

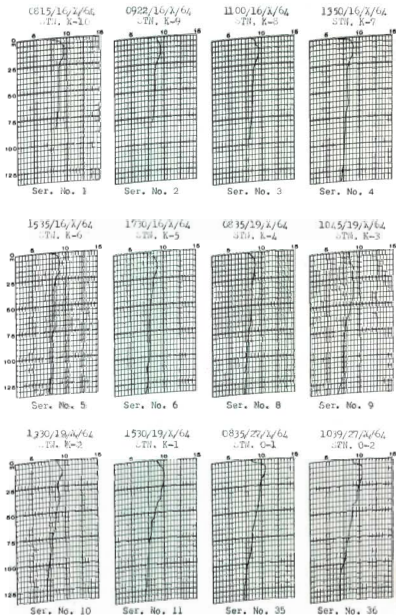




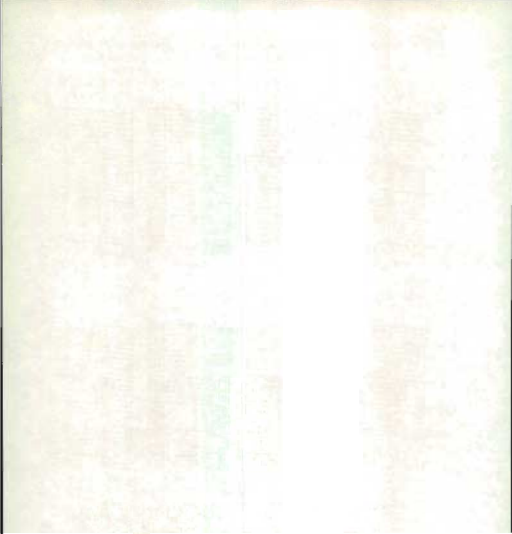
FISHER CHANNEL - COUSINS INLET SURVEY
27-28 October 1964





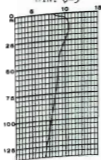
DOUGLAS CHANNEL - KITIMAT ARM AND FISHER CHANNEL - COUSINS INLET SURVEYS
16-28 October 1964

1875



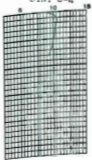
FISHER CHANNEL - COUSINS INLET SURVEY
27-28 October 1964

1226/27/X/64
STN. 0-3

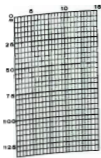
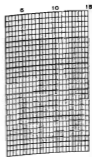
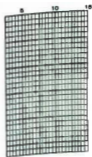
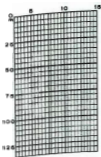
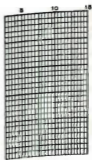
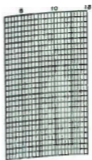


