NUTRIENT DATA IN THE BEAUFORT SEA

by

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ABSTRACT

Woodward-Clyde Consultants was contracted by the National Oceanic and Atmospheric Administration to acquire, assemble and analyze data on the concentrations of the following inorganic plant nutrients in the water column in the Beaufort Sea: ammonium-N, nitrate-N, nitrite-N, phosphate-P and silicate-Si. Nutrient data collected from Pt. Barrow (71°23'29N 156°27'30W) to the U.S./Canadian border (141°00'W) and from the coastline to the 2,000 meter isobath were of interest. Data compiled from 1969 to 1985 were included. As only a percentage of the available Beaufort Sea nutrient data is archived at the National Oceanographic Data Center, the remainder of the assembled information was obtained by examining research publications, project reports, dissertations and investigators' raw data files when available. Auxiliary data on water temperature, salinity, dissolved oxygen and currents were also included for sampling sites where nutrient data existed. A tabular record of the acquired data was compiled into a suitable database which included the date, depth (meters) and location (latitude and longitude) of the observations. Diskettes of this information were prepared, Isopleths of concentrations of ammonium-N, nitrate-N, phosphate-P and silicate-Si were plotted at various depths for both the ice-covered and ice-free periods.

ACKNOWLEDGEMENTS

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1,0 INTRODUCTION

This study was divided into four tasks leading to the compilation of nutrient data in the Beaufort Sea,

- o Task 1 was a search for all the data that were potentially available concerning nutrient levels in the Beaufort Sea.

- o Task 2 was the actual acquisition of all potential data sets for possible inclusion in the database,

- o Task 3 was a review of these acquired data sets and the selection of those sets that were relevant to the scope of the project and were within the required temporal and spatial constraints,

- o Task 4 involved data management and the compilation of the information into the database, This task included editing the National Oceanographic Data Center (NODC) archive files, inputting the raw data from reports, plotting the isopleths and completing the associated statistical analyses,

These tasks will be outlined in more detail in the following sections.

2*0

TASK 1 AND 2 - DATA SEARCH AND ACQUISITION

One of the first steps in the compilation of the available nutrient data for the Beaufort Sea was to access the information archived at NODC. The appropriate data were contained on File 029 entitled Primary Productivity 1 which includes information on nutrient levels from 1958 to 1984 in coastal Alaska, North Pacific, Arctic Ocean and the Gulf of Mexico. A section of this file was requested: those records taken between 68° to 78° N and 130° to 170° W. The data were received on magnetic tape and were transferred to diskette to allow editing on an IBM compatible P.C. Approximately 2,486 records were available from 11 separate collecting trips in the Beaufort Sea during the period 1975 to 1980, Of these records, six contained nutrient data points and were included in the database. The NODC format was edited to match the Woodward-Clyde Consultants' (WCC) database.

The next phase of this task was an exhaustive literature search for additional records not archived at NODC. A list of phone contacts was established to ascertain the availability of unpublished data reports or the existence of raw data in investigators' files. The list of phone contacts is given in Appendix A. One outcome from these phone contacts was to locate raw nutrient data in the records of Dr. Schell at the University of Alaska's Institute of Marine Sciences. Arrangements were made for one of WCC's staff to visit Fairbanks and to transcribe these handwritten data into the database format used for this project.

Literature sources were compiled from the phone contacts, computer searches, visits to libraries and agencies and the examination of

inhouse reports. A list of the literature examined for potential nutrient data during the course of this project is given in Appendix B. Nutrient data associated with the work of Dr. Ronald Atlas of the University of Louisville and co-workers on Beaufort Sea microbial populations is archived at the Microbial Systematic Section of the National Institute of Health. These data were accessed through the assistance of Dr. Krichevsky who edited the original files so that the data could be input into the WCC database with minor modifications,

A review of the literature in relevant documents located in the Navy Arctic Research Laboratory's (NARL) library collection, which was originally sited in Barrow but was moved and incorporated into the Arctic collection of the Rasmussen Library at the University of Alaska Fairbanks, was attempted. This library collection is presently packed in 164 boxes which are difficult to access. An examination of a number of these boxes expected to be potential sources of nutrient information was made. However, the boxes examined contained reports or papers that had already been reviewed and acquired if appropriate,

3.0
TASK 3 - DATA REVIEW AND SELECTION

Each of the literature sources identified in Appendix B was carefully reviewed and those sources with relevant data were used in the compilation of the database. These literature sources are marked with an asterisk and are given a relevant I.D. number which corresponds to the I.D. number in the database.

On a number of occasions, reports or papers duplicated or summarized data available from other sources. These are marked with a #. In some cases, appropriate notes are added to the references in Appendix B to indicate why they may have been unsuitable for inclusion in the database. Those references with no comments contained no appropriate nutrient data. Only data collected from the years 1969 to 1985 were included. The area of interest is located between Pt. Barrow (71°23'29N 156°28'30W) to the U.S./Canadian border (141°00'W) and from the coastline to the 2,000 meter isobath.

4.0
TASK 4 - DATA MANAGEMENT

4.1 COMPILATION OF DATABASE FILES

The structure of the compiled database file is given in Table 1. Data were assembled in an ASCII file with one 80 character record for each data record available. The file is divided into subfiles each with a numerical I.D. which relates directly to the investigator and time of the cruise or investigations. In a number of cases, latitudes and longitudes were not available from the data records in the literature and had to be extrapolated from the positions given on location maps in the document. Consequently, these coordinates are only approximate and are so identified in the file. All nutrient data were converted to units of mg-at m^{-3}. In one instance acquired data were reported as $N\text{-}NO_3$ and $N\text{-}NO_2$ combined and were not used in the compilation of the database.

A hard copy of the database is given in Appendix C. This is taken from a dBase file to make it easier to read and thus the column numbers do not match those given in Table 1 for the ASCII file.

4.2 PLOTTING OF ISOPLETHS

From the assembled database, isopleths were plotted for the Beaufort Sea using the following nutrients: ammonium-N, nitrate-N, phosphate-P and silicate-Si. Isopleths were plotted for the following sample depths and time periods and are presented in Appendix D.

Table 1 - Details of ASCII File Format

Parameter	Description	Column Number
File ID	XX (indicates investigator - see Appendix B)	1
Latitude	DDMMSSN	3
Longitude	DDDMMSSW	10
Date (GMT)	YYMMDD	18
Time (GMT)	XXXX (hours and minutes)	24
Depth to Bottom	XXXXX (meters)	28
Depth of Sample	XXXXX (meters)	33
Oxygen	XXXXX (ml l^{-1} to hundredths)	38
Phosphate PO_4-P	XXXX (mg-at m^{-3} to hundredths)	43
Ammonia NH_3-N	XXX (mg-at m^{-3} to tenths)	47
Nitrate NO_3-N	XXXX (mg-at m^{-3} to tenths)	50
Nitrite NO2-N	XXXX (mg-at m^{-3} to hundredths)	54
Silicate SiO_3-Si	XXXX (mg-at m^{-3} to tenths)	58
Alkalinity - Total	XXXXX (milliequivalents per liter to thousandths)	63
Temperature	XXXXX (degrees C to hundredths. Negative temperatures are preceded by a minus sign)	68
Salinity	XXXXX (parts per thousand to hundredths)	73
Ice Sample	XX (1 = ice)	78
Wave Direction	xx	80
Wave Height	XX (feet)	82
Wave Duration	xx	84

Depths (meters)	Time Periods
Om (+ 1.5 m)	Ice-free period (August through October) and ice-covered period (November through July)
10 m (± 2 m)	
20 m (± 2 m)	
50 m (± 5 m)	
150 m (± 10 m)	
200 m (± 10 m)	

However, due to the limited number of data points, the following isopleths could not be adequately plotted:

Nitrate-N	Ice covered 20 m, 50 m, 150 m and 200 m
Ammonium-N	Ice free 150 m and 200 m
	Ice covered 20 m, 50 m, 150 m and 200 m
Phosphate - P	Ice covered 150 m and 200 m
Silicate-Si	Ice covered 150 m and 200 m

The isopleth intervals are shown on the respective plots. Ice samples were not included in the plots for the ice-covered period.

The following procedure was used to plot isopleths from the dBase file. The first step was obtaining those parameters needed for the isopleth construction. These revised databases were then transferred to ASCII files to be accepted by the graphing program. The ASCII files were further edited to bring the files down to particular months for either the ice-covered or ice-free period and data manipulation.

The first run included converting the data to Universal Transverse Mercator (UTM) coordinates using the USGS Generalized Grid Coordinate Conversion program with some minor revisions to apply that program to the WCC database. Due to the range and scope of the map location, along with the numerous converging longitudes at the higher northern latitudes of the Beaufort Sea, highly distorted maps were produced. The next approach used was to spread the longitudes and latitudes out to an x-y plane, convert the longitude and latitude degrees to decimal

degrees and then plot the isopleth z-values on this grid. This was done by extracting the "DMSG function" from the "USGS PLANE Generalized Plane Coordinate Conversion Subroutine Package" and writing a FORTRAN program to apply this function to the WCC database and the needs of the isopleth construction. The converted database was then plotted as isopleths using WCC's Integrated Graphics Package "Supergraph."

The isopleths were examined before final plotting to ascertain if any points were potential outliers and thus causing distorted isopleths. In a number of instances this was clearly the case and consequently these outliers were removed and the isopleths replotted.

4.3 STATISTICAL ANALYSIS

Mean concentrations of the nutrients were also calculated for the same depths as used in plotting the isopleths. These values, together with the standard deviations, are given in Tables 2 through 5.

Table 2 - Mean values of ammonium-N concentrations for the Beaufort Sea (1969 to 1985)

Ice-free Period (August to October)	Number of Values	Mean Concentration mg at m^{-3}	Standard Deviation
0 m (+1.5)	231	0.80	0.87
10m (±2)	18	1.64	2.69
20m (±2)	5	0.34	0.18
50m (±5)	9	0.47	0.27
Ice-covered Period (November to July)			
0m (±1.5)	201	1.79	1.79
10 m (±2)	31	2.13	2.85

Table 3 - Mean values of nitrate-N concentrations for the Beaufort Sea (1969 to 1985)

Ice-free Period (August to October)	Number of Values	Mean Concentration mg at m^{-3}	Standard Deviation
0m (+1.5)	204	1.01	1.98
10 m (±2)	113	1.10	2.06
20m (±2)	102	1.54	2.81
50 m (±5)	57	4.22	3.74
150m (±10)	24	13.20	3.55
200 m (±10)	31	11.80	3.56
Ice-covered Period (November to July)			
0m (±1.5)	87	3.11	3.30
10m (±2)	18	2.76	4.62

Table 4 - Mean values of phosphate-P concentrations for the Beaufort Sea (1969 to 1985)

Ice-free Period (August to October)	Number of Values	Mean Concentration mg at m^{-3}	Standard Deviation
Om (+1.5)	343	0.38	0.31
10 m (±2)	147	0.51	0.32
20 m (±2)	123	0.64	0.33
50m (±5)	66	0.92	0,42
150m (±10)	24	1.33	0.32
200 m (±10)	31	1.24	0.31
Ice-covered Period (November to July)			
Om (±1.5)	194	0.70	1.20
10 m (±2)	38	0.64	0.33
20m (±2)	19	0.57	0.42
50m (±5)	16	0.72	0.68

Table 5 - Mean values of silicate-Si concentrations for the Beaufort Sea (1969 to 1985)

Ice-free Period (August to October)	Number of Values	Mean Concentration mg at m^{-3}	Standard Deviation
Om (+1.5)	357	20.8	36.3
10 m (±2)	153	8.6	9.6
20 m (±2)	117	10.3	13.8
50m (±5)	70	16.1	8.8
150 m (±10)	25	29.8	10.3
200 m (±10)	30	30.2	28.1
Ice-covered Period (November to July)			
Om (±1.5)	205	20.6	24.7
10m (±2)	41	21.9	21.2
20m (±2)	20	14.0	10.7
50m (±5)	17	17.1	9.0

5.0 SUMMARY

A summary of the preliminary conclusions to be drawn from the isopleths and the means for each of the nutrients examined is as follows:

Ammonium-N

Isopleths show that the highest concentrations of ammonium-N occurred at depths of 10 m during both the ice-free and ice-covered periods. Values exceeded 5.5 mg-at m^{-3} and were located offshore from the Colville River delta. Mean concentrations for this depth were 1.64 mg-at m^{-3} during the ice-free period and 2.13 mg-at m^{-3} during the ice-covered period. At 0 m mean values were relatively higher during the ice-covered period than the ice-free period. However, the number of data points for depths 10 m, 20 m, and 50 m was less than 50 and hence the isopleths and means for these depths should be treated cautiously.

Nitrate-N

Isopleth plots indicate that the peak nitrate-N concentrations in the ice-free period occurred at depths of 150 m and 200 m and values at these depths were significantly higher than the shallower depths. Peaks exceeded 15 mg-at m^{-3} and mean values were 13.2 and 11.8 mg-at M^{-3}, respectively. Depths of 20 m or less displayed mean values of less than 2 mg-at m^{-3}. Peak areas of concentration were not restricted to one geographical area. During the ice-covered period it

was not possible to draw similar conclusions as there were insufficient data points to plot the 150 m and 200 m isopleths.

Phosphate-P

During the ice-free period, similar to Nitrate-N, peak phosphate-P concentrations occurred at 150 m and 200 m. Values at 150 m reached 1.4 mg-at m^{-3} and were widely distributed throughout the Beaufort Sea. The mean values for 150 m and 200 m were 1.33 mg-at m^{-3} and 1.24 mg-at M^{-3}, respectively. Mean values increased progressively from the surface to 150 m. As with nitrate-N, there were insufficient data points to plot isopleths at 150 and 200 m for the ice-covered period. The other four depths, O, 10, 20 and 50 m, were similar in concentration with mean values from 0.57 to 0.72 mg-at m^{-3}. However, there was a higher concentration at 50 m off the Sagavanirktok River delta reaching 1.1 mg-at m^{-3}.

Silicate-Si

Highest values of silicate-Si were found during the ice-free period at 0 m and 200 m with peak values of 45 mg-at m^{-3}. The O m isopleths are more reliable with 357 data points compared to only 30 for the 200 m isopleth. The areas of highest concentrations at O m were Elson Lagoon and offshore from the Sagavanirktok River delta. The mean value for O m concentrations was 20.8 mg-at m^{-3} compared to 30.2 mg-at m^{-3} for the 200 m depth. During the ice-covered period, peak values of 30 mg-at m^{-3} were lower than corresponding values during the open water period. All four depths plotted (O m, 10 m, 20 m and 50 m) had similar concentration regimes with means ranging from 14.0 to 21.9 mg-at m^{-3}.

Appendix A

List Of Telephone Contacts Made

APPENDIX A

LIST OF TELEPHONE CONTACTS MADE

Dr. Knut Aagaard - Pacific Marine Laboratory NOAA, Seattle, Washington.

Dr. Vera Alexander, Institute of Marine Science, University of Alaska, Fairbanks.

Dr. Ronald Atlas, Department of Biology, University of Louisville, Louisville, Kentucky.

Dr. Robert P. Griffiths - Department of Microbiology, Oregon State University, Corvallis, Oregon.

Dr. Rita Homer - School of Oceanography, University of Washington.

Dr. Gary Hufford, National Weather Service, Anchorage, Alaska.

Dr. Mike Joyce - ARCO Alaska, Inc., Anchorage, Alaska.

Dr. Patrick Kinney - Kinnetics Laboratories, Inc., California.

Dr. Michel Krichevsky, Microbial Section, National Institute of Health, Bethesda, Maryland.

Dr. Jerry Kudenov, Department of Biology, University of Alaska, Anchorage.

Dr. Ronald MacDonald, Institute of Ocean Sciences, Sydney, British Columbia, Canada.

Dr. Clarence Pautzke, North Pacific Fishery Management Council, Anchorage, Alaska.

Ms. Pam Pope - Standard Alaska Production Company, Anchorage, Alaska.

Dr. Donald Schell, Institute of Marine Science, University of Alaska, Fairbanks.

Mr. Declan Troy. LGL Alaska Research Assoc., Inc., Anchorage, Alaska.

Appendix B

Literature Reviewed In Compilation Of Database

APPENDIX B

LITERATURE REVIEWED IN COMPILATION OF DATABASE

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File I.D. = 20

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Wiseman, J.W., J.N. Suhayda, S.A.Hsu, and C.D.Walters. 1974, Characteristics of nearshore oceanographic environment of arctic Alaska. Pages 49-64 in J.C. Reed and J.E. Sater, editors. The coast and shelf of the Beaufort Sea. Proceedings of a symposium on Beaufort Sea coast and shelf research. Arctic Institute of North America.

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All nutrient information in Canadian waters.

Woodward-Clyde Consultants. 1984. Lisburne development area: 1984 Environmental studies, Draft Report. Prepared for ARCO Alaska, Inc., Anchorage, Alaska.

Appendix C

Hard Copy Of Nutrient Database For The Beaufort Sea

ID=1: from BURRELL, D. C., P. KINNEY, R. S. HADLEY AND
M.E. ARHELGER. , 1970 REPORT NO. R70-20
INST. OF MARINE SCIENCE, UNIV. OF ALASKA
USCGC STATEN ISLAND, IMS CRUISE NO. 769, PHASE II - 08/69

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE S103-S1 mg-at/m3	ALKALINITY m-eq/l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLI
1	721000 N	1563000 W	690803	2036	214	0	9,29	0.59		0.2	0.12	4.0		-1.33	23.46	
1	721000 N	1563000 W	690803	2036	214	25	10.16	0.57		0.2	0.11	3.0		-1.33	31.53	
1	721000 N	1563000 W	6?%032836		214	60	7.76	1.39	0.1	6. 8	e. 22	23.8		-1.60	32.35	
1	721000 N	1563000 W	690803	2036	214	75	7.73	1.50	0.1	7.1	0.23	27.0		-1.64	32.54	
1	721000 N	1563000 W	6909%32036		214	100	7.35	1.67	0.4	9.3	0.23	33.0		-1.59	32.76	
1	721000 N	1563000 W	690803	2036	214	150	6.84	1.45		10.7	0.56	28.0		-1.05	34.07	
1	721000 N	1563000 W	690803	2036	214	190	7,28	1.81	0.5	9.9	0.18	37.0		-1.63	33.13	
1	704200 N	1450000 W	698131554		72	0	9.74	0.72		3.1	0.63	5. 'a		-1,56	29.53	
1	704200 N	1450000 H	6902.131554		72	5	9.96	0.70		0.1	0.35	5.0		-1.59	29.55	
1	704200 N	1450000 W	6%813	15S4	72	10	9.85	$.72	0.2	0.1	0.20	5.8		-1.52	29.53	
1	704200 N	1450000 W	690813	1554	72	20	9.69	0.81	'a. 2	0.4	0.24	6.@		-1.52	30. 3a	
1	704200 N	1450000 W	6909131554		72	35	9.55	1.08	0.5	2.2	0.34	11.0		-1.41	31.82	
1	704200 N	1450000 W	69$8131554		72	50	9.94	1.27	1.0	1.9	0.3	16.0		-0.63	32. 3a	
1	704200 N	1450000 U	690813	1554	72	65	8.56	1.30	1.3	2.2	0.42	17.0		-0.72	32.44	
1	705000 N	1482800 U	690814	1606	36	0	9.47	0.64	1.2	0.4	0. 3s	10.0		-1.49	28. 82	
1	705000 N	1482800 W	690814	1606	36	5	9.47	0.72	a. 3	0.1	0.50	10.0		-1.49	20. 82	
1	705000 N	1482800 U	690814	1606	36	10	9.48	0. 72		0.1	0.31	10.0		-1.49	28.82	
1	705000 N	1482800 U	690814	1724	36	20	9.40	0.75		0.1	0. 22	10.0		-1.49	28.85	
1	705000 N	1482800 W	690814	1724	36	29	9.30	0.85	0.4	0.2	0.2a	9.0		-1.08	30. 59	
1	711600 N	1511950 H	690815	536	44	0	8,41	0.70		0.6	0.53	10.0		-1. 3a	28.65	
1	711600 N	1511950 W	690815	536	44	5	8.47	0.63	a. 1	e. 1	0.42	10. 0		-1.41	20.78	
1	711600 N	1511950 H	690815	536	44	10	8.77	0,63		0.1	0.25	10.0		-1.40	28.02	
1	711600 N	1511958 W	696815	536	44	20	8.15	0.64		0.1	0. 35	10. 'a		-e. 89	29. 03	
1	711600 N	1511950 W	690815	536	44	39	7.80	0. 83	0. 2	'a. 3	0.27	12.0		2.61	31.22	
1	7143S0 N	15613$0 H	6508162230		91	0	7.92	0.73		0.1	0.40	12.0		-1.24	28. 60	
1	714330 N	1561300 u	690816	2230	91	5	8.27	0.75			0. 56	13.0		-1.16	28.89	
1	714354! N	1561309 H	690816	2230	91	11	8.89	0.85			'a. 58	15.0		-43.63	29. 67	
1	7143%? N	1561300 W	690816	2230	91	25	10.11	1.50	0.3	0.2	0.17	19.0		-0.6a	30.83	
1	714350 N	1561300 W	690816	2230	91	43	8.21	1.37	0.4	1.8	0.29	21.0		-0.50	32.42	
1	714350 N	1561300 U	6908162230		91	66	7.46	1.70	0.5	4.8	0.32	28.0		-1.16	32.39	
1	731900 N	1555100 W	690817	1036		0	6s61	0.84	0.3	0.1	0.12	14.0		-0. 50	29.31	
1	713900 N	1555100 H	690817	1036		5	6.66	0.84	'a. 3	0.1	0.15	13. 0		%.47	29.40	
1	713%0 N	15S5180 W	690817	1036		10	6.90	0.68	0.5	0.1	0.17	14.0		0. m	29.70	
1	713900 N	1555100 U	690817	1036		20	6.55	0.88	0.5	0.1	0. 22	14. 'a		2.63	31.22	
1	713900 N	1555100 W	690817	1036		35	6.37	B. 84	0.5	0. 2	0.19	14.8		2.9a	31.79	
1	713900 N	1555100 u	790817	1112		75	6,43	1.37	1.1	1.7	0.22	22.0		-0.10	32.50	
1	713900 N	1555100 H	65$9171112			100	6.44	1.63	1.7	3.2	0.22	26. 0		-1.20	32.75	
1	713900 N	1555100 W	6908171112			125	5.56	2.10	1.5	6.4	0.26	37. 0		-0. 64	32.90	
1	713600 N	1543900 U	690817	1754	29	0	a. 07	0.72			0. 22	10. e		-1.45	28.51	
1	713600 N	1543900 U	6'338171754		23	9	8.07	0.70			0.33	10.0		-1.46	28.46	
1	713600 N	1543980 W	690817	1754	2s	15	8.07	0.70		0.1	0.3&	10.0		-1.45	28. 51	
1	713.5%3 N	154?%%3 U	690817	1754	23	25	8.87	0.74		0.1	0.46	5.0		-0.27	29. 12	
1	712700 N	1533900 W	69$817	2342	50	0	9,35	0.72		0.1	0.52	6.0		-1.45	29.15	
1	712700 N	1533900 W	6908172342		50	5	9.20	0.72			0.59	7.0		-1.3a	29.14	
1	712700 N	1533900 H	690817	2342	50	10	9.2a	0.70			0.23	6.0		-1.38	29.12	

ID=1: from BURRELL, D. C., P. KINNEY, R. S. HADLEY AND M. E. ARHELGER., 1970 REPORT NO. R70-20
INST. OF MARINE SCIENCE, UNIV. OF ALASKA
USCGC STATEN ISLAND, IMS CRUISE NO. 769, PHASE II - 06/69

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (la)	SAMPLE DEPTH (m)	OXYGEN ml/l	OXYGEN mg-at/m3	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE S103-S1 mg-at/m3	ALKALINITY m-eq/l	TEMPERATURE deg. C	SALINITY ppt
1	712700 N	1533900 W	690817	2342	50	35	8.50	0.61			0.2		10.0		1.01	3a, 24
1	712700 N	1533900 U	690817	2342	50	45	8.40	1.00	0.4		1.3	0.25	18.0		0.73	32. 03
1	712400 N	1530000 H	690818	542	70	0	8.91	8.69			0.1	0.36	11.0		e. $3	29. 00
1	712400 N	1530000 W	690818	542	70	5	8.91	0.69				&36	11.0		0.00	29.62
I	712400 N	1530000 H	690818	542	70	10	8.97	0.69				e. 22	11.0		0. 00	29.02
1	712400 N	1530000 W	690s18	542	70	20	9,26	0.69				0.33	12.0		0.00	29.38
1	712400 N	1530000 W	690818	542	70	35	9.26	0.69			'a. 1	0.25	12.0		0.00	30. 02
1	712400 N	1530000 H	690818	542	70	50	8.24	0.93			9.1	0.23	16.0		0. 00	30.65
1	711900 N	1522100 u	690818	842	50	0	9.62	0.69				0.11	10.0		-1,45	29.12
I	711900 N	1522100 U	690818	842	50	5	9.62	0.69				6.27	10.0		-1.47	2'3.14
1	711900 N	1522100 W	690818	842	50	10	9.58	0.69				0.36	10.0		-1.48	29.15
1	711900 N	1522100 W	690818	842	50	25	9.95	0.69				0,28	8.8		-1.4a	23.40
1	711900 N	1522100 U	690818	842	50	35	B. 15	0.79			0.1	0.21	10.0		1.73	30.62
1	711350 N	1511800 W	690818	1496	42	0	&89	0.69				0.14	10.0		-1,46	28.72
1	711350 N	1511800 U	690818	1406	42	5	9.02	0.68				0.14	18.6		-1, 50	28.71
1	711350 N	1511800 W	690818	1406	42	10	8.%	0.67				0.17	10.0		-1.50	28. 73
1	711350 N	1511S00 U	690818	1406	42	20	9.02	0.73				0.29	10.0		-0.46	29.24
1	711350 N	1511800 U	690818	1406	42	35	8.46	0.81			%.1	6.14	11.0		1.84	31.11
1	710800 N	1503000 W	690818	1918	33	0	B. B-6	0.69				0.23	10.0		-1.48	
1	71 0800 N	1503000 U	690818	1918	33	5	8.89	0.69	'a. 4			0.25	9.0		-1.48	
1	71 0800 N	1503000 H	690818	1918	33	10	B. 83	0.69	0.1			0.18	9.0		-1.48	
1	710800 N	1503000 W	690818	1918	33	20	8.86	0.84			'a. 1	e. 52	10.0		-0.61	
1	710800 N	1503000 W	6s0618	1918	33	30	8.09	0.98	0.5		0.2	0.22	12.0		1.69	
1	710500 N	1500000 W	690818	1954	26	0	9.08	0.69				e. 17	3.0		-1.42	28.83
1	710500 N	1500000 M	690818	1954	26	5	9.09	0.69				0. 12	9. 0		-1.50	28. a?
1	710500 N	1500000 u	690818	1954	26	10	9.16	0.69				0.05	8.0		-1,49	28. 82
1	710500 N	1500000 H	6996161954		26	20	8. 71	0.95	0.4		0.2	0.17	11.0		-0.65	30.13
1	710500 N	1493000 W	690819	148	30	0	9.27	8.73	0.2		'a. 1	0.23	7.0		-1.53	28. 93
1	710500 N	1493000 U	690819	146	30	5	9.33	0.73	il. 1			0. 26	7.0		-1.51	28.93
1	710500 N	1493000 U	690819	146	30	10	9,34	0.76			0.1	0.12	B. 0		-1,53	28.93
1	710500 N	1493888 U	690819	148	30	20	9.17	0.69				0.25	8.0		-1.45	29. 28
1	710500 7	1493000 W	690819	424	41	0	9.33	0.69				8.13	7,0		-1.49	29.06
1	710500 N	1485500 U	6%819	424	41	5	9.39	0.68				0.13	7.9		-1.52	29. 05
1	710500 N	1485500 W	690819	424	41	10	9.39	0.79			0.1	0.13	8.0		-1.54	29.07
1	710500 N	1485500 H	699619	424	41	20	9.39	0.69				0.13	7.0		-1.52	29.08
1	710500 N	14S5320 H	690819	424	41	35	8.07	0.99	0.4		0.3	%.19	12.0		1.79	31.62
1	712000 N	1500000 H	690819	848	1800	0	18.15	8.69				0.14	7.0		-1.51	2B. 97
1	712000 N	1500000 W	690819	848	1800	5	18.15	0.69				0,87	7. 0		-1.52	28. %
1	712000 N	1500000 W	690819	848	1800	10	10.18	9.76				0.11	7.0		-1,53	28.97
1	712000 N	1500000 U	690819	848	1800	20	10.26	0.69				0.14	7. 'd		-1.54	28. 97
1	712000 N	1500000 U	690819	848	1800	35	9.99	0.89	0.1		0.3	0.18	10.0		0.29	31.53
1	712000 N	1500000 W	690819	848	1800	50	9.37	1.10	0. 1		1.4	0.19	15.0		0.19	32.03
1	712000 N	1500000 W	699619	848	1800	75	9.11	1.32	0.2		2.9	0.24	19.0		0.94	32. 93
1	712000 N	1500000 H	690819	942	1800	100	8.60	1.53	'a. 4		3.5	0.21	22.0		-0.61	32.53
1	712000 N	1500000 W	699819	942	1600	200	7.10	1.30			B. 7	0.28	2a. 'a		-0.40	34.37

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M. E. ARMELGER. , 1970 REPORT NO. R70-20
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USCGC STATEN ISLAND, IMS CRUISE NO. 769, PHASE II - 88/69

ID	LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N g-at/m3	SILICATE S103-S1 g-at/m3	ALKALINITY m-eq/l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPL
1	712000	N	1500000	U	6%819	942	1800	300	7.12	1.00		8.5	0.40	12.0		-0.24	34.77	
1	712000	N	1500000	W	690819	942	18$8	400	7.18	0.93		8.2	0.23	10.8		0.39	34.87	
1	712000	N	1500000	W	690819	942	1800	500	7.22	0.89		8.2	0.14	10.0		0.3s	34.83	
1	712000	N	1500000	W	690819	942	1800	600	7.34	0.88		8.2	0.13	9.0		0.33	34.86	
1	712000	N	1500000	W	6%819	942	1800	700	7.39	0.82		8.0	0.10	8.0		8.16	34.86	
1	712000	N	1500300	U	690819	1424	16843	0	9.89	0.68		0.1	0.16	5.0		-1.58	29.21	
1	712000	N	15$838$	W	6%819	1424	1600	5	9.95	0.68			'a. 38	5.0		-1.52	29.23	
1	712080	N	1500300	W	698819	1424	1600	10	9,93	0.68			0. 29	5.0		-1. %	29.26	
1	712000	N	1580380	W	6%$19	1424	1600	20	9.89	0.69			0.10	5.0		-1.55	29.31	
1	712000	N	1500300	W	690819	1424	1600	35	10.33	0.93		0.?	'a. 19	8.0		-1.07	31.41	
1	712000	N	1500300	W	6s3819	1424	1600	50	9.89	1,16		2.0	'a. 25	14.0		-1.24	32.01	
1	712000	N	1500300	U	690819	1424	1600	75	8.40	1.59		4.9	0.18	22.0		-1.20	32.53	
1	712000	N	1500300	U	698819	1512	1600	100	8.27	1.64	0.1	4.8	0.19	25.0		-8.99	32.79	
1	712000	N	1500300	W	6%819	1512	1600	200	7.4a	1.49		9.0	0.14	24.0		-1.13	34.16	
1	712000	N	1500300	U	690819	1512	1600	300	7.89	0.94		8.9	0.11	11.0		%.70	34. 81	
1	712000	N	1500300	W	698419	1512	1600	400	7,22	8.88		a. 5	0.14	3.0		0.46	34, 95	
1	7120138	N	1500300	H	690819	1512	1600	508	7.28	0.89		8.5	0. 07	9.0		0.37	34. 85	
!	712000	N	1500300	U	690819	1512	1688	688	7.40	0.89		7.8	8.16	9.0		0.28	34.87	
1	712000	N	15003%0	H	694)819	1512	1600	700	7.48	0.89		8.2	'a. 22	9.8		0.15	34.82	
1	712000	N	1503000	W	690819	1846	530	8	9.84	0,73		a. 1	9.11	4.0		-1.53	23.22	
1	712000	N	1503000	W	6%819	1848	538	5	9.86	0.73			0. 08	4.0		-1.54	29. 23	
1	712000	N	1503000	U	690819	18-48	530	10	9.83	0.69			0.18	4.0		-1.52	29.25	
1	712000	N	1503000	H	690819	1848	530	20	9.89	8.69			0.14	5.0		-1.54	29. 23	
1	712000	N	1503000	U	690819	1848	538	35	9.88	0.99	0.4	0.4	'a. 32	14.0		1.24	31.53	
1	712000	N	1583$90	U	6988191848		530	50	9.45	1,10	0.2	1.7	'a. 25	12.0		-0.62	31.88	
1	712000	N	1503000	U	690819	1848	53a	75	8.02	1,66		6.1	0.16	21.0		-1.57	32.32	
1	712000	N	1503000	N	698819	1924	530	100	8.93	1,38		3.5	0.24	14.0		-1.26	32.09	
1	712000	N	1503000	W	690819	1924	538	268	7.91	1.97	'a. 7	5.1	0.37	34.0		-1.27	33.01	
1	712000	N	1503000	U	690819	1924	530	300	6.88	1.60	0.2	8.2	0.13	18.0		%.85	34.55	
1	712000	N	1503000	H	690819	1S24	530	400	6.94	1.32		7.9	0.37	21.0		0.36	34.55	
1	712050	N	1512000	W	698820	6	57		'a 9.s8	0.63		0.2	0.13	8.0		-1.50	29.10	
1	712050	N	1512000	W	690820	6	57	5	10.08	0.65		0.1	'a. 22	B. 0		-1.51	29.19	
1	712854!	N	1512000	W	690820	6	57	10	9.93	0.65	0.1		0.10	8.0		-1.53	29.16	
1	712050	N	1512000	U	690820	6	57	28	18.13	0.63			0.18	7.0		-1.54	29.18	
1	712050	N	1512000	W	690820	6	57	35	9.68	0.76	0.1	0.2	0. 17	2.0		1.19	30. 66	
1	712050	N	1512000	U	690820	6	57	50	9.28	0.87	0.3	B. 3	0.21	2.0		0.11	31.48	
1	713500	N	15-20000	W	690820	600	545	5	9.98	0.60		0.1	0.17	1.0		-1.48	29.11	
1	713508	N	1520000	U	6902.?2	600	545	10	9.48	0.63		0.1	0.21	1.0		-1.52	23.15	
1	713500	N	1520880	W	690820	680	545	20	10.01	0.66		0.1	0.13	1.0		-1.53	29.20	
1	713588	N	1520000	W	690820	600	545	35	10.02	0.73		0.1	0.19	2.0		-0.40	30.61	
1	713500	N	1520000	U	690820	600	545	50	9.29	0.80	0.5	0.3	0. 14	3.0		1.55	31.63	
1	713500	N	1520000	U	690820	680	545	75	8.56	1.22		3.9	0.14	4.0		-1.63	32.:3	
1	713500	N	1520000	W	690820	648	545	100	7.33	1.70		7.0	0.13	6.0		-1.39	32.66	
1	713588	N	1520000	W	690820	648	545	200	7.15	1,33		7.8		5.0		-0.83	34.24	
1	713550	N	1520000	U	690820	648	545	300	7.13	0.87	0.1	7.4	0.20	3.0		0.37	34.81	

ID=1: from BURRELL, D. C. , P. KINNEY, R. S. HADLEY AND
M. E. ARMELGER. , 1970 REPORT NO. A70-20
INST. OF MARINE SCIENCE, UNIV. OF ALASKA
USCGC STATEN ISLAND, IMS CRUISE NO. 769, PHASE II - 08/69