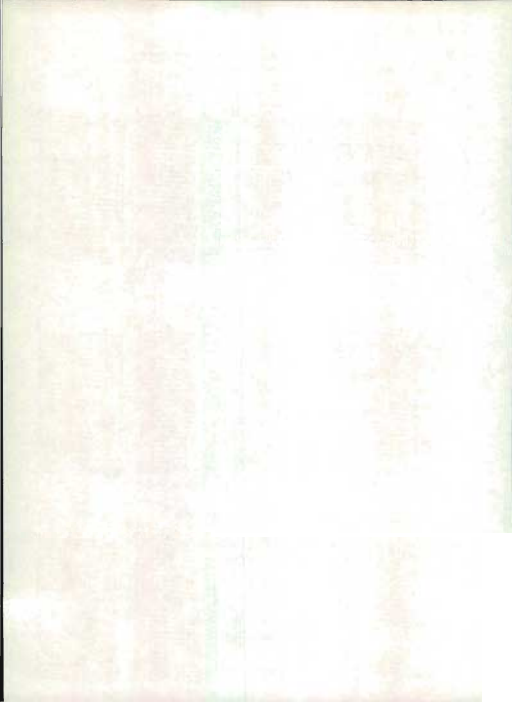
Ser. No. 37

1350/27/X/64
STN. 0-4



Ser. No. 38

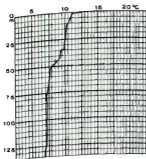




DOUGLAS CHANNEL - KITIMAT ARM SURVEY

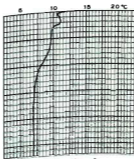
27-28 September 1967

0845/27/IX/67
STN. K-1



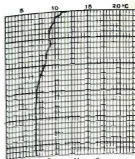
Ser. No. 1

1015/27/IX/67
STN. K-2



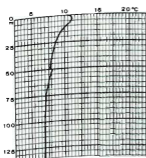
Ser. No. 2

1230/27/IX/67
STN. K-3



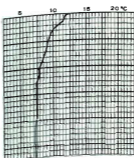
Ser. No. 3

1405/27/IX/67
STN. K-4



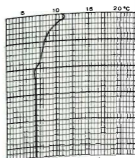
Ser. No. 4

1520/27/IX/67
STN. K-5



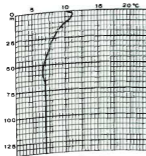
Ser. No. 5

0650/28/IX/67
STN. K-6



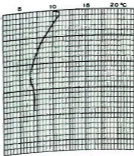
Ser. No. 6

0825/28/IX/67
STN. K-7



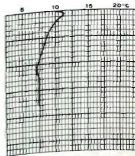
Ser. No. 7

1320/28/IX/67
STN. K-8

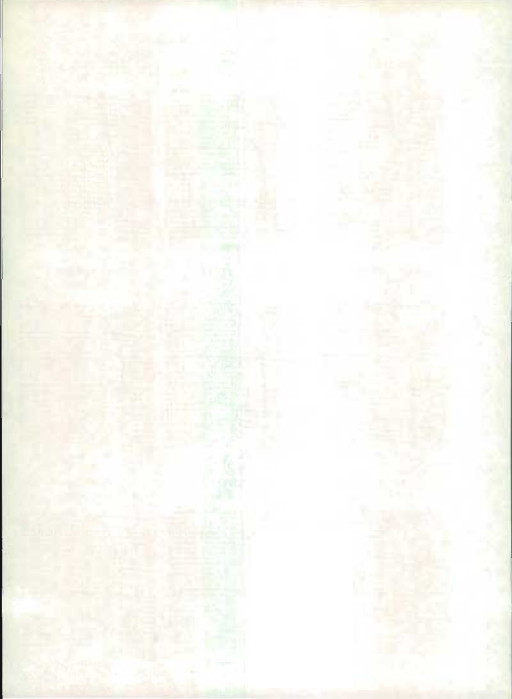


Ser. No. 9

1345/28/IX/67
STN. K-9

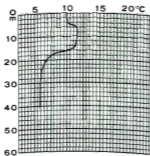


Ser. No. 10

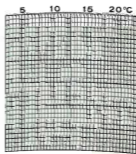
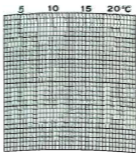
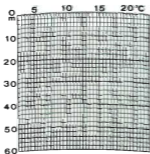
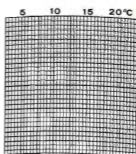
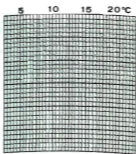
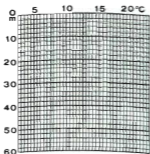
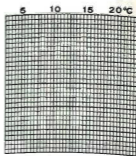
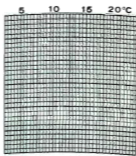


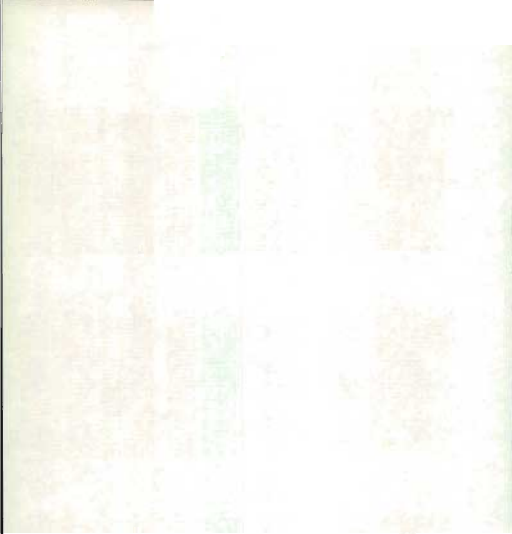
DOUGLAS CHANNEL - KITIMAT ARM SURVEY
27-28 September 1967

1000/28/IX/67
STN. K-11



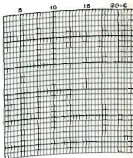
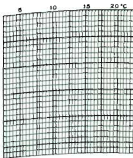
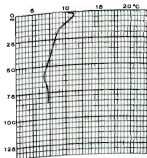
Set. No. 8