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO SAMPLE BOTTOM (m)	DEPTH (n)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N g-ath3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N *g-at/83	SILICATE S103-S1 mg-at/m3	ALKALINITY m-eq/l	TEMPERATURE deg. C	SALINIT ppt
1	7135438 N	1520000 W	690820	648	545	400	7.14	0.84		7.4	0.16	3.0		0.38	34.85
I	714100 N	1522000 W	690820	848	240	0	9.9a	0.66	0.1		0.13	2.0		-1.49	20.67
i	714100 N	1522000 H	690820	848	240		518.09	0.66	0.1		0.16	2.0		-1. %	29.19
1	714100 N	1522000 W	690820	848	240	10	11.34	0.63	0.3		0.10	1.0		-1.49	29.21
i	714100 N	1522000 W	690820	848	240	20	9.90	0.89	0.5	e. 9	0.22	3.0		-1.21	31.72
1	714100 N	1522000 W	690820	848	240	35	10.15	1.11	0.5	1.5	0.16	4.0		-0.83	32.36
i	714100 N	1522000 W	6%820S48		240	50	8.67	1.52	0.7	3.4	0.26	6.0		-1.04	32.72
1	714108 N	1522000 W	690820	848	240	75	10.12	0.70		0.1	0.36	2.0		-1.10	23.29
1	714100 N	1522000 W	690820	942	240	100	5.47	1.57	0.7	3.3	0.54	6.0		-1.14	32.64
1	714100 N	1522000 W	690820	942	240	200	6.82	1.32		5.7	0.57	5.0		-0.33	34.49
1	715158 N	152418$ W	690820	1306	1300	0	9.60	9.68		0.2	0.29	1.0		-1.38	29.40
1	715150 N	1524100 U	690820	1306	1300	5	'3.64	0.68	0.2		0.35			-1.47	29.49
1	715150 N	1524100 W	6908.281305		132a	10	9.70	0.59	0.1		'a. 33	3.0		-1.45	29.46
1	715158 N	1524100 W	690820	1306	1300	20	10.46	0.63			0.40	5.0		-1.32	30.14
1	715150 N	1'24100 W	690820	1306	1300	35	8.31	0.94	e. 2	0.2	9.59	8.0		-0.91	31.76
1	715154! N	1524100 U	690820	1306	1300	50	10.82	1.38		4.4	0.43	17.0		-1.46	32.19
1	715150 N	1524100 U	690820	1306	1300	75	8.80	1.36	0.9	2.0	0.31	20.0		-0.42	32.66
1	715150 N	1524100 u	690820	1342	1300	100	8,37	1.60	0.8	3.?	0.43	27.0		-1.28	32.78
1	715150 N	1524160 W	690820	1342	1300	200	7.03	1.52		7.5	0.34	26.0		-0.99	34.04
1	715158 N	1524100 W	6-1342		1300	300	6.84	0.93		6.9	0.35	12.0		0.25	34.76
1	715150 N	1524188 U	6902.?0	1342	1300	400	7.15	0.88		6.6	e. 25	9.0		0.43	34.82
1	715150 N	1524100 U	69982$	1342	1300	500	7.40	0,77		6.6	0.3	a. 0		0.34	34.86
1	715150 N	1524100 U	690820	1342	1300	600	7.22	8.11		b. 5	0.25	8.0		8.28	34.91
1	715150 N	1524100 u	690820	1342	1300	700	7.46	0.72		6.4	0.53	0.0		0.10	34.07
1	715000 N	1532000 H	690820	1942	235		018,14	0.63		0.2	k 34	6.0		-1.28	29.27
1	715000 N	1532000 U	690820	1942	235	5	le. 18	0.53			0.50	6.0		-1.44	29.25
1	715000 N	1532000 U	690820	1942	235	10	10.20	0.63			'a. 49	6.0		-1.43	29.24
1	715000 N	1532000 U	690820	1942	235	28	10. 82	0.53			0.45	5.0		-1.55	29.54
1	715000 N	1532000 W	690820	1942	235	35	1$.64	0.65			e. 35	5.0		-1.30	3a. 94
1	715000 N	1532000 U	690820	1942	235	58	9.62	0.94		1.5	0.67	'3.0		-1.54	31.74
1	715000 N	1532000 H	690820	1942	235	75	8.91	1.24	0.5	1.9	e. 53	20.0		-1.71	32.3a
1	715000 N	1532000 U	690820	2012	235	100	8.05	1.51	0.5	3.6	e. 74	25.0		-1.32	32.64
1	715000 N	1532000 U	690820	2012	235	200	6.90	1.41	0.2	6.8	e. 68	25.0		-0.52	34.27
1	715100 N	1540000 U	690820	2030	173	0	9.88	0.59	'a. 1	0.2	0.43	11.0		-1.33	2a. 85
1	715100 N	1540000 W	690820	2030	173	5	9.14	0.59		0.2	0.59	11.0		-1.35	2a. 04
1	715100 N	1540000 U	6%3.922	2030	173	10	9.08	0.60		0.1	8.46	11.0		-1.33	28.91
1	715100 N	1540000 H	690820	2030	173	20	9.55	0,59			0.52	5.0		-1.52	29.26
1	715100 N	1540000 W	6S0822	2030	173	35	12.25	0.65			0.68	5.0		-1.33	30.87
1	715100 N	1540000 U	690820	2030	173	54	10.33	0.86	0.4	0.4	e. 50	11.0		-0.60	31.76
1	715100 N	1540000 U	690820	2030	173	75	8.25	1.51	0.3	4.6	0.55	24.0		-1.32	32.51
1	715100 N	1540080 W	690828	2030	173	100	7.25	1.80		7. a	0.37	30.0		-1.55	32.80
1	715000 N	1550000 W	690'3?1	130	234	0	9.02	0.72	0.1	0.2	e. 47	12.8		-1.33	2a. 8a
1	715000 N	15500%8 W	690821	130	234	5	9.14	0.72	0.1	0.1	a. 59	13.0		-1.3s	29.00
1	715000 N	1550000 U	690821	130	234	10	9.08	0.70	0.1	0.1	0.40	8.0		-1.28	23.13
1	715000 N	1550000 N	690821	130	234	20	10.51	0.89	0.1		0.53	16.0		-0.33	3%61

ID=1: from BURRELL, D. C., P. KINNEY, R. S. HADLEY AND
M. E. (WELEER. , 1370 REPORT NO. R70-20
INST. OF MARINE SCIENCE, UNIV. OF ALASKA
USCGC STATEN ISLAND, IMS CRUISE NO. 763, PHASE I I - 08/69

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH [ml	OXYGEN ml/1	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N g-at /m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE S103-S1 mg-at /m3	ALKALINITY w-eq/l	TEMPERATURE deg. C	SALINITY ppt	ICE SAM
1	715000 N	1550000 W	630821	130	234	35	8.91	0.82	0.5	0.2	0.78	15.0		2.55	31.07	
1	715000 N	1550000 W	690821	130	234	50	9.01	0.83	0.6	0.3	0.50	15.0		1.91	32.06	
1	715000 N	1550000 W	690821	130	234	75	8.78	1.13	8.9	0.9	0.46	19.0		0.43	32.30	
1	715000 N	1550000 W	690821	131	234	1008	3.00	1.63	0.9	3.0	0,71	29.0		-1.42	32.72	

ID=2: from HAMILTON, R. A., C. L. HO AND H, J. WALKER, 1974
BREAKUP FLOWING AND NUTRIENT SOURCE OF
COLVILLE RIVER DELTA DURING 1973
MAY AND JUNE 1973

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE Degree C	SALINITY ppt
*2	703252 N	15432500 W	730517		4	3		1.31	1.3			&6		26. 50	
2	783216 N	1501200 u	730517		4	3		2.08	1.7			5.1		27.00	
2	703136 N	1493712 U	738517		3	2		2.31	0.9			7.0		30.50	
2	703600 N	1492700 W	73051 8		11	3		2.00	1.3			4.3		28.60	
2	703600 N	1492700 W	730518		11	10		2.21	1.6			4.7		29.10	
2	703600 N	1501012 W	730519		9	6		1.85	1.1			5.1		27.40	
2	703520 N	1582424 U	730519		B	6		1.10	1.2			9.0		27.70	
2	703504 N	1503124 u	730519		5	4		1.44	0. E			9.5		27.70	
2	70344a N	1505180 U	730527		7	4		1.56	2.5			11.5		27.70	
2	7027,?4 N	1505100 u	730527		13	4		1,36	2.8			12.1		27.60	
2	703724 N	1505100 W	730527		13	8		1.41	2.5			12.1		27.50	
2	703724 N	1505100 u	730527		13	12		1.70	2.9			10.7		27.90	
2	703504 N	1503124 W	730527		9	5		1.33	1.7			11.2		27.50	
2	703600 N	1501012 W	730608		10	4		0.56	6.!			23.9		1.20	
2	703600 N	1501012 u	730608		10	6		0.50	3.7			24.4		1.70	
2	703600 N	1501012 W	730608		10	9		1.37	0.7			17.5		27.70	
2	703752 N	1503912 W	730608		11	3		0.43	9.6			22.0		4.3?	
2	703752 N	1503-912 W	730608		11	4		1.11	3.4			23.8		12.20	
2	70375.2 N	1503912 w	730608		11	6		2.71	1.5			12.7		27.60	
2	703820 N	1510736 W	73060a		11	3		0.37	7.'3			13,3		a. 70	
2	703820 N	1510736 H	730608		11	4		2.00	2.4			14.5		27.20	
2	703820 N	1510736 u	730608		11	7		1.95	2.3			13.0		27.40	
2	703636 N	151?748 H	730609		10	3		0.99	7.@			20.5		7.70	
2	703836 N	151?748 H	73%60'3		10	4		1.12	1.3			16.9		17.30	
2	703836 N	1512748 u	730609		10	6		2.45	1.5			13.0		27.50	
2	703724 N	1505100 W	730609		12	3		0.46	5.1			19.6		3.50	
2	703724 N	1505100 u	730609		12	5		1.61	2.3			18.1		24.60	
2	783724 N	1505100 u	730609		12	7		2.68	2.0			13.6		27.40	
2	703644 N	1502412 U	730609		10	4		0.47	4.6			22.6		1.00	
2	703644 N	1502412 W	73%03		10	6		0.92	4.?			16.9		18.10	
2	703644 N	1502412 W	730609		10	8		1.67	1.6			14.5		27.10	
2	703220 N	1510600 W	730611		6	3		1.14	6.9			20.3		0.70	
2	703220 N	1510600 W	73061 1		6	4		1.21	2.4			20.2		25.50	
2	703220 N	1510600 W	73436! 1		6	5		1.83	2.1			14.7		29.80	
2	703448 N	1505100 W	73Q611		6	3		0.53	4.4			23.2		0.70	
2	703448 N	1515100 u	733611		6	5		1.53	1.9			18.0		27.30	
2	703448 N	1515100 u	730611		6	6		1.78	1.9			14.8		27.50	
2	703436 N	1502136 W	732611		a	3		0.56	4.1			24.7		0.40	
2	703436 N	1502136 W	730611		B	6		0.82	1.5			25.0		21.60	
2	703436 N	1502136 W	73e611		B	7		1.56	1.2			18.1		27.40	

*Latitudes and longitudes in this file are extrapolated

ID=3: from HORNER, R. AND T. ENGLISH
NODC ARCHIVE FILES
BEAVER CRUISE
AUGUST 1975

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (M)	OXYGEN ml/1	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at /m3	SILICATE SiO3-Si mg-at /m3	ALKALINITY m-equi/l	TEMPERATURE Degree c	SALINITY ppt	ICE SAM
3	710300 N	1553500 W	750815	930		0.0		0.18	1.1	0.0	0.00	28.9		3.00	23.54	
3	705300 N	1535500 U	753816	900		0.0		0.38	0.0	0.0	0.00	60.2		3.00	16.13	
3	711100 N	1550500 W	750816	1000		0.0		0.33	0.2	0.0	0.00	55.8		3.00	30.28	
3	711600 N	1560500 W	750816	1100		0.0		0.82	0.6	0.2	0.01	147.8		3.00	12.85	
3	711400 N	1555500 W	750828	926		0.0		0.35	0.6	0.1	0.01	35.5		0.00	13.07	
3	711400 N	1555500 w	750828	926		0.0		0.24	0.6	0.2	0.01	24.5		0.00	26.85	
3	7114138 N	1555500 W	750828	947		0.@		0.43	1.1	0.1	0.00	48.9		-e.2a	20.93	
3	711400 N	155WQ W	750828	949		0.@		0.39	0.2	0.0	0.00	43.5		-0.20	0.00	
3	711600 N	1560500 W	750828	1305		0.0		0.40	0.6	0.1	0.00	50.0		-e.50	31.73	
3	712500 N	1562700 w	750828	1330		0.0		0.17	0.2	a.?	0.00	20.1		0.50	22.56	
3	712500 N	1562700 W	750828	1330		0.0		0.27	1.1	0.1	a.00	34.9		0.50	25.91	
3	711100 N	1550500 u	750830	630		0.0		0.26	0.8	0.1	0.01	14.1		1.80	24.87	
3	711100 N	1550500 W	750830	630		1.5		0.27	1.5	0.2	0.01	21.6		1.80	25.45	
3	703200 N	1492700 W	750906	830		0.0		0.36	0.9	0.?	0.01	166.0		-1.00	12.88	
3	703000 N	1490900 W	750906	900		0.0		0.52	0.8	0.4	0.02	101.4		-1.00	20.21	
3	702600 N	148430a u	750906	1000		0.0		0.71	1.9	1.2	0.01	80.0		-1.00	22.13	
3	701910 N	1481906 u	750908	440		0.0		0.94	0.5	0.3	0.01	209.5		0.20	13.17	
3	701910 N	1481906 u	750908	440		2.3		0.95	1.1	1.2	0.01	206.4		1.20	12.64	
3	702003 N	1482002 W	750908	500		e.@		0.73	0.9	0.2	0.01	192,1		-0.80	14.05	
3	702003 N	I 482002 u	750900	500		2.7		0.36	1.6	0.9	0.02	124.7		-0.48	18.95	
3	702107 N	1482100 u	750908	530		0.0		0.57	1.3	0.4	0.02	112.1		-1.50	17.32	
3	702008 N	1483321 u	750908	545		0.0		0.52	1.3	0.9	0.09	141.6		-0.80	16.11	
3	702008 N	1482021 W	750908	545		1.7		0.58	0.6	0.2	0.04	79.1		-1.20	19.50	
3	701307 N	1482781 u	750908	615		0.0		1.28	0.9	0.1	0.06	103.8		-1.00	20.58	
3	701903 N	1482304 u	750908	630		e.0		0.48	2.0	0.6	0.04	146.5		-1.00	14.70	
3	701903 N	1482304 W	750908	630		2.3		0.43	1.1	0.1	0.03	209.2		-1.#0	12.32	
3	701901 N	1481906 W	750909	400		0.@		0.22	0.9	0.?	0.01	47.2		0.80	17.1'3	
3	701901 N	1481906 u	750909	400		0.?		0.29	0.8	0.4	0.01	56.5		0.80	13.41	
3	702002 N	1482003 W	750909	415		0.0		0.47	1.8	1.2	0.01	202.0		-0.80	12.57	
3	7822 N	1482003 W	750909	415		2.3		0.36	0.6	0.2	0.01	109.1		-0.40	13.15	
3	702008 N	1482400 W	750909	430		0.0		0.45	1.2	1.2	0.01	159.1		4.50	12.46	
3	702008 N	1482400 u	750303	430		2.7		0.63	1.0	0.2	0.01	0'3.$2		-0..29	1'3.42	
3	702000 N	1482601 W	7559	445		0.0		0.49	1.7	0.9	e.01	207.1		-Q.40	12.52	
3	702000 N	1482601 u	750909	445		0.2		0.36	1.4	0.4	0.01	144.8		-0.20	16.81	
3	701906 N	1482303 u	750909	515		0.0		0.28	2.0	0.9	0.01	202.2		-1.00	11.65	
3	701906 N	14s.?303 w	750909	515		1.7		0.38	0.7	0.2	a.00	03.3		-a.50	17.69	
3	702003 N	1482002 H	75@911	430		0.0		0.17	1.0	0.1	0.00	143.5		0.50	16.07	
3	702003 N	1482002 W	75091 1	430		1.7		0.40	2.2	0.b	0.03	154.5		0.20	17.68	
3	702107 N	14821 00 H	7"543311	500		0.0		0.27	1.3	0.1	0.01	156.1		1.00	17.52	
3	702107 N	1482100 u	750911	500		1.3		0.51	2.7	0.2	0.01	180.3		0.80	18.03	
3	702405 N	1482209 W	750911	600		0.0		0.53	2.b	0.3	0.01	142.?		0.80	22.62	
3	702405 N	1482209 u	750311	600		7.i		0.72	1.2	0.6	0.01	11 8.0		0.50	23.09	
3	702607 N	1482403 W	75091 1	700		e.0		0.50	0.9	0.1	a.01	114,7		1.20	23.37	
3	702607 N	1482403 W	7!7a911	700		10.0		0.70	1.5	0.8	0.01	101.7		0.5@	24.96	
3	702109 N	1481%37 u	75L7911	930		0.0		0.45	1.2	0.4	0.01	121.7		1.20	21.46	

ID=3: from HORNER, R. AND T. ENGLISH
NODC ARCHIVE FILES
BEAVER CRUISE
AUGUST 1975

ID	LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (M)	OXYGEN Mill	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE Degree	SAL c	INI p
3	702109	N	1481587	W	7M911	930		3.7		0.61	1.3	0.3	0.01	124. 3		1.00		22.
3	702200	N	1482209	u	750914	345		0.@		0.47	2.5	0.1	0.03	%.4		2.50		19.
3	702200	N	1422209	U	750914	345		1.7		0.46	2.4	0.3	e. 05	89.7		2.3		20.
3	702007	N	1462403	u	750914	400		0.0		0.45	1.0	0.5	0.03	107.7		2.20		20.
3	702007	N	1482403	W	750914	400		2.3		0.47	0.7	0.2	0.03	103.3		2.20		20.
3	702000	N	1452i?ai	u	750914	43a		0.0		0. 21	1.3	0. a	0.08	112.6		1.90		19.
3	702000	N	1482201	u	750914	430		2.7		0.29	0.9	0.4	0.11	104.2		2. 20		20.
3	701901	N	1481906	H	750914	530		0.0		0.19	1.1	0.1	0.01	82.4		1.90		17.
3	701901	N	1481306	W	750914	530		e. 2		0.28	1.0	0.3	0.11	110.3		1.80		18.
3	702300	N	1482108	u	750914	430		0.0		0.03	2:2	0.1	0.01	13a. 1		2.20		17
3	702300	N	1482108	W	750915	43a		1.7		0.56	0.?	0.0	0. 01	112.5		1.80		21.
3	702405	N	1482209	W	750915	430		0.0		0. 16	0.2	0.0	0.01	126.4		1.50		13.
3	702405	N	1482209	H	756915	530		6.7		1.03	0.2	0.3	0.03	112.8		0.30		23.
3	702607	N	1482403	u	750915	600		0.0		0.45	0.5	0.1	0. 02	93.6		0.30		21.
3	702607	N	1482403	u	750915	600		6.3		1.31	e. 0	0.2	0.04	112.5		0. 00		23.
3	702405	N	14&'6a4	w	750915	606		0.0		0.33	0.0	0.0	0.02	13a. 3		1.90		17.

ID = 4: from HORNER, R
NODC ARCHIVE FILES
GLACIER CRUISE
1977- 1378

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN mill	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE S103-SI mg-at/m3	ALKALINITY -w.11/)	TEMPERATURE Degree C	SALINITY ppt	ICE SAM
4	711300 N	1552800 W	770330			0.0			1.2	1.5		45.0			3.76	I
4	711300 N	1 552800 W	770330			0.8			e. 7	0.7		20.0			4.53	I
4	711300 N	1552800 U	770330			1.7			1.7	1.9		45.0			5.13	I
4	711300 N	1552800 W	770330			1.7		0.76	1.2	11.0		322.0			40.79	
4	711300 N	1552BB0 W	770330			2.7		0.77	1.3	11.0		320.0			4a. 83	
4	711408 N	1554900 W	770331			0.0			0. 8	0.2		8.0			3.08	I
4	711408 N	1554900 W	77 0331			0.9			1.1	0.5		19.0			3.25	I
4	711400 N	1554900 W	770331			1.8			1.4	2.4		43.0			5.64	I
4	711488 N	1554900 H	770331			1.8		0.24	2.?	11.0		368.0			40.20	
4	711400 N	1554900 H	770331			2.8		0.29	2.3	12.0		400.0			40.28	
4	710900 N	1552400 W	770331			0.0			1.4	0.4		15.0			2.21	I
4	710900 N	1552400 u	770331			0.a			1.5	0.4		15.0			2.71	1
4	710900 N	15524(W W	770331			1.7			1.7	2.2		70.0			7.39	I
4	7109@0 N	1 552400 W	770331			1.7		0.13	2.7	13.0		385.0			33.'37	
4	710900 N	1552400 u	770331			2.5		0.40	1.6	13.0		396.0			40.11	
4	7 10200 N	1 552500 W	770331			0.0		0,11	0.5	0.8		35.0			7.21	I
4	710200 N	1552500 W	770331			0.8		0.21	0.3	1.3		43. Q			5.28	I
4	71 0200 N	1552=W41 u	770331			1.7									4.93	I
4	710200 N	1552500 W	770331			1.7		1.28		7.5		228.0			32.58	
4	710200 N	1552500 N	770331			5.@		1.10		7.4		225.0			32.88	
4	705380 N	1554200 W	770331			0.0			0.4	0.4		73.0			5.58	I
4	705300 N	1554200 w	77 0331			0.8		0.02	0.4	0.?		48.0			6.84	I
4	705300 N	1554200 W	770331			1.7		0.01	0.6	1.0		34.0			6.40	I
4	705300 N	1554200 u	770331			1.7		I. 10	e. 2	8.9		256.0			36.25	
4	705300 N	1554200 W	770331			2.8		1.10	0.7	9.0		299.0			37.89	
4	712130 N	1562100 W	770523			0.0			1.7	0.6		18.0			4.09	I
4	712130 N	1562100 u	770523			0.9			0.4	0.3		22.0			5.58	I
4	712130 N	1562100 w	770523			1.9									10.27	I
4	71213$ N	1562100 W	770523			1.9		0.94		5.1		186.0			33.59	
4	712130 N	15621638 u	770523			3.3		e. 75	0.4	5.5		217.0			36.77	
4	712106 N	15624e@ W	770523			'a.0			0.5	0.5		14.0			5.50	1
4	712106 N	1562400 U	770523			0.3			0.7	0.3		20.0			4.67	I
4	712106 N	1562400 H	770523			1.3		Q. 23	0.6	2.5		31.0			7.02	1
4	712106 N	1562488 W	778523			1.9		0.25	0.2	5.0		131.0			34.41	
4	712106 N	1562400 W	770523			2.7		0.64	0.5	4.2		186.0			36.87	
4	712136 N	1562800 W	770523			0.0		0.05	0.7	0.2		9.$			5.58	I
4	712136 N	1562800 w	770523			e. 9			0.9	0.5		17,0			4.76	I
4	712136 N	1562800 u	770523			2.0		0.58	0.9	2.5		33.0			5.87	I
4	712136 N	1562800 w	770523			2.0		0.95	0.1	5.0		200.0			34.13	
4	712136 N	1562800 W	770523			2.6		0.48	0.5	3.5		160.0			37.35	
4	702900 N	1485500 w	780404			2.0		1.18	2.0	12.0	0.21	361. 3			50.67	
4	702900 N	1485500 u	780404			2.0		1.48	2.4	12.0	0.23	375.1				
4	702900 N	1485500 w	780525			1.8		e. 90	4.4	0.7	0.21	303.0			44. 06	
4	702900 N	14853?4 W	780707			0.0		a. 08	0.4			53.4			4.06	
4	702380 N	1485500 u	700707			1.5		0.10	e. 3			50.0			4. 05	

ID = 4: from HORNER, R
NODC ARCHIVE FILES
GLACIER CRUISE
1977 - 1978

ID	LATITUDE	LONGITUDE	DRTE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE SiO3-Si mg-at /m3	ALKALINITY m-equi / l	TEMPERATURE Degree C	SALINI ppt
4	702900 N	1 485500 W	780720			e. 0		0.61	0.6	0.7	0.46	141.1			26.12
4	702900 N	14 85500 W	780720			1.5		0.76	a. 2	0.7	0.46	126.7			28.33
4	703000 N	1485608 W	760404			2.0		1.05	1.2	7.4	0. 16	192.0			34. 90
4	703000 N	1485600 u	780404			2.0		1.09	1.5	7.4	0.16	1 92. 0			
4	703000 N	1485600 H	780404			6.@		1.05	1.3	7.5	0.18	194.1			34.95
4	703000 N	1485600 u	780404			6.0		1.25	1.6	7.4	0.14	186.2			
4	703000 N	1485600 W	780525			1.6		1.18	0.6	4.2	0.02	116.1			32.79
4	703000 N	1485600 w	780525			6.@		1.26	0.6	4.2	0.05	116.1			32. 78
4	703000 N	1 485600 W	780525			11.6		1.22	0. 8	4. 8	0.09	134.0			33.2'3
4	703000 N	1485600 W	780720			0. 0		0.69	0.5		0.27	100.8			25.76
4	703000 N	1485600 W	780720			3.@		1.16	0.7	2. 5	0.49	121.9			32.31
4	703000 N	1491000 u	780404			2.1		1.20	2.8	3.7	0.27	289. 1			46.72
4	703000 N	1491000 W	780404			2.1		1.55	3.1	9.5	0.29	281.0			
4	703000 N	1491000 u	780525			2.0		1.17	1.3	6.?	0.19	191.7			50.25
4	703000 N	1491080 W	780621			0.0		0.16	e. 4			1.4			3.17
4	703000 N	1491000 u	780621			1.3		0. 22	1.2		0.10	70.2			7.40
4	703000 N	1491000 W	780707			2. 0		0. 34		e. 3	0.13	65.1			5. 89
4	703200 N	1490600 W	78062 1			0.6		1.14	0.4	2. 9	0.14	113.7			
4	703200 N	1490600 W	780707			0. 9		1.14	0.5	2. 7	0.48	120.5			32.30
4	703200 N	1490600 W	7807?0			0.0		0.82	0. 7	0.7	0.48	126.7			28.60
4	703232 N	1490600 W	780720			4.7		e. 37	0.2	2.3	e. 43	120.6			31.26
4	703200 N	1490600 W	780729			0.0		0. 30			0.07	0.7			25.62
4	703200 N	1492700 W	780404			1.'3		1.00	3. 0	11.0	0. 27	35'3.1			49.63
4	703200 N	1492700 u	780404			1.9		1.25	3.3	11. 0	0. 28	35a. 4			
4	703200 N	1432760 W	780525			1.9		1.26	1.6	6.4	0.14	195.1			39.54
4	703200 N	1432700 W	78062 1			2.6		'a. 33	2.8	3.6	0.21	354. B			47.11
4	703200 N	1492700 W	80625			0.0		0.12	e. 4			9.6			2.70
4	703200 N	14 92700 W	780625			2.5		0.23	3.8	2. 4	0.27	363.1			46.32
4	703200 N	1492700 W	780626			0. 0		0. 15	0.5			6.3			2.61
4	7%3200 N	1492700 W	780626			0.0		0.11	0.4			1.4			2.61
4	783200 N	1492700 W	780626			2. 5		0. 28	2. 2	2. 7	0.39	287.0			44.23
4	703200 N	1492700 W	700622			2. 5		0.31	2. 0	2. 4	0.21	303.5			44.33
4	703200 N	149?700 W	780627			e. 0		0. 21	0. 4			10.3			1.95
4	703200 N	1492700 u	780627			2. 5		0.21	2.2	1.3	0.26	174.7			45.28
4	703200 N	1492700 U	780628			0. 0		0. 15	0.6	0. 2	0. 05	15.1			1.55
4	703200 N	1492700 u	8062			0.0		0.16	0.3			10.3			1.55
4	703200 N	1492700 W	780628			2.5		0.37	2. 2	1.0	0.18	282.6			42.93
4	703200 N	14927L43 u	780707			0.0		0.12	0.4		0.12	54! 1			3.87
4	703200 N	14'32700 W	780707			2.4		0.11	e. 3	e. 1	0. 07	41.8			4.91
4	703200 N	1492700 u	780707			2.4		0.10	0.9			43.2			4,31
4	703500 N	1492400 W	780729			0. 0		t% 37	0.?		0. 31	89. 1			26.95
4	703S00 N	1432480 u	780729			2. 0		0.4?	0.2			"01.5			27.56
4	703500 N	1492800 u	780621			0.0		e. 45	3. 2	1.7	0.22	125. 3			4.16
4	703500 N	1492800 u				E. 8		1.15	'a. 7	3.8	0.14	117.8			32. 39
4	703500 N	1492800 U	780621			13.5		1.13	0.4	3.8	& 15	124.0			32.45

ID = 4: from HORNER, R
NODC ORCHIVE FILES
GLACIER CRUISE
1377- 1378

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE S103-S1 mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE Degree C	SALINITY ppt	1(SA
4	703500 N	1492800 W	780720			0.0		1.01	0.7	1.5	0.51	121.9			27.80	
4	703500 N	1492800 H	780720			6.0		1.19	0.5	3.0	0.50	122.6			32.14	
4	703500 N	1492880 U	780720			11.0		1.19	0.6	3.0	0.49	122.6			32.24	
4	703500 N	1492800 u	780729			0.0		0.3a		12.0	1.08	0.?			24.91	
4	703300 N	1494300 W	705621			0.0		0.16	0.5			14,3			2.75	
4	703300 N	1494300 W	780621			2.2		0.22	1.1	0.4	0.12	75.4			42.93	
4	703300 N	1494300 W	780720			0.13		8.12	0.9			54.8			3.12	
4	703300 N	1494300 W	780720			2.5		0.18	0.7			54.1			3.73	
4	703200 N	1495200 W	788404			2.3		0.73	5.0	9.3	0.38	384.0			42.33	
4	703200 N	1495200 u	780404			2.3		0.54	4.5	3.1	0.34	382.0				
4	703200 N	1495200 W	780525			2.5		1.12	3.7	B.B	0.23	317.4			40.10	
4	703200 N	1495200 u	780621			0.0		0.24	4.8	2.3	0.24	91.1			3.2	
4	703200 N	1495200 W	780707			0.0		0.25	1.7	1.1	0.27	110.3			2.24	
4	703200 N	1495200 W	780707			2.5		0.25	2.3			94.5			3.05	
4	703200 N	1495200 w	780720			0.0		0.63	1.7			113.7			27.08	
4	703500 N	1495W w	78062 1			0.0		0.26	2.6	1.4	0.17	109.6			1.06	
4	703500 N	1495300 W	780621			0.0		0.21	2.5	1.4	0.15	98.6			1.06	
4	703500 N	1495300 W	780625			0.0		0.13	0.4			13.0			1.06	
4	703500 N	1495300 H	780720			0.0		0.92	0.6	0.6	0.61	117.1			30.00	
4	703500 N	1495300 W	7243720			5.0		1.16	0.5	2.6	0.50	120.5			31.3a	
4	703500 N	1495300 U	780729			0.0		0.30	0.6		0.62	134.2			22.71	
4	703500 N	1435300 u	780729			5.a		0.28	0.4		0.04	132.2			23.36	
4	702800 N	1500600 u	780484			2.1		a.83	4.2	8.8	0.31	330.0			38.98	
4	702800 N	1500600 W	70$404			2.1		0.74	4.5	8.3	0.32	296.1				
4	702800 N	1500600 u	780525			2.2		1.03	1.8	9.4	0.26	?76.2			38.74	
4	705300 N	1500400 u	780404			1.7		%.90	2.1	7.0	0.24	134.1			35.45	
4	705300 N	1500400 W	780404			4.5		0.90	3.3	7.b	0.22	253.5			35.96	
4	705300 N	1500400 W	780404			4.5		%.9;	3.3	7.:	0.22	231.5				
4	705300 N	1500400 W	780525			2.0		1.17	0.8	5.2	0.08	141.5			33.73	
4	70534?$3 N	15@04h0 u	780525			4.4		1.12	1.3	6.2	0.10	166.9			34.41	
4	702800 N	1502900 W	730405			1.5		0.24		26.0	1.10				13.05	
4	702800 N	1 502900 u	780405			1.5		0.32	4.5	26.0	1.14					
4	702800 N	1502900 W	780405			4.@		0.38		12.0	1.31	392.4			28.95	
4	702800 N	1502900 u	780405			4.0		0.39		12.0	1.24	400,0				
4	702800 N	1502900 W	780405			6.7		0.39		13.0	0.77	331.4			31.%	
4	702800 N	1502900 u	780405			6.7		0.43		13.0	0.78	332.8				
4	703400 N	15$3100 W	78'2404			1.7		0.83	2.4	6.7	0.27	173.6			35.84	
4	703400 N	1503100 W	780404			1.7		0.91	2.5	6.6	0.26	180.3				
4	703400 N	1503100 w	780404			4.0		0.84	2.4	6.7	0.26	181.0			35.85	
4	703400 N	1503100 u	780404			4.@		1.08	3.2	6.6	0.33	177.3				
4	703400 N	1503100 u	780404			6.@		0.86	2.3	6.8	0.29	181.6			35.88	
4	703400 N	1503100 u	780404			6.0		a.82	2.3	6.9	0.28	181.6				
4	703500 N	1 505500 u	780405			7.@		1.01	0.4	7.8	0.18	178.1			34.73	
4	703500 N	1 505500 u	780405			7.0		1.05	0.5	7.8	0.17	177.5				
4	7022 N	1502700 U	780405			1.3		0.21	2.0	22.0	1.12				17.06	

ID = 4: from HORNER, R
NODC ARCHIVE FILES
GLACIER CRUISE
1977- 1378

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (16) Mill	OXYGEN mg-at/m3	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE Degree L	SALINITY ppt
4	70.2680 N	1502700 W	780405			1.3		0.20		25.0	1.26				
4	702600 N	1502700 w	780405			3.0		0.15	3.7	17.0	0.28	475.6			24.91
4	702600 N	1502700 W	780405			0.3		0.16	8.4	17.0	0.28	490.2			

ID z 5: from HORNER, R
NODC ARCHIVE FILES
ICE CRUISE
5/15/79 - 5/20/79

I D	LATITUDE		LONGITUDE		DOTE	TIME TO GMT	DEPTH BOTTOM (In)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE SiO3-Si mg-at /m3	ALKALINITY m-equi /l	TEMPERATURE Degree C	SALINITY ppt	ICE SAMPLE
5	701900	N	1473424	W	790516	815	5	0		1.38	2.7	1.4	0.14	139. 0				
5	701900	N	1473424	M	790519	630	5	0		0.74	2. '3	1.2	0.06	206.2			15. 26	
5	701900	N	1473424	W	790519	630	5	0		0.20	1.1	1.6	0.04	240. 6			18. 21	
5	701900	N	1473424	W	790519	630	5	4		1. 42	0.8	4,7	0.17	133.4			35.20	
5	701300	N	1473424	W	790520	630	5	0		0.501,3		1.2	0. 05	210. 2			15.34	
5	701900	N	1473424	W	790520	630	5	0		0.33	1.7	1. 6	0.%6	262. 7			18.32	
5	701900	N	1473424	W	790520	630	5	4		0. 95	0. 2	4.7	0.16	132.3			35.19	
5	791900	N	! 473424	W	790521	600	5	0		0. 462,7		e. 8	0.06	205. 6			14.05	
5	701900	N	1473424	W	790521	600	5	0		0.24	1.0	1.0	0. 05	245.3			16.57	
5	701900	N	1473424	W	790521	600	5	4		0.910.9		4.5	0.16	134. 3			34.76	