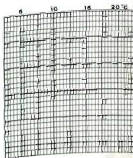
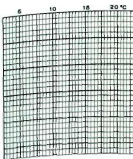
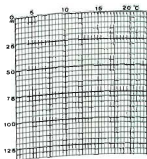


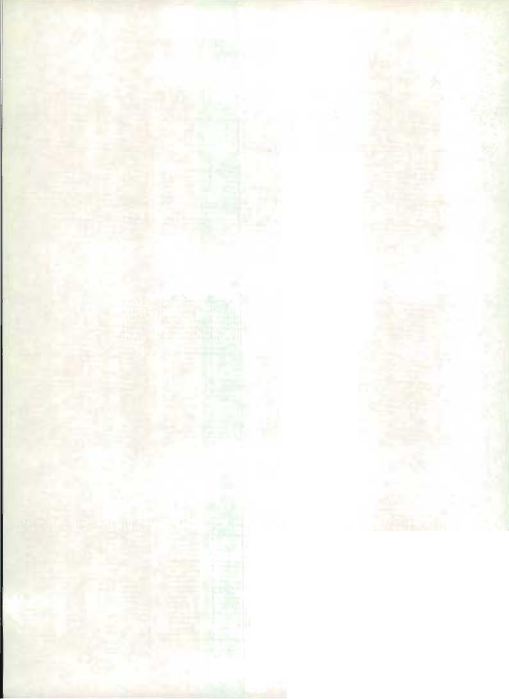
DOUGLAS CHANNEL - KITIMAT ARM SURVEY
27-28 September 1967

1445/2B/IX/67
STN. K-10



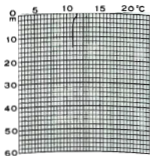
Ser. No. 11





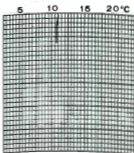
GALLOWAY RAPIDS - WAINWRIGHT BASIN - PRINCE RUPERT HARBOUR SURVEY
10 July - 7 August 1967

1700/10/VII/67
STN. P-19A



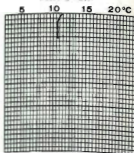
Ser. No. 1

1655/11/VII/67
STN. P-19A-1



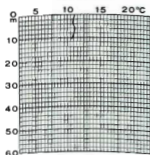
Ser. No. 2

0820/12/VII/67
STN. P-19A



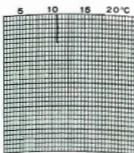
Ser. No. 3

1406/12/VII/67
STN. P-19A



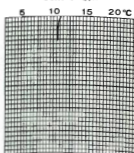
Ser. No. 4

1525/12/VII/67
STN. P-19A-2



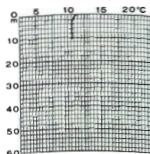
Ser. No. 5

0930/13/VII/67
STN. P-19A



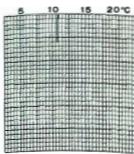
Ser. No. 6

1521/13/VII/67
STN. P-19A



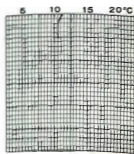
Ser. No. 7

1800/13/VII/67
STN. P-19A-3

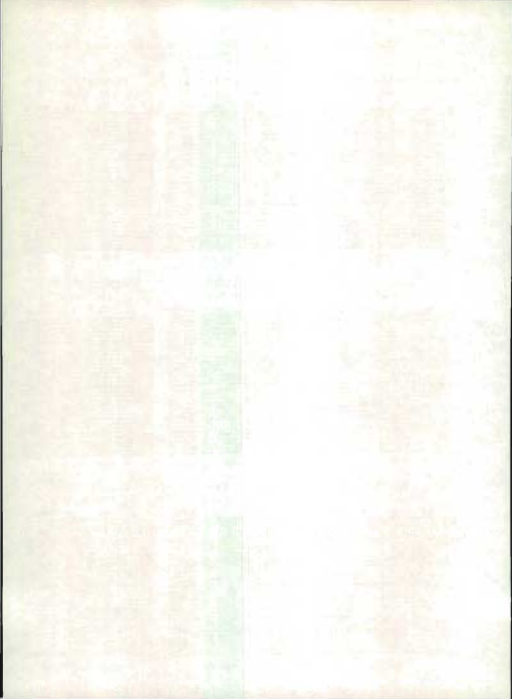


Ser. No. 8

1014/14/VII/67
STN. P-19A

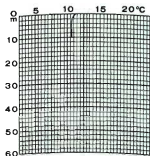


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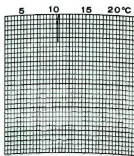
GALLOWAY RAPIDS - WAINWRIGHT BASIN - PRINCE RUPERT HARBOUR SURVEY
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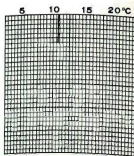
Ser. No. 10

1840/14/VII/67
STN. P-19A-4



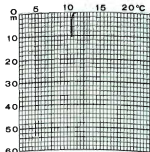
Ser. No. 11

0840/15/VII/67
STN. P-19A-5



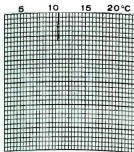
Ser. No. 12

1101/15/VII/67
STN. P-19A



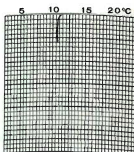
Ser. No. 13

1640/15/VII/67
STN. P-19A



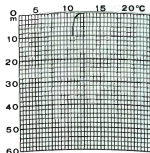
Ser. No. 14

0950/16/VII/67
STN. P-19A-6



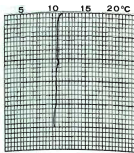
Ser. No. 15

1200/16/VII/67
STN. P-19A



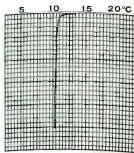
Ser. No. 16

1825/16/VII/67
STN. P-20

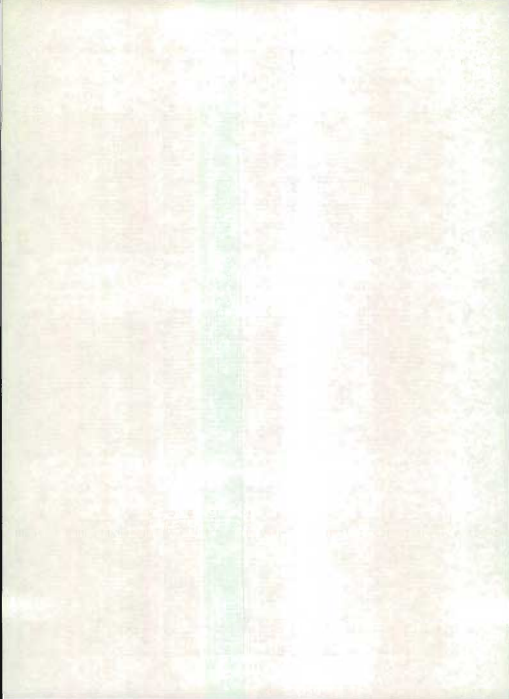


Ser. No. 17

1850/16/VII/67
STN. P-25

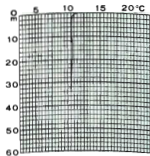


Ser. No. 18



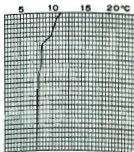
CALLOWAY RAPIDS - WAINWRIGHT BASIN - PRINCE HUPERT HARBOUR SURVEY
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1925/16/VII/67
STN. P-26



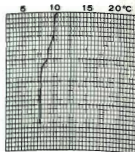
Ser. No. 19

0740/17/VII/67
STN. P-1



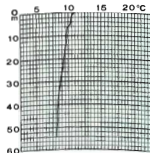
Ser. No. 20

0900/17/VII/67
STN. P-3



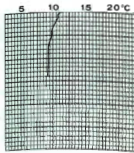
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1016/17/VII/67
STN. P-4



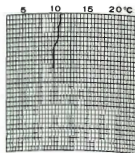
Ser. No. 22

1215/17/VII/67
STN. P-8



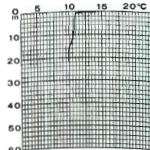
Ser. No. 23

1235/17/VII/67
STN. P-10



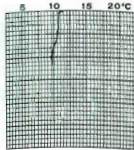
Ser. No. 24

1320/17/VII/67
STN. P-12



Ser. No. 25

1410/17/VII/67
STN. P-14



Ser. No. 26

1200/18/VII/67
STN. P-19A-7



Ser. No. 27

1998

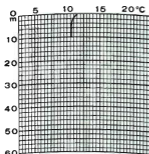
1999

2000

2001

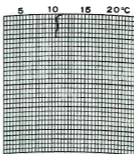
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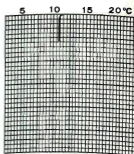
Ser. No. 28