ID = 6: from HORNER, COYLE AND REDBURN, 1974
JULY AUGUST 1371

ID	LATITUDE	LONGITUDE	DATE	TIME TO BOTTOM GMT	DEPTH (m)	SAMPLE DEPTH (m)	OXYGEN (ml/l)	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE Degree C	SALINITY ppt
* 6	702043 N	14 81815 W	710724		2	0		0.40	2.7	0.4	0.1	12.0			21.55
6	702043 N	1481815 W	710724		2	2		0.40	1.4	0.4	0.1	12.0			21.83
6	702043 N	1482448 W	710724		2	2		0.40	1.4	0.3	a.1	13.5			19,56
6	702043 N	1482146 W	710724		2	1		0.40	1.7	0.3	0.1	15.0			20.06
6	702043 N	1481554 W	710724		0	1		0.20	1.6	0.8	0.1	17.3			17.58
6	701954 N	1481851 U	710724		2	0		0.20	1.4	0.4	0.1	13.6			19.16
6	701954 N	1481851 U	710724		2	2		0.20	1.6	0.2	0.1	8.5			21.07
6	701310 N	1482148 H	718724		2	2		0.30	1.6	0.4	0.1	13.0			19.68
6	701954 N	1482448 W	710724		2	2		0.x?	1.5	0.3	0.1	14.7			18.40
6	701954 N	1481851 W	710724		2	2		0.30	1.8	0.3	0.1	14.7			13.02
6	712132 N	1481851 U	710724		2	2		0.10		2.7	0.1	27.0			6.86
5	712132 N	14 81554 U	710724		1	0		0.20		2.7	0.1	28.3			5.46
6	712136 N	14 81409 U	710724		0	0		0.10		2.2	0.1	25.8			11.46
6	712823 N	1481051 W	710724		4	0		0.50			0.1	6.1			24.33
6	712823 N	1481851 W	710724		4	4		0.80		0.1	0.1	6.a			31.17
6	782236 N	1481721 W	710724		4	0		0.40		0.1	0.1	5.8			18.07
6	702936 N	1491721 W	710724		4	4		0.60			0.1	6.2			24.37
6	702918 N	14821 12 W	710724		4	0		0.50		0.1	0.!	6.2			18.26
6	702918 N	1482112 W	710724		4	4		0.70			0.1	7.1			25.33
6	702.910 N	1481851 W	710724		5	0		0.30		0.2	0.1	6.2			21.03
6	702918 N	1481851 W	710724		5	5		0.70			0.!	7.0			31,67
6	702736 N	1481851 W	710724		7	0		0.80		0.3	0.1	5.7			1'3.74
6	70273,6 N	14 81851 U	710724		7	6		0.30		0.:	0.1	6.5			31.61
6	702544 N	1481851 W	710724		6	0		0.50		0.1	0.0	5.0			21.74
6	702544 N	1481851 W	710724		6	6		0.%3		0.1	0.1	5.4			29.53
6	702459 N	1481851 W	710724		5	0		0.66		0.1	0.1	6.3			26.61
6	702459 N	1401851 U	710724		5	5		0.70		0.1	0.1	6.1			25.03
6	702459 N	1481851 W	710724		6	0		0.50		0.1	0.1	6.0			22.15
6	702644 N	1481851 U	710724		6	6		0.70			0.1	5.4			28.65
6	702314 N	1481851 U	710724		2	2		0.70		0.1	0.1	7.@			25.67
6	702228 N	1481851 W	710724		2	1		0.50		0.1	0.1	7.4			25.6a
6	7024'25 N	1481851 U	710724		2	2		e.70		0.1	0.1	6.2			24.45
6	702812 N	1481851 U	710815		5	0		0.10		0.1	0.1	7.1			17.73
6	702812 N	1481848 W	710815		5	5		0.10		0.1	0.1	5.a			17.86
6	701740 N	1481756 W	710815		5	0		0.10		0.1	0.1	7.5			18.40
6	7'31740 N	1481756 W	710815		5	5		0.30		0.:	0.1	7.5			18.45
6	702740 N	1480636 U	710815		4	0		0.30		0.1	0.1	7.4			19.46
6	702740 N	1480636 W	710815		4	4		0.30		0.:	0.1	7.7			18.50
6	702652 N	1480136 w	710815		6	0		0.441		0.1	c.1	7.5			18.35
6	702652 N	1480136 U	710815		6	5		0.60		0.1	0.1	8.2			25.85
6	702812 N	1480033 U	710815		6	0		0.30			0.1	6.0			18.35
6	702812 N	1480033 W	710815		6	5		0.40		0.1	0.1	7.6			13.23
6	702923 N	1475833 U	710815		6	0		0.30		0.:	0.0	6.2			19.01
6	702923 N	1475833 u	710815		6	6		0.40		0.1	0.1	7.1			13.39
6	702932 N	1481848 U	710815		10	0		0.30		0.1	0.1	6.1			17.90
6	702932 N	1481848 W	710815		10	10		0.80		0.2	0.1	7.5			30.42
6	702642 N	1481848 W	710815		7	0		0.30		0.!	0.1	7.1			16.92

*Latitudes and longitudes in this file are extrapolated

ID = 6: from HORNER, COYLE AND REDBURN, 1974
JULY - AUGUST 1971

ID	LATITUDE	LONGITUDE	DRTE	TIME TO BOTTOM GMT	DEPTH (m)	SAMPLE DEPTH (m)	OXYGEN (ml/l)	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE Degree C	SALINITY ppt	ICE SAMPLE
6	702642 N	1481S48 U	710815		7	7		0.70		0.1	0.1	6.5			30, 12	
6	702544 N	1481848 W	710815		6	0		0.30		0.1	0.1	8.b			17.27	
6	702444 N	1481848 U	710815		5	0		0.30		0.1	0.1	3.2			16,13	
6	702444 N	1481848 w	710815		5	5		0.20		0.1	0.1	4.s			18. 34	
6	702346 N	1461849 u	710815		3	2		0.20		0.2	0.1	1.0			16.10	
6	701914 N	1482300 W	710815		2	1		0.10		0.2	0.1	16.4			1 3.90	
6	701914 N	1482024 W	710815		2	1		0.10		0.2	0.1	11.4			14.59	
6	702005 N	1482024 W	710815		2	1		0.10		0.2	0.1	16.3			13.52	
6	702146 N	14S184S W	710815		1	0		0.20		0.2	0.1	12.8			14.57	
6	702250 N	1481s4s W	710815		1	0		0.30		0.2	0.1	10.2			15.79	
6	702314 N	1472848 w	710815		4	0		0.30		0.2	0.1	5.0			19.13	
6	702314 N	1472848 U	710815		4	4		0.50		0.1	0.1	5.5			20.30	
6	702332 N	1473148 U	710815		6	0		0.40		0.2	0.1	4.6			18.61	
6	702408 N	147291 B W	710815		10	0		0.40		0.2	0.1	0.5			18.79	
6	702408 N	147231s u	710815		10	10		0.80		0.2	0.1	4.5			30.09	
6	702348 N	1473524 W	710S15		9	0		5.40		0.2	e.1	5.9			18.78	
6	702348 N	1473524 u	710815		9	8		e.80		0.2	e.1	5.7			30.32	
6	702436 N	147411S H	710815		8	0		0.40		0.2	e.1	6.5			18.89	
6	702436 N	1474118 W	710815		8	0		0.40		0.2	0.1	6.5			18.89	
b	702419 N	1473748 U	710815		8	0		0.40		0.1	0.1	5.5			20.35	
6	702508 N	1474454 w	710815		5	0		0.30			0.1	6.a			18.99	
6	702636 N	1474715 u	71 0815		7	0		0.30		0.1	0.1	7.6			18.28	
6	702748 N	1481448 W	710815		3	2		0.40			8.1	7.1			18.28	
6	702043 N	1481s51 u	720811		3	1		0.40	0.6		0.0	3.0			0.00	
b	702043 N	1482448 u	7.3!+311		2	1		%.40	0.3		0.0	7.7			0.00	
6	702043 N	14 82148 W	720S11		2	1		0.40	0.3		0.0	8.8			20.15	
6	702043 N	1481554 w	7243s11		2	1		0.30	0.9		0.0	9.5			0.00	
6	701954 N	14S1851 W	720811		2	1		e.50	1.5		0.0	11.0			19.10	
6	701954 N	1481851 u	720811		2	0					0.0	0.0			0.00	
6	701905 N	14S2148 U	720811		2	1		0.39	1.7		0.0	le.1			19.30	
6	701954 N	1452440 w	720811		2	1		0.40	0.2		0.0	7.7			0.00	
b	701954 N	14s2148 u	720811		3	1		0.50	0.6		0.0	9.3			19.30	
6	701912 N	14S221S U	72081 1		2	1		0.60	0.7		e.0	3.6			19.28	
6	702144 N	14 81548 W	72081 1		1	0		0.40	1.3		0.0	10.2			19.30	
6	702823 N	14s1354 u	720811		4	0		0.50	4.1		0.@	7.8			20.73	
6	702823 N	1481554 W	720811		4	4		0.40	0.4		0.0	6.S			21.11	
6	7%2936 N	1481721 w	720811		10	0		0.50			0.0	7.0			21.26	
6	702936 N	1481721 w	720811		10	8		0.50			0.0	7.0			30.42	
6	702918 N	14s1s51 u	720s11		11	0		0.50	0.7		0.0	7.1			20,S8	
6	702918 N	1481851 W	720811		11	9		0.50	0.7		0.0	7.1			30.52	
6	702736 N	14 81851 U	720811		6	0		0.50	1.1		0.0	3.3			20.49	
6	702736 N	1481851 w	720811		6	5		0.60	0.7		0.0	9.0			20.54	
6	702544 N	14s1s51 u	720s11		6	0		e.50	0.7		0.0	8.7			20.30	
6	702544 N	1481851 u	710811		6	5		$.60	0.a		0.0	6.4			25.75	
6	702459 N	1461s51 u	720811		4	0		0.40	0.b		0.0	9.5			19.90	
6	702459 N	1481851 W	72081 1		4	4		0.40	0.7		0.0	3.7			19.33	
b	702644 N	14s1s5! w	720 811		7	0		0.60	0.7		0.0	3.0			20.29	

ID = 6: from HORNER, COYLE AND REDBURN, 1974
JULY - AUGUST 1371

ID	LATITUDE	LONGITUDE	DATE	TIME TO GMT	DEPTH BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/I	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE Degree C	SALINITY ppt
6	702644 1	4818517 w	720811		7	5		E. 50	0.6		%.0	0.1			20.62
6	702144 N	1481851 W	720811		1	0		0.40	0.9		0.0	9.6			19.55
6	702326 N	1483230 W	72081 1		1	1		0.20	0.5		0.0	11.0			19.01
6	702321 N	1482790 W	72081 1		2	0		0.30	0.2		0.0	3.?			13.60
6	702321 N	148??49 U	7?0011		2	0		0.40	1.2		0.0	8.5			13.71
6	702144 N	1402621 U	720811		1	0		0.30	0.5		0.0	10.5			18.80

ID = 7: from HORNER AND SCHRADER, 1984
NOVEMBER 1978 - JUNE 1980

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN mill	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE Degree C	SALINITY ppt	ICE SAMPLE
7	701900 N	1473424 W	790515		4	4		1.38	2.7	1.4	0.14	19.9				I
7	701900 N	1473424 W	790510			0		0.20	1.1	1.6	0.04	24.1			18.28	
7	701900 N	1473424 u	790518			4		1.42	0.9	4.7	0.17	13.3			35.20	
7	701900 N	1473424 W	790518			0		0.74	2.9	1.2	0.06	20.6			15.26	I
7	701900 N	1473424 W	7'33513			0		0.33	1.7	1.6	0.06	26.3			18.32	
7	701900 N	1473424 H	790519			4		0.95	0.2	4.7	0.16	13.2			35.19	
7	701900 N	1473424 W	73%51 9			0		0.50	1.9	1.2	0.05	21.0			15.34	I
7	701900 N	1473424 u	790520			0		a.24	1.0	1.0	0.05	24.5			16.57	
7	701900 N	1473424 u	790520			4		0.9:	0.8	4.5	0.16	13.4			34.76	
7	701900 N	1473424 u	790520			0		0.46	2.7	0.B	0.06	20.6			14.05	I
7	732400 N	147313s w	800410			0		lea		10.6	0.13	25.0			34.50	I
7	702400 N	1473106 W	800410			0		1.27		10.1	0.07	22.0			35.21	
7	702400 N	1473106 w	800410			7		1.30		10.6	0.10	23.0			35.71	
7	702400 N	1473106 W	800412			0		1.34	0.2	10.2	0.08	23.0			34.36	
7	702400 N	1473106 u	800412			7		1.25		10.3	0.08	23.0			35.31	
7	702400 N	1473106 W	800414			0		1.08	0.s	10.3	0.10	24.0			33.73	I
7	70.?488 N	1473106 W	800410			0		1.43		10.3	0.07	23.0			34. n	
7	702400 N	1473106 u	6004:4			7		1.29		10.5	0.08	23.0			35.08	
7	702400 N	1473106 W	800417			0			1.1	10.6	e.10	23.0			33.83	?
7	702400 N	1473106 u	800417			0		1.33		10.5	0.06	23.0			34.31	
7	702400 N	1473136 W	800417			7		1.32		10.6	0.09	24.0			35.26	
7	702400 N	1473106 W	aeo413			0			0.6	10.3	0.07	24.0			34.02	I
7	702400 N	1473106 w	800413			0			0.1	10.2	0.05	23.0			34.75	
7	702400 N	1473106 u	8aa41 9			7				10.8	0.03	24.0			35.53	
7	702400 N	1473106 W	800424			e		1.17	0.7	9.9	0.11	23.0			32.59	I
7	702400 N	1473106 W	800424			0		1.63	0.1	10.2	0.04	23.0			34.24	
7	702400 N	1473106 W	800424			7		1.49		11.0	0.09	24.0			35.31	
7	702400 N	1473106 W	800429			0		1.03	0.9	10.3	0.13	24.0			31.65	I
7	702400 N	1473106 W	800429			0				10.3	0.05	24.0			34.33	
7	702400 N	1473106 U	800429			7			1.0	10.8	0.08	24.0			35.18	
7	702400 N	1473106 w	800502			0			0.5	3.0	E.23	20.0			33.07	I
7	702400 N	1473106 U	800502			0			0.1	10.0	0.07	24.0			34.38	
7	702400 N	1473106 W	800502			7			0.1	10.7	0.08	26.0			35.32	
7	702400 N	1473106 W	800505			0			0.7	3.0	0.17	21.0			33. 05	I
7	702400 N	1473106 W	800505			0		1.43	e.:	?.7	0.06	23.0			34,45	
7	7324130 N	1473106 U	800505			7		1.39		le.s	0.08	24.0			35.53	
7	702400 N	1473106 W	800508			0		1.13	0.8	3.6	0.28	23.0			32.63	I
7	702400 N	1473106 U	800508			0		1.36	a.1	3.6	0.08	23.0			34.57	
7	702400 N	1473106 U	800508			7		1.43	0.1	11.0	0.07	24.0			35.71	
7	702400 N	1473106 W	800515			0		1.18	0.8	11.0	0.13	22.0			33.73	I
7	702400 N	1473106 W	800515			0		1.90	0.2	3.5	0.07	22.0			34.54	
7	702400 N	1473106 W	800515			7		1.52	e.:	10.5	a.08	24.0			35.45	
7	702400 N	1473106 W	800517			0		1.4'3	1.5	10.5	0.10	23.0			33.05	I
7	702400 N	1473106 W	800517			0		1.34	0.2	9.3	0.07	22.0			34.34	
7	70240(! N	1472106 W	8005 17			7		1.36	0.1	10.1	0.08	23.0			35.05	
7	702400 N	1473106 W	800520			0		1.27	0.6	11.9	0.21	23.0			32.65	I
7	702400 N	1473106 W	800520			0		1.74	0.:	9.4	0.03	23.0			34.03	

ID = 7: from HORNER AND SCHRADER, 1984
NOVEMBER 1978 - JUNE 1380

ID	LATITUDE	LONG ! TUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PO4 -P g-athd	NH3-N mg-at /m3	NO3-N mg-at /m3	NO2-N mg-at/m3	SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE Degree C	SALINITY ppt	I S
7	702400 N	1473106 W	800520			7		1.41		10.1	0.10	24.0			34. '3a	
7	702400 N	1473106 W	800522			0		1.36	0.8	10.7	0.19	19.0			31.60	!
7	702400 N	1473106 W	800522			0		1.40		3.0	0.08	22.0			33,74	
7	702400 N	1472106 U	800522			7		1.42		3.6	0.10	23.0			34.52	
7	702400 N	14731 06 W	800524			0		2.06	1.0	14.0	0.28	21.0			31.02	!
7	702400 N	1473106 W	800524			0		1.60		8.9	0.08	22.0			33.63	
7	702400 N	1473106 w	800524			7		1.50		3.6	0.09	23.0			34.33	
7	702400 N	1473106 W	800526			0		1.89	1.5	16.6	0.20	22.0			30.05	1
7	702400 N	1473106 w	800526			0				E.9	0.07	22.0			33.60	
7	702400 N	1473106 W	800526			7				9.3	0.08	23.0			33.65	
7	702400 N	1473106 w	800529			0		1.46	0.5	9.6	0.13	20.0			32. 32	]
7	702400 N	1473106 U	800529			0		1.36		3.1	0.09	23.0			34.12	
7	702400 N	1473106 W	800529			7		1.40		9.5	0.09	23.0			34.38	
7	702400 N	1473106 W	800531			0		1.53	1.2	16.4	0.32	20.0			32. 88	]
7	702400 N	1473106 W	800531			0		1.41		3.:	0.09	23.0			34.21	
7	702400 N	1473106 U	800531			7		1.29		'3.4	0.09	23.0			34.35	
7	702400 N	1473186 u	800602			0		1.69	0.9	18.0	0.17	22.0			31.52	:
7	702400 N	1473106 W	800602			0		1.33		e.7	0.09	22.0			32.03	
7	702400 N	1473106 w	S00603			7		1.27		9.7	0.09	23.0			34.50	
7	702400 N	1473106 U	800605			0		2.28	1.1	16.1	0.18	22.0			31.66	'
7	702400 N	1473106 w	800605			0		1.11	0.1	8.2	0.09	21.0			33.66	
7	702400 N	1473106 W	800606			7			0.1	10.4	0.10	25.0			34.78	
7	702400 N	1473106 W	800607			0		1.77	1.9	9.7	0.22	22.0			31.21	:
7	702400 N	1473106 w	800607			0		1.39	0.4	E.0	0.10	21.0			32.91	
7	702400 N	1473106 W	800607			7		1.38		10.4	0.09	24.0			34.73	
7	702400 N	1473106 W	800609			0		1.36	4.3	7.8	0.21	21.0			26. 38	:
7	702400 N	1473106 W	800609			0			1.3	8.1	0.09	20.0			28.19	
7	702400 N	1473106 W	800609			7		1.22		10.2	0.09	23.0			34.54	
7	702400 N	1473106 W	800611			0		2.86	2.3	7.1	0.09	21.0			16.39	:
7	702400 N	1473106 W	800611			0		2.62	0.6	9.9	0.09	23.0			24.09	

ID = 8: from HUFFORD ET AL, 1374
USCG GLACIER
AUGUST - SEPTEMBER 1971

ID	LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/1	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi /l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE
8	701600	N	1434000	w	710820	9	33	0	& 29		0.a	0.06	3.0		1.72	10.12		
B	701600	N	1434000	U	710820	0	33	5	7.83	0.06	0.8	0.03	6.0		1.01	21.24		
8	701600	N	1434000	W	710820	0	33	10	8.74	0.19	1.4	0.08	5.0		-0.14	29.34		
9	701500	N	1434000	W	710820	0	33	20	8.61	0.43	1.7	0.09	7.0		-1.33	31.31		
8	701600	N	1434000	W	710820	0	33	30	9.51	0.49	1.0	0.43	8.0		-1.33	31.38		
9	702500	N	1434073	W	71 0820	624	44	0	8.84	0.46	1.7	0.@3	4.0		0.07	5.28		
6	702500	N	1434000	W	71 0820	624	44	5	9.13	0.74	0.9	0.01	a.0		-0.75	25.73		
8	702500	N	1434000	W	71 0820	624	44	10	3.35	1.56	1.2	0.03	6.0		-1.11	27.55		
8	702500	N	1434000	u	710820	624	44	20	9.74	1.52	2.2	0.04	7.0		-1.28	3.00		
8	702500	N	1434300	w	710820	624	44	30	8.09	1.82	3.4	0.05	11.0		-1.47	31.45		
8	702500	N	1434000	W	710820	624	44	40	7.84	1.56	4.1	0.05	15.0		-1.46	31.58		
8	703242	N	1433724	W	710820	1436	80	0	9.04	0.53	0.3	0.03	1.0		0.04	3.93		
8	703242	N	1433724	W	71 0820	1436	80	10	9.34	0.81	1.2	0.04	4.0		-1.34	28.59		
9	703242	N	1433724	W	710820	1436	80	30	3.24	0.81	2.9	0.05	6.@		-1.39	30.77		
8	703242	N	1433724	W	71 0820	1436	80	55	7,56	1.13	5.8	0.0a	20.e		-1.41	31.83		
8	704536	N	1434218	w	710821	136	507	0	9.25	0.10	12.0	0.21	3.0		0.09	3.92		
8	704536	N	1434218	W	710821	136	507	10	9.48	0.38	3.6	0.07	e.0		-1.31	29.03		
8	704536	N	1434218	W	710821	136	507	20	9.53	0.44	10.0	0.:6	5.0		-1.30	29.84		
8	704536	N	1434218	u	710821	136	507	30	9.30	0.60	10.4	0.14	e.0		-1.48	30.72		
9	704536	N	1434218	W	710821	136	507	50	3.49	0.71	11.2	0.17	14.?		0.20	31.88		
8	704536	N	1434218	U	710821	136	507	75	8.17	0.92	14.1	0.23	31.0		-0.56	32.29		
8	704536	N	1434218	W	710821	136	507	100	7.25	1.17	15.7	0.23	39.0		-1.32	32.62		
8	704536	N	1434218	W	710821	136	507	150	6.37	1.46	12.0	E.16	49.0		-1.44	33.32		
a	704536	N	1434218	W	710821	136	507	200	6.06	1.25	12.0	0.16	34.0		-0.7a	34.19		
8	704536	N	1434219	W	710821	136	507	250	6.02	1.11	12.4	0.18	23.0		-0.02	34.64		
8	704536	N	1434218	W	710821	136	507	300	6.22	1.00	14.1	0.20	19.0		0.22	34.77		
8	704536	N	1434218	w	710821	136	507	400	6.46	i?. 87	11.5	0.16	14.0		0.43	34.85		
8	704536	N	1434218	W	710821	136	507	500	6.54	0.88	12.8	0.13	20.0		0.33	34.88		
B	710030	N	1453500	W	710822	30	503	1	9.25	0.11	0.1	0.05	5.0		-1.11	22.34		
8	710030	N	1453500	W	710822	30	503	10	9.62	0.42	0.1	0.04	5.0		-1.17	23.26		
8	710030	N	1453500	w	710822	30	503	20	8.92	0.53	0.1	0.05	5.0		-1.35	30.72		
8	710030	N	1453500	w	71 0822	30	503	30	6.56	0.63	1.1	0.09	0.0		-e.29	13.13		
8	710030	N	1453500	W	710822	30	503	50	7.68	0.75	4.4	0.07	11.0		0.32	32.06		
8	710030	N	1453500	W	710822	30	503	76	7.69	1.14	6.8	0.06	13.0		-1.34	32.24		
8	710030	N	1453500	u	710822	30	503	101	7.61	1.31	11.5	0.07	25.0		-1.00	32.59		
6	710030	N	1453500	W	710822	30	503	152	6.3S	1,61	15.6	0.1:	37.0		-1.45	33.26		
a	710030	N	1453500	W	710822	30	503	202	6.06	1.47	14.7	0.07	23.0		-0.n	34.16		
9	710830	N	1453z7a	w	710822	30	503	253	6.00	1.07	13.5	0.08	18.0		-0.09	34.62		
8	710030	N	1453500	w	710822	30	503	304	6.18	1.05	12.1	0.19	14.0		0.22	34.75		
a	710030	N	1453500	W	71 0822	30	503	405	6.52	0.97	11.7	0.07	12.0		0.4@	34.88		
8	710030	N	14=533m	W	710822	30	503	506	6.62	0.31	Ii.?	0.13	e.0		0.36	34.87		
?	714830	N	1455606	W	710822	1436	81	0	8.85	0.10		0.04	7.0		-0.45	13.12		
8	714830	N	1455606	W	710822	1435	81	10	9.44	0.25	e.1	0.03	6.0		-1.19	25.72		
8	714830	N	1455605	W	710822	1435	81	20	9.43	0.36	0.1	e.03	6.0		-1.27	29.96		
8	714830	N	1455606	W	710822	1436	81	30	9.26	0.58	0.2	0.03	7.0		-1.33	30.96		
8	714830	N	1455605	W	710822	1435	81	50	7.42	2.34	4.0	0.09	23.0		-1.74	31.54		

ID = 9: from HUFFORD ET AL, 1374
USCG GLACIER
AUGUST - SEPTEMBER 1971

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	TO BOTTOM (m)	DEPTH SAMPLE (m)	OXYGEN ml/l	PHOSPHATE PO4 -P mg-at /m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE SiO3-Si mg-at /m3	ALKALINITY m-equi /1	TEMPERATURE deg. C	SALINITY ppt
8	714830 N	1455606 W	710822	1436	81	78	7.29	0.98		5.9	0.09	30.0		-1.23	32.58
8	703818 N	1460048 W	710822	1436	53	0	8.31			2.5	0.26	10.0		0.14	14.21
8	703818 N	14G4YJ4B i'!	710822	1436	53	5	9.14	0.67		2.5	0.16	8.0		-0.69	25.87
8	703818 N	1460048 W	710922	1436	53	15	8.38	0.90		2.0	0.33	10.0		-1.31	30.16
8	703818 N	1460048 U	710822	1436	53	25	9.51	1.08		2.5	0.44	11.0		-1.44	31.13
8	703818 N	1460048 w	710822	1436	53	35	7.60	1.39		5.1	0.66	19.0		-1.43	31.59
8	703818 N	1460048 W	710822	1436	53	45	7.46	1.60		5.4	0.93	20.0		-1.36	31.77
8	702518 N	1460800 W	710823	42	33	0	a. 32	0.09		3.8	0.09	10.0		1.70	17.07
8	702518 N	1460800 u	710823	42	33	5	8.61	0.13		3.8	0.05	3.'2		0.62	22.54
8	702518 N	1460800 w	71 0823	42	33	10	9.53	0.24		3.0	0.05	9.0		-1.02	28.48
8	702518 N	: 460800 W	710823	42	33	15	9. 81	0.44		4.6	0.07	10.0		-1.21	29.78
8	702518 N	1460800 W	710a2;	42	33	20	9. 84	0.51		5.7	0.08	14.0		-1.34	30.56
8	702518 N	1 460800 W	710823	42	33	30	8.%	'3.60		1.9	0.05	11.0		-1.44	31.15
8	701800 N	1460500 W	710823	412	25	0	8.96	0.21		0.1	0.02	4.0		0.13	9.60
8	701800 N	1460500 W	710823	412	25	5	9.00	0.21			0.03	7.0		-0.18	25.92
8	701800 N	1460500 W	710823	412	25	10	9.39	0.36			0.04	5.0		-0.80	28.35
8	701800 N	1460500 U	710823	412	25	15	9.78	0.43			0.02	6.0		-1.15	30.13
8	701800 N	1460500 W	710823	412	25	23	9.47	e. 44			0.03	7.0		-i. 33	30.83
8	702042 N	1 463330 W	710823	818	22	3	8.49	0.35		2.0	0.02	5.0		0.06	20.86
8	702042 N	1463330 w	710823	818	22	8	9.54	0.40		0.1	0.01	4.0		-1.05	28.81
8	702042 N	:46233 W	710823	818	22	13	3.60	0.34		0.1	0.02	6.0		-1.23	30.14
8	702042 N	1463330 U	710823	818	22	20	8.42	0.70		0.7	0.03	9.0		-1.28	30.97
8	702500 N	i 470500 W	710823	1 124	27	0	a, 24			0.3	0.03			1.45	17.34
8	702500 N	1470500 w	710823	1124	27	5	a. 67			0.4	0.05			0.36	24.35
8	702500 N	1470500 W	710823	1124	27	10	9.45			0.2	0.03			-1.07	29.30
8	702500 N	1470500 W	710823	1124	27	15	9.37			0.4	0.05			-1.25	30.17
8	702500 N	1470500 W	710823	:124	27	20	7.38			1.0	0.06			-1.42	31.22
8	702500 N	1470500 W	710823	1124	27	25	7.93			1.5	0.09			-1.44	31.34
8	703630 N	1470000 W	710823	1536	36	0	a. 53			0.4	0.05			-1.10	17.49
8	703630 N	1470000 U	710823	1536	36	5	0.4@			0.5	0.06			1.25	23.90
8	703630 N	1470000 w	71 0823	1536	36	10	9.03			0.7	0.07			0.50	27.94
8	703630 N	1470000 W	710823	1536	36	20	9.09			0.8	0.07			-1.04	30.71
8	703630 N	147000014	710823	1536	36	30	8.02			1.2	0.09			-1.43	31.35
8	703630 N	1470000 W	710823	1536	36	34	7.71			2.1	0.11			-1.39	31.62
8	704500 N	:470000 W	710823	2136	39	0	8.58	0.21			0.02	9.0		0.01	14.32
8	704500 N	1 470000 w	710823	2136	39	5	8.58	0.57		0.2	0.02	9.0		0.01	25.41
8	704500 N	1470000 W	710823	2136	39	10	3.16	0.76		0.2	0.03	11.0		-0.13	28.53
8	704500 N	1470000 w	710823	2136	39	15	9.65	0.34		0.2	0.02	8.0		-0.77	30.12
8	704500 N	1470000 W	710823	2136	39	25	?.74	1.13		0.6	0.03	8.0		-'3.63	31.59
8	704500 N	1470000 w	710823	2136	39	35	0,84	1.35		2.0	0.06	11.0		-1.03	31.90
8	710000 N	1470400 W	710824	1230	502	0	8.98	0.25			0.03	5.0		-0.56	14.91
8	710000 N	1470400 W	710824	1230	502	10	9.33	0.54		0.4	0.03	4.0		-e. 93	26.56
8	710000 N	1470400 W	710824	1230	502	20	9.53	0.70		0.7	0.01	4.0		-0.98	29.98
8	710000 N	1470400 W	710824	1230	502	29	a. 86	0.78		3.5	0.08	8.0		-1.19	31.02
8	710000 N	1470400 w	710824	1230	502	43	8.52	0.84		4.0	0.09	12.0		a. 04	31.99
8	710000 N	1470400 w	710824	1230	502	73	7.90	1.13		5.8	0.09	20.0		-0.89	32.38

ID = 8: from HUFFORD ET AL, 1974
USCG GLACIER
AUGUST - SEPTEMBER 1371

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE S103-S1 mg-at /m3	ALKALINITY m-equi /1	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE
8	710000 N	1470400 W	710824	1230	502	97	7.12	1.37	7.7	0.10	30.0		-1.38		32.73	
a	710000 N	1470400 W	710824	1230	502	146	6.13	1.54	9.2	0.06	38.0		-1.30		33.61	
8	710000 N	1470400 H	710824	1230	502	195	5.95	1.49	7.3	0.03	20.0		-L?. 20		34.5:	
8	710000 N	1470400 W	710824	1230	502	244	6.25	1.07	7.7	0.05	20.0		-0.20		34.76	
8	710000 N	1470400 w	710824	1230	502	292	6, 52	1.00	a.1	0.06	18.0		0.33		34.39	
8	710000 N	1470400 W	710824	1230	502	388		0.83	3.3	0.05	14.0		0.41			
8	710924 N	1480024 w	710827	424	1006	10	8.66	0.82	1.4	0.07	10.0		-0.88			
a	710924 N	1480024 W	710827	424	1006	25	8.82	0.75	0.2	0.03	9.0				31.32	
8	710924 N	1480?4 W	7105?7	424	1006	50	8.48	0.98	4.2	0.14	13.0		-0.75		31.94	
8	710924 N	1480024 W	710827	424	1006	75	7.18	1.09	5.3	0.14	18.0		-0.50		32.36	
a	710924 N	1480024 w	710827	424	1006	100	?. 30	1.41	7.e	0.08	24.0		-1.:0		32.70	
a	710924 N	1480024 W	710B27	424	1006	150	6.?7	1. 81	10.8	0.0a	36.0		-1.48		33.25	
a	710924 N	1480024 w	710827	424	1006	200	5.95	1.63	9.E	0.06	24.0		-0.47		34.49	
8	710924 N	1480024 w	710827	424	1006	225		1.32	7.0	0.15	26>8		-0.10		34.71	
a	710924 N	1480024 W	710827	424	1006	300		0.91	10.3	0.06	15.0		0.24		34.87	
a	710924 N	1480024 W	710827	424	1006	45(?	6. 34	0.88	10.3	0.06	12.0		0.41		34.95	
8	710924 N	14 S5024 W	710827	424	1006	600	E. 54	0.89	9.6	0.06	11.0		0.24		35.00	
8	710924 N	1480024 W	710827	424	1006	775	6.50	a. 64	10.5	0.07	11.0		0.20		35.00	
8	710924 N	1480024 w	710827	424	1006	900	6.61	0.83	9.3	0.07	11.0		0.83		35.01	
B	703824 N	14 80400 W	710827	1730	27	0	a.74	0.04	0.4	0.03	8.0		0.15		20.51	
a	703824 N	1480400 u	710827	1730	27	5	9.12	0.37	0.E	0.07	6.0		-0.:4		26.59	
s	703824 N	1480400 w	71 0827	1730	27	10	9.18	0.43	0.a	0.06			-0.38		28.36	
8	703824 N	1480400 w	710827	1730	27	15	8.90	0.54	1.7	0.13	7.0		-0.92		30.44	
8	703824 N	1480400 W	710827	1730	27	20	a. 26	0.63	1.1	0.12	9.0		-1.29		31.36	
8	7031 12 N	1473112 W	710829	324	29	0	a.74	0.16	Q.1	0.05	6.0		0.48		15.11	
B	703112 N	1473112 W	710829	324	29	5	3.28	0.58	0.3	0.07	10.0		-0.26		26.60	
8	703112 N	1473112 w	710829	324	29	10	9.45	0.79	0.4	0.11	10.o		-0.60		28.76	
S	705430 N	i 47?630 U	710829	1030	48	0	9.85	0.08	0.4	0.11	8.0		-0.24		14.56	
6	705430 N	1472634 W	710829	1030	48	5	a. 87	0.22	0.1	0.04	11.0		-0.43		23.52	
B	705430 N	1472630 U	710829	1030	48	10	9.32	0.64	0.3	Q. 04	3.0		-0.89		27. 5a	
a	705430 N	1472630 U	710S23	1030	48	20	9.62	0.87	0.3	0.08	1?.0		-1.14		34?.13	
8	705430 N	1472630 W	710829	1030	48	30	8.51	0.87	0.6	0.14	14.0		1.62		31. 3a	
B	705430 N	1472630 W	71 OLY?3	1030	48	47	8.51	1.19	1.0	0.26	20.0		1.09		31.76	
8	705900 N	147?400 W	710829	1900	105	0	a. 9a		0.3	0.08	14.0		-0. 4a		14. 9a	
8	705900 N	1472400 u	710829	1900	105	5	9.26	0.41	0.1	0.07	15.0		-0.82		26-24	
8	705900 N	1472400 U	710829	1900	105	10	9.42	0.61	0.7	0.11	17.0		-0.3a		27.92	
a	705900 N	1472400 W	710829	1900	105	20	9.29	0.75	0.a	0.06	18.0		-1.06		30.10	
8	705900 N	1472400 W	710823	1900	105	25	3. 08	0.75	0.a	0.14	21.0		-e. 55		30.75	
B	705900 N	1472400 W	710829	1900	105	30	9.08	0. 86	0.8	0.19	20.0		-c. 59		31.20	
8	705900 N	1472400 w	710B29	1900	105	35	8. 80	3.62	1.0	0.17	26.Q		0.05		31.37	
8	705900 N	1472400 w	710829	1900	105	50	8.42	1.02	2.0	0.28	30.0		0.10		31.98	
8	705900 N	1472400 W	710829	1900	105	75	7.33	1.18	3.,	0.16	37.0		-e. 56		32.27	
9	705900 N	1472400 W	710829	1900	105	37	7.s4	1.35	4.0	0.23	39a		-0. 80		32. 39	
8	710743 N	1480118 W	71 0830	200	550	0	a. 56	0.59	0.3	0.12	5.0					
E	710748 N	14801 18 W	710830	200	550	10	9.27	0.55	c.".	0.10	4.0					
8	710748 N	14801 18 W	7 1 0830	200	550	20	9.25	0.81	0.2	0.09	7.0		-0.28		30.31	

ID = B: from HUFFORD ET AL, 1974
USCG GLACIER
AUGUST - SEPTEMBER ! 97:

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NW-N mg-at /m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE S103-S1 mg-at/m3	ALKALINITY m-equi /1	TEMPERATURE deg. C	SALINITY ppt
B	710748 N	1480118 W	710830	200	550	50	8.44	1.06		2.0	0.19	13.0		0.10	32.08
B	710748 N	1480118 W	710830	200	550	100	7.54	1.51		7.6	0.21	28.0		-1.14	32.89
8	710748 N	1480118 W	71 0830	200	550	125	7.30	1.72		10.7	0.21	34.0		-1.25	33.05
B	710748 N	1480118 W	710830	200	550	175	6.62	1.17		10.7	0.19	14.0		-1.35	
8	710748 N	1480118 W	710830	200	550	250	6.04	1.11		10.2	0.13	13.0		-0.55	34.43
B	710748 N	1480118 u	710830	200	550	375	6. 32	1. 07		7.9	0.14	31.0		0.27	34.89
B	710748 N	1480118 W	710830	200	550	400	6.27	:. 05		10.8	0.21	25.0		0.31	34.91
8	710748 N	14801 18 W	710830	200	550	500	6.55	0. 95		3.9	0.18	15.0		0.38	34.95
B	710500 N	1475800 W	710830	1154	93	0	8.69	0.44			0.04	3.0		-0.74	21.43
B	710500 N	1475800 w	710830	1 1 54	93	5	a. 94	a. 54		0.1	0.05	4.0		-0. 84	24.55
8	710500 N	1475800 u	710830	1154	93	10	9.28	0. 69		0.1	0.02	4.0		-1.04	27.09
B	710500 N	1475800 u	710830	1 154	93	20	9. 41	0. 84		0.1	0.05	4.0		-0. 58	29.86
B	710500 N	1475800 w	710830	1154	93	25	9.15	0.91		0.2	0.07	5.0		-0.17	30.75
B	710500 N	1475800 U	710830	1154	93	30	a. 37	0.99		0.6	0.11	9.0		-0.62	30.98
8	710500 N	1475800 W	710830	1 154	93	35	8.79	1.05		0.9	0.17	9.0		-0.06	31.31
B	710500 N	1475800 W	710830	1154	93	5a	8.41	1.27		2.2	0.19	15.0		-0.09	32.09
B	71 0500 N	1475aoo W	710830	1154	93	7a	8.38	1.33		2.2	0.14	15.0		-0.29	32.15
B	710500 N	1475800 W	710830	1154	93	90	7.75	1.62		4.5	0.19	24.0		-0.95	32.58
B	710500 N	1 475800 W	710830	1736	52	0	8. 56	0.20			0.02	3.0		-0.86	18.55
9	710500 N	1475800 W	710830	1736	52	5	8.84	0.52		0.3	0.10	3.0		-1.04	25.41
8	710500 N	1475800 W	710830	1 736	52	10	9.07	0.66		0.1	0.04	4.0		-1.04	27.67
B	710500 N	1475800 W	710830	1736	52	20	3.13	0.78		0.1	0.04	5.0		-e. 45	29.70
8	710500 N	:4756W W	710830	1736	52	25	8.61	0.90		0.2	0.04	6.0		0. 05	30.66
8	710500 N	1475800 u	710830	1736	52	30	6.5'3	0.90		0.3	0.09	8.0		0.35	30.99
9	710500 N	1475800 w	710830	1736	52	35	9.53	0. 85		0.6	0.13	8.0		0.66	31.25
3	710500 N	1 475800 W	710830	1736	52	40	a. 54	0.96		0.8	0.13	10.0		-0.25	31.43
8	710500 N	1475800 W	710830	1736	52	50	8.11	0.99		1.1	0.15	15.0		0.'34	31.81
B	704930 N	1480100 W	710830	2312	43	0	9.31	0.12				2.0		-0. 08	7.80
8	704930 N	1480100 W	710830	2312	43	5	8.80	0. 45		0.:	0.04	6.0		-0. 3a	24.66
B	704330 N	1480100 W	710830	2312	43	10	8.96			0.4	0.18	4.0		-e. n	26.24
B	704930 N	1480100 W	710830	2312	43	15	9.22			0.6	0.22	5.0		-0.18	28.73
8	704930 N	1480100 w	710830	2312	43	20	6.73	0. 6a		0.6	0.22	7.0		1.25	30.38
8	704930 N	1480100 W	710830	2312	43	30	8.20	0.73		0.7	0.26	7.0		2.45	31.43
B	704'330 N	1480100 W	710830	2312	43	40	3.24	0.83		1.1	0.44	8.0		-0. 4a	31.48
8	704000 N	1 480300 W	710831	354	29	0	a. 42	0. 36			0.05	4.0		-e. 20	20.43
B	704000 N	1480300 W	710831	354	29	5	a. 48	0. 23		0.4	0.08	4.0		0.10	22.53
6	704000 N	1480300 W	710831	354	29	10	8.78	0.94		0.4	0.06	4.0		0.24	27.29
8	704000 N	1480300 W	710831	354	29	15	9.'22	1.19		0.5	0.09	5.0		0.92	29.50
B	704000 N	1480300 W	710831	354	29	20	8.70	1.32		0.6	0.10	6.0		-0.05	30.77
B	703712 N	1481124 w	710831	606	21	0	8.37	0. 47		a.4	0.04	5.0		-0.28	20.82
8	7037 12 N	1481124 u	710831	606	21	5	a. 42	0.34		0.7	0.05	4.0		-0.16	21.05
B	703712 N	1481124 u	710831	606	21	10	8. 82	0.57		1.5	0.08	7.0		'a. 27	27.47
B	703712 N	1461124 W	710831	606	21	15	8.67	0.65		1.5	0.05	8.0		-0.26	30.15
S	703712 N	1481124 W	710831	606	21	20	.9.45	0. 74		1.8	0.08	8.0		-0.75	30.75
a	704454 N	1482200 W	710831	1028	31	0	a. 36	0. 28		0.7	0.04	7.0			20.87
B	704454 N	! 482200 W	710831	1028	31	5	8.36	0.24		1.5	0.05	8.0		0.34	21.28

ID = 8: from HUFFORD CT AL, 1974
USCG GLACIER
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ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at /m3	SILICATE SIO3-SI mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE
8	704454 N	1482200 W	710831	1028	31	10	8.63	0.43		0.7	0.04	8.0		0.23	26.15	
8	704454 N	1482200 W	710831	1028	31	15	8.89	0.50		2.2	0.05	9.0		0.35	28.80	
8	704454 N	1482200 w	710831	1028	31	20	8.47	0.66		3.3	0.09	10.0		-e. 85	31.13	
8	704454 N	1482200 W	710831	1028	31	29	8.62	0.65		3.6	0.11	12.0		-0.90	31.20	
6	705418 N	1482212 W	710831	1518	39	0	8.45	0.40		12.9	0.12	6.0		-0. 3a	22.42	
6	705418 N	1482212 W	710831	1518	39	5	8.53	0.52		12.9	0.10	5.0		-0.16	23.33	
8	705418 N	1482212 W	710831	1518	39	10	8.91	0.87		13.0	0.14	5.0		0.12	27.12	
8	705418 N	1482212 W	710831	1518	39	20	9.17	1.20		12.9	0.12	6.0		0.03	30.39	
5	705418 N	1482212 w	710831	1518	39	30	7.85	1.24		13.1	0.12	11.0		E, 70	31.27	
8	705418 N	1482212 W	710831	1518	39	37	7.76	1.42		13.1	0.15	11.0		2.47	31.30	
9	710918 N	1481900 w	710831	2042	256	0	8.73	0.10		12.9	0.11	4.0		-0.93	25.20	
8	710918 N	1481308 W	710831	2042	256	5	9.80	0.40		12.9	0.10	9.0		-0.88	26.42	
8	71091 8 N	1481900 W	710831	2042	256	10	8.98	0.44		12.9	0.09	4.0		-L?. 85	27.41	
8	710918 N	1481900 u	710831	2042	256	20	9.13	0.52		12.9	0.10	6.0		-0.10	30.27	
8	710918 N	1481900 w	710831	2042	256	30	9.11	0.71		12.9	0.10	6.0		-1.20	30.92	
8	710918 N	1481900 w	710831	2042	256	40	8.51	0.73		13.6	0.21	9.0		0.78		
8	710918 N	1481900 w	710831	2042	256	75	8.00	1.10		16.0	0.28	18.0		-0. 74	22.32	
8	710918 N	1481900 w	710831	2042	256	100	7.67	1.24		17.1	0.25	23.0		-0. 95	32.45	
8	710918 N	1481900 U	710831	2042	256	150	7.14	1.47		18.5	0.24	29.0		-1.27	33.05	
8	711200 N	1483600 W	710901	218	256	0	8.71	0.65			0.08	5.0		-3.80	25.54	
8	711200 N	! 4935%0 w	710901	218	256	5	9.75	0.47		0.2	0.07	4.0		-0. 22	25.56	
e	711200 N	1483600 w	710901	218	256	10	9.52	0.64		0.3	0.05	5.0		-e. 68	26.54	
8	711200 N	1483600 W	710901	218	256	20	9.08	0.74		0.1	0.05	8.0		1.22	30.13	
2	711200 N	1483600 W	710901	218	256	30	8.66	0.87		0.4	0.10	9.0		2.01	31.01	
8	711200 N	1483600 U	710901	218	256	40	8.39	0.74		0.8	0.16	11.0		1.65	31.49	
8	711200 N	1483600 w	710901	218	256	50	8.78	0.90		1.0	0.22	10.0		1.09	31.85	
e	711200 N	1483600 W	710901	218	256	75	8.69	1.24		3.4	0.19	21.0		-0. 73	32.38	
8	705700 N	1483100 u	710901	836	39	0	8.46	0.04			0.08	4.0		0.05	22.03	
e	705700 N	1483100 W	710'301	836	39	5	8.49	0.18		0.1	0.06	4.0			23.08	
8	705700 N	1483100 W	710901	836	39	10	8.93	1.46		0.1	0.08	5.0			25.97	
e	705700 N	1483100 W	710901	836	39	20	9.20	1.16			0.05	6.0		0.14	30.44	
8	705700 N	14 83100 w	710901	836	39	30	7.94	1.18		0.4	0.15	10.0		2.66	31.26	
8	705700 N	1483100 W	710901	836	39	37	7.96	1.19		0.4	0.14	11.0		2.60	31.30	
8	704836 N	1484348 w	720901	1248	33	5	8.50	0.06		0.1	0.05	4.0		0.09	22.19	
S	704836 N	1484348 W	720901	1248	33	10	8.59	0.63		0.1	0.05	5.0		k?. 42	25.90	
9	704836 N	1484348 w	720901	1248	33	15	9.14	1.12		0.1	0.06	6.0		0.64	29.13	
e	704836 N	148434a w	720901	1248	33	20	9.17	1.27		0.1	0.06	6.0		0. 77	30.70	
8	704836 N	1484348 W	720901	1248	33	31	8.46	1.31		0.3	0.18	7.0		-0.42	31.32	
e	704324 N	1484130 W	720301	1554	22	0	8.50	0.39		0.2	0.11	4.0		-0.42	20.30	
a	704324 N	1484130 W	720901	1554	22	5	9.08	0.39		0.2	0.10	4.0		'0. 01	22.69	
8	704324 N	1484130 w	720901	1554	22	10	8.90	0.39		0.3	0.11	5.0		0. 29	28.27	
8	704324 N	1484130 w	720901	1554	22	15	8.57	0.58		0.2	0.13	6.0		0.05	30.37	
a	704324 N	1484130 W	720'301	1554	22	20		0.67		0.4	0.22	7.0		-e. 75	30.99	
8	703600 N	1485000 W	720901	1346	19	0	9.71	0.21		0.1	0.07	4.0		-0.39	22.62	
e	703600 N	1485000 W	720901	1946	19	3	9.07	0.27		0.1	0.06	4.0		-0. 3a	25.40	
e	703600 N	1485000 W	720901	1946	19	5	9.14	0.31		0.1	0.08	4.0		-a. 24	27.04	

ID = 8: from HUFFORD ET AL, 1974
USCG GLACIER
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ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-eq ml/l	TEMPERATURE deg. C	SALINITY ppt
8	703600 N	1485000 W	720901	1946	19	10	8.75	0.38		0.2	0.12	5.0		-0.38	30.05
8	703600 N	14 85000 W	720901	1946	19	15	8.55	0.41		0.2	0.19	6.0		-0.64	30.63
8	783600 N	1485000 W	720901	1946	19	17	8.43	0. 39		0.3	0.26	6.0			30.66
8	704930 N	1485000 W	710902	2312	34	0	9.00				0.02			-0.45	
8	704930 N	1485000 W	710902	2312	34	5	8.91							-c. 44	25.37
8	704930 N	1485000 U	710902	2312	34	10	9.03			0.3	0.05				27.43
S	704930 N	1485000 W	710902	2312	34	15	8.94			0.7				1.30	30.24
8	704930 N	1 485000 W	7109022312		34	20	2. 80			1.0	0.06			1.41	31.20
S	704930 N	14 S5000 W	710902	2312	34	30	S. 28			1.7	0.17			1.34	31.21
8	710000 N	1485042 W	710903	1436	33	0	8.67	0. 09		0.1	0.14	4.0		-0.67	
8	710000 N	1485042 W	710902	1436	33	5	9.91			0.1	0.13	5.0		-0.70	22.24
8	710000 N	1485042 W	710903	1436	33	10	9.12	0.43		0.1	0.12	5.0		-0.65	26.39
s	7 10000 N	14 85042 W	710903	1436	33	20	9. 38	0. 54			0.04	5.0		0. 3s	29.95
8	710000 N	14 85042 U	7109831436		33	30	8. 20	0. 86		0.3	0.24	10.0		1.90	31.39
8	711200 N	1484354 W	710903	1954	166	0	8.75	0.11			0.09	4.0			20.08
8	711200 N	1484354 W	710'303	1354	166	5	8. 67			0.1	0.09	5.0			20.32
8	711200 N	1484354 W	710903	1954	166	10	8.87	0.30		0.1	0.11	5.0			24.30
8	711200 N	! 484324 W	710903	1954	166	15	0.87	0.59		0.1	0.11	5.0			28.77
S	711200 N	1484354 w	710903	1954	166	20	B. 50	0.64		0.1	0.12	7.0			30.03
8	711200 N	1484354 W	710903	1954	166	30	8,56	0.57		0.2	0.16	7.0			30.85
8	711200 N	1484354 w	710903	1954	166	50	s. 43	u. 73		1.2	0.42	8.0			31.52
8	711200 N	14s43s4 W	710903	1954	166	70	7.95	1.26		3.7	0.14	16.0			32.18
8	711200 N	1494355 W	710903	1954	166	100	7.05	1.56		6.4	0.39	22.0			32.96
8	711200 N	1484354 W	710903	1954	166	120	6.39	1.66		7.7	0.24	33.0			33.54
S	712012 N	1490706 w	710804	83.6	1829	39	S. 63	0.84		7.3	0.16	12.0		1.04	31.85
8	712012 N	1490706 W	710804	836	1829	250	7.39	0. 62		0.3	0.17	10.0		-0.12	34.66
8	712012 N	1490706 W	710804	836	1829	500	6.94	1.57		9.6	0.14	19.0		0.38	34.98
8	712012 N	1490706 W	710804	836	1829	745	6.9@	0.91		8.2	0.06	13.0		0.10	35.01
s	712012 N	1 435706 W	710804	836	1829	1250	6. S6	0.85		7.4	0.07	12.0		-0.26	35.03
8	712012 N	14 90706 U	710804	836	1829	1485	E. 88	0. 83		7.1	0.08	12.0		-0.34	35.05
S	712324 N	1493900 w	710905	1930	1829	0	a. 59				0.06			1.00	
6	712324 N	1493900 W	710905	1930	1829	10	9.02			1.6	0.09			0.72	
B	712324 N	1493900 w	710905	1 930	1829	15	8.61			1.3	0.08			1.74	27.04
8	712324 N	1493900 W	710905	1930	1829	20	9.32			1.8	0.06			-0.59	29.44
S	712324 h'	1493500 w	710905	1930	1829	25	9.31			1.3	0.08			-0.85	30.27
.s	712324 N	1493900 w	710905	1330	1829	30	B. 88			3.7	0.24			-0.35	30.52
8	712324 N	1493900 W	710905	1930	1829	35	8.58			6.5	0.45			-0.03	31.05
S	712324 N	1493900 W	710905	1930	1829	50	8. 36			5.3	0.22			-0.51	31.36
8	712324 N	1493900 w	710905	1930	1829	75	7.49			11.5	0.30			-1.17	32.10
8	712324 N	1493900 W	710905	1930	1829	100	7.63			12.9	0.39			-1.12	32.65
s	711424 N	1492554 w	710905	21 12	558	0	9. 76	0.42		2.2	0.12	4.0			
8	711424 N	1492554 w	710905	2112	558	10	8.78	0.63		1.8	0.09	5.0			
8	711424 N	1492554 W	710905	2112	558	15	9.22	0.61		1.1	0.06	6.0		-0.79	
s	7! 1424 N	1492554 W	710905	2112	558	20	3.32	0.68		0.4	0.04	7.0		-0.88	
s	711424 N	1492554 w	710905	2112	558	30	9.31	0.66		1.8	0.12	10.0		-0.82	30.97
8	711424 N	1492554 W	710905	2112	558	75	7.78	1.53		11.0	0.20	40.0		-1.34	33.38

ID = 8; from HUFFORD ET AL, 1974
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ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE
3	711424 N	1492554 W	710905	2112	558	200	6.08	1.07		11.4	0.23	20.0		0.09	34.80	
8	711424 N	1497554 W	7109052:	12	558	400	6.42	0.88		9.5	0.19	15.a		0.38	34.96	
B	711424 N	1432554 W	710905	2112	558	500	6.52	0.81		9.2	0.17	15.0		0.38	34.96	
8	711154 N	1493106 u	710906	248	192	0	8.71	0.14		3.1	0.21	4.0		-0.91	20.71	
9	711154 N	1493106 W	710906	248	192	5	8.71	0.11		3.3	0.21	3.0		-0.91	20.83	
B	711154 N	1493106 u	710906	248	192	10	8.90	0.23		3.1	0.22	3.0		-0.48	24.24	
s	711154 N	1493106 u	710906	248	192	15	9.07	0.46		2.4	0.20	3.0		-0.33	27.56	
8	711154 N	1493106 W	710906	248	192	20	9.41	0.58		2.2	0.20	2.0		-0.88	28.26	
9	711154 N	1493106 u	710906	248	192	30	8.87	0.61		1.3	0.16	5.0		1.39	30.67	
a	711154 N	1493106 W	710906	248	192	40	8.15	0.58		4.4	0.33	7.0		2.47	31.30	
9	711154 N	1493106 U	710306	248	192	50	7.98	0.99		4.9	0.33	13.0		[illegible]	31.66	
8	711154 N	1493106 U	710906	248	192	75	7.90	1.80		8.9	0.36	30.0		-1.31	33.21	
8	71! 154 N	1493106 W	710906	248	192	100	6.23	1.92		9.5	0.31	33.0		-1.27	33.67	
9	705512 N	14 85700 U	710906	1712	34	0		0.55			0.04	5.0		-0.6?	22.36	
a	705512 N	1485700 W	710906	1712	34	5		0.62			0.09	5.0		-0.58	22.44	
8	705512 N	14 85700 W	710906	1712	34	10		0.83			0.07	3.0		-0.47	26.65	
1?	705512 N	1485700 W	710906	1712	34	20		0.73			0.04	5.0		0.77	30.81	
a	705512 N	1485700 U	710906	1712	34	30		0.80		0.3	0.17	3.0		1.10	31.48	
8	704300 N	1490000 W	710306	2130	24	0	8.32	1.01			0.07	5.c		-0.72	28.48	
9	704300 N	1490000 W	710906	2130	24	5	8.71	1.10		0.3	0.08	5.0		-e.9!	29.56	
8	704300 N	1490000 W	710906	2130	24	10	8.37	1.35		0.4	0.10	7.0		-1.06	30.36	
8	704300 N	1490000 W	710906	2130	24	15	8.40	1.54		0.2	0.10	3.0		-0.92	31.26	
8	704300 N	1490000 W	710906	2130	24	20	8.35	1.56		0.3	0.12	9.0		-1.02	31.27	
8	703900 N	1482100 W	7:09072100		22	0	8.48	0.59		0.1	0.07	5.0		-0.32	28.26	
8	703900 N	1482100 W	710907	2100	22	5	8.98	0.60		0.1	0.10	5.0		-c.81	29.42	
5	703900 N	1482100 U	710907	2100	22	10	9.25	0.69		0.2	0.14	5.0		-1.30	30.61	
8	7'23300 N	1482100 W	710907	2100	22	15	8.42	0.94		0.9	0.17	1.0		-1.97	31.11	
9	703900 N	1482100 U	71 0907	2100	22	20	7.88	0.98		1.1	0.22	13.0		-1.11	31.52	
9	710400 N	151 2200 W	710910	118	20	0	8.51				0.04			-0.70	25.44	
3	710400 N	1512200 W	710910	118	20	5	8.53			0.5	0.28			-0.62	27.15	
8	710400 N	1512200 U	710910	118	20	10	8.44			0.3	0.15			-0.04	28.55	
8	710400 N	1512200 14	710910	118	20	15	8.23			0.5	0.21			2.12	31.14	
8	710400 N	1512200 U	710910	118	20	18	8.22			0.7	0.32			2.22	30.27	
3	711100 N	1511336 u	710910	718	47	0	8.60	0.53		0.4	0.04	5.0		-e.83	22.76	
8	711100 N	1511336 W	710910	718	47	5	8.69	0.54		0.5	0.04	4.0		-0.50	25.95	
8	711100 N	1511336 W	710910	719	47	10	8.50	0.56		0.8	0.06	4.0		0.27	28.10	
B	711100 N	151 1336 U	710910	719	47	20	8.01	0.57		0.8	0.06	4.0		2.56	30.41	
8	711100 N	1511336 W	710910	718	47	30	7.90	0.71		1.1	0.10	5.0		2.39	31.06	
8	711100 N	:511336 U	710910	718	47	45	8.69	1.47		6.7	0.15	17.0		-0.88	32.57	
ii	711918 N	1511742 W	710910	1206	71	0	8.69	0.23		0.2	0.02	4.0		-0.98	21.46	
8	711918 N	1511742 W	710910	1206	71	10	8.44	0.37		0.2	0.01	2.0		-0.80	26.14	
9	711918 N	1511742 W	710910	1206	71	20	8.60	0.44		0.3	0.01	3.0		1.91	30.50	
8	711918 N	1511742 W	710910	1206	71	25	9.10	0.58		0.5	0.02	6.0		0.44	31.41	
8	711918 N	1511742 W	710910	1206	71	30	9.09	0.72		0.8	0.03	4.0		0.31		
8	711918 N	1511742 W	710910	1206	71	40	8.37	1.15		2.9	0.06	12.e		-0.75	32.60	
9	711918 N	1511742 W	710910	1206	71	50		1.41		5.5	0.08	19.0		-1.04		

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ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (n)	OXYGEN ml/l	PHOSPHATE PO4 -P mg-at/m3	AMMONIA N NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at /m3	SILICATE Si03-Si mg-at /m3	ALKALINITY m-equi /l	TEMPERATURE deg. C	SALINITY ppt
8	711918 N	1511742 W	710910	1206	71	68	7.44	1.54		7.8	0.11	12.0		-1.15	32.77
8	712000 N	1511300 W	710910	1436	98	0	8.82	0.50		0.8	0.09			-0.98	21.61
8	712000 N	1511300 W	710910	1436	98	10	8.50	0.60		0.5	0.11			0.69	
8	712000 N	1511300 W	710910	1436	98	15	8.56	0.73		0.9	0.14			0.69	26.33
8	712000 N	1511300 W	710910	1436	98	20	8.86	0.91		0.3	0.13			1.62	30.27
8	712000 N	1511300 W	710910	1436	98	30	9.39	0.99		1.4	0.20			0.34	31.53
8	712000 N	1511300 W	710910	1436	98	40	8.43	1.00		4.9	0.30			-0.63	32.14
8	712000 N	1511300 W	710910	1436	98	65	7.52	1.26		9.2	0.34			-1.19	32.82
8	712000 N	1511300 W	710910	1436	98	85	7.06	1.57		10.9	0.37			-1.33	33.03
8	711448 N	1502736 W	710910	2112	95	0	8.79	0.06		0.2	0.28	5.0		-0.79	19.42
8	711448 N	1502736 W	710910	2112	95	10	9.24	0.42		0.2	0.29	3.0		-0.92	27.16
8	711448 N	1502736 W	710910	2112	95	20	9.54	0.50		0.3	0.30	4.0		-1.27	30.19
8	711448 N	1502736 W	710910	2112	95	30	9.09	0.51		0.7	0.40	9.!?		-1.26	30.94
8	711448 N	1502736 W	710910	2112	95	35	8.46	0.58		1.0	0.53	3.0		1.01	31.30
8	711448 N	1502736 W	710910	2112	95	40	8.13	0.76		2.2	0.55	15.0		0.92	31.78
8	711448 N	1502736 W	7:09192112		95	50	7.40	1.00		8.6	0.57	28.0		-1.14	32.71
8	711448 N	1502736 W	710910	2112	95	70	7.19	1.43		9.6	0.58	31.0		-1.25	32.84
8	711448 N	1502736 W	710910	2112	95	90	7.29	1.61		9.4	0.61	3?.0		-1.23	32.86
8	710442 N	1502736 W	71091!	542	28	0	8.60	0.44			0.07	7.c		-0.59	22.33
8	710442 N	1502736 W	710911	542	28	5	8.72	0.41			0.07	7.0		-0.48	24.48
8	710442 N	1502736 W	710911	542	28	10	8.95	0.48			0.24	6.0		-0.50	26.86
8	710442 N	1502736 W	710911	542	28	15	9.00	0.55			0.65	6.@		-0.50	28.29
8	710442 N	1502736 W	710911	542	28	20	8.17	0.70		0.1	0.69	10.0		2.43	30.58
8	710442 N	1502736 W	710911	542	28	25	7.77	1.05		1.8	0.54	16.0		1.71	31.48
8	705824 N	1495906 W	710911	1036	26	0	8.60	0.20				6.0		-0.75	21.35
8	705824 N	1495906 W	710911	1036	26	5	8.60	0.13			0.08	7.0		-0.77	21.36
8	705824 N	1495906 W	710911	1036	26	10	8.55	0.61			0.07	7.0		-0.56	21.41
8	705824 N	1495906 W	710911	1036	26	15	8.55	0.77		0.1	0.07	7.0		-0.62	29.32
8	705824 N	1495906 W	710911	1036	26	24	8.25	0.79		0.2	0.13	11.0		1.40	31.02
8	705812 N	1495254 W	710911	1400	26	0	8.62	0.37		0.1	0.07	3.0		-0.67	21.25
8	705812 N	1495254 W	710911	1400	26	5	8.69	0.34				3.0		-0.18	24.67
8	705812 N	1495254 W	710911	1400	26	10	8.96	0.61			0.05	3.0		-0.42	29.15
8	705812 N	1495254 W	710911	1400	26	15	9.00	1.11			0.06	4.0		0.60	
8	705812 N	1495254 W	710911	1400	26	20	8.60	1.18		0.1	0.15	5.0		-0.23	29.95
8	705812 N	1495254 W	710911	1400	26	25	8.27	1.54		0.3	0.22	e.0		1.44	31.08
8	705542 N	1492312 W	710911	1754	26	0	8.72					3.0		-0.60	21.09
8	705542 N	1492312 W	710911	1754	26	5	8.70			0.1	0.03	4.0		-0.40	22.71
8	705542 N	1492312 W	710911	1754	26	10	8.69	0.50			0.02	3.$		-0.42	27.78
8	705542 N	1492312 W	710911	1754	26	15	8.93	1.01			0.05	4.0		-0.34	29.92
8	705542 N	1492312 W	710911	1754	26	20	9.33	1.26		0.1	0.06	6.0		1.17	
8	705542 N	1492312 W	710911	1754	26	25	8.70	1.28			0.23	10.0		1.90	31.15
8	710806 N	1492212 W	7:03::	2330	44	0	8.64	0.24			0.12	4.0		-0.72	20.05
8	710806 N	1492212 W	71031!	2330	44	5	8.67	0.30		0.2	0.15	4.0		0.67	23.11
8	710806 N	1492212 W	710911	2330	44	10	9.30	0.56		0.2	0.15	3.0		-0.90	27.54
8	710806 N	1492212 W	710911	2330	44	15	9.56	0.63			0.07	3.0		-1.27	29.44
8	710806 N	1492212 W	710911	2330	44	20	9.43	0.56		0.1	0.12	4.0		-1.22	30.41

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ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SIO3-SI mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE deg.C	SALINITY ppt	ICE SAMPLE
8	710806 N	1492212 W	710911	2330	44	25	8.47	0.60		0.2	0.13	7.0		-1.37	24.93	
8	710806 N	1492212 W	710911	2330	44	35	7.98	1.05		1.9	0.29	12.0		-1.01	31.72	
8	710806 N	1492212 W	710911	2330	44	42	8.02	1.04		2.2	0.37	13.0		-0.59	31.91	
8	711130 N	1494624 W	710912	436	107	0	8.64	0.25		0.1	0.14	4.0		-0.84	20.30	
8	711130 N	1494624 W	710912	436	107	5	8.67	0.16		0.1	0.11	3.0		-0.92	22.18	
8	711130 N	1494624 W	710912	436	107	10	9.30	0.28		0.2	0.18	3.0		-0.82	26.17	
8	711130 N	1494624 W	710912	436	107	15	9.41	0.48			0.08	3.0		-1.15	29.57	
8	711130 N	1494624 W	710912	436	107	20	9.42	0.50		0.1	0.19	4.0		-1.06	30.52	
8	711130 N	1494624 W	710912	436	107	25	9.15	0.62		0.5	0.37	6.0		-1.25	30.94	
8	711130 N	1494624 W	710912	436	107	40	7.92	0.94		3.6	0.42	13.0		-0.86	31.95	
8	711130 N	1494624 W	710912	436	107	50	8.92	1.09		4.1	0.58	16.0		-0.87	32.25	
8	711130 N	1494624 W	710912	436	107	60	7.38	1.35		5.5	0.56	22.0		-0.98	32.71	
8	711130 N	1494624 W	710912	436	107	80	6.82	1.93		7.3	0.52	26.0		-1.37	33.08	
8	711130 N	1494624 W	710912	436	107	100	6.71	1.95		7.1	0.44	27.0		-1.41	33.28	
8	711712 N	1502400 W	710912	1230	530	0	8.77	0.27		0.9	0.07	3.0				
8	711712 N	1502400 W	710912	1230	530	20	9.02	0.36		1.6	0.22	5.0		1.00		
8	711712 N	1502400 W	710912	1230	530	25	8.59	0.55		1.0	0.36	7.0		1.25		
8	711712 N	1502400 W	710912	1230	530	39	8.84	0.78		1.0	0.21	10.2		1.04	31.86	
8	711712 N	1502400 W	710912	1230	530	150	6.33	0.87		12.5	0.46	28.0		-1.34	33.85	
8	711712 N	1502400 W	710912	1230	530	200	5.99	1.61		10.8	0.29	19.0		-0.42	34.53	
8	711712 N	1502400 W	710912	1230	530	250	6.21	1.54		11.6	0.37	12.0		0.04	34.78	
8	711712 N	1502400 W	710912	1230	530	420	6.21	1.33		11.4	0.38	13.0		0.30	34.92	
8	713012 N	1503106 W	710913	800	1829	1500	6.74	0.87		8.4	0.14	9.0		-0.37	34.92	
8	713012 N	1503106 W	710913	800	1829	1550	6.75	0.86		14.9	0.44	11.0		-0.36	34.92	
8	713012 N	1503106 W	710913	800	1829	1600	6.70	0.86		15.3	0.66	12.0		-0.35	34.92	
8	713012 N	1503106 W	710913	800	1829	1650	6.72	0.85		15.3	0.60	12.0		-0.38	34.93	
8	713012 N	1503106 W	710913	800	1829	1700	6.68	0.82		15.3	0.08	11.0		-0.38	34.93	
8	713012 N	1503106 W	710913	800	1829	1750	6.71	0.83		15.3	0.14	12.0		-0.38	34.94	
8	713012 N	1503106 W	710913	800	1829	1800	6.68	0.80		15.3	0.15	12.0		-0.40	34.94	
8	713012 N	1503118 W	710913	1018	1820	0	8.79				0.08	3.0				
8	713012 N	1503118 W	710913	1018	1820	10	9.10	0.30		0.1	0.08	4.0				
8	713012 N	1503118 W	710913	1018	1820	20	8.10	0.32			0.08	3.0		3.20	30.78	
8	713012 N	1503118 W	710913	1018	1820	34	8.12	0.79		0.2	0.28	9.0		2.25	31.40	
8	713012 N	1503118 W	710913	1018	1820	40	8.53	1.00		1.1	0.47	10.0		0.60	31.68	
8	713012 N	1503118 W	710913	1018	1820	60	7.92	1.47		4.8	0.24	21.0		-1.10	32.52	
8	713012 N	1503118 W	710913	1018	1820	484	6.59	0.91		9.2	0.35	9.0		0.37	35.00	
8	713012 N	1503118 W	710913	1018	1820	635	6.75	0.88		9.2	0.19	11.0		0.24	35.01	
8	713012 N	1503118 W	710913	1018	1820	800	6.77	0.89		14.3		12.0		0.06	35.01	
8	713848 N	1525936 W	710915	442	112	0	8.59	0.35		0.2	0.11	3.0		-1.05	25.17	
8	713848 N	1525936 W	710915	442	113	10	8.52	2.30		0.1	0.08	3.0		0.94		
8	713848 N	1525936 W	710915	442	113	15	8.60	0.24		0.2	0.16	4.0		0.16	25.55	
8	713848 N	1525936 W	710915	442	113	20	8.99	0.27		0.4	0.21	5.0		0.81	27.52	
8	713848 N	1525936 W	710915	442	113	25	8.89	0.28		0.5	0.20	5.0		1.24	30.56	
8	713848 N	1525936 W	710915	442	113	30	8.40	0.43		1.2	0.39	8.0		1.99	31.06	
8	713848 N	1525936 W	710915	442	113	40	8.61	1.16		3.1	0.39	12.0		-0.52	32.01	
8	713848 N	1525936 W	710915	442	113	50	7.99	1.19		6.2	0.40	16.0		-0.94	32.35	