1005/19/VII/67
STN. P-19A



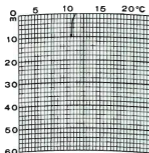
Ser. No. 29

1250/19/VII/67
STN. P-19A-B



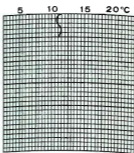
Ser. No. 30

1621/19/VII/67
STN. P-19A



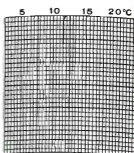
Ser. No. 31

1045/20/VII/67
STN. P-19A



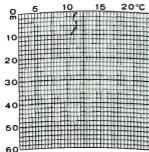
Ser. No. 32

1340/20/VII/67
STN. P-19A-9



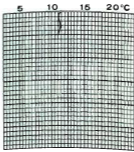
Ser. No. 33

1500/20/VII/67
STN. P-19A



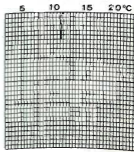
Ser. No. 34

1115/21/VII/67
STN. P-19A

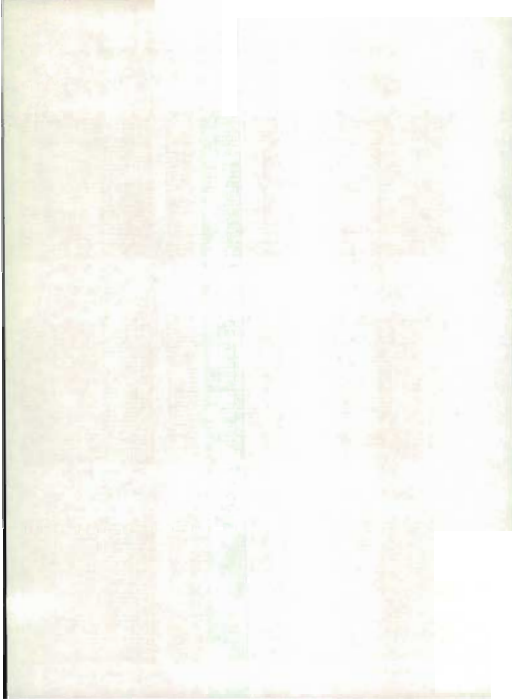


Ser. No. 35

1400/21/VII/67
STN. P-19A-10

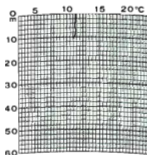


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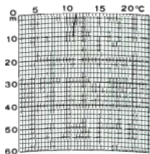
Ser. No. 38

1445/22/VII/67
STN. P-19A-11



Ser. No. 39

1840/22/VII/67
STN. P-19A



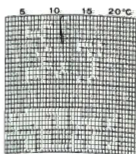
Ser. No. 40

1220/23/VII/67
STN. P-19A



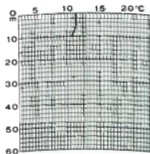
Ser. No. 41

1530/23/VII/67
STN. P-19A-E2



Ser. No. 42

1700/23/VII/67
STN. P-19A



Ser. No. 43

1225/24/VII/67
STN. P-19A

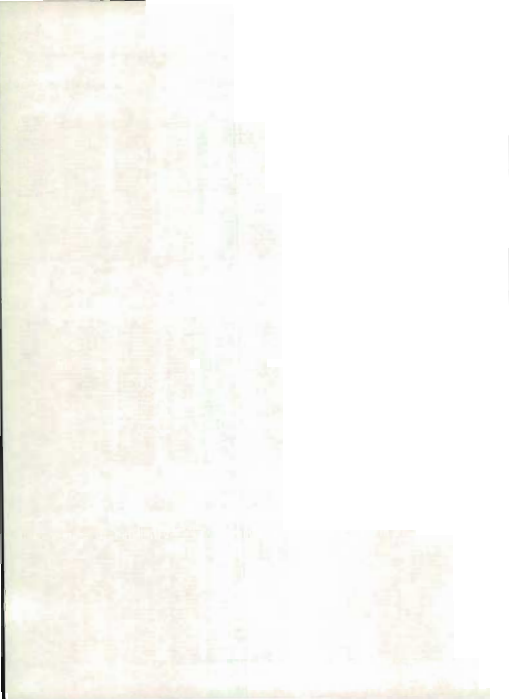


Ser. No. 44

1495/24/VII/67
STN. P-19A-13

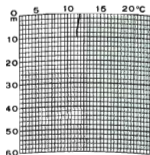


Ser. No. 45



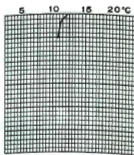
CALLOWAY RAPIDS - WAINWRIGHT BASIN - PRINCE HEPERT HARBOUR SURVEY
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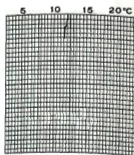
Ser. No. 46