ID = 8: from HUFFORD ET AL, 1974
USCG GLACIER
AUGUST - SEPTEMBER 1971

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SIO3-SI mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE deg.C	SALINITY ppt
8	713848 N	1525936 W	710915	442	113	60	7.59	1.19		7.7	0.45	19.0		-1.12	32.56
8	713848 N	1525936 W	710915	442	113	80	7.41	1.21		8.7	0.52	23.0		-1.20	32.92
8	713848 N	1525936 W	710915	442	113	90	7.29	1.34		9.5	0.59	22.0		-1.28	32.95
8	713424 N	1525512 W	710915	1154	58	0	8.50	0.49			0.05	4.0		-0.85	24.04
8	713424 N	1525512 W	710915	1154	58	10	8.41	0.30		0.1	0.07	5.0		-0.78	25.34
8	713424 N	1525512 W	710915	1154	58	20	7.86	0.61		0.2	0.07	9.0		2.95	29.48
8	713424 N	1525512 W	710915	1154	58	25	9.10	0.75		0.6	0.11	9.0		1.50	30.19
8	713424 N	1525512 W	710915	1154	58	30	9.41	0.77		0.5	0.07	10.0		1.08	30.44
8	713424 N	1525512 W	710915	1154	58	40	8.85	1.16		1.2	0.07	14.0		-0.24	31.87
8	713424 N	1525512 W	710915	1154	58	55	7.92	1.47		6.1	0.22	25.0		-0.86	32.48
8	712212 N	1525154 W	710915	1448	93	0	8.62	0.18		0.5	0.11	5.0		-0.92	23.00
8	712212 N	1525154 W	710915	1448	93	10	8.50	0.19		0.5	0.09	4.0		-0.29	25.77
8	712212 N	1525154 W	710915	1448	93	20	8.41	0.43		0.6	0.10	7.0		2.37	29.80
8	712212 N	1525154 W	710'313	1448	93	30	8.46	0.52		0.9	0.12	7.0		1.74	30.55
8	712212 N	1525154 W	710915	1448	93	40	8.81	1.03		1.9	0.11	11.0		0.34	31.64
8	712212 N	1525154 W	710915	1448	93	50	8.38	1.44		4.5	0.28	20.0		-0.61	32.20
8	712212 N	1525154 W	710915	1448	93	60	8.09	1.64		5.6	0.25	23.0		-0.80	32.41
8	712212 N	1525154 W	710915	1448	93	70	7.99	1.70		5.2	0.24	25.0		-0.96	32.68
8	712212 N	1525154 W	710915	1448	93	78	7.57	1.78		6.2	0.25	27.0		-1.14	32.84
8	710730 N	1530000 W	710915	1942	22	0	8.67	0.55		0.1	0.21	4.0		0.92	25.00
8	710730 N	1530000 W	710915	1942	22	5	8.63	0.51			0.08	4.0		-0.80	
8	710730 N	1530000 W	710915	1942	22	10	8.51	0.76			0.19	7.0		0.89	28.56
8	710730 N	1530000 W	710915	1942	22	15	8.49	0.82		1.0	0.45	13.0		1.21	31.07
8	710730 N	1530000 W	710915	1942	22	20	8.45	0.84		1.0	0.47	13.0		1.22	31.10
8	712300 N	1533400 W	710'31s	1100	52	0	8.50	1.00				5.0		-0.77	23.21
8	712300 N	1533400 W	710916	1100	52	10	8.47	0.90		0.3		5.0		-0.71	24.06
8	712300 N	1533400 W	710916	1100	52	15	8.39	0.96		0.5	0.09	6.0		1.22	27.84
8	712300 N	1533400 W	710916	1100	52	20	7.76	0.92		0.5		8.0		3.08	29.07
8	712300 N	1533400 W	710916	1100	52	25	8.37	0.95		0.3	0.12	9.0		2.25	29.85
8	712300 N	1533400 W	710916	1100	52	30	8.37	1.00		0.5	0.18	8.0		2.34	30.67
8	712300 N	1533400 W	710916:100		52	35	7.89	0.99		1.4	0.36	7.0		2.43	31.04
8	712300 N	1533400 W	710916	1100	52	40	8.12	1.43		5.5	0.43	11.0		-0.49	32.28
8	712236 N	1540412 W	710916	1324	37	0	8.46	0.64				8.0		-0.85	23.25
8	712236 N	1540412 W	710916	1324	37	10	8.43	0.68		0.1		9.0		-0.35	25.79
8	712236 N	1540412 W	710916	1324	37	15	8.52	0.74		0.3		9.0		1.28	27.94
8	712236 N	1540412 W	710916	1324	37	20	8.31	0.75		0.3		9.0		2.22	28.63
8	712236 N	1540412 W	710916	1324	37	25	8.17	0.85		0.3	0.23	11.0		2.78	30.32
8	712236 N	1540412 W	710916	1324	37	30	9.17	0.10		1.0	1.00	112.0		0.78	30.79
8	712236 N	1540412 W	710916	1324	37	35	8.79	1.37		0.8	0.34	18.0		0.71	31.24
8	712512 N	1542812 W	710916	1536	31	0	8.48	0.65				8.0		-0.71	23.96
8	712512 N	1542812 W	710916	1536	31	10	8.41	0.68				8.0		-0.44	25.64
8	712512 N	1542812 W	710916	1536	31	15	8.39	0.69				9.0		1.63	29.10
8	712512 N	1542812 W	710916	1536	31	22	8.30	0.71				14.0		1.71	30.85
8	712512 N	1542812 W	710916	1536	31	28	8.25	0.73				15.0		1.59	30.91

ID = 9: from HUFFORD ET AL, 1974
USCG STATEN ISLAND
JULY 1972

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO GUTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/1	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE S103-S1 mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPL
9	713300 N	1560700 W	720708	830	144	0	3.41	0.17						1.00	25.76	
9	713300 N	1 560700 W	720708	830	144	5	9.68	0.17			0.13	5.0		-1.03	29.73	
9	713300 N	1560700 w	720708	830	144	10	9.70	0.08						-e. 93	29.36	
9	7133$0 N	1560700 H	72070B	B30	144	15	9.74	0.11		0.2	0.14	11.0		-e. 95	30.00	
9	713300 N	1560700 W	720708	830	144	20	9.84	0.64			0.10			-1.07	30.25	
9	713300 N	1560700 W	720708	B30	144	25	9.44	0.48			0.12			-1.03	30.73	
9	713300 N	1560700 w	720708	830	144	30	9.82	0.44		0.4	0.14			-0.99	31.48	
9	713300 N	1560700 w	720708	830	144	35	3.44	0.94			0.10			-9.70	32.10	
9	713300 N	1560700 w	720708	830	144	40	8,74	0.69		0.3	0.18	11.0		-e. 54	32,47	
9	713300 N	1560700 U	720708	B30	144	58	7.90	1.04		9.5	0.32	22.0		-0.99	32.81	
9	713800 N	! 550700 W	720708	1536	44	0	8.38				0.07			0.83	33.03	
9	713800 N	15507$0 W	720708	1536	44	5	9.44	0.48			0.08			0.44	30.66	
9	713800 N	1550700 w	720708	1536	44	10	9,77	0.33			0.16			0.18	31.33	
9	713800 N	1550700 W	720708	1536	44	15	9.99	0.72			0.02	10.0		0.27	31.58	
9	713800 N	1550700 W	720708	1536	44	20	9.57	0.67				9.0		2.23	31.87	
3	713800 N	1550700 W	720708	15.36	44	25	9.62	0.67			0.04			1.20	31.89	
9	713800 N	1550700 W	720708	1536	44	30	9.57	0.59			0.14			-0.06	31.91	
9	713800 N	1550700 W	720708	1536	44	35	9.17	0.59			0.19			0.43	32.26	
9	713900 N	153"- W	720706	191 8	54	0	9.17				8.01			-0.34	38.68	
9	713900 N	1535500 H	720708	1918	54	5	9.92	0.22			0.13			-e. 47	30.75	
9	713900 N	1535500 w	720708	1918	54	10	10.15	0.67			0.02	9.0		-0.25	31.46	
9	713900 N	1535500 W	720708	1918	54	15	10.19	0.37			0.08			-0.24	31.66	
3	713900 N	1535500 u	720708	1918	54	20	10.16	0.44			0.11			-e. 33	31.82	
9	713900 N	1535500 u	720708	1918	54	25	9.94	0.48		0.1	0.17			0.23	31.93	
9	713900 N	1535500 w	720708	1918	54	30	10.00	0.44			0.18			0.32	32.01	
9	713900 N	15355a0 W	720708	1916	54	35	9.84	0.43		e.1	0.11			0..96	32.18	
9	710730 N	1511100 w	720710	1106	20	0	9.06			0.6				-1.17	26.65	
9	710730 N	1511100 W	7207101186		20	5	8.73	e. 70		3.8	e. 18	2.0		-1.32	32.02	
9	710730 N	1511100 W	720710	1106	20	10	8.29	1.02		6.0	0.19	5.0		-1.29	32.31	
9	710730 N	1511100 w	720710	1106	20	15	7.67	1.09		13.7	0.16	16.0		-1.10	32.73	
9	710700 N	1502300 w	720711	830	48	5	9.51	1.55		0.4	0.15			-1.43	31.3a	
9	710700 N	1502300 W	72@711	830	4B	10	8.88	1.22		2.2	0.04	15.0		-1.47	31.65	
3	710700 N	1502300 w	720711	830	48	15	7.43	1.05		14.'2	0.19	16.0		-1.41	32.27	
9	710700 N	1502300 W	72f1711	830	48	20	7.19	1,14		16.7	0.14	14.0		-1.40	32.53	
'3	710708 N	1502300 W	7207)1	830	4B	25	6.96	1.30		22.6	0.23	27.0		-1.41	32.73	
9	710700 N	1502300 W	72071 1	830	4B	30	7.32	1.04		6.0	0.11			-0.34	31.93	
9	710700 N	1502300 U	720711	830	48	35	8.41	1,33		2.9	0.08	5.0		-0.32	31.10	
9	710700 N	1502300 W	720711	B30	48	40	8,46	1,47		4.1	0.03	9.@		-e. 33	31.71	
9	795600 N	1502200 U	720712	2036	25	0	9.04				0.05			-0.04	26.49	
3	705600 N	1502200 W	720712	2036	25	5	9.07	e. 45			0.09			-1.54	30.81	
9	705600 N	1502200 w	720712	2036	25	10	9.11	0.65				1.0		-1.58	31.10	
9	705600 N	1502200 W	720712	2036	25	15	7.71	1.43		9.3	e. 09	4.0		-1.43	32.33	
9	705600 N	1502200 W	720712	?036	25	20	7.47	1.44		3.4	0.04	8.0		-1.43	32.45	
9	703300 N	1474500 U	720716	448	26	0	9.02				0.05			-e. 19	4.76	
9	703300 N	1474500 w	720716	448	26	5	8.56	0.92		1.8	0.10			-1.58	30.52	
3	703300 N	14745'?0 W	720716	448	26	10	8.56	0.79		1.5	e. 09			1.61	30.56	

ID = 9: from HUFFORD ET AL, 1374
USCG STATEN ISLAND
JULY 1972

ID	LATITUDE	LONGITUDE	DATE	TINE TO GMT	DEPTH BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE S103-S1 mg-at /m3	ALKALINITY m-equi/l	TEMPERATURE deg. C	SALINITY ppt
9	703300 N	1474500 w	720716	448	26	15	7.81	1.52		6.8	0.07	9.0		-1.46	31.75
9	703300 N	14745'30 W	720716	448	26	20	7.08	1.53		10.8	'3.19	11.0		-1.44	32.11

ID = 10: from HUFFORD ET AL, 1974
USCG GLACIER
AUGUST - SEPTEMBER 1972

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE S103-S1 mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE	WAVE DIR	IWE HEIGHT	W PE
10	701318 N	1430618 W	720804	1254	26	0	8.71				0.08	4.0		-0.10	3a. 07				
10	701318 N	1430618 u	720804	1254	26	5	8.39	1.77		2.0	0.15	19.0		-0.92	31.11				
10	701318 N	1430618 u	720804	1254	26	10	7.29	1.07		8.9	0. 22	27.0		-1.40	32.04				
10	701318 N	1430618 W	720804	1254	26	15	6.99	1.31		10.9	0.25	26. 0		-1.45	32. 25				
10	701318 N	1430618 U	720804	1254	26	20	6.72	1.58		13.4	0. 26	22. 0		-1.19	32.44				
1 0	702254 N	1432936 W	728604	1748	49	0	8.35	0.80			0. 05	2. 0		2.61	28. 22		8 6	2	2
10	702254 N	1432936 U	7208?4	1748	49	5	8.93	0.77		0. 1	0.08	3.@		1.33	29. 50		06	2	2
10	702254 N	1432936 W	720884	1748	49	10	8. 84	0.67		1.0	0.'2'8	12.0		-1. 00	30. 49		06	2	2
10	702254 N	1432936 W	720804	1748	49	15	8.74	0. 80		3.6	0.14	12.0		-1.10	31. 02		06	2	2
10	702254 N	143.2936 u	72'3804	1748	49	20	8.01	0.92		7.7	0.15	18. 0		-1.25	31.73		06	2	2
10	702254 N	143?336 W	720804	1748	49	30	6.95	1.12		14.0	0.14	24.8		-1,40	32. 72		06	2	2
10	702254 N	1432936 W	720804	1748	49	40	6.94	1.50		14.0	0.16	24.0		-1.40	32. 72		06	2	2
10	7032?23 N	14323'4 W	720805	124	55	0	B. 67				0.05	4.0		0.97	28. 81		2 7	5	3
10	703230 N	1433354 W	720805	124	55	5	9.00	0.41		0. 3	0. 08	12.0		2.03	30. 05		27	5	3
10	703230 N	14333S4 H	720805	124	55	10	8.84	0.40		1.4	0.8.9	18. 0		%.92	343.41		27	5	3
10	7032347 N	1433354 W	720805	124	55	15	8.78	0.74		2.1	0.21	5. 0		-0.86	2s. 10		27	5	3
10	703230 N	1433354 W	720805	124	55	20	7.92	0. 99		7.4	0.18	21.0		-0. 95	31.74		27	5	3
10	703230 N	1433354 W	720805	124	55	30	7.48	1.25		13.4	0.13	21. 0		-1.38	32.34		27	5	3
10	703230 N	1433354 W	720805	124	55	40	7.34	1,37		15.8	0.14	28. 0		-1,40	32. 62		27	5	3
10	703230 N	1433354 W	720805	124	55	50	7.11	1.41		14.3	0.24	32. 0		-1.36	32.73		2 7	5	3
10	704500 N	1433100 W	720805	906	485	0	7.85	0.79			0. 14	2.0		4.07	25. 59		0 4	2	3
10	704500 N	1433100 u	720805	%36	485	5	7.99	0.83			0.11	23. 0		4. 22	27.83		8 4	2	3
10	704500 N	1433100 W	720805	906	485	10	9.63	0.36		0. 1	0,11	24. 0		-1. 05	30. 62		04	2	3
10	704500 N	1433100 W	720805	9476	485	15	9.27	0.49		1.0	1.12	8. 0		-1.29	3a. 33		04	2	3
10	704500 N	1433100 u	720805	906	485	28	9.01	0.55		2.5	0.18	32. 0		-1.44	30. 53		64	2	3
18	704500 N	1433100 W	720805	%?6	485	30	B. 67	0. 76		5.3	0. 29	10.0		-1.49	30.81		6 4	2	3
10	704500 N	1433103 u	720805	906	405	40	8.44	8.78		6.5	0.13	34.0		-1.37	31.37		0 4	2	3
10	704500 N	1433100 W	720805	906	485	50	7.76	1.36		10.7	0.18	42. 0		-1.31	32.06		04	2	3
10	704500 N	1433100 W	720805	906	485	75	7.19	1.51		17.7	0.10	43.9		-1.48	32.55		0 4	2	3
10	704500 N	1433108 H	720805	906	485	100	6.71	1.24		18.9	8.14	43. 0		-1.50	32. 84		0 4	2	3
10	704500 N	1433100 u	?202435	906	405	1.23	6.86	1.46		14.5	'a. 13	42.0		-1.35	33.49		04	2	3
10	704500 N	1433100 W	720805	906	485	150	7.06	1.35		17.5	0.18	36. 0		-1.21	33.32		04	2	3
10	7045?0 N	143314% W	720805	906	485	200	6.1'3	1.09		16.3	0.12	30.0		-0.92	34.03		04	2	3
10	704500 N	1433100 W	720805	906	485	300	6.19	0.92		16.1	Q. 04	1'3.0		0. 22	34.74		04	2	3
10	704500 N	1433163 W	720805	906	485	400	6.48	0.75		16.1	0.03	15.0		0.42	34. 6a		04	2	3
10	704500 N	1433100 W	720805	906	485	475	6.64	0.72		16.4	0. 05	13. 0		'a. 21	34.88		0 4	2	3
10	705142 N	1434524 u	720805	2306	925	0	7.74	1.53		0.4		3.0		5.21	21,28				
10	705142 N	1434524 W	7208052306		925	5	8.01	1.76		B. 4		6.@		4,23	2-2.33				
10	705142 N	1434524 u	720085	2306	925	10	9.72	0.50		1.8	0.21	10.0		-0.61	27.55				
10	705142 N	1434524 u	720805	2306	925	15	9.57	0.63		3. 8	0. 20	21. 0		-1.20	30. 03				
10	705142 N	1434524 H	720805	2306	925	20	9.14	1.05		7.8	0.13	19.0		-1.30	3a. 37				
10	705142 N	1434524 H	720805	2306	925	30	8.98	1.48		10. 5	0.16	17. 0		-1.48	30.46				
10	705142 N	14345(?4 W	720805	234-46	925	40	8.57	1.22			0.13	21.0		-1.51	30.98				
10	705142 N	1434524 W	720805	234%	925	50	7.70	1.48		6.6	0.14	40. 0		-1.30	32. 04				
10	705142 N	1434524 W	720805	23$6	925	75	7.29							-1.26	32. 54				
10	705142 N	1434524 W	720805	2306	925	100	7.06	1.52		15. ?	0.21	42. 0		-1.43	32. 93				

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ID	LATITUDE	LONGITUDE	DATE	TIME GMT	TO BOTTOM (m)	DEPTH SAMPLE (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at /m3	SILICATE 5103-S1 mg-at /m3	ALKALINITY m-equi/l	TEMPERATURE deg. C	SALINITY ppt	ICE SMILE	WAVE DIR	WA NE
10	705142 N	1434524 W	7208852326		925	125	7.66	1.83		14.0	0.10	29.0		-0.96	33.03			
10	705142 M	1434524 W	720805	2386	925	150	7.39	0.98		13.4	0.12	20.0		-1.05	32.23			
10	705142 N	1434s?4 u	720805	2306	925	200	6.27	1.04		13.7	0.08			-1.00	33.86			
10	705142 N	1434524 W	720805	2306	925	250	6.14	1.08		17.5	0.17	17.0		-0.32	34.56			
10	705142 N	14345?4 H	720805	2306	925	300	6.14	1.20		15.5	0,17	35.0		0.14	34.71			
10	705142 N	1434524 u	7209852326		925	400	6.46	1.18		15.6	0.13	22.0		0.43	24..93			
10	705142 N	1434524 W	72088523436		925	580	6.59	1.02		15.3	0.15	22.0		0.41	34.86			
10	785142 N	1434524 W	720805	2306	925	608	6.&3	0.87		12.1	0.19	19.0			34.84			
18	785142 N	1414524 u	720805	2306	925	780	6.73	0.80		15.0	0.12				34.87			
10	705142 N	1434524 W	720805	2306	925	888		8.88		15.1	0.10				34.87			
10	705142 N	1434524 W	720805	2386	925	900		'a.79		15.2	0.10	4.0			34.87			
10	705154 N	1443148 W	720806	513	513	8	7.89	1.59		0.3		9.@		4.67	24.41			
10	785154 N	144314a W	720806	513	513	5	0.06	8.42		0.5	0.10	7.0		2.00	27.24			
10	785154 N	1443148 W	720806	513	513	10	9.49	0.51		1.9	0.18	6.0		-1.'28	29.46			
10	785154 N	1443148 W	720806	513	513	15	9.42	0.57		2.1	a.10	4.0		-1.14	29.%			
10	705154 N	1443149 W	720806	513	513	20	9.27	0.92		6.Q	0.16	7.0		-1.30	30.22			
10	705154 N	1443149 W	720806	513	513	30	8.93	1.40		11.8	0.05	19.0		-1.47	30.4'3			
10	785154 N	1443148 W	720806	513	513	40	8.86	1.54		12.7	0.16	33.0		-0.82	30.95			
10	705154 N	1443149 u	720806	513	513	50	8.20	1.69		13.9	0.10	48.0		-1.34	31.59			
10	785154 N	1443148 H	720806	513	513	75	7.43	1.42		9.5	0.18	36.8		-1.36	32.43			
19	705154 N	1443148 u	720806	513	513	100	7.03	1.47		16.7	0.08	32.0		-1.31	32.73			
10	785154 N	1443148 W	720806	513	513	125	6.77	2.07		14.9	0.'34	13.0		-1.39	33.05			
10	705154 N	1443148 W	720806	513	513	158	7.46	8.93		14.6	0.06	11.0		-1.06	33.33			
10	705154 N	1443148 U	720806	513	513	200	6.13	1.14		14.0	e.10	6.0		-0.85	34.18			
18	705154 N	1443148 W	720806	513	513	300	6.22	0.80		14.0	0.08			0.24	34.75			
10	785154 N	1443148 W	720806	513	513	400	6.58	0.75		14.2	0.07			0.44	34.85			
10	705154 N	1443148 H	7202%	513	513	485	6.58	0.70		13.4	a.16			0.26	34.86			
10	704300 N	1443200 W	720806	2308	311	0	7.6$	0.53		0.3		.20.8		5.81	24.11			
18	704380 N	1443200 H	720806	2300	311	5	8.87	0.47			0,13	11.0		2.30	29.13			
10	704300 N	1443200 W	720806	2300	311	20	8.71	1.17		1.9	0.20	1.0		-1.44	30.70			
10	704300 N	1443200 u	722?806	2388	3[1	38	8.44	1.32		3.0	8.31			-1.51	30.96			
10	784300 N	1443200 W	720806	2300	311	40	7.09	1.72		4.1	0.16	6.0		-1.32	31.90			
10	704300 N	1443200 u	720806	2300	311	50	7.44	1.94		9.2	0.14	13.0		-1.37	32.00			
10	704300 N	1443200 u	720806	2300	311	75	7.15	2.98		26.9	e.18	21.0		-1.36	32.73			
10	704300 N	1443200 u	720806	2300	311	188	7.42	2.85			0.23	22.0		-1.22	32.%			
10	7843?4 N	1443284 W	720806	2300	311	125	7.28	2.02		10.0	0.23	24.0		-1.24	33.06			
18	704300 N	1443200 u	720806	2300	311	150	7.19	1.96		13.1	0.24	26.0		-1.28	33.15			
10	784308 N	1443280 W	720806	2300	31 1	200	7.81	8.88		10.8	0.26	27.0		-1.18	33.35			
18	784384 N	144322 u	720806	2300	311	280	6.10	0.75		15.2	0.07	12.0		0.14	34.69			
10	703848 N	14433$8 H	728807	900	125	0	7.85				8.14	1.0		5.10	28.23		26	1
10	703848 N	14433$3 N	728247	980	125	5	8.30	0.20		8.4	0.15	2.0		3.31	29.23		26	1
10	703848 N	1443388 H	720807	900	125	10	9.13	8.18		0.2	0.08	3.0		8.65	29.87		2 6	1
10	783848 N	1443303 W	720007	900	125	15	8.19	0.10		2.1	0.22	3.0		-0.83	30.73		2 6	1
10	703848 N	1443300 W	720807	%38	125	28	3.23	0.14		8.6	0.11	1.0		-0.15	30.96		26	1
10	703848 N	1443300 u	720807	900	125	30	8.28	0.21		4.3	0.20	2.@		-1.00	31.50		26	1
10	703848 N	1443388 U	7288437	900	125	40	7.78	0.18		8.5	0.2s	10.0		-1.34	32.07		26	1

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ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE	WAVE DIR	WAVE HEIGHT	WAVE PE
10	703848 N	1443300 W	720807	900	125	58	7.54	0.24		10.1	0.21	13.0		-1.37	32.37		26	1	2
10	703848 N	1443380 W	720807	900	125	75	7.13	0.85		12.0	0.26	22.0		-1.38	32.70		26	1	2
10	703848 N	1443300 u	720807	900	125	100	7.19	1.06		10.8	0.24	25.0		-1.28	32.82		26	1	2
10	783548 N	1443300 H	720807	900	125	115	7.34	1.06		16.0		18.0		-1.20	32.86		26	1	2
10	7433848 N	1442700 W	720807	1424	50	0	7.91			0.1	a.13	2.0		4.31	28.13		26	1	2
10	703048 N	1442788 u	720807	1424	50	5	8.21	a.22			0.10	3.0		3.63	28.57		26	1	2
10	703048 N	1442700 W	7208437	1424	5a	10	9.21	0.36			0.14	8.0		-0.35	30.48		26	1	2
10	703048 N	1442700 H	720807	1424	50	15	9.23	0.60			0.14	11.0		-1.02	30.94		26	1	2
10	793848 N	1442700 u	720807	1424	50	20	8.75	0.70		0.8	0.12	4.0		-0.37	31.24		26	1	2
10	703048 N	1442700 W	720807	1424	58	30	7.82	0.75		7.6		8.0		-1.26	31.90		26	1	2
10	703848 N	1442700 u	720807	1424	50	4a	7.51	1.06		9.8	0.21	19.0		-1.37	32.33		26	1	2
10	703848 N	1442700 W	7208$7	1424	58	45	6.94	1.08		12.1	0.19	30.'a		-1.39	32.67		26	1	2
10	701918 N	1444638 U	710808	230	34	a	8.3a			1.0	0.19	2.0		3.56	28.28		19	1	2
10	701918 N	1444638 W	71 0808	230	34	5	9.41				0.11	4.0		'a.20	32.60		19	1	2
10	701918 N	1444631 W	710808	230	34	10	9.61			0.4	0.14			-0.74	30.94		19	1	2
10	701918 N	1444638 W	710808	230	34	15	9.38			0.1	0.11	4.0		-0.92	31.32		13	1	2
10	701918 N	1444634 U	710808	230	34	20	8.06	1.1?		3.7	0.13	49.0		-1.10	.32.01		19	1	2
10	701918 N	1444630 u	710808	230	34	30	6.87	0.30		11.5	0.18	18.0		-1.44	3a.22		13	t	2
10	700930 N	1442242 u	710808	1206	20	0	8.68	0.74		1.4	0.15	2.0		2.05	25.07				
10	700930 N	1442?42 u	710808	1206	20	5	10.22	0.69		0.4	0.14	3.0		-'a.17	2'3.71				
10	700930 N	1442242 U	710808	1206	20	10	10.06	1.07				16.0		-1.12	31.26				
10	700930 N	144224? W	71 0808	1206	28	15	7.21	0.63				25.Q		-1.47	32.03				
10	70'3938 N	1442242 U	710808	1206	2a	18	7.13	0,44				30.0		-1.52	32.16				
10	700600 N	1463000 U	710808	1930	15	0	8.27				8.07	2.a		3.14	21.95				
10	700600 N	1463000 W	710808	1930	15	5	8.65				0.13	3.0		2.72	27.16				
10	700500 N	1463000 u	710808	1930	15	10	8.83	0.06		0.7	Q.17	33.0		-1.39	31.68				
10	701312 N	1453036 U	710808	2?30	25	a	8.04			0.2	0.11	2.0		3.82	26.68		15	1	2
10	701312 N	1453036 W	710808	223a	25	5	9.45			1.4	0.08	2.0		0.54	29.55		15	1	2
10	701312 N	1453036 u	7102082231		25	10	9.56			0.6	0.04	3.0		-e.53	30.70		15	1	2
10	701312 N	1453036 b!	710808	2230	25	15	10.38			0.2	0.15	3.0		-1.14	31.46		15	1	2
10	701312 N	1453036 u	710808	2238	25	28	7.41	0.12		8.6	0.33	27.0		-1.45	32.01		15	1	2
10	702324 N	1453500 U	720809	606	40	0	8.30					2.0		3.55	21.25		12	3	2
10	702324 N	1453500 u	720809	606	40	5	9.63	0.17				2.0		-'3.16	30.25		12	3	2
10	702324 N	1453500 W	720809	606	40	10	9.74	0.23				1.0		-0.90	38.73		1	2 3	2
10	702324 N	1453500 U	720809	606	4a	15	10.08	0.46				1.0		-1.21	31.34		1	2 3	2
10	702324 N	1453588 U	720809	686	4a	20	7.97	a.34				18.0		-1.41	31.91		12	3	2
10	702324 N	14"z1503 W	720809	6$6	40	38	6.2$	0.57				18.0		-1.44	32.55		12	3	2
10	702324 N	1453588 H	720889	606	4a	35	6.86	0.19				15.0		-1.44	32.55		12	3	2
10	703312 N	145.3S54 U	72%889	948	51	0	7.83					2.0		4.50	25.36		24	4	2
10	703312 N	1453954 W	720809	948	51	5	8.34					1.0		2.95	27.19		24	4	2
10	703312 N	145335-4 U	720809	948	51	10	9.71	0,21			0.14	1.0		-0.50	30.08		2	4 4	2
10	703312 N	1453954 W	720809	948	51	15	9.%	0.28			0.06			-0.96	38.46		24	4	2
10	703312 N	1453954 W	720809	349	51	20	10.14	0.25						-1.22	30.63		24	4	2
10	703312 N	1453354 W	720809	948	51	30	8.48	0.41				6.8		-1.42	31.90		24	4	2
10	703312 N	1453954 u	720809	948	51	40		0.08				20.0		-1.44	32.22		2	4 4	2
10	703312 N	1453954 u	720809	948	51	45	7.01	1.32			0.24	34.0		-1.42	32.52		24	4	2

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ID	LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/1	PHOSPHATE PO4-P mg-at/m3	AMMONIA NW-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE S103-S1 mg-at/m3	9LKRL1NIT% m-equ i/l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE	WAVE DIR	W H
10	704530	N	14.52524	W	720809	1 424	93	0	8.61	0.50	0.4	0.09		2.0	1.77	25.75		24		4
10	70453a	N	14 52524	U	720809	1424	93	5	8.64	0.27	0.2	0.11		2.0	1.70	25.01		24		4
10	704530	N	1452524	W	720809	1424	93	10	3.7'2	0.20				1.0	-0.85	29.23		24		4
10	704530	N	145?524	U	720809	1424	93	15	9.57	0.38	'a.1	'a.03		5.0	-0.92	30.10		24		4
10	704530	N	1452524	u	720809	1424	93	20	9.35	0.33				6.@	-0.91	3a.46		24		4
10	704530	N	1452s24	u	720809	1424	93	30	9.22	0.26				6.@	-1.07	31.00		24		4
10	704530	N	1452524	W	720809	1424	93	40	7.82	0.74	9.5	0.10		25.0	-1.40	31.91		24		4
10	7045343	N	14 S2524	U	728S09	1424	93	50	7.55					24.0	-1.34	32.38		24		4
10	704538	N	1452524	W	720809	1424	93	75	6,89	0.16				27.0	-1.35	32.70		24		4
10	704530	N	1452524	U	720S09	1424	93	90	6.94	1.30	18.7	0.15		39.e	-1.35	32.70		24		4
10	705500	N	14522s24	W	72020'32212		308	0	8.22	0.20	0.5	0.12		2.0	1.42	22.28		26		
10	705500	N	1452500	W	720809	2212	388	5	8.29	0.17		0.10		2.0	1.35	22'53		26		
10	705500	N	1 452500	w	720809	22 1 2	388	10	9.44	0.34				3.0	-1.14	20.00		26		
10	705500	N	1452500	H	720809	2212	388	15	9.40	a.33	0.6	0.01		7.0	-1.21	29.69		26		
10	705500	N	1452500	W	720809	2212	388	20	9.31	0.45	0.3	a.08		5.0	-1.33	30.23		26		
10	70S'%30	N	14525$0	u	720809	2212	388	30	9.13	0.55	1.9	0.24		8.0	-1.45	30.63		26		
10	705500	N	145255	W	720809	2212	388	48	8.45	0.77	4.1	0.13		10.0	-1.36	31.39		26		
10	705500	N	14525$8	u	720809	2212	388	50	8.34	0.39	8.?	0.15		10.0	-1.31	32.05		26		
10	705500	N	1452500	u	720809	2212	388	75	7.11	1.00	0.5			21.0	-1.32	32.66		26		
10	705500	N	1452500	W	720809	2212	388	100	7.12	1.38	10.8	0.12		34.0	-1.30	32.80		26		
10	705500	N	1452500	u	720809	2212	398	150	7.41	1.07	9.8	0.17		24.0	-1.03	32.n		26		
10	705500	N	1452500	W	720S09	2212	388	200	6.73	1.25	10.9	0.02		170.B	12.13	33.48		26		
10	705500	N	1452500	U	7208092212		308	300	6.24	0.99	14.0			13.0	0.22	34.72		26		
10	705500	N	145?500	U	720809	2212	328	350	6.42	0.95	13.3			10.0	a.38	32.83		26		
10	719212	N	1453200	W	720810	1054	1061	0	0.95					2.0	0.50	22.73				
113	71'0212	N	1453209	H	720810	1055	1061	5	9.03	0.25				1.0	0.41	24.80				
10	710212	N	1453200	W	720810	1054	1061	10	9.45	0.22					0.76	27.74				
10	718212	N	1453330	U	720810	1054	1051	15	3.49	0.17					-1.18	28.81				
10	710212	N	1453200	u	7202101054		1061	20	3,31	0.39					-1.14	29.82				
10	710212	N	145322	W	720810	1%54	1061	30	9.03	0.48	0.6	0.08		1.0	-1.39	30.43				
10	71'?212	N	1453200	u	720810	1054	1061	40	8,66	0.61	3.B	0.12		1.0	-1.51	30.85				
10	710212	N	1453200	U	720810	1054	1061	50	8.23	0.76	4,9	0.08		2.0	-1.34	31.68				
10	710212	N	1453200	U	72'2810	1054	1061	75	7.28	0.80	8.e			11.0	-1.45	32.52				
10	710212	N	1453200	W	720810	1054	1061	100	6.83	0.91	12.4			27.e	-1.46	32.82				
10	710212	N	14 53200	W	720B10	1054	1061	125	6.69	1.39	19.5	0.13		35.0	-1.40	33.06				
10	710212	N	1453200	W	720810	1054	1061	150	7.27	1.00	18.0			23.B	-1.17	33.33				
10	710212	N	1453200	W	720810	1054	1061	200	6.13	1.20	17.4	0.08		27.0	-0.91	34.06				
10	710212	N	14332e@	'd	720810	1054	1061	300	6.?4	0.77	15.6	0.03		12.0	e.23	34.75				
10	710212	N	1453200	u	720810	1054	1061	400	6.49	0.75	15.?	0.08		11.0	0.43	34.84				
10	710212	N	1453208	W	720810	1054	1061	500	6.65	0.73	15.0			7.e	0.42	34.87				
10	710212	N	1453200	U	720810	1054	1061	600	6.75	e.70	15.0			6.0	e.31	34.88				
10	7112.212	N	1453200	u	720810	1054	1061	700	6.76	0.67	15.6	0.01		7.0	0.15	34.83				
10	710212	N	145322	U	720810	1054	1061	800	6.78	0.70	15.6			8.0	0.01	34.82				
10	710212	N	14532?0	W	720810	1054	1061	900	6.80	0.75	15.7	0.12		10.0	-Q.07	34.63				
10	710212	N	1453200	W	7208101054		1061	1000	4.82	0.77	16.0	0.02		9.0	-e.17	34.90				
10	710900	N	14 62900	N	72'2811	1224	1846	0	'3.16	0.87	0.5	0.13			-0.63	9.72				

ID = 10: from HUFFORD ET AL, 1374
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IO	LATITUDE		LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN mill	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE N03-N mg-at/m3	NITRITE N02-N mg-at/m3	SILICATE S103-S1 mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE	WAVE DIR	WAVE HEIGHT	WAV PER
10	710900	N	1462300	W 720811	1224	1846	5	9.20	0. 10		a. 1	0.13			-0.71	27.96				
10	710900	N	1462900	W 7?B811	1224	1846	la	9.34	0.20		0.3	0.07	13.0		-1.11	23.67				
10	710900	N	14E.?3ea	W 72081 1	1224	1846	15	9.08	0.44		a. 3	0.10	13.0		-1.28	30.07				
10	710900	N	1462300	W 720811	1224	1846	20	9.05	0.53		0.7	0.13	14.8		-1.35	30.30				
10	710900	N	1462900	W 72081 1	1224	1846	30	8.76	0.48				13.0		-1.43	343.94				
10	710900	N	1462900	H 720811	1224	1 846	40	7.57	0.42		e. 1		12.0		-1.33	32.13				
10	710900	N	1462900	W 720811	1224	1846	50	7.83			0.2		23.0		-1.05	32.59				
10	710900	N	1462900	W 72t911	1224	1846	75	7,81	0.33		13.5	0.32	33.0		-0.95	32. 73				
10	710900	N	1462900	W 720811	1224	1046	100	7.98	0.76		18.5	0.21	12.0		-0. '%	32. 34				
10	710900	N	1462900	W 720811	1224	1846	125	7.83	1.84		12.0		15.0		-0.71	33.06				
10	710900	N	1462900	W 72e811	1224	1046	150	7.83	0.93		12.6	0.33	16.0		-0.68	33.13				
10	710900	N	1462900	u 728811	1224	1846	200	7.71	0.83		12.0		20.0		-0.78	33.25				
10	710900	N	1462900	W 720811	1224	1846	300	6.06	1.00		14.7	0.34	16.0		0.08	34.63				
10	710900	N	1462900	W 720811	1224	1846	400	6.38	0.82		15.7	0.17	15.0		0.41	34.83				
10	71 0900	N	146.2.2	W 720811	1224	1846	580	6.51	0.78		14.1	0.07	6.@		0.42	34.87				
10	710900	N	1462900	W 720811	1224	1846	600	6.61	0.7'3		lb. 2	8.07	7.0		0.24	34.87				
10	710900	N	1462900	u 7LW11	1224	1846	700	6.67	43.79		16.5	0.14	7.'a		0.25	34.89				
10	710900	N	1462900	u 720811	1224	1846	800	6.69	0.80		16.5	0.02	6.0		0.11	34.88				
10	710900	N	1462900	W 720811	1224	1846	900	6.71	0.79		16.7	0.07	5.0			34.83				
10	710900	N	1462300	u 720811	1224	1846	1000	6.71	0.85		15.1	0.07	7.0		-0.08	34.9a				
10	710900	N	1462900	u 720811	1224	1846	1250	6.67	0.82		15.4	0.07	8.0		-0.26	34.83				
10	710900	N	1462900	H 720811	1224	1846	1500	6.55	0.95		15.0	0.04	10.0		-0.36	34.88				
10	710908	N	1462'32$3	W 720811	1224	1846	1800	6.44	0.07		15.8	0.05	10.0		-0.41	34.33				
10	710300	N	1462S80	U 720812	1242	996	0	9.00	0.19				2.0		-0.73	24.31				
10	710300	N	14622	W 720812	1242	'3%	5	9.00							-0.96	27.40				
10	710300	N	1462900	W 720812	1242	9%	10	3,91	0.06		0.1	0.20	2.e		-1.08	23.33				
10	710300	N	1462900	W 720812	1242	'396	15	9.97	0.25		2.0	0.09	2.0		-1.24	23.71				
10	710300	N	1462380	W 720812	1242	996	20	0.03	0.50			0.17			-3.48	30.11				
10	710300	N	1462900	W 720812	1242	396	30	9.32	0.50		0.6	0.32	5.0		-1.33	30. 61				
10	710300	N	1462900	U 720812	1242	396	40	8.97	'a. 58		1.2	0.14	19.0		-1.34	31.22				
10	718300	N	1462900	W 720812	1242	996	50	8.05	0.04		8.0	0.01	11.0		-1.33	31.33				
10	710300	N	1462900	W 720812	1242	996	75	7.87	0.09		3.0		19.0		-1.24	32. 48				
10	710300	N	1462900	W 720812	1242	396	100	7.64	0.77		10.0		24.0		-1.31	32.78				
10	710300	N	1462S00	U 728-812	1242	996	125	7.42	1.35		18.1	0.29	27.0		-1.37	32.94				
10	710300	N	1462900	W 720812	1242	996	150	6.91	0.79		14.0		20.0		-1.10	33. m				
10	710300	N	14629043	U 720812	1242	s%	200	6.91	1.04		14.0		26.0		-1.24	33.44				
10	710300	N	1462900	u 720812	1242	996	300	6.01	0.73		13.9	0.78	7.0		0.04	34.61				
10	710300	N	1462900	U 720812	1242	996	400	6.38	0.85		15.1	0.14	6.0		0.42	34.82				
10	710300	N	1462900	u 720812	1242	996	500	6.52	0. 82		15.5	0.08	6.@		0.41	34.8$				
10	710300	N	1462900	U 720812	1242	996	600	6.60	0.90		15.4	0.14	7.0		0.32	34.88				
10	718300	N	1462%%3	W 720812	1242	996	700	6. 62	0.83		15. s	e. 12	8.@		1.63	48. 90				
10	710300	N	1462900	W 720812	1242	996	800	6.71	0.80		16. 0	0.09	7.0		0.03	2-4.75				
10	71'2300	N	1462900	U 720812	1242	996	900	b. 69	0.85		16.8	0.14	5.0		0.05	34. 8'3				
10	710300	N	1462900	U 720812	1242	996	'375	6.70	0.89		16.2	0.13	8.0		0. 04	34.87				
10	705818	N	1433000	u 720813	1118	101	5	9.s5	0.20		0.1	0.10	1.0		-1.22	28.23				
10	705818	N	1433000	W 720813	1118	101	10	10.03	0.35		0.1	0.08	4.0		-1.23	29. 36				

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ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N g-at/ra3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE SIO3-SI mg-at /m3	ALKALINITY m-equi /l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE	WAVE DIR	W H
10	705818 N	1433000 W	720813	1118	101	1	510.10	0,10			1.71			-1.36	30.18			
10	705916 N	1433000 U	720813	1118	101	20	9.53	0. 10			0.06			-1.41	30. 82			
10	705818 N	1433000 u	720813	1118	101	30	8.81	0.75		1.2	0.11	12.0		-1.16	31.63			
10	705818 N	1433000 W	720813	1118	101	40	9.44	a. 10				18.0		-0.83	32. 15			
10	705818 N	1433000 W	720813	1118	101	50	9.45	0.39				19.0		-0. 88	32.26			
10	785818 N	1433000 u	720813	1118	101	75	3.41	0.10				20.0		-0. 85	32. 26			
10	705818 N	1433000 W	720813	1116	101	95	9.23	0.73		1.0	0.15	21.0		-d. 83	32. 30			
10	704000 N	1464000 W	720813	1948	45	5	10.12	0.19				4.0		-0.7.	28. 3s			
10	704000 N	14644730 W	720813	1948	45	10	10.14					2.0		-1. 20	2-3.93			
10	704000 N	1464000 W	720813	1948	45	15	10.10	0.12				1.0		-1.31	31. 15			
10	704000 N	1464000 u	720813	1348	45	20	3.49	0.19				4.0		-1. 40	30. 72			
10	704000 N	1464000 U	720813	1948	45	30	8.41	0.83		3.4	a. 06	6. 0		-8.71	32. 29			
10	704000 N	1464000 W	720813	1948	45	40	7.94	1.00				14. a		-0. 42	32. 56			
10	703400 N	1463000 W	720814	400	36	0	9.14	0.78		0.3	0.12	4.0		0.17	8. 69			
10	703400 N	1463000 u	720814	400	36	5	9.62	0.39		0.2	0.10	2.0		-0.33	26. 60			
10	703400 N	1463000 W	720814	400	36	10	9.88	0.47				1.0		-0.99	23.26			
10	703400 N	1463000 u	720814	400	36	15	9.77	0.30		3.3		2.0		-1.31	30.63			
10	703400 N	1463000 u	720814	400	36	28	8.70	0.80			1.54	let		-1.36	31.72			
10	703400 N	1463000 W	720814	400	36	30	7.71	1.16		3.6	0.18	16.0		-1. 19	32. 44			
10	702136 N	1463000 W	720814	1242	25	0	8. 72				0.11			0. 10	20.23			
10	702136 N	1463000 u	720814	1242	25	5	3,42					1.0		-0.'34	23.33			
10	702136 N	14634?$0 W	720814	1242	25	10	8.05	0.72		3.3	0.21	2.0		-1.45	31.17			
10	7'2.2136 N	1463000 W	720814	1242	25	15	7.8A					6.0		-1.43	31.30			
10	702136 N	1463000 U	720814	1242	25	20	7.89	0.14		4.7	0. 28	14'2. 0		-1.48	31.30			
10	701936 N	1463018 W	728814	1630	16	8	8.68	0.29			0. 12			0.13	21.18			
10	701936 N	1463016 U	720814	1630	16	5	9.43							-0>90	27.57			
10	701936 N	1463318 W	720814	1630	16	10	9.34			0.1		8.0		-1. 24	23. 3a			
10	701936 N	1463018 W	720814	1630	16	14	8.57	1.14		2.6	0.23	16. 0		-1.45	3$.00			
10	702912 N	1473706 W	710815	248	15	0	8.31	0.66		1.2	0.16			-0. 06	20.71			
10	702912 N	1473706 W	710815	248	15	5	'3.43			0.6	0.1?			-0.92	27. 90			
10	702912 N	1473706 W	718815	248	15	10	9,13	0,18		0.8	0.15	7.0		-1.20	30.66			
16	702912 N	1473706 M	718815	248	15	13	9.25	0.54		0.1		13.0		-1. 26	3a. 88			
10	703124 N	1473306 W	710815	736	28	0	8.94	0.44		0.3		4.0		-0.14	20.08			
10	703124 N	1473306 W	710815	736	28	5	9.68			0.3				-1.11	28.72			
10	703124 N	1473336 W	710815	736	28	10	9.38			0.6	0. 05	1.0		-1.32	30. 20			
10	703124 N	14733%5 W	710815	736	28	15	8.81	0.04		0.2		3.'a		-1.32	31.30			
10	703124 N	1473306 W	710815	736	28	20	8.1s	0.64		0.2		5. 0		-1.39	31.71			
10	703124 N	1473306 U	710815	736	28	25	8.16	1,47		4.3	0.14	12.0		-1.43	?s. 73			
10	704242 N	1472330 u	710815	1430	44	0	9. 28			0.1	0.24			-0.14	5.00			
10	704242 N	1472938 W	710815	1430	#	5	9.60				0. 06	2.0		-1.23	26.40			
1 0	704242 N	1472338 W	7108151438		44	10	9.53	0.12			0.06			-1.32	28.70			
10	704242 N	1472930 W	710815	143a	#	20	9.00					9.0		1.40	31. 16			
10	704242 N	1472330 W	710815	1430	44	38	8.30	1.85		3.9	0.14	7.0		-0.51	32.45			
10	704242 N	1472330 W	710815	1430	44	40	8. 17	1.89		3.9	0. 23	14.8		-0.49	32.46			
10	705130 N	1473104? u	710815	1936	55	0	3.38			0.2				-0.22	6.64			
10	705130 N	1473100 W	710815	1936	55	5	9.87				0.15	5. 0		-0.39	28. 10			

ID□10: from HUFFORD ET AL, 1974
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ID	LATITUDE	LONGITUDE	DATE	TIME TO GMT	BOTTOM (m)	DEPTH SAMPLE (m)□	OXYGEN l/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at /m3	SILICATE S103-S1 mg-at /m3	ALKALINITY □ -equi/l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE	WAVE DIR	WAVE HEIGHT	WA PE
10	705130 N	1473100 U	71 0815	1936	55	10	9.88	0,17			0.13	5.0		-1. 28	2'3.41				
10	705130 N	1473100 W	710815	193.6	55	15	9.88	0.21				3.0		-l. %	30.51				
10	705130 N	1473100 W	710815	1936	55	20	9.74	0.64		1.3	0.13	21.0		-1. 02	32. 09				
10	710200 N	1473000 u	710815	2348	135	0	9. 34			0.7	0.18			0.20	4.63				
10	710200 N	1473000 W	710815	2348	135	5	9.95	0.41			0.09			-1.22	28, 35				
10	710200 N	1473000 u	710815	2348	135	10	10.08	0.46			0.05	4. 'a		-1.26	20. 47				
10	710200 N	1473000 W	7108151346		135	20	10.%5	0.53			0. 06	7.0		-1.30	30.01				
10	710200 N	1473000 u	7108152348		135	30	3.89				0. 08	8.0		-1.42	30.65				
10	710200 N	1473000 U	710815	2348	135	40	9.69			6.8	0.18	10.0		-1.32	31.44				
10	710200 N	1473300 N	710815	2348	135	50	8.25					10.0		-1.25	31.83				
10	710200 N	1473000 u	7108152348		135	75	3. 02					15.0		-0. 42	32. 06				
10	710200 N	1473000 W	710815	2348	135	100	6.34	1.21		5.2	0.18	16.0		-0. 94	32.13				
10	71 0200 N	1473000 U	7106152348		135	125	7.23	1.63		12.0	0. 18	29. 0		-1.29	32. 84				
10	710300 N	1472936 W	72081 b	554	502	5	143.14			0.2	0.16			-1.31	28.94				
10	710300 N	147293$ U	720816	554	502	10	10.22	0.11				10.0		-1.23	2s. 45				
10	710300 N	1472'336 U	720816	554	502	15	10. 31	0.29		e. 1	0. 06	11. 0		-1. 38	2%71				
113	710300 N	1472936 u	720816	554	502	20	10.09	0. 12				12.0		-1,40	3a. 08				
10	710300 N	1472936 U	729816	554	502	30	9.86	0.35				10.0		-1.43	30. 65				
10	710300 N	1472336 U	720616	554	502	40	9.59	0. 46			0. 02	10.0		-1.18	31.19				
10	710300 N	1472936 W	720816	554	502	50	3.23	0.60		1.6	0.11	a. 0		-0.76	31.83				
10	710300 N	1472936 u	720816	554	502	75	3.68	0.67		1.0	0.03	16.0		-0.68	32. 19				
10	710300 N	1472936 W	720816	554	502	100	8.77	0.79		4.1	0.09	17.0		-0.31	32. 43				
10	71032.4 N	1472926 u	720816	554	502	125	8.90	0.88		4.4	0.16	21.0		-1.11	32. 59				
10	710300 N	1472936 W	720816	554	502	150	7.6a	1.12		11.3	0.15	40. 0		-1.24	32.92				
10	710300 N	147?936 u	720816	554	502	200	6.51	1.19		16. b	0.11	45.0		-1.05	33.91				
10	710300 N	1472936 W	720816	554	502	300	6.50	0.74		16.9	0.03	14.0		0.27	34.62				
10	710300 N	1472336 U	720816	554	502	400	6.83	0. 65		17.3	0.06	2.0		0.42	34.05				
10	710300 N	147?936 W	720816	554	502	475	6.76	0.83		16.1	'a. 23	34.0		0.33	34.87				
10	710500 N	1473500 u	720816	1824	1086	5	3.72	0.49		'a. 4	0.10			-1.30	20.93				
la	710500 N	1473500 H	720816	1824	1086	10	3.68	0.29		0.1		1.0		-1. 20	23.46				
10	710500 N	1473500 u	720816	1824	1 086	15	3.97	0.%		0.6	0.17	2.0		-1.41	29.84				
10	710500 N	1473500 u	720816	1824	1096	20	18.00	0. 03		0.1		2. 0		-1.24	30.39				
10	710500 N	1473500 U	720816	1824	1086	30	10.08	0.53		0.3		6.0		1.41	31.38				
10	710500 N	1473580 W	720816	1824	1086	40	9.23	0.62		4.0		5. 0		0.82	31.70				
10	7105643 N	1473500 u	720816	1824	1 086	50	9.30	0.31		0.?		B. 0		0.72	31.73				
10	710500 N	1473500 U	720816	1824	1086	75	9.35	0.30		2.9	0. 10	10.0		-0.17	32. 15				
10	710500 N	1473500 U	72?.616	1824	1086	100	8.95	1.36		0.3		16.0		-0.81	32. 44				
10	710500 N	1473500 H	720816	1824	1086	125	8.65	1.25		0.4		7.0		-1. 20	32. 57				
10	710500 N	1473500 W	720816	1824	1 086	150	8.00	1.33		4.7	0.28	20. 'a		-1.34	32. 75				
10	710500 N	1473500 U	720816	1824	1096	200	6.51	1.52		10.1	0.34	29.0		-1.14	33. 77				
10	710500 N	1473500 U	720816	1824	1086	300	6.17	0.86		17.6	0. 26	35.0		0.24	34. 56				
10	710500 N	1473500 U	720816	1824	1086	400	6.52	0.71		17.7		12.0		0.44	34.84				
10	711308 N	1482900 u	720817	1724	955	0	9.39	0.71		0. 2	0.11	1.0		0.01	3.33				
10	711300 N	1482900 W	720817	1724	955	5	8.44	0.48		e. 2	0.13			0.10	25.43				
10	711300 N	1482900 u	728$17	1724	955	10	3.33	0.43		0.4	0.06	10. %		0.13	29. 32				
10	711300 N	1482900 W	720817	1724	955	15	8.56	0.59						2.%	31. 05				

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ID	LATITUDE	LONGITUDE	DATE	TIME GMT	LTEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN Ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SIO3-SI mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE	WAVE DIR	WAVE HEIGH
10	711300 N	1482900 W	720817	17,?4	955	20	8.78	0,41				7.0		2. 16	31, 22			
10	711300 N	1482300 U	720817	1724	955	30	3.07	0.48		0.6	0.03	11.0		1.75	31.36			
10	71 1300 N	1482900 u	720817	1724	955	40	3,34	0.36		1.2	0.16	16.0		0.88	31.70			
10	711300 N	1482900 W	720817	1724	955	50	9.37	0.05				11.0		0.05	32.17			
10	711300 N	1482900 u	720817	17?4	955	75	9.73	0.10		a.?		14.0		0.49	32.42			
10	7113430 N	148.?900 W	720817	1724	355	180	8.06	1.13		6.8	0.15	27.0		-1.20	32.71			
10	711300 N	1482900 W	720817	1724	955	125	6.29	0. 65				21.0		-1.36	32.91			
10	711300 N	1482900 W	72'0817	1724	955	150	6.92	1.48		11.8	0. 23	49.8		-1.53	33.12			
10	711300 N	1482900 u	720817	1724	955	200	6.86	1.32		11.5	0.20	42.0		-1.19	33.74			
10	7113434 N	1482900 W	720817	1724	955	300	6.59	0.25		10.0	e. 04	9.0		0.30	34. 60			
10	711300 N	1482900 u	720817	1724	955	400	6.46	0.75		12.8	0. 02	16.0		0.43	34. 84			
10	711300 N	1482900 W	720817	1724	955	500	6.57	2. 26		12.4	0.14	11.0		0.40	34.86			
10	711300 N	1482900 u	720817	1724	955	600	b. 68	0.97		17.8		7.0		0. 30	34, 87			
10	711300 N	1482900 Ii	720817	1724	955	700	6.74	0.72		18.0		8.0		0.16	34.71			
10	711300 N	1482900 u	720817	1724	955	800	6.76	0.72		17.8	a. 18	11.0		a. 04	34. 89			
10	711300 N	1482900 W	720817	1724	955	900	6.76	0. 64		18.0		10.0		-0.'23	34. 83			
10	711300 N	1483436 u	720818	454	432	0	8.80	0.67		4.0	0.14	2.0		0. 02	14.45			
10	711300 N	1483436 W	720818	454	492	5	8.42			0.1				0. 74	25.90			
10	711300 N	1483436 W	720818	454	492	10	10. W			0.1				-1. 27	29. 22			
10	7113448 N	1483436 W	720818	454	432	20	10.02	0.17						-1.21	30. 58			
10	711300 N	1483436 u	720818	454	492	30	8.83	0.43						2.34	31.51			
10	711300 N	1483456 W	720818	454	492	40	8.94	0.19				7. 0		2. 34	31.57			
10	711300 N	1483436 U	720818	454	49?	50	9.28	0.32		2.1	0.02	7.0		1.43	31.97			
10	711300 N	1483436 u	720818	454	492	75	7.80	0.31		4.1	0. 02	12. 0		-1.30	32. 45			
10	711300 N	1483436 u	720818	454	492	100	7.9a	1.34		8.1	0.02	11.0		-1.22	32.73			
10	711300 N	1483436 u	720818	454	4?.?	125	7.33	1.36		10.0	0.01	11.0		-1.34	32. 97			
10	711300 N	1423426 u	720818	454	432	150	7.01	1.34		15.1	0.02	22. 0		-1.47	33.31			
10	711300 N	1483436 U	720818	454	492	200	6.64	0.?-6		12.3	0. 02	33.0		-1.15	23.79			
10	711300 N	1483436 W	720818	454	492	300	6.39	0.84		13.0		19.0		0. 36	34. 69			
10	711300 N	1483436 W	720818	454	492	400	6.48	0.84		14. 3	0.16	6. 0		8.41	34.85			
10	711300 N	1483436 U	720818	454	492	480	6. 52	0.90		14. 1		7.0		0. 40	34.85			
10	710900 N	1483600 W	720818	1712	92	0	8.65	'a. 06			0.10			-0.16	17.96		07	1
10	710900 N	1483600 W	720818	1712	92	5	8.11	0.32			0.17			1.12	25.44		07	1
10	710900 N	1483600 W	720818	1712	92	10	8.11	0.11			0. 06			4.09	28.40		07	1
10	710900 N	1483600 u	720818	1712	92	15	7.66	0.32			0.08	8.0		5. 98	3a. 07		07	1
10	710900 N	1483600 U	720818	1712	92	20	9.30	0.43			0.15			1.66	30.62		07	1
10	710900 N	1483600 U	720818	1712	92	30	3.81	0.67			0.16	a. 0		2.68	31.40		07	1
10	710900 N	1483600 u	720816	1712	92	48	3.37	0. 67			0.10	14. 0		1.13	31.76		07	1
10	710900 N	14836'24 W	720818	1712	92	50	9.37	0.73			0.??	6. 0		a. 93	31.92		07	1
10	710900 N	148368$ U	720818	1712	92	75	8.56	1.19		3.9	0.19	13. a		-a. 71	32. 54		07	1
10	710900 N	1483600 u	720818	1712	92	85	7.86	1.32		6.3	0.16	??. 0		-1. <	32. 65		07	1
10	710430 N	14/32912 W	720819	630	49	0	8.73	0.15		0.2	0.08			0.41	17.41			
10	710430 N	1482912 u	720819	630	43	5	8.06			0.2	0.21			1.55	26.25			
10	710430 N	1482912 U	720819	630	43	10	7.75	0.52		0. 2	e. 13	4.0		6.04	30.14			
10	710430 N	1482912 W	720819	630	43	15	7.52	0.56			0.11	4.0		6. 37	30. 54			
10	7104S8 N	1482912 W	720819	630	43	20	7,63	0.65		0.4	0.27	3. 0		5.84	30. 73			

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ID	LATITUDE	LONGITUDE	DATE	TIME GMT	TO BOTTOM (m)	DEPTH SAMPLE DEPTH (m)	OXYGEN Ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at /m3	SILICATE SIO3-SI mg-at /m3	ALKALINITY m-equi /1	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE	WAVE DIR	WAVE HEIGHT	WAVE PERI
10	710430 N	1482912 U	720819	630	43	30	8.44	0.76		0.5	0.17	4.0		3.80	31.14				
10	710430 N	1422912 W	720819	630	49	4a	8.60	0.80		0.7	0.28	8.0		3.16	31.18				
10	710430 N	14EL?912 u	720819	630	43	45	9.00	'a. 95		0.5	0.13	7.0		2.52	31.61				
10	705712 N	1483000 W	7208132336		42	0	9.23	0.10		0.3	0.11			-0. 23	12.73				
10	705712 N	1483000 W	720819	2336	42	5	3.77	0.32			0. 10	1.0		-1.21	27.80				
10	705712 N	1483000 W	720819	2336	42	10	9.85	0.64			0. 03	1.0		-1.28	29.62				
10	705712 N	1483000 U	720819	2336	42	15	9.82	0.72				3.0		-1.33	30.35				
10	705712 N	1483000 u	720819	2336	42	20	9.88	0.72			0.02	4.0		-1. 21	38.88				
10	705712 N	1 483000 U	720819	2336	42	30	3.43	0.61		0.7	0.13	4.0		0. 34	31.63				
10	705712 N	14 83000 W	720819	2336	42	35	9. 30	0.20			0.07	4.@		0.71	31.84				
la	784700 N	1483000 W	720820	642	40	5	9.57				0.03	2.0		-0.97	26.53				
10	704700 N	1483000 u	720820	642	40	10	9.88	0.27			0. 02	1.0		-0.93	30.51				
10	704700 N	1483000 W	720820	642	40	15	3.87	0.31				12.0		-0.74	31.31				
10	704700 N	1483000 W	720820	642	40	20	9,83	0.33			0. 03	11.0		-0.62	31.92				
10	704700 N	1483000 W	720820	642	40	30	3.90	0. 28			0.84	12. a		-0.64	31.93				
10	704700 N	1483000 W	720820	642	40	35	3.85	0.34				10.0		-8.64	31.'33				
10	704148 N	1422942 u	720820	1318	27	0	3,97	0.11			0. la			%, 28	21.40				
10	704148 N	142.?942 H	720820	1318	27	5	9.66	0.22			0.09	1.0		-1.03	28.75				
10	704148 N	1482942 W	720820	1318	27	10	9.81	0.38			0. 02	1.0		-0. 97	30.42				
10	704148 N	1 482942 u	720820	131 B	27	15	'3.46	0.42		0.5	0.12	11.0		-0.57	32.04				
10	764148 N	1422-34? u	720820	1318	27	20	3. 37	0.32		0.5	0.04	8.0		-0.50	32.14				
10	704148 N	1482942 W	720820	1318	27	25	9.37	0.53		0.7	0.08	8.0		4.54	32.15				
10	703500 N	1484136 u	720820	30	15	0	8.53	1.43			0.12			0. 38	23.67				
10	703500 N	1484136 u	720820	30	15	5	9.32	0.18			0.16	2.0		-a. 54	28.23				
10	703500 N	1484136 W	720820	30	15	10	9.23				0.0'3	5.0		-0.90	31.62				
10	704930 N	1493000 W	720822	8343	38	0	8,14	0.32		3.6	0.14	3.0		1?. 83	23. 66				
10	704930 N	14 93000 u	720822	830	38	5	8.82			0.2	0.15	1.0		1.34	26. 31				
10	784938 N	1493000 W	720822	8.30	38	10	9.55			3.0	B. 14	4.0		-0.40	30.33				
10	704930 N	1493000 W	720822	830	38	15	9.46	0.54		0.7	0. 08	7.0		0, 19	31.53				
10	705800 N	1493000 W	720822	1406	32	0	8.63	0.79		2.0	0.21	4.0		0.45	14.87				
10	705800 N	1493000 u	720822	14%6	32	5	8. 73				0.11			0. 60	26. 54				
10	785.54?0 N	1492-W W	720822	1406	32	10	8.23	%.47			0.07	2.0		3. 38	29. 57				
10	705800 N	1493000 u	720822	1406	3.?	15	8.40	0.35			0.10	8.0		3.23	30. 28				
10	705800 N	1493000 U	7202.22	1406	32	2a	8.21	0.36			0.06	16.0		3.82	30. 84				
10	705800 N	1493000 u	720822	14@6	32	25	8.43	0.46		0.2	0.13	17.0		2. 52	31.06				
10	710748 N	1493786 U	720822	1312	45	0	8.90				0.18			1.14	10.81				
10	710748 N	1433786 u	720822	1 '31?	45	5	8.70	0.27		0.1	0.0'3	1.0		a. 22	25. 58				
10	710748 N	143S7% U	720822	1912	45	10	8.13	d. 10			0.03	1.0		3.65	2'3.04				
10	718748 N	1493706 M	720822	1912	45	15	8.62	0.30			0.02	4. 0		3.15	30.34				
10	718748 N	1493706 W	728822	1912	45	20	0.33	0.34		0.2	0.05	6.0		3.52	31.03				
10	710748 N	1493706 u	720822	1912	45	30	8.43	0.38			0.03	10.0		3. 40	31.19				
10	710746 N	1493706 W	720822	1912	45	48	8.44	0. 34		0.4	0. 04	11.8		3.36	31.22				
10	711200 N	1435149 U	720823	442	108	0	8.83				0.85			0.93	'3. 72				
10	711200 N	1433148 u	720823	442	188	5	8.35	0.14			'a. 84			0.73	25. 05				
10	711.?00 N	1493148 u	720823	442	108	15	8.32	0.03				3.0		2. 52	3.02				
10	711200 N	1493148 W	720823	442	108	20	9.24	0.17			0.01	6.0		-1.21	30.27				

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ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (u)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA Ni43-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE S103-S1 mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE	WAVE DIR	WAVE HEIG
10	711200 N	1493148 u	720823	442	108	30	a. 64	0.23			0.02	7.8		2.52	31.01			
10	711200 N	1493148 M	720823	442	108	40	0.40	0.37			0. 09	10.0		3.13	31.13			
10	711200 N	1433142 u	720823	442	108	50	8.67	0.35			43. 06	10.0		2.77	31.38			
10	711200 N	149314a W	720823	442	108	75	8.80	0.73		3.7	0.09	6.0		a. 52	32.44			
10	711200 N	143314a u	720823	442	108	100	8.11	0.93		3.8	0.03	14.0		-1.11	32.61			
10	704800 N	1500400 u	720823	1812	18	0	7.80	0.16			0.02	2.0		3.83	22.51		07	2
10	704800 N	1500400 u	720823	1812	18	5	8.93	0.30			0.14	16.0		'a. 20	23.57		07	2
10	704800 N	1500400 u	720823	1 812	18	10	3.66	0.75			0.21	18.0		-a. 30	31.41		07	2
10	704800 N	1500400 u	720823	1812	18	15	9.50	0.54				11.0		-0.33	31.49		07	2
10	705230 N	1500000 u	720824	230	24	0	8.29				0. 02	2.0		1.84	23.57		06	2
10	705230 N	1 500000 H	720824	230	24	10	8.98			1.0				1.15	23.67		06	2
10	705230 N	1500000 H	720624	230	24	2a	9.42	a. 14			0.11	6. 0		1.22	31.07		06	2
la	710000 N	1500000 u	720824	1100	29	0	8.53	0.18		0.1	0.14	2.0		a.@	19.17			
10	710000 N	1500000 u	720824	1100	29	10	9.42	0.38			0. 09	2.0		0.12	29.15			
la	710000 N	1500000 u	720224	1100	29	15	9.73	0.66			0.08	6.0		0.07	30.47			
10	710000 N	1500000 u	722824	1100	29	20	9. 07	0.79		0.5	0.06	3.0		0.18	31.08			
10	711100 N	1500000 W	720824	2054	48	0	El. 31				0.14	2,0			21.05		03	2
10	711100 N	1500000 W	720824	2054	48	15	7.21	0.03				14.0		5.76	29.11		03	2
10	711100 N	1500000 u	720824	2054	48	20	7.12	0.26			0.18	11.0		5.95	29.36		03	2
10	711100 N	1500000 W	720824	2054	48	30	7.87	0.25			0.12	9.@		6.59	30.38		03	2
10	711100 N	1500000 W	720824	2054	49	40	8.51	0.26			a. 06	13.0		2.63	31.05		03	2
10	711100 N	1500000 W	720824	2054	48	45	8.65	0.58			0.18	17.0		1.59	31.03		03	2
10	711224 N	1500112 u	720825	61?	98	0	8.15	0.21			0.07	2.0		0.43	22. 7a		03	2
10	711224 N	1500112 W	720825	612	98	5	8.08	0.33			0. 08			1.53	24.34		03	2
10	711224 N	1500112 u	720825	612	98	10	7.84			0.9		4.0		3.35	26.45		03	2
10	711224 N	1500112 u	720825	612	36	15	7.36	a. 03			0.11			5.04	28.90		03	2
10	711224 N	1500112 W	720825	612	98	30	8.05	0.45			0.17	3.0		4. 61	24.39		03	2
10	711224 N	1500112 W	720825	612	98	40	8.45	0.66			0.11	6.0		3 53	21. %		03	2
10	711224 N	1500112 u	720825	61?	38	50	8.71	0.66			0.16	14.0		2.70	31.62		03	2
10	711224 N	1500 12 W	720825	612	98	75	8. 98	0.79			0.14	15.0		1.50	31.64		03	2
10	711224 N	1500112 u	720825	61?	38	90	a. 71	0.94		2.0	0.13	11.0		-0.54	32.29		03	2
10	711006 N	1500406 W	720825	1536	507	0	7.97	0.32			0. 09	3. 0		2. 07	24.63			
10	711606 N	1500406 W	720825	1536	507	5	7.95	0.04				2.0		1.98	24.64			
10	7116%6 N	1534? 406 U	720825	1536	507	10	7.34	0.04		3.8	0.12	3.0		1.98	24.68			
10	711606 N	1500406 W	720825	1536	507	15	7.07	0.13			a. 09	3.0		6. 04	29.28			
10	711606 N	1500406 u	720825	1536	507	20	6.07	0.37			0.12	5.0		6.04	30. 04			
10	711606 N	1500406 u	720825	1536	507	30	8. 08	0. 50		6.0	0.17	8.0		3.29	30. 23			
10	7112%6 N	1500406 W	720825	1536	507	40	9.18	0.80		7.4	0.22	8. 0		-0.69	31.27			
10	711606 N	1500406 u	720825	1536	507	50	3.23	0.54		10. ?		9.0		0.45	31.96			
10	711606 N	1500406 W	720825	1536	507	75	8. 60	0. 58		il. B		13.0		-0.75	32.36			
10	711606 N	1500406 w	720825	1536	507	100	8.26	0.67		24.8	0. 22	22. 0		-0.34	32. 58			
10	711606 N	1500406 W	720825	1536	507	125	7.45	1.83		15.0		39.0		-1.34	32. 75			
10	711606 N	1500406 u	720825	1536	507	150	6.94	1.36		17.0		45. 0		-1.38	33.11			
10	711606 N	1500406 W	720825	1536	507	200	5.93	0. 70		14.1		22. 0		-0.03	34. 63			
10	711606 N	1500406 H	720825	1534	507	300	6.37	0.89		12. 6	0.37	18.0		0.39	34.67			
10	711686 N	1500406 u	720825	1536	507	400	6.50	0.75		13.8	0.29	12.0		0.2	34.86			