0750/25/VII/67
STN. P-19A



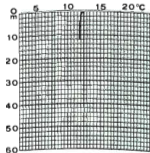
Ser. No. 47

1400/25/VII/67
STN. P-19A



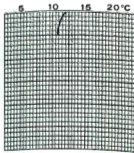
Ser. No. 48

1625/25/VII/67
STN. P-19A-14



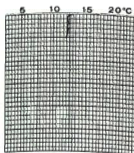
Ser. No. 49

0830/26/VII/67
STN. P-19A



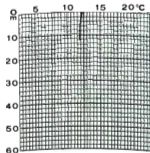
Ser. No. 50

1435/26/VII/67
STN. P-19A



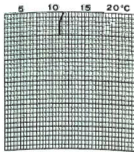
Ser. No. 51

1700/26/VII/67
STN. P-19A-15



Ser. No. 52

0905/27/VII/67
STN. P-19A

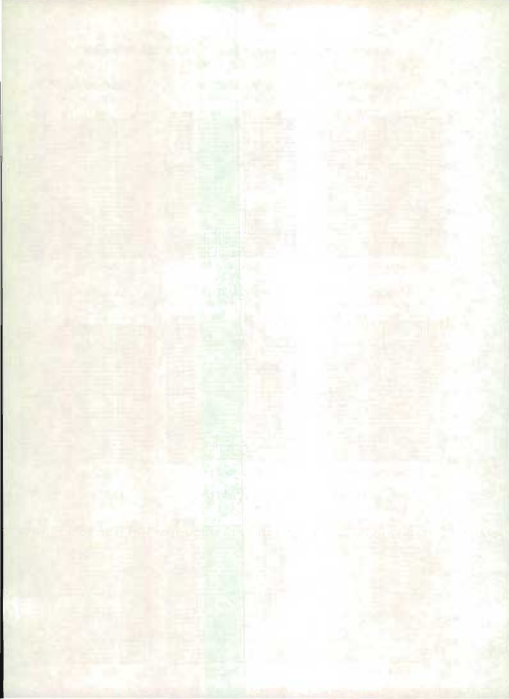


Ser. No. 53

1500/27/VII/67
STN. P-19A

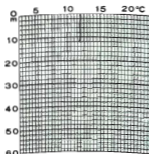


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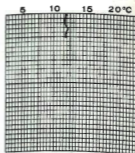
Ser. No. 55

0940/28/VII/67
STN. P-19A



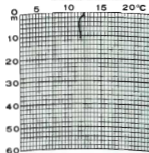
Ser. No. 56

1530/28/VII/67
STN. P-19A



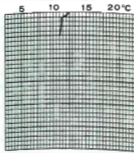
Ser. No. 57

1720/28/VII/67
STN. P-19A-17



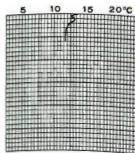
Ser. No. 58

1100/29/VII/67
STN. P-19A



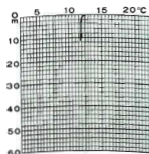
Ser. No. 59

1620/29/VII/67
STN. P-19A



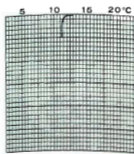
Ser. No. 60

1850/29/VII/67
STN. P-19A-18



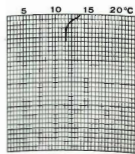
Ser. No. 61

1100/30/VII/67
STN. P-19A

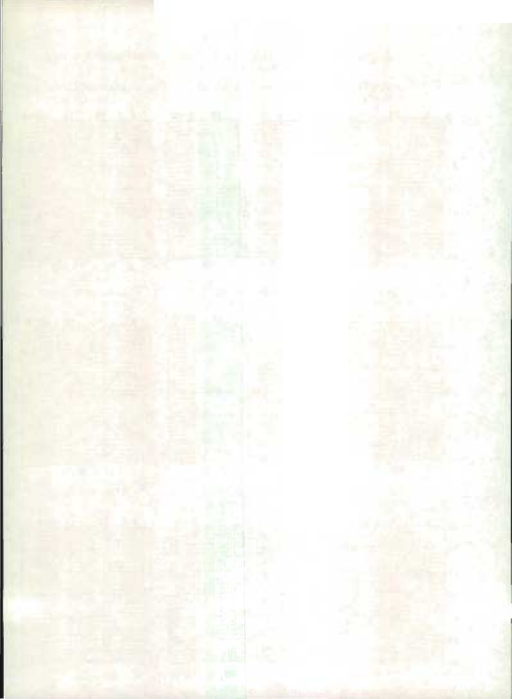


Ser. No. 62

1630/30/VII/67
STN. P-19A

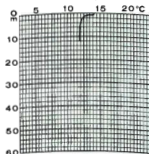


Ser. No. 63



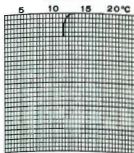
GALLOWAY RAPIDS - WAINWRIGHT BASIN - PRINCE RUPERT HARBOUR SURVEY
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STN. P-19A-1