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ID	LATITUDE	LONGITUDE	DATE	TIME TO GMT	DEPTH BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN *l/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SI LICATE SIO3-SI mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE	WAVE DIR	WAVE HEIGHT	WAVE PE
10	711606 N	1500406 u	720825	1536	507	450	6.59	a. 74		13.8		14.0		0. 22	34.88				
10	71175-4 N	1495900 W	720826	824	1038	0	8.24	0.52		1.2	a. 17	2.0		-'a. 08	21.65				
10	711754 N	149B3a u	720826	224	1038	5		0.16		1.4	0. 24	3. 0		2.18					
10	711754 N	1495900 W	720826	824	1038	10	7.90	0. 08		1.8	0. 37	".0		1.90	26.65				
10	711754 N	1495900 W	720826	824	1038	15	7.36	0.14		1.2	0.10	12.0		5.70	29.65				
10	711754 N	1495900 W	720826	824	1038	20	7.66	0.21		1.2	0.13	13.0		5.01	30.12				
10	711754 N	1495900 w	720826	824	1039	30	8.82	6.35		1.3	0. 20	10.0		1.36	30. 84				
10	711754 N	1495900 H	720826	2.24	1038	40	3.07	0. 69		3.2	0. 42	18.0		1.04	31.30				
la	711754 N	1495900 U	720826	824	1039	50	8.24	0.63		8.1	0.15	21.0		-1.:8	31.78				
10	711754 N	1495900 W	720826	824	1038	75	8.84	1.02		14.5	0.22	27.0		-a. 44	32.33				
10	711754 N	1495900 U	720826	824	1038	100	7.48	1.22		4.3	1.63	43,0		-1. 29	32.67				
10	711754 N	1495380 W	720826	824	1038	125	7.09	1.81		15.7	0.33	51.0		-1.31	32.93				
10	711754 N	1495%%3 U	720826	824	1038	15a	7.04	1.72		16.2	a. 18	22.0		-1.24	34.32				
10	711754 N	1495900 W	720826	824	1038	200	5.3a	0.81		16.7	0. 42	18.0		-0.14	34.58				
10	711754 N	1435330 U	720826	824	1038	300	6.33	0.75		16,6	0.40	18. 0		0. 37	34.75				
10	711754 N	1495900 W	720626	824	1038	400	6.44	0.75		15.7	0. 20	10.0		0.39	34.04				
10	711755 N	1495900 W	720826	824	1038	500	6.53	0.71		15.6	0.17	7.0		0.33	34.88				
10	711754 N	1435900 U	720826	824	1038	600	6.69	0. 72		16.5	0. 38	6.0		0.14	34.89				
10	711754 N	1435%3 u	720826	824	1038	700	6.69	0.76		15.3	0. 10	7.0		-0.01	34. 3a				
10	711754 N	14%5380 W	720826	824	1038	800	6.70	0.63		15.5	a. 15	9. 0		-0.13	34.90				
10	711754 N	1495900 U	720826	824	1038	900	6.63	0.67		16.0	0. 27	11.0		-0.17	34.90				
10	712606 N	1515818 W	72'?429	1224	940	0	8.11	0.01		0.2		6. a		5. 86	20.77				
10	712606 N	1515818 W	720829	1224	94a	5	7.43	a. 18		1.6	0.38	14.0		b. 62	23.55		25	2	2
10	712606 N	1515818 W	720829	1224	340	10	7.07	0.18		1.6	a. 3a	14. 0		6.6-2	29.55		25	2	2
10	712606 N	1515618 W	720829	1224	940	15	7.87	0.08		0. 3	0.16	12.0		7.44	30.10		25	2	2
10	712606 N	1515818 W	720829	1224	340	20	3.43	a. 35		1.7	0.37	12.0		%.53	29.98		25	2	2
10	712606 N	1515818 u	720829	1224	940	30	3.11	0.35		1.0	0.15	12. 0		1.01	30.78		25	2	2
10	71262A N	1515818 W	720829	1224	34a	40	9.04	0.31		a. 1		8.8		-0.82	31.25		25	2	2
10	712606 N	1515818 u	720829	1224	94a	50	8.29	0.73		2. 5	0.26	22.0		-1. $3.5	31.95		25	2	2
10	712606 N	1515218 W	720829	1224	940	75	B. 37	0. 80		7.4	0. 02	15. 0		-0.92	32.43		25	2	2
10	712606 N	1515S18 U	720829	1?24	940	100	7.88	0.91		4.2	0.43	27. a		-1,17	32. b7		25	2	2
10	712606 N	1515818 H	720829	1224	340	125	6.38	1.20		15.3	0.18	41.0		-1.44	32.91		25	2	2
10	712606 N	1515818 u	7209.23	1224	940	150	6.39	1.21		15.5	0.28	43.0		-1.30	33.23		25	2	2
10	712606 N	1515818 W	720829	1224	940	200	5.98	0.81		16.4	0.24	30.0		-0.34	34.43		25	2	2
10	712606 N	1515818 u	725829	1224	940	300	6.39	0.84		16. B	a. 40	12.0		a. 35	34. 82		25	2	2
10	712606 N	1515818 W	720829	1224	940	400	6.57	0.75		16.3	0. 30	7. 'a		a. 42	34. 85		25	2	2
10	712606 N	1515818 w	720829	1224	340	500	6.63	0.73		15.9	0. 20	6.0		0.27	34.88		25	2	2
10	712606 N	151581 8 W	720829	1224	940	600	6.7a	0.7a		11.4		4.0		0. 08	34.90		25	2	2
10	712606 N	1515418 u	720829	1224	94a	700	6.74	0. 73		15.7	0.10	10.0		-a. 07	34.89		25	2	2
10	712606 N	1515818 W	720829	1224	340	800	6.75	0.72		16.9	0.30	9.0		-0.14	34.09		25	2	2
10	712606 N	1515818 H	720829	1224	940	900	6.74	0.71		16.9	0.30	12.0		-0.18	34.91		25	2	2
10	712606 N	1515416 W	720829	1224	940	1000	6.75												
10	712130 N	1504630 W	720830	542	360	0	8.15			1.5	0. 40	5. a		3.23	23. 42		20	2	2
10	712130 N	15a463a W	720830	542	360	5	7.58	0. 23			a. 23	11. 0		5. 02	27.85		20	2	2
10	712130 N	1504630 W	720830	542	360	10	7.44					8.0		5.72	28. 53		20	2	2
10	712130 N	1504.s3a W	720830	542	36a	15	6.82	0.23		'a. 9	0.25	16.0		7.14	23.47		20	2	2

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10	712130 N	1504630 u	720830	542	360	20	6.93	0.23	¼. 2		0.00	16.0		6.71	23.33		20	2
10	712130 N	1504630 Ii	720830	542	360	30	6.2.?	0.24	0.5		0.14	15.0		7.24	30.59		20	2
10	712130 N	1504630 u	720830	542	360	40	7.08	0.27	0.5		0.15	16.0		5.97	30.88		20	2
10	712130 N	1504630 u	720830	542	360	50	9.56					10.0		%.37	30.68		20	2
10	712130 N	1504630 U	720830	542	360	75	8.92	0.69	12.7		0.50	19.0		-0.56	31.96		20	2
10	712130 N	1504630 W	720830	542	360	100	7.34	0.38	14.4		a. 55	34.0		-1.10	32.47		20	2
10	712130 N	1504630 u	720830	542	364)	200	5.99	0.30	16.5		0.45	21.0		-0.34	34.45		20	2
10	712130 N	1504630 W	720830	542	360	300	6.27	0.80	16.0			21.0		0.34	34.81		20	2
10	711712 N	1505212 u	720830	1348	80	0	7.97	0.24	a. 2		0.44	7.0		3.34	25.33		20	2
10	711712 N	1585212 U	720830	1948	80	5	7.93	0.29	0.1		0.41			3.80	25.64		20	2
10	711712 N	1s05512 u	720830	1948	80	10	7.43	0.16			0.21	3.0		5.96	29.57		20	2
10	711712 N	1585212 W	720830	1348	80	15	7.27	0.26			0.18	5.0		5.86	23.%		20	2
10	711712 N	1505212 W	720830	1948	80	20	6.80	0.30			0.25	10.0		7.12	30.54		20	2
10	711712 N	1505212 u	720830	1348	80	30	8.14	0.38			0.35	12.0		3.17	30.61		20	2
10	711712 N	1505212 u	720830	1948	80	40	8.06	0.70			0.39	15.0		3.01	31.24		20	2
10	711712 N	150521? u	720830	1948	80	50	8.22	0.74			0.22	13.0		2.57	31.53		20	2
10	711712 N	1505212 u	720830	1948	80	75	8.77	8.98	0.1		0.26	17.0		0.83	31.83		20	2
10	711212 N	1500000 W	720813	524	54	0	7.79	0.37			0.20	2.0		3.88	25.66		14	2
10	711212 N	1500000 u	720813	524	54	5	5.60				0.53	7.0		5.63	28.53		14	2
10	711212 N	1500000 u	720813	524	54	10	7.20	0.26			0.36	14.0		6.37	29.84		14	2
10	711212 N	1500000 u	720813	524	54	15	6.95	0.31			0.43	1.0		b, 42	31.17		14	2
10	711212 N	1500000 W	720813	524	54	20	6.34	0.33			0.40	11.0		7.21	30.43		14	2
10	711212 N	1500000 U	720813	524	54	30	7.09	0.45			0.47	17,0		6.12	30.64		14	2
10	711212 N	15884%%3 U	720813	5.24	54	40	7.61	0.45			0.37	16.0		4.73	30.73		14	2
10	711212 N	1500000 u	720813	524	54	50	8.40	0.73	0.3		0.46	24.0		2.11	31.20		14	2
10	71855 N	1505654 W	720813	1500	26	'a	8.51				a. 22	2.0		-0.41	21.45			
10	710530 N	1335654 u	720813	1500	26	5	0.47	0.42	0.1		a. 3a			0.34	25.82			
10	710538 N	1595554 W	720813	1500	26	10	7.52	0.14	0.1		0.27	2.0		6.87	29.51			
10	710530 N	1%35654 u	720813	1500	26	15	8.02	0.36	a. 3		a. 45	2.0		3.55	30.07			
10	710530 N	1585654 W	720813	1500	26	2a	7.72	0.43	0.5		0.48	1.0		4.13	30.33			
10	76S242 N	1505954 U	720901	26	15	0	8.02	0.14	a. 7		0.33			3.22	22.86		06	2
10	705242 N	1505354 u	720901	26	15	5	8.88				0.26	7.0		1.33	27.34		06	2
10	705242 N	1505954 W	720901	26	15	10	9.14	0.35	0.2		0.31	6.0		0.94	29.85		06	2
10	705242 N	1505954 H	720901	26	15	15	9.51	0.41	0.2		a. 40	3.0		0.82	30.40		06	2
10	705242 N	1505954 u	720901	26	15	0	8.82	0.19	1.3		0.42	1.0		-0.21	21.90		06	2
10	705242 N	1505954 U	720901	26	15	5	9.05	0.17	1.2		a. 37	7.0		0.23	26.24		06	2
10	705242 N	1505954 W	72090 1	26	15	10	8.97	0.21	1.8		0.43	7.0		1.39	29.10		06	2
10	705242 N	1505954 u	720901	26	15	15	8.78	0.27	1.1		0.23	7.0		2.60	23.81		06	2
10	713942 N	152030a u	720904	336	1046	0	7.94					6. a		3.03	26.11		09	3
10	713942 N	1520300 U	720904	336	1046	5	7.42	0.15	a. 4		a. 18	lea		5.32	28.67		09	3
10	713942 N	1520300 u	720904	336	1046	10	7.9a	0.22	o.?		0.10	5.0		4.3a	23.$3		09	3
10	713342 N	1520300 W	720904	336	1 046	15	8.01	0.11				9.9		4.08	23.22		09	3
10	713942 N	1520300 W	720904	336	1046	20	8.26	0.20	0.2		0.13	12.0		3.28	29.42		09	3
10	713342 N	1520300 W	7243304	336	1046	30	9.33	0.35	a. 1		0.08	3.0		0.16	31.35		09	3
10	713942 N	1520300 W	720904	336	1046	4a	9.49	0.47	0.?		0.08	14.0		-43.83	3$.35		09	3
10	713942 N	1520300 U	720984	336	1046	50	8.92	0.69	1.1		0.22	18.0		-0.61	31.80		09	3

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10	713942	N	1520300	W	728'304	336	1846	75	8. 39	0.80				18.0		-1.09	32.45		09	3	2
10	713942	N	1520w	u	720904	336	1046	100	7.s8	1.08		2.8	0.18	23.0		-1.29	32.76		09	3	2
10	713942	N	1520300	W	720904	336	1046	125	6.61	1.41		15.3	'a. 32	43.0		-1.62	33.06		0'3	3	2
10	713942	N	1520300	W	728%4	336	1046	150	6.78	1.34		15.3	a. 32	34.0		-1.43	33.31		09	3	2
10	713942	N	1520300	W	720904	336	1046	200	6.02	0.'34		15.5	0.17	38.0		-0.31	34.44		09	3	2
10	713942	N	1520300	W	720904	336	1046	300	6.34	0.75		15.2	0.13	23.a		0.:5	34.66		09	3	2
10	713942	N	1520300	W	720904	336	1046	400	6.54	0.70		15.6	0.23	12.0		0.43	34.81		09	3	2
10	713%2	N	1520300	W	720904	336	1046	500	6.51	0.70		15.1	0.19	6.0		0.38	34.87		09	3	2
10	713942	N	1520300	U	720904	336	1846	600	6.80	0.76		15.2	0.15	12.0		a.39	34.87		09	3	2
10	71?342	N	15203aJ3	u	720904	336	1046	700	6. 68	0. 78		15.5	0.20	16.a		a.31	34.88		09	3	2
10	713942	N	1520300	U	720904	336	1046	800	6.60	0.71		15.5	8.14	15.0		0.:4	34.88		09	3	2
10	713942	N	1520300	U	720904	336	1046	900	6.78	0.76		15.6	0.15	14.0		0.16	34.88		03	3	2
10	713942	N	1520300	W	720904	336	1046	1000	6.75	0.78		15.6	0.22	12.0			34.88		09	3	2
10	712654	N	152at?.?4	W	720904	2142	247	18	7.67	0.12		0.1	0.02	4.0		4.98	27.65		10	3	2
10	712654	N	1520824	H	720'304	2142	247	15	6.98	0.12				9.0		6.44	29.83		10	3	2
10	712654	N	1520624	W	7209?4	2142	247	35	7.84	0.17				14.0		2.57	31.58		18	3	2
10	712654	N	1520824	W	720904	2142	247	45	8.03	0.02		1.9		3.0		1.71	31.90		10	3	2
10	712654	N	1520624	u	720904	2142	247	55	8.11	8.29		1.7		10.0		1.29	31.94		10	3	2
10	712654	N	1520824	W	720904	2142	247	85	8.48	0.4a		2.5		9.0		-0.13	32. 21		10	3	2
10	712654	N	1528024	W	720904	2142	247	110	8.3a	0.50		2.6		15.0		-0.75	32.45		10	3	2
10	712654	N	1520824	U	720904	2142	247	135	7.26	1.62		8.0		29.0		-1. %	32.78		10	3	2
10	712654	N	1520824	u	7209042142		247	165	6.50	1.84		10.3		35.a		-1.03	33.65		10	3	2
10	712654	N	1520824	u	720904	2142	247	220	6.07	0.96		10.4		27.0		-0.04	36.66		10	3	2
10	712230	N	1521300	U	720915	236	90	0	7.99	0.23		0.?	a.23	6.0		2.71	25.15		05	2	2
10	712230	N	1521300	U	720915	236	'30	5	7.3a	0.17		0.3	0.28	15.0		5.32	27.3'3		05	2	2
10	712230	N	1521300	W	720915	236	90	10	6.S9	0.24		e.1	0.13	18.0		6.04	2'3. M		05	2	2
10	712230	N	1521300	W	720915	236	90	15	7.03	0.25				10.0		5.99	30.04		05	2	2
10	712230	N	1521300	W	720915	236	90	28	6.88	0.27		0.2	0.15	10.0		6.37	30.31		05	2	2
10	712238	N	1521380	u	720915	236	90	30	6.97	0.23		0.1	0.06	0.0		6.22	30.67		05	2	2
10	71223$	N	1521300	W	720915	236	90	4a	7.48	a.39		0.5	0.24	6.a		4.15	31.38		05	2	2
10	712238	N	15213$3	U	720'315	236	90	50	8.54	0.47		1.4	0.06	8.0		2.50	31.66		05	2	2
10	712230	N	1521302	U	720915	236	9a	75	8.13	0.6a		1.4	0.15	14.0		0.79	32.14		05	2	2
10	71223a	N	1521300	u	720915	236	90	85	8.20	0.82		2.3	0.23	12.0		-a.21	32.33		05	2	2
10	711606	N	152138$	U	720315	806	49	0	7.83			1.4	0.38	6.a		2.9a	26.01		88	1	2
10	711606	N	1521300	u	720915	806	49	5	7.20	0.08		1.2	0.26	12.0		5.75	29.01		08	1	2
10	711686	N	1521380	W	720915	806	43	10	6.84	0.11		0.8	0.15	12.0		6.5;	29.67		08	1	2
10	711606	N	1521300	W	720915	806	49	15	6.81	0.15		1.1	0.22	15.0		6.44	29.94		08	1	2
10	7116%	N	1521300	W	720915	806	43	20	7.7a	0.21		0.B	0.13	12.0		4.20	30.02		08	1	2
10	711606	N	1521300	U	720915	806	43	30	7.65	0.27		1.1	0.20	13.0		4.51	30.87		08	1	2
10	711606	N	15212430	u	720915	806	49	40	7.75	0.39		11.7	0.11	21.0		3.15	3a. 92		08	1	2
10	711606	N	1521300	U	720915	806	43	45	7.83	0.51		1.2	0.13	24.0		2.80	31.31		08	1	2
10	710530	N	1520000	U	7209151472		25	0	8.28	0.10		0.4	0.15			1.00	24.46		09	2	4
10	710530	N	1520000	W	720915	1472	25	5	8.08	0.08		1.2	0.45			1.73	25.66		09	2	4
10	718530	N	1520000	H	7203151472		25	10	7.92	0.20		0.1	0.12	13a		3.70	2'3.58		09	2	4
10	710530	N	1520000	u	720915	1472	25	15	7.47	0.28		0.4	0.22	7.0		4.58	23. 92		09	2	4
10	710800	N	1520600	u	7209151742		16	0	8.14	0.27		0.6	0.29	11.0		1.27	24.16		09	1	3

ID = 10: from HUFFORD ET AL, 1974
USCG GLACIER
AUGUST - SEPTEMBER 1972

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/1	PHOSPHATE PO4-P mg-at /m3	AMMONIA NW-N mg-at /m3	NITRATE NO3-N mg-at/m3	NITRITE NW-N mg-at /m3	SILICATE SIO3-SI mg-at /m3	ALKALINITY m-equi /l	TEMPERATURE deg. C	SALINITY ppt	ICE SAMPLE	WAVE DIR	WAVE HEIGH
10	710800 N	1520600 u	720315	1742	16	5	6,14	0.30	0. 8	0.41	13. 0			1.81	24.87		09	1
10	710800 N	1520600 u	720515	1742	16	10	7.83	0.48	a. 3	0. 03	13.0			3.96	2'3..65		09	1
10	711018 N	1535000 W	720906	536	16	0	7.83	e.. 04	0.8	0. 27	10. 0			3.99	26.42		05	1
10	711018 N	1535000 W	720906	536	16	5	7.31	0.06	1.3	0.41	9.0			5.51	28.70		05	1
10	711018 N	1535000 W	720906	536	16	10	7.25	a. 12	a. 4	0.14	3. 0			5.70	29. 31		05	1
10	711018 N	1533W3?3 u	720906	536	16	15	7.11	0.12	0. 3	0.11	8.0			5.62	29.53		05	1
10	711930 N	1533200 W	720906	13.?6	4a	0	7.72	0.15	0.2	0.06	3. 0			3.82	21.18		03	2
10	711930 N	1 533200 W	72$'%36	1326	48	5	7.63	0.14			8.0			3. %	27.41		09	2
10	711930 N	1533200 u	720906	1326	40	10	7.54	0.13	0.1	0. 02	3.0			4.40	.?7. 76		09	2
10	711930 N	1533LZ?J W	720906	1326	4a	15	7.45	8.16	0.2	0.06	6.0			5.28	23.52		09	2
10	711930 N	1533200 W	720906	1326	4a	20	7.44	0.24	0. 1		10.0			5.22	30.04		03	2
10	711934 N	/ 533200 W	720906	1326	4a	30	7. 02	0.29	0. 3	0.04				5.44	31.03		09	2
10	711930 N	1533200 u	720906	1326	46	40	7.29	0.66	a. 7		11.0			3. 83	31.03		09	2

ID = 11: from KINNEY P.J. ET AL, 1971
INST. OF MARINE SCIENCE
UNIVERSITY OF ALASKA
SEPT. 1%9, MAY - DEC. 1970

ID	LATITUDE	LONGITUDE	DATE GMT	TIME	DEPTH TO BOTTOM (M)	SAMPLE DEPTH (m)	OXYGEN nil/l	PHOSPHATE P04-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at /m3	NITRITE NW-N mg-at /m3	SILICATE SIO3-SI mg-at /m3	13LKR1N1T% m-equi /l	TEMP Degrees C	SALINITY ppt	ICE SAMPLE
* 11	783344 N	1495057 u	700525				310.19								37.20	I
11	703344 N	1495057 W	700901			0		0.72			0.01	9.4			23.30	
11	703344 N	1435457 U	701203			0		0.36	0.6	0.7	0.24	2.5			5.60	I
11	703252 N	1495106 W	700901			0		0.13	0.1		0.02	22.5			14.10	
11	703252 N	14%106 u	701204			0		e. 32	0.6	0.5	0.26	6.2			8.20	I
11	703252 N	1495106 U	701204			3		0.18	'a. 7	1.8	0.11	15.2				
11	703200 N	1495118 W	700901			0		0.13	0.3	0.4	0.04	24.6			12. 30	
11	7032141 N	1495118 u	701204			0		0.58	1.1	21.9	0.32	5.1			5.78	I
11	703200 N	1495118 u	701204			2		e. 18	0.6	2.7	0.12	17.2			21.40	
11	703108 N	1495127 W	704?522			3	0.99								35.20	
11	703108 N	1495127 u	700829			0	8.39								16.60	
11	703108 N	1495127 W	700829			3	7.08									
11	703122 N	1494836 W	700526			2	11.15								40. 10	I
11	703100 N	1494603 u	7'?0526			2	10.20								41.70	
11	703135 N	1494315 u	700526			2	9.59								31.70	
11	703212 N	1494042 w	700526			2	10.79								37.10	
11	703248 N	1493800 W	700526			2	14.39								30.80	
11	703324 N	1493530 W	700526			2	15.59								27.80	
11	703130 N	149?712 W	700830			0		0.38	0.1		0.04	28.2			11.7'?	
11	7032(48 N	14926% w	700830			0		0.20	0.3		0.05	26.4			10.60	
11	703208 N	1492642 U	700830			0		0.20	0.3		0.05	26.4			10.60	
11	703238 N	149?618 u	700830			0		0.08	0.1	0.1	0.04	23.4			13.50	
11	702944 N	1490906 u	700831			0		0.12	0.4		0.07	26.4			10.80	
11	703018 N	1490851 w	700931			0		0.07	0.6		0.06	25.6			11.60	
11	703046 N	149084ff W	700831			0		0.07	0.3		0.06	24.4			12.50	
11	703302 N	1494642 W	700901			0	8.40								25.50	
11	703302 N	149464? W	700901			3	8.4@								25.50	
11	703221 N	1494800 w	700901			0	7.%								13.%3	
11	7LW!21 N	1494800 w	700901			3	8.70								22.70	
11	703137 N	1494918 W	700901			0	6.36								12.20	
11	703137 N	1494918 w	700901			3	7.62								22.30	
11	703055 N	1495048 w	702'301			2	7.44								11.40	
11	703055 N	1495848 H	700901			2	7.38								19. 80	
11	703210 N	1501020 W	7L?3310		2	2		3.75	0.8	5.5	0.31	21.4			35.10	
11	703138 N	1500403 W	700310		3	0		0.44	0.2	7.1	0.15	20.8			35. 40	
11	783138 N	1500403 w	700524		3	3	10.19								32.70	
11	703138 N	1500403 H	700830			0	7.62								15.90	
11	703138 N	1500403 W	700830		3	3	7.19								23.80	
11	703152 N	1500651 W	700524			3	0.39								33.70	
11	703152 N	1%%51 w	700829			0		e. 43	2.2	0.3	0.03	8.6			23.80	
11	703152 N	1500651 W	700829			4		e. 34	0.3	0.1	0.06	10.1			25. 8P	
11	703124 N	1500124 u	700829			0	7.86	0.26	0.2		0.04	21.8			21.40	
11	703124 N	1500124 w	700830			3	7.31								23.70	
11	703114 N	1495s2! H	700830			2	10.79								27.40	
11	703114 N	1495821 H	700830			0	7.68								19.20	

*Latitudes and longitudes in this file are extrapolated

ID = 11: from KINNEY P.J.ET AL, 1971
INST. OF MARINE SCIENCE
UNIVERSITY OF ALASKA
SEPT. 1969, MAY - DEC. 1970

ID	LATITUDE	LONGITUDE	DATE GMT	TIME TO BOTTOM (m)	DEPTH SAMPLE (m)	OXYGEN ml/1	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE S103-S1 mg-at /m3	ALKALINITY m-equi /1	TEMP Degrees C	SALINITY ppt
11	763114 N	1495221 W	700830		3	7.62								21.90
11	703056 N	1495545 W	700524		0	7.92	0.14	0.2		0.04	10.9			21.00
11	703056 N	1435545 W	700830		2	7.79								15.80
11	703043 N	1495366 W	700830		0	8.28								3.40
11	703043 N	1495306 H	700830		2	7.20								11.40
11	703432 N	1502645 U	700525		3	7.07	1.06	0.3	5.0	e.08	13.9			33.60
11	703254 N	1503942 W	700528		0		0.53	7.?	1.9	0.72	91.1			
1 i	703026 N	1503200 U	700528		2		0.04	0.2		e.12	10.5			19.40
11	703256 N	I 503%% u	700528		2		0.34	0.4	1,9	0.09	11.5			30.64
11	753454 N	1503306 W	700529		2		0.44	0.2	3.5	0.08	21.1			31.50
1!	702710 N	1500724 U	700828		0		0.08	0.a	0.3	0.08	37.2			6.10
11	702710 N	1500724 W	701205		0		0.51	0.5	1.4	0.13	5.4			2.40
11	702S15 N	1495940 U	700828		0		0.18	1.0	2.3	0.11	35.1			4.60
11	702815 N	1495940 U	701205		0		0.29	0.5	1.0	0.12	2.7			3.50
11	703314 N	1595848 u	700901		0		0.34		0.1	0.01	10.3			21.78
11	703314 N	1495848 W	700901		6		0.38		0.1	0.02	5.9			25.70
11	703314 N	149594a u	701203		0		0.33	0.8	1.3	0.14	2.7			4.90
11	702745 N	1501534 u	700830		0		0.13	0.6		0.16	43.3			1.10
11	703448 N	1500900 U	7'39310	8	2		0.65	0.3	4,9	0.30	15.5			30.70
1 1	703734 N	1502854 W	700528		2		0.49	5.4	0.2	0.08	4.9			0.90
1 1	704656 N	1503336 W	700528		2		0.54	0.1	2.7	0.03	17.1			32.30
11	703734 N	1503054 W	700528		2		e.44	0.3	2.3	e'.04	13,1			33.50
11	703134 N	1.49%624 W	700831		0		0.09	0.3		0.85	21.6			14.00
11	702736 N	1500845 W	690904		0		0.20		1.8	0.07	50.4			
11	703033 N	154.30245 U	690904		0		0.39	0.2	0.3	0.07	23.5			14.59
11	703318 N	1500815 W	690904		0		'a.18	0.3	e.4	0.08	23.2			15.%
11	703300 N	1500930 H	630904		0				0.4	8.09	25.0			24.30
11	702946 N	1500412 W	690904		0		0.18	0.4	0.3	0.06	23.9			24.40
11	702946 N	1500412 W	690904		4				0.6	e.07	14.2			27.50
11	7031'39 N	1500412 W	690904		0		0.18	0.6		0.09	22.4			11.60
11	703108 N	1500412 W	690904		2				0.9	0.08				21.60
11	702936 N	1501124 u	710813		2		0.30	0.7		0.05	7.4			19.60
11	702712 N	1500412 W	710813		0		0.17	0.'3		0.03	9.5			18.40
11	702712 N	1500412 W	710813		2		0.17	0.8		0.02	9,2			18.60

ID = 12: from KINNEY, P.J. ET AL
1972
INST. OF MARINE SCIENCE, UNIV. OF ALASKA
JULY - AUGUST 1371

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (b))	OXYGEN ml/1	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at /m3	SILICATE SIO3-SI mg-at /m3	ALKALINITY m-equi/ l	TEMPERATURE Degree C	SALINITY ppt	ICE SAMPLE
* 12	702944 N	1490906 w	710871			0		0.10	0.2		0.03	13.4			16.50	
12	703018 N	1490851 W	710808			0		0.10	0.0		0.03	13.0			17.20	
12	703018 N	1490851 w	710800			2		0.14	0.1		0.04	13.0			17.20	
12	703046 N	1490840 W	71 0808			0		0.10	0.2	0.1	0.05	12.1			17.60	
12	703046 N	1490840 w	71 0808			1		0.18	0.1		0.05	11.3			17.70	
12	703150 N	1491754 W	710809			0		0.13	0.2		0.10	12.0			17.20	
12	703150 N	1431754 W	710803			1		0.12	0.2		0.10	11.5			17.20	
12	703112 N	1491824 W	710809			0		0.07	0.7		0.12	13.2			16.90	
12	703112 N	1431824 W	710809			2		0.19	0.4		0.01	10.6			18.00	
12	703034 N	1431954 W	630904			0		1.09	0.4			13.1			16.60	
12	703034 N	1491954 W	690904			1		0.25	0.5		0.03	11.1			17.50	
12	703130 N	1432712 H	710809			0		0.09	0.2		0.03	12.5			16.30	
12	703130 N	1432712 W	710909			1		0.22	0.3		0.07	10.5			19.40	
12	703208 N	1432642 W	710809			0		0.15	0.2		0.08	12.1			16.70	
12	703208 N	1492642 u	7 10809			2		0.36	0.3		0.07	7.6			13.50	
12	703238 N	1492618 W	710809			0		0.19	0.8	0.1	0.09	13.0			16.40	
12	703238 N	1492618 U	710809			2		0.27	0.4		0.07	12.0			17.50	
12	703104 N	1433336 W	710810			0		0.09	0.2		0.05	12.6			15.90	
12	703204 N	1433959 w	710810			0		0.18	0.2		0.06	9.6			19.00	
12	703204 N	1493358 u	710810			2		0.13	0.2		0.07	10.2				
12	703257 N	1494018 W	710810			0		0.18	0.2		0.07	7.9			20.00	
12	703257 N	1434018 u	710810			2		0.26	0.2		0.05	8.2			20.00	
12	703338 N	1494030 W	710810			0		0.23	0.8	0.2	2.09	7.0			20.60	
12	703338 N	1494030 W	71081'3			2		0.35	0.1		0.09	6.9			20.60	
12	703344 N	1 495057 w	71 0810			0		0.28	0.0	0.2	0.08	6.4			21.70	
12	703344 N	1495057 W	710810			1		0.28	0.1		0.06	6.2			21.60	
12	703252 N	1495106 W	710810			0		0.29	0.1		0.06	6.7			20.70	
12	703252 N	1495106 W	710810			2		0.26	0.0		0.03	6.7			20.80	
12	703200 N	1495116 W	710810			0		0.23	0.3		0.06	10.0			18.30	
12	703200 N	1435118 W	710810			2		0.17	0.1		0.07	9.@			19.80	
12	703108 N	1495127 u	710810			0		0.16	0.2		0.09	14.1			13.80	
12	703108 N	14'35127 W	71081(!			2		0.21	0.2		0.04	8.5			19.20	
12	702528 N	1483545 u	710731			0		0.42	0.1		0.03	5.7			20.00	
12	702528 N	1483545 H	710731			2		1.06	0.1		0.03	5.7			20.20	
12	702528 N	1403545 u	710731			4		1.47	0.2		0.05	6.7			22.10	
12	702930 N	1490024 u	710801			0		0.94	0.1		0.02	7.0			20.50	
12	702930 N	149aa24 W	710801			2		2.06	0.2		0.02	8.4			20.90	
12	702930 N	1490024 H	710801			4		0.50	0.0		0.05	6.7			24.50	
12	703124 N	1490818 u	710801			0		0.35	0.0		0.07	7,7			20.60	
12	703124 N	1490818 W	710801			2		0.42	0.0		0.02	6.7			23.50	
12	703124 N	1490818 W	710801			4		1.98	0.1		0.04	6.7			25.90	
12	703242 N	1431789 u	71 0801			0		0.39	0.3		0.02	7.7			22.50	
12	703242 N	1491709 W	710801			2		0.40	0.1		0.08	5.6			23.80	
12	703242 N	14s'1709 u	710801			4		0.43	0.2		0.06	5.5			25.90	
12	703335 N	1432642 U	710801			0		0.37	0.2		0.05	6.1			21.20	

*Latitudes and longitudes in this file are extrapolated

ID = 12: from KINNEY, P.J. ET AL
1372
INST. OF MARINE SCIENCE, UNIV. OF ALASKA
JULY - AUGUST 1971

IO	LATITUDE	LONG I TUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at /m3	AMMONIA NW-N mg-at /m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE SIO3-SI mg-at /m3	ALKALINITY m-equi /1	TEMPERATURE Degree C	SAL INITY ppt
12	703335 N	1492642 W	710801			2		0.41	0.2		0.05	5.6			23.80
12	703335 N	1492642 W	710801			4		0.43	0.4	0.4	0.03	4.7			26.70
12	703432 N	1434048 w	710801			0		0.40	0.1		0.04	6.1			22.20
12	703432 N	1494048 u	710801			2		0.37	0.3		0.05	4.5			26.80
12	703432 N	1434'248 W	710801			4		0.42	0.2	1.0	1.00	4.7			28.20
12	703409 N	1435115 W	710809			0		0.40	0.1		0.06	6.4			21.20
12	703409 N	1495115 w	71080'2			2		0.38	0.1		0.07	6.8			21.20
12	703409 N	1495115 u	710809			4		0.41	0.2		0.08	5.4			23.10
12	703346 N	1501003 W	710811			0		0.28	0.'3		0.14	6.5			19.90
12	703346 N	1501003 U	710811			2		0.30	0.8		0.11	5.9			20.60
12	703346 N	1501003 W	710811			4		0.39	0.9		0.03	5.5			22.00
12	703148 N	1500627 w	710728			0		0.57	0.2		0.06	7.E			27.90
12	703148 N	1 500627 W	710728			1			0.3		0.04				30.20
12	703052 N	1 500009 H	71072a			0		0.43	0.2	0.1	0.03	11.0			23.40
12	703052 N	1500009 W	7107?s			3		0.60	0.3		0.04	5.4			30.90
12	703005 N	1505406 w	710728			0		0.18	0.4	1.0	0.03	16.7			18.40
12	703122 N	1500318 W	710911			0		0.25	0.4		0.05	7.2			19.10
12	703122 N	1500318 H	710811			3		0.31	0.3		0.03	5.9			20.20
12	703026 N	1495539 w	710811			0		0.17	e.:		0.02	9.5			18.20
12	703026 N	1495639 w	710811			3		0.30	0.3		0.05	7.3			20.00
12	703152 N	1332036 u	710812			0		0.26	0.8		0.08	8.7			18.70
12	703152 N	1502036 W	710812			2		0.53	0.8		0.05	5.7			25.80
12	703328 N	1503536 w	710812			0		1.30	e.7		0.05	10.3			17.613
12	703328 N	1503536 w	710812			2		0.61	0.7		0.05	5.5			26.20
12	703304 N	15?6048 W	710812			0		0.73	0.8		0.04	6.3			19.30
12	703304 N	1505048 W	710812			2		0.60	0.7		0.03	5.7			26.30
12	703128 N	151554B w	710812			0		0.44	1.1		0.02	6.0			23.20
12	703128 N	1515546 w	710812			2		0.72	1.0		0.10	6.0			25.20
12	703032 N	1511648 W	710812			0		0.37	0.8		0.04	5.7			23.00
12	703032 N	1511648 W	710812			2		0.53	0.8		0.07	6.0			25.00
12	702936 N	1501124 w	710BI3			0		0.21	0.7		0.06	9.3			18.611
12	702936 N	1501124 w	710813			2		0.30	0.7		0.05	7.4			19.60
12	702712 N	1500412 w	710813			0		0.17	0.9		0.03	9.5			18.40
12	702712 N	1500412 W	710813			2		0.17	e.8		0.02	9.2			18.60

ID = 13: from DR. D.M. SCHELL'S RAW DATA FILES
UNIVERSITY OF ALASKA
1970

IO	LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH [m]	OXYGEN ml/1	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si g-at/m3	ALKALINITY m-equi/l	TEMP Degrees C	SALINITY ppt	ICE SAMPLE
13	703230	N	1500400	U	701203			0						8.7				
13	703230	N	1500400	W	701203			5						11.6				
13	702830	N	1500200	u	701203			2						21.7				
13	702700	N	1501000	W	701203			2						13.5				

ID = 14: DR. D.M. SCHELL'S RAW DATA FILES
AT THE UNIVERSITY OF ALASKA
1971

LATITUDE		LONGITUDE		DOTE	DEPTH TIME TO BOTTOM GMT (m)	SAMPLE DEPTH (m)	OXYGEN ml/1	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE SiO3-Si mg-at /m3	ALKALINITY m-equi /1	TEMP Degrees C	SALINITY : ppt
14 703300	N	1495200	W	710308		2				6.7	0.60				34,43
14 703036	N	1495400	W	710501		2		0.94		3.9	0.16	13.7			27,2-3
14 703118	N	1500300	W	710501		2		1.01		4.4	0.10	17.7			32.84
14703142	N	1500800	U	710501		2		0.93		5.6	0.19	22.2			34.76
14 703300	N	1495300	W	710501		2		1.00		5.5	0.1'3	22.2			35.59
14 703136	N	1495400	U	710501		2		'a.97		21.2	'?.18	21.2			34.86
14703330	N	1494500	W	710501		1									
14 703230	N	1494830	W	710501		2		1.02		3.6	0.12	15.2			32.00
14 703118	N	1495030	W	710501		2		0.75		7.!	0.25	29.1			39.12
14 702830	N	1500000	W	710501		1		1.05		5.1	0.21	19.4			33.66
14 703130	N	1500800	W	710501		2		1.09		3.3	0.07	16.7			32.26
14 702330	N	1500800	H	710501		2		0.93		4.2	0.07	17.8			32.62
14702700	N	1500800	U	710501		2		1.12		5.5	0.11	20.0			34.06
14 702600	N	! 500800	W	710501		2		0.57		7.5	0.10	28.6			36.50
14 703042	N	1501000	W	710501		1		0.95		4.5	0.25	16.7			3?.02
14 703100	N	1502000	U	710501		2		1.01		0.6	0.25	18.1			30.38
14 703048	N	1503500	W	710501		2		0.%				20.2			
14 703130	N	1495036	W	710501		2		0.82		2.7	0.17	17.1			37.86
14 703218	N	1494800	U	710501		2		0.96		2.2	0.12	20.2			36.84
14 703748	N	1494628	u	710501		2		0.82		2.2	0.07	17.1			34.00
14 793400	N	14944 00	H	710501		1				6.9	0.18				41.37
14703330	N	1494230	U	710501		2		0.74		4.7	0.13	28.7			40.15
14783254	N	1494200	u	710551		1		0.98		7.3	0.15	33.5			45.29
14703136	N	1494100	H	710501		2		0.94		7.1	'a.03	31.7			43.94
14 703112	N	1494%4?	U	710501		2		0.87		a.4	0.10	26.8			57.84
14 703100	N	1494830	W	710501		2		0.84		9.5	0.20	40.2			51.50
14 7'?3100	N	1494630	U	710501		2		0.84		a.5	0.23	37.8			46.54
14703218	N	1494148	U	710501		2		0.86		7.8	0.23	35.9			45.55
14 703200	N	1493512	U	710501		1		1.05		a.5	0.20	42.0			45,60
14 703236	N	1493330	W	710501		2		0.96		9.7	0.21	48.9			57.14
14 703200	N	1492900	W	710501		2		0,99		9.3	0.22	47.0			56.11
14 703248	N	1492900	W	710501		2		1.03		9.4	0.23	48.5			58.30
14 703054	N	1491030	W	710501		2		1.14		3.8	0.21	22.0			45.42
14703040	N	1491300	u	710501		1		1.24		5.4	0.20	28.4			42.10
14 703106	N	1491800	U	710501		2		1,21		6.7	0.25	50.0			55.41
14 783154	N	1492388	W	710501		2		1.09		10.5	e.24	53.5			65.93
14703218	N	1492536	U	710501		2		1,15		7.5	0.20	38.6			49.04
14 703124	N	143?730	W	710501		2		1.09		9.4	0.25	40.2			59.543
14 712130	N	1562400	U	710616		2		0.20	1.0	3.4	0.22	22.2			19.12
14 712130	N	1562400	W	710616		4		0.61	1.8	3.5	0.16	23.5			25.57
14712130	N	1562400	U	710616		6		0.51	1.2	1.'3	0.12	18.1			31.16
14 712130	N	1562400	W	710616		8		0.62	1.1	1.6	0.12	15.2			32.97
14 712130	N	1562400	U	710616		10		0.57	0.1	1.5	0.11	18.9			32.90
14712130	N	156?48'?	W	710617		3		0.30	2.5	1.4	0.09	8.5			12.41
14 712130	N	1562400	W	710617		10		0.60	0.2	1.7	0.16	12.9			32.38
14 712130	N	1562400	W	710622		2			0.?	0.8	0.15	7.0			4.9?