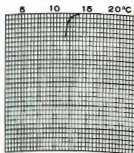
Ser. No. 64

1225/31/VII/67
STN. P-19A



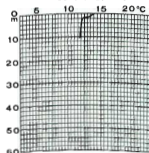
Ser. No. 65

1825/31/VII/67
STN. P-19A



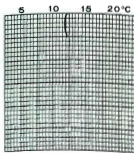
Ser. No. 66

2010/31/VII/67
STN. P-19A-20



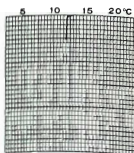
Ser. No. 67

0755/1/VIII/67
STN. P-19A



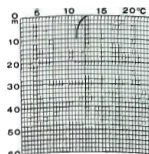
Ser. No. 68

1105/1/VIII/67
STN. P-19A-21



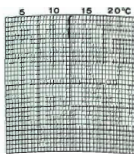
Ser. No. 69

1410/1/VIII/67
STN. P-19A



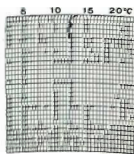
Ser. No. 70

1015/2/VIII/67
STN. P-19A

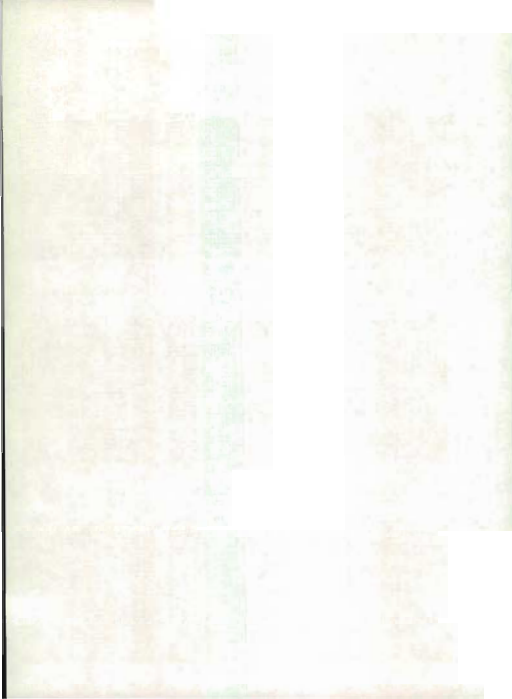


Ser. No. 71

1200/2/VIII/67
STN. P-19A-22



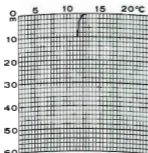
Ser. No. 72



GALLOWAY RAPIDS - WAINWRIGHT BASIN - PRINCE RUPERT HARBOUR SURVEY

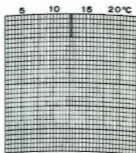
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STN. P-19A



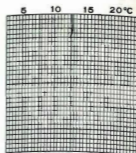
Ser. No. 73

1005/3/VIII/67
STN. P-19A



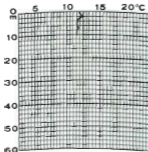
Ser. No. 74

1315/3/VIII/67
STN. P-19A-23



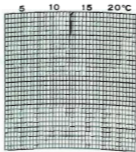
Ser. No. 75

1550/3/VIII/67
STN. P-19A



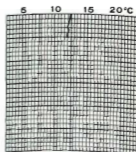
Ser. No. 76

1325/4/VIII/67
STN. P-19A-24



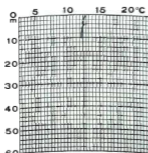
Ser. No. 77

1630/4/VIII/67
STN. P-19A



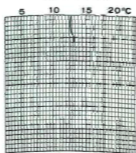
Ser. No. 78

1130/5/VIII/67
STN. P-19A



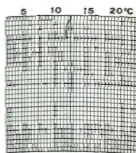
Ser. No. 79

1445/5/VIII/67
STN. P-19A-25

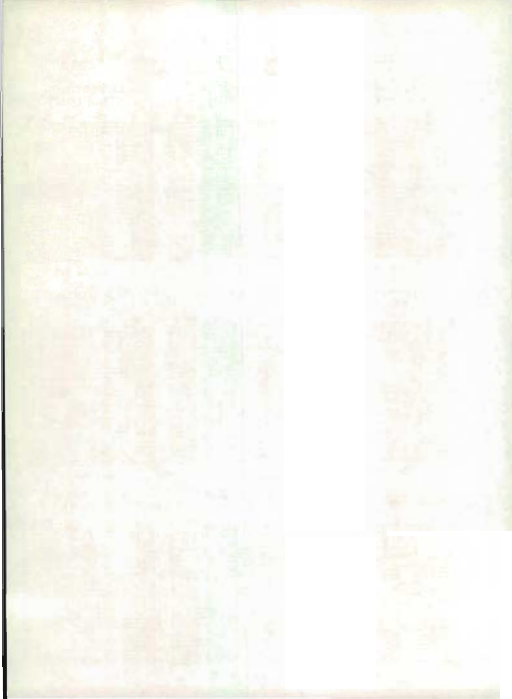


Ser. No. 80

1715/5/VIII/67
STN. P-19A



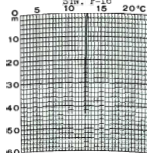
Ser. No. 81



GALLOWAY RAPIDS - WAINWRIGHT BASIN - PRINCE RUPERT HARBOUR SURVEY
10 July - 7 August 1967

1215/6/VIII/67

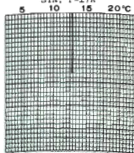
STN. P-16



Ser. No. 82

1345/6/VIII/67

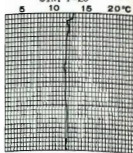
STN. P-17A



Ser. No. 83

1215/6/VIII/67

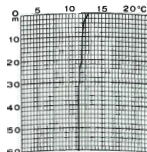
STN. P-20



Ser. No. 84

1540/6/VIII/67

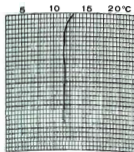
STN. P-25



Ser. No. 85

1635/6/VIII/67

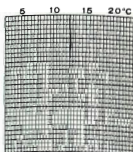
STN. P-26



Ser. no. 86

0830/7/VIII/67

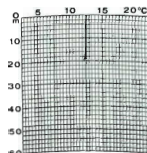
STN. P-14



Ser. No. 87

0915/7/VIII/67

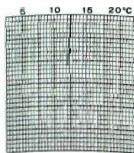
STN. P-12



Ser. No. 88

1010/7/VIII/67

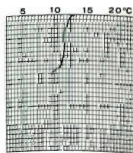
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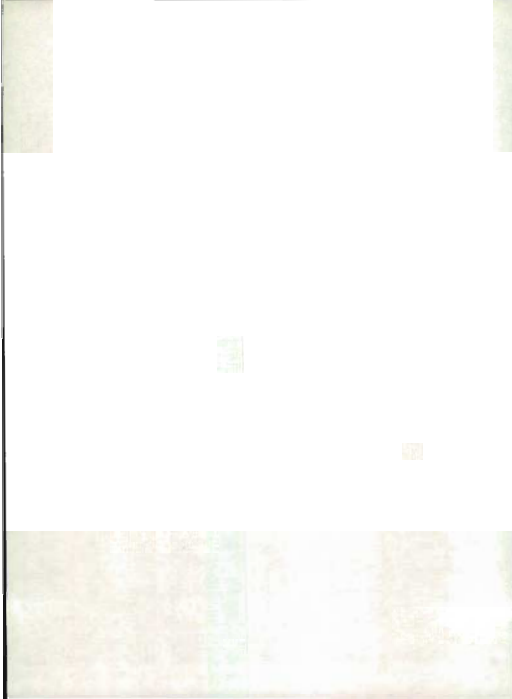
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1050/7/VIII/67

STN. P-8

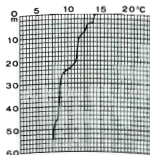


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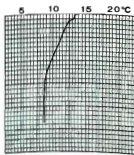
GALLOWAY RAPIDS - MAINWRIGHT BASIN - PRINCE RUPERT HARBOUR SURVEY
10 July - 7 August 1967

1210/7/VIII/67
STN. P-4



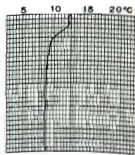
Ser. No. 91

1310/7/VIII/67
STN. P-3



Ser. No. 92

1420/7/VIII/67
STN. P-1



Ser. No. 93