ID = 14: DR. D.M. SCHELL'S RAW DATA FILES
AT THE UNIVERSITY OF ALASKA
1971

LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN mill	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at /m3	NITROTE NO3-N mg-at /m3	NITRITE NO2-N rig-at /m3	SILICATE SiO3-Si mg-at /m3	ALKALINITY m-equi /1	TEMP Degrees c	SALINITY ppt	ICE SAMPLE
14712130	N	1562400	u	71 0622			4			0.4	1.4	0.14	11.2				
14 712130	N	1562400	W	71 0622			6		0.64		2.3	0.20	10.5			24.51	
14 712130	N	1562400	W	71 0622			8		1.48	0.1	2.4	0.16	17.0			26.83	
14 712130	N	1562400	u	710622			10		1.07	0.1	2.9	0.17	19.0			29.75	
14 712130	N	1562400	u	7 106?7			0		0.30	Q.9	1.1	0.17	6.3			53.07	
14 712130	N	1562400	W	710827			0		0.38	0.4	0.2	0.02	8.5			23.80	
14 712130	N	1562400	W	710827			4		0.69	0.1	0.6	0.05	10.3			28.93	
14 712130	N	1562400	u	710827			6		e.75	0.2	0.7	0.07	12.6			29.31	
14 712130	N	1562400	W	710827			8		0.62	0.2	1.1	0.07	12.6			28.56	
14 712130	N	156?4e@	W	710827			10		0.82	0.3	1.2	0.06	12.0			29.39	
14712130	N	1562400	W	711081			0		0.63	0.9		0.03	8.2			2-5.94	
14 712130	N	1562400	W	711001			2		e.45	0.3		0.04	8.4			26.04	
14 712138	N	1562400	W	711001			5		0.51	0.2	0.1	0.34	8.2			26.'36	
14 711600	N	1560000	u	710424			2		0.88	1.1	5.2	0.18	22.2			34.88	
14 711400	N	1555600	W	710424			3		0.93	1.4	6.?	0.13	25.2			37.10	
14 711300	N	1S53327	W	710424			3		0.45	1.2	6.4	'all	23.7			34.86	
14 711200	N	1553300	W	710425			2		0.56	1.1	8.5	0.10	30.8			36.07	
14 711100	N	1552500	W	710425			2		0.86	1.0	6.1	0.11	23.4			35.55	
14 711100	N	1552500	w	710425			4		0.66	1.4	8.0	0.17	29.4			36.63	
14 710900	N	1551500	W	710425			2		0.56	2.1	8.6	0.25	38.9			38.97	
14 710300	N	1543000	W	710425			2		1.04	1.5	3.9	all	20.3			32.44	
14 710300	N	1543000	W	710425			5		1.01	1.2	4.0	0.07	20.0			32.66	
14710900	N	15426m	H	710425			2		1.03	1.3	3.3	0.08	20.0			31.24	
14710900	N	1542600	u	710425			4		1.00	1.5	4.1	0.10	20.0				
14 710900	N	1542600	W	7 10425			7		1.03	1.5	4.7	0.09	21.0			32.68	
14 705500	N	154LW	W	710426			2		0.69	1.3	12.8	0.26	33.5			60.40	
14705700	N	1534400	W	710426			2		1.00	1.3	4.1	0.10	20.0			32.97	
14 705700	N	1 534400	W	710426			3		1.01	1.3	4.2	0.14	20.2			33.28	
14705900	N	1530500	u	710426			2		1.00	1.2	4.1	0.14	19.2			32.17	
14 705900	N	15305@8	W	710426			4		0.98	1.2	3.3	0.15	18.3			31.87	
14 705400	N	1522400	W	710427			3		0.%3	'a.5	3.5	0.11	18.0			31.88	
14 705700	N	1522000	W	710427			3		0.98	1.1	3.8	0.07	19.1			31.57	
14 705700	N	1522t?@4	u	710427			6		e.93	0.7	3.8	'a.09	19.0			32.03	
14 705100	N		w	710427			3		0.92	4.3	3.8	'a.50	17.i			32.18	
14 703900	N	1513000	u	710428			2		Q.94	0.7	5.2	e.12	21.8			37.61	
14 704200	N	1512700	W	710428			2		0.96	0.6	5.1	0.13	21.0			34.02	
14 703400	N	1512000	u	710428			2		0.85	1.2	7.6	0.16	26.0			41.47	
14702500	N	151@5@'2	u	710428			2		0.25	7.5	23.5	0.04	47.2			39.06	
14 702500	N	1510500	w	710428			4		0.19	7.6	24.4	8.71	45.0			38.83	
14 702500	N	1510500	u	710428			6		0.21	7.9	24.4	0.6@	46.9			40.52	
14702509	N	1510500	W	710428			7		0.19	0.6	24.7	0.60	46.0			40.81	
14 702000	N	151 0000	W	710429			3		0.07	5.3	23.'2	0.62	34.9			33.27	
14 702000	N	1510000	W	710429			6		0.15	6.9	25.5	0.68	42.0			35.'33	
14 701400	N	1505500	u	710429			3		0.10	3.0	33.0	0.70	51.5			21.26	
14 701000	N	05200	W	710430			2			3.6	3.9	0.57	23.1			9.01	
14 702500	N	1510500	W	710430			2		0.39		11.0	0.02	44.5			29.64	

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LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/1	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMP Degrees C	SALINITY ppt
14 702500 N	1510500 u	710430			2		0.15		4.0	0.27	30.0			5.00
14 702500 N	1510500 u	710309			2		0.13	9.5	20.2		45.9			
14 702500 N	1510500 u	710309			3		0.18		19.1		49.2			
14 702200 N	1510500 W	710309			5		0.18	5.?	16.3	0.28	3?. 7			
14 702500 N	151 0500 w	710309			7		0.18	6.1	17.4	0.23	30.8			
14 692500 N	1 520500 W	710624			0		0.04	e. 7		0.13	2.0	0.170	18.50	
1 4 692500 N	1520500 W	710624			0		0.12	0.8	2.9	0.09	31.0		16.00	
14693300 N	1512700 W	710625			0		0.06	e. 1	2.3	o. 07	27.9		15.50	
14 693200 N	1512300 W	710625			0		0.09	0.2	4.7	0.06	30.7		14.00	
14 693200 N	1512300 W	710625			0		0.10	0.3	2.9	0.88	30.6		17.00	
14 694600 N	1513500 w	710626			0		0.34	0.5	3.6	0.04	34.2		13.50	
14 701200 N	1510500 W	710627			0		0.10	0.3			8.9	0.350	6.00	
14 701200 N	1510500 u	71 0627			0		0.01	0.3		0.02	2.6	0.290	'3.00	
14 701200 N	1510500 u	71 0627			0		0.03	0.6		0.07	6.5		B.00	
14 701200 N	1510500 U	71 0627			0		0.03	0.8	3.6	0.08	34.0		11.00	
14 701000 N	1500200 u	719628			0		0.06	0.1	3.8	0.07	24.0		12.00	
14 710500 N	1505000 w	710629			0			0.8	0.5	0.06		0.535	5.00	
14 710500 N	1505000 W	710629			0		0.04	0.8	3.8	0.10	33.5		10.50	
14 702500 N	1510500 u	710630			0				0.3	0.11		0.750	5.50	
14 702500 N	1510500 W	710630			0		0.08	6.5	4.4	0.18	21.4		5.54	
14701700 N	1 505900 W	710630			0		0.07	1.6	3.3	0.17	17.9		5.50	
14 710500 N	15'WOO u	710701			0		0.58	0.4	3.4	0.24	33.0			
14 710500 N	150'wtY2 w	710702			0		0.16	0.6	3.5	0.23	30.0			
14710500 N	1500200 H	710703			0		0.13	0.7	3.3	e. 24	29.9			
14 702500 N	1510500 u	71072'3			0		0. 04	0.4	1.4	0.11	21.0			3.46
14 702500 N	1510500 w	710729			2		0.56	e. 4	0.2	0.07	12.7			9.92
14 702500 N	1510500 W	710729			4		Q. 08	0.3		0.03	10.1			12.04
14 702500 N	1510500 w	710729			5		0.04	0.3		0.03	6.3			7.92
14 702500 N	1510500 W	710731			0		0.@4	5.0	0.1	0.03	1.5			'3.92
14782500 N	1510500 w	710731			0		0.04	4.5		0.05	1.5			10.10
14 702500 N	1510500 w	710731			1		0. 06	3.6	0.2	0.07	1.2			10.06
14 702500 N	1510500 w	710802			0		0.02	0.4		0.01	0.1			1.34
"14 702500 N	1510500 w	710802			1		0.03	0.5		0. 01				1.05
14 702500 N	1510500 w	71 0802			3		0.01	0.4			0.2			2.00
14 702500 N	1510500 w	710804			0		0.07		0.3	0.02	13.8			9.93
14 702500 N	1510500 w	710804			1		0.07		0.3	0.02	13. B			10.00
14 702500 N	1510500 u	710804			3		0.08	0.1	0.3	0.96	13.1			1'3.40
14 702500 N	1510500 w	710805			0		0.03	4.4	0.1	0.10	1.0			10.27
14702500 N	1510500 w	710805			0		e. 07	4.8	0.1	0.12	1.2			8.10
1 4 702500 N	1510500 w	710805			1		0.04	4.7	0.1	0.12	1.0			10.16
14 702500 N	1510500 w	71 0806			2		0.06	0.6	0.8	0.11	2.0			6.97
14 702500 N	1510500 w	710806			3		0.06	1.6	0.8	0.11	2.5			5.78
14 702500 N	1510500 w	710806			0		0.08	2.1	0.8	0.10	2.5			5.79
1 4 702500 N	1510500 w	710806			0		0.07	0.4	0.8	0.08	2.5			5.n
14 702500 N	1510500 W	710806			0			1.8	1.0	0.14				5.42
14 702500 N	1510500 w	710808			0			0.2		0.02				1.23

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LATITUDE		LONG I TUDE		DATE	TIME GMT	DEPTH TO OUTTOM (m)	SAMPLE DEPTH (m)	OXYGEN mill	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKAL INITY m-equi/l	TEMP Degrees C	SALINITY ppt	ICE SAMPL
14 702500	N	1510500	w	710808			2			0.2		0.02				1.91	
1 4702500	N	15 10500	W	71 0808			3			0.5	e. 1	0.05				1.95	
14 702500	N	1510500	H	710809			0		0.18	0.1	0.8	0.11	13.6			6.14	
14 702500	N	1510300	W	71 0809			4		0.07	0.2	0.5	0.05	15.6			3.33	
! 4702500	N	151 0500	u	710809			7		0.09	0.4	0.5	0.10	15.6			10.10	
14 702500	N	1510500	H	710823			0		0.15	0.5	1.1	0.15	17.9			6.23	
1 4 702500	N	1510500	W	710823			3		0.15	0.7	1.1	0.14	17,7			6.18	
1 4 702500	N	15(0500	w	710823			5		0.11	0.7	0.7	0.15	14.8			9.26	
14 701700	N	15'?5?'3'2	W	710823			0		e. 06	0.7	1.0	0.09	20.3			2.92	
14 701700	N	1505900	w	710823			2		0.05	0.6	1.1	0.08	20.5			3.16	
14 70170'?	N	13359e0	W	710823			4		0.06	0.6	1.1	0.0'3	20.3			3.78	
14 702800	N	15'a25m	W	710823			0		0.06	0.4	1.9	0.07	31.8				
14 702800	N	1 502500	W	710823			2		0.06	0.3	1.3	0.07	30.0			'a. 12	
14 702800	N	15'2250'2	u	710823			4		0.05	0.4	2.0	0.03	32.3				
14 702500	N	1510500	w	711105			0		0.11	5.3	3.4	0.19	16.2			17.16	
14 702500	N	1510500	W	711105			2		0.34	3.3	2.8	0.23	10.6			20.56	
14 702500	N	1510500	W	711105			4		e. 15	1.3	1.5	0.13	6.7			24.15	
1 4 702500	N	1510500	W	711105			6		0.19	1.5	1.5	0.13	6.7			24.53	
14 702500	N	1510500	w	711105			7		0.19	1.7	1.5	0.13	6.0			24.66	
14 702500	N	1510500	w	711106			0		0.15	4.3	[illegible]	0.18	e. 7			2.27	
14 702500	N	1510500	w	711106			1		0. 07	3.0	2.3	0.13	'a. 7			2.22	
14 702500	N	1510500	W	711106			2		0.08	2.8	2.3	0.12	0.5			2.24	
14 702500	N	1510500	w	711106			2		0.06	3.3	2.2	0.12	0.7			2.24	
14 712130	N	1562400	W	711123			2		1.19	1.1	4.2	0.19	13.8				
14712130	N	1562400	w	711123			6		0.99	1.1	4.2	0.17	18.4			31.66	
14 712130	N	1562400	W	711123			10		2.00		4.3	0.18	20.1			31.21	
14 712130	N	1562400	W	711123			15		1.13	1.4	4.5	0.21	21.3				
14 712130	N	1 562400	W	711229			2		1.58	0.9	7.8	0.27	24.1			33.67	
14 712130	N	1562400	u	711229			4		1.34	1.5	6.5	0.24	20.3			20.85	
14 712130	N	1562400	U	711229			6		1.50	1.5	7.5	e. 27	23.4				
14 712130	N	1562400	U	711229			8									33.41	
14 712130	N	15624ea	U	711229			10		1.55	1.6	7.2	0.27	22.6			33.18	
14 712130	N	1562400	W	711229			15		1.49	1.9	7.0	0.28	22.7				
14 703154	N	1500630	U	710728			0		e. 57	0.2		0.06	7.6		3.40	27.9?	
14 703154	N	1 500630	W	710728			1			0.3		0.04			1.63	30.17	
14 703154	N	1500630	W	710728			2								1.42	30.51	
14703130	N	1500230	W	710729			0		e. 43	0.2	0.1	0.03	11.0		6.49	23.38	
14 703130	N	1500230	U	710728			1								3.4:	27.63	
14703130	N	1500230	U	71 0728			2								1.82	23.61	
14783130	N	15cw3@	W	710728			3		0.60	0.3		0.04	5.4		1.05	30.88	
14 703030	N	1495708	W	710728			0		0.18	0.4	0.1	0.03	16.7		3.85	18.38	
14 703038	N	14357'3@	W	718?28											7.65	22. 05	
14 703136	N	1 500500	W	710811			0		0.25	0.4		0.05	7.2		5.16	1'3.05	
14 703136	N	1500500	W	710811			1								5.10	19.18	
14 703136	N	1500500	W	710811			2								4.29	20.10	
14 703136	N	15@e5@@	W	710811			3		0.31	0.3		0.03	5.3		4.24	20.15	

ID = 14: DR. D. M. SCHELL'S RAW DATA FILES
AT THE UNIVERSITY OF ALASKA
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LOT ITUDE		LONG ! TUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE S]03-S1 mg-at /m3	ALKAL INITY m-equi / l	TEMP Degrees c	SAL INITY ppt
14703160	N	1495800	w	71081 !			0		0.17	0.3		0.02	9.5		6.54	7.05
14 703100	N	1495800	H	710811			1								5.65	18.24
14703100	N	1495eee	U	710811			1								5.57	18.51
14 703100	N	1 495800	W	710811			2								5.75	19.95
14 703100	N	1495800	W	710811			3		0.30	0.3		0.05	7.2		5.14	20.00
14 702900	N	1495300	w	710617			0		0.17	2.B	0.5	0.04	1.9			
14 702900	N	149530e	W	710617			0		0.15	0.6	0.1	0.01	1.5			
14 702900	N	1495300	W	71'2617			0		0.12	0.e	0.1		4.5			
14 702900	N	14353QC	W	710617			0		0.10	2.6	0.8	0.03	3.?			
14 703006	N	1501600	W	710812			0		0.20	0.8		0.08	B.1		4.75	18.67
14703006	N	1501600	U	710812			1								4.71	18.72
14 703006	N	1501600	W	710812			2		0.53	0.t?		0.05	5.7		1.36	25.82
14 703024	N	1503600	W	710812			0		1.30	e.7		0.05	10.3		3.95	17.55
14 703024	N	1503600	U	710812			1								3.40	19.00
14 703824	N	1503600	u	710812			2								1.10	26.16
14 703024	N	1503600	W	710812			2		0.61	0.7		0.05	5.5		0.83	26.18
14 703030	N	1504700	u	710812			0		0.73	0.e		0.04	6.3		4.85	19.25
14 703030	N	1504700	W	710812			1								1.31	25.91
14703030	N	1504700	W	710812			1								1,27	26.13
14 703030	N	1504700	W	710812			2		0.62	0.7		0.03	5.7		1.22	25.34
14 703'?24	N	1510500	W	710812			0		0.44	1.1		0.02	6.0		3.%	23.17
14 703024	N	1510500	U	710812			1								3.84	23.31
14 703024	N	1510500	W	710812			2		0.72	1.0		0.10	6.@		2.07	25.20
14 703200	N	1511600	W	710812			0		0.37	0.e		0.04	5.7		5.17	22.96
147032$0	N	1511 600	H	710812											4.63	23.20
14 703200	N	1511600	U	710812			2		0.33	0.8		0.07	6.@		2.55	24.97
14 702900	N	1501500	W	710812			0		0.21	e.7		0.06	9.3		4.54	18.61
14 702900	N	1501500	W	710813			1								4.43	18.86
14 702900	N	1501500	W	710813			2		0.30	0.7		0.05	7.4		3.'35	19.55
14 702800	N	1500400	W	710813			0		0.17	0.9		0.03	9.5		4.75	18.42
14 702800	N	1500400	u	710813			1								4.73	18.44
14 702800	N	1500400	W	710813			1								4.76	18.44
14 702800	N	1500400	W	710813			2		0.17	0.8		0.02	9.2		4.84	18.58
14 702900	N	1484000	w	710801			0		0.42	0.1		0.03	5.7		4.61	20.03
14 702900	N	1484000	W	710801			2		1.06	0.1		0.03	5.7		4.30	20.29
14 702900	N	1484000	W	710801			4		1.47	0.2		0.05	6.7		5.17	22.05
14 702900	N	1484000	w	710801			5								5.25	22.05
14 692930	N	1485900	W	710801			0		0.94	0.1		0.02	7.0		3.21	20.47
14 692930	N	I 485900	W	710801			2		2.06	0.2		0.02	8.4		3.58	20.98
14 692930	N	1485900	W	710801			4		0.50			0.05	6.7		3.4;	24.53
146'32930	N	1485m	W	710801			5								3.33	26.27
14 703136	N	! 490900	W	710801			0		0.35			0.07	7,7		4.10	20.58
14703136	N	1490900	W	710801			2		0.42			0.02	6.7		4.35	23.49
14 703136	N	1490900	w	71 0801			4		1.98	0.1		0.04	6.7		3.74	25.88
14703136	N	1490900	u	710801			5								3.69	25.93
14 703312	N	1492200	w	710801			0		0.39	e.3		0.02	7.7		6.84	22.53

ID = 14: DR. D. M. SCHELL'S RAW DATA FILES
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LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMP Degrees c	SALINITY ppt	ICE SAMPLE
14 703312	N	14922@e	W	710801			2		0.40	0.1		0.08	5.6		4.64	23.76	
14 703312	N	1492200	w	710801			4		0.43	0.2	0.3	0.06	5.5		4.65	25.94	
14 703312	N	1 492200	W	710801			5								4.7@	25.31	
14 703448	N	1 4923'?0	w	710801			0		0.37	0.2		0.05	6.1		4.72	21.17	
14 703448	N	14929e0	w	710801			2		0.41	0.2		0.05	5.6		5.15	23.80	
1470:449	N	14929 00	W	710801			4		0.43	0.4	0.3	0.10	4.7		4.72	26.65	
14 703448	N	1 492900	w	710801			5								4.42	26.98	
14 703236	N	1494100	w	710801			0		0.40	0.1	0.3	0.04	6.1		4.36	22.30	
14 703236	N	1494100	w	710801			2		0.37	0.3		0.05	4.5		5.51	26.84	
14 703236	N	1494100	W	710801			4		0.42	0.2	0.6	0.10	4.7		4.56	28.18	
1 4703236	N	14'34100	u	710801			5								4.30	28.73	
14 703412	N	! 4 95200	w	710809			0		0.40	0.1		0.06	6.4		3.85	21.15	
14 703412	N	: 495200	W	71 0809			2		e.38	0.1		0.07	6.8		3.22	21.16	
14 703412	N	1495200	U	710809			4		0.41	0.2		0.08	5.4		2.69	23.10	
14 703354	N	15@e9@@	W	710811			0		0.28	0.9		0.14	6.5		4.03	19.81	
14 703354	N	1500900	W	710811			2		0.30	0.8		0.11	5.9		4.30	20.56	
14 703354	N	1 500900	W	710811			4		0.39	0.9		0.03	5.5		3.56	21.98	
14 702948	N	1490900	w	710808			0		0.10	0.2		0.03	13,4		6.53	16.50	
14 702948	N	14%5k-'@	w	71 0808			1								6.%	16.48	
14 703030	N	! 490900	w	710808			0		0.10			0.03	13.0		6.41	17.22	
14 703030	N	149'3300	W	710808			2		0.14	0.1		0.04	12.0		6.42	17.18	
14 703030	N	1490900	w	71 0808			2								6.46	17.21	
14 703042	N	1490900	W	710808			0		0.10	0.2		0.05	12.1		6.16	17.64	
14 703042	N	1490'3@@	w	710808			1		0.18	0.1		0.05	11.2		6,12	17.73	
14703136	N	1491980	w	7108L39			0		0.13	0.2		0.10	12.0		5.53	17.2:	
14 703136	N	1491900	w	710809			1		0.12	0.2		0.10	11.5		5.55	17.25	
14703106	N	1491900	u	710809			0		0.07	0.7		0.12	13.2		5.98	16.87	
14 703106	N	1491900	w	710809			1								5.9?	17.10	
14 703106	N	1491900	U	710809			2		0.19	0.4		0.01	10.6		5.31	18.00	
14 703042	N	1491900	W	7108%9			0		1.09	0.4			13.1		5.85	16.62	
14 703042	N	1491900	W	710809			1		0.25	0.5		0.03	11.!		5.82	17.46	
14 703042	N	149?73@	U	710809			0		0.09	0.2		0.03	12.5		6.'33	16.32	
14 703124	N	1492730	U	710809			1		0.22	0.3		0.07	10.5		5.80	19.42	
14 703205	N	149?730	W	710809			0		0.15	0.2		0.09	12.[		5.04	16.70	
14 703206	N	1492730	W	710809			2		0.36	0.3		0.07	7,6		4.58	13.58	
14 703236	N	! 492730	u	710809			0		0.19	0.8	0.1	0.09	13.0		5.80	16.44	
14 703236	N	149?750	w	7 10809			2		0.27	0.4		0.07	12.0		5.37	17.53	
14 703118	N	1 493980	u	710810			0		0.09	0.2		0.05	12.6		6.34	15.88	
14 703118	N	1493988	w	710810											6.37	15.89	
14 703200	N	1493980	W	710810			0		0.19	0.2		0.06	9.6		5.96	! 9.03	
14 703200	N	1 493980	w	710810			1								5.95	1'3.12	
14 703200	N	149Y38@	u	710810			2		0.13	0.2		0.07	10.?				
14 703200	N	:493980	w	710810			2								5.92	19.15	
i 4 703300	N	1494000	u	710810			0		0.19	0.2		0.07	7.9		5.23	20.00	
14 703300	N	1494c'@e	W	710810			2		0.26	0.2		0.06	8.2		5.25	243.04	
14 703346	N	1434@5@	W	710810			0		0.23	0.8	0.2	0.09	7.0		4.10	2'?.51	

ID = 14: DF!. D.M. SCHELL'S RAW DATA FILES
AT THE UNIVERSITY OF ALASKA
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LAT ! TUDE		LONGI TUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/1	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/!	TEMP Degrees C	SALINITY ppt
14703348	N	1494050	W	71 0810			2		0.35	0.1		0.09	6.9		4.15	20.63
14 703330	N	1495150	w	710810			a		0.28		0.3	0.08	6.4		4.72	21.69
14 703330	N	1495150	W	710810			1		9, 28	0.1		0.06	6.2		4.78	21.64
14 703300	N	1495150	W	710810			0		0.29	0.1		0.06	E. 7		4.18	20.76
14 703300	N	1495150	u	710810			2		0.26			0.0?	6.7		4.19	20.80
14 703206	N	1495150	u	710810			0		0.23	0.3		0.06	10.0		5.37	18.29
14 703206	N	1495150	u	71 0810			2		0.17	0.1		0.07	9.0		5.32	19.81
14 703118	N	1495750	W	71 0810			0		0.16	0.2		e. 09	14.1		5.66	13.75
14 703118	N	1495750	u	710810			1								5.64	16.95
14 703118	N	1435750	u	710810			2		0.21	0.2		0.04	8.5		5.57	19.23

ID = 15: from DR. D.M. SCHELL'S RAW DATA FILES
AT THE UNIVERSITY OF ALASKA
1972 / 1973

LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at /m3	ALKALINITY m-equi /l	TEMP Degrees C	SALINITY ppt	ICE SAMPLE
15 710500	N	1543022	W	728417			5		0.33	4.4	17.7	0.41	34.8			23.32	
15 701000	N	1500200	u	728417			2		a. 20	8.6	11.4	1.16	39.7			10.10	
15 701000	N	1 500200	w	720417			4		0.23	7,2	16.6	1.85	42.0			15.34	
15 701000	N	1 500200	w	728417			6		0.26	7, 2	16.4	1.48	39.2			16.02	
15 701200	N	1510500	w	720417			2		0. 06	0.7	34.2	0.03	40.4			0.23	
15 710500	N	1500238	w	7205 1?			2		0.14	2.6	33.5	0.22	55.9			21.91	
15 710500	N	1 500200	w	720512			5		0.12	3.1	33.6	0.25	56.3			21.93	
15 701000	N	1 500200	w	720513			1		0.06	3.2	27.3	0.16	82.2				
15 701000	N	1 500200	w	7LV51 3			1		0.08	7.0	24.8	0.48	72.0				
15701088	N	1 500200	w	728515			2		0.09	8.2	22.2	0.96	72.0			12.76	
15 701000	N	1 500200	w	720513			4		0.12	3.1	21.1	1.24	48.0			15.38	
15701000	N	1500200	w	720513			6		0.12	2.6	20.7	0.66	45.1			16.43	
15 710500	N	15e022	W	720514			2		0.24	4.1	20.1	0.3?	44.3			22.27	
15 710500	N	1508280	u	720514			4		0.20	1.0	29.0	1.11	84.2			20.73	
15 710500	N	1500200	w	720514			5		0.23	3.1	24.1	0.14	54.3			23.03	
15 701700	N	1505990	w	72@514			2		0.12	4.4	30.2	0.69	43.0				
15 701700	N	1505900	w	720514			3		0. 12	4.4	30.2	0.74	43.6			21.61	
15 701700	N	1585380	u	720515			2		0.17	8.@	31.5	1.32	35.3			30.19	
15 701700	N	1505900	w	720515			4		0.19	3.3	30.0	1.10	42.5			32.42	
15701780	N	1505900	w	720515			7		0.22	8.8	32.0	0.93	44. i			33.75	
15 702500	N	1510500	w	720515			2		0.30	9.9	30.5	1.03	45.5			36.23	
15702500	N	1518580	w	720515			4		0.35	9.9	18.7	0.93	35.4			39.22	
15 702500	N	1510500	W	720515			6		a. 36	3.9	16.7	1.00	30.6			41,40	
15 702500	N	1518580	w	720515			7		0.31	3.9	22.4	1.05	43.0			40.91	
15701200	N	1510580	H	720521			2		0.01	0.4	42.5	0.05	60.4				
15 710500	N	1500?00	w	72052 1			2		0.16	3.2	27.8	1.00	80.0			20.75	
15 702500	N	1510500	w	7a521			2		0.10	a. B	3.6	0.31	21.6			3.42	
15 710500	N	1500200	w	720522			2		0.15	8.6	27.9	1.00	80.7			20.97	
15 710500	N	1 500200	w	720522			2		0.15	7.6	27.8	0.92	73.5			20.77	
15 702500	N	151 0500	w	720522			3		0.32	9.9	29.8	0.09	45.0			36.23	
1570380	N	1510500	w	720522			5		0.42	s'. 9	15.4	0.84	28.8			35.71	
15 710500	N	15?2.?88	u	720523			2		0.15	7.5	27.8	0.31	79.5			21.00	
15 710500	N	1500200	u	720523			2		0. 25	3.@	28.2	1.05	81.4			20.79	
15 71 0EJ38	N	1500200	u	720524			2		0.16	8.4	27.5	1.00	77.8			20.73	
15 710580	N	1 500200	w	720524			2		0.18	8.3	27.7	1.00	79, 5			20.85	
15 710500	N	1500200	w	720525			2		0.18	9.0	27.9	e. 99	7'3.8			20.88	
15 710500	N	1500200	w	7.20525			2		0.25	7.5	27.8	0.88	78.3			21.06	
15 710500	N	1 500200	w	720526			2		e. 19	7.6	28.0	0.96	78.1			20.97	
15 710500	N	1500200	w	720526			2		0.16	8.1	27.4	1.61	78.0			20.82	
15 702500	N	151 0500	w	720526			2		0.10	9.3	3.1	0.22	26.9			43.76	
15 710500	N	1 500200	u	720527			2		a. 18	7.5	26.9	0.33	76, 2				
15 702500	N	1510500	w	720627			0		0.18	0.9	3.3		36.5				
15 702500	N	1510500	u	720627			2		0.10	1.8	2.9		36.3				
15 702500	N	1510500	w	720627			4		0.20	1.6	3.2		36.6				
15 702500	N	1510500	w	720627			6		0.20	1.0	3.2		36.5				
15 702500	N	1510500	w	720627			8		'a. 32	1.0	3.3		36.0				

ID = 15: from DR. D.M. SWELL'S RAW DATA FILES
AT THE UNIVERSITY OF ALASKA
1972 I 1973

LATITUDE	LONG ITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN mill	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMP Degrees C	SALINITY ppt	IC SF
15 702500 N	1510500 W	720628			0		0.03	3.3	4.3		0.3				
15 702500 N	1510500 W	720628			0		0.03	3.6	0.4		4.3				
15 702500 N	1510500 W	720701			0		0.16	1.9	2.8		38.8				
15 702500 N	1510500 W	720701			2		0.29	1.6	3.0		38.0				
15 702500 N	1510500 W	720701			4		0.21	2.2	2.3		38.7				
15 702500 N	1510500 W	720701			6		0.24	0.0	2.8		38.8				
15 702500 N	1510500 W	720701			7		0.18	1.1	2.6		38.1				
1570255 N	1510500 W	720702			0		0.04	5.0	2.4						
15 702500 N	1510500 W	720702			0		0.02	1.5			2.8				
15 702500 N	1510500 H	720727			0		a.01	1.1	5.8		47.5				
15 702500 N	1510500 W	720727			2			1.2	5.4		23.8				
15 702500 N	1510500 u	720727			4			1.3	5.3		27.0				
15 702500 N	1510500 u	720727			6			1.3	5.3		35.B				
157022500 N	1510500 W	720727			8		0.01	1.4	4.8		45.0				
15 702500 N	1510500 W	720728			0		'a.03	3.4	0.2		0.5				
15 702500 N	1510500 H	720728			0		0.02	0.3	0.1		2.8				
15 702500 N	1515540 U	720730			0		0.18	1.0	4.8		43,7				
15 702500 N	1510500 W	720730			2		0.01	1.1	5.3		37.B				
15702500 N	1510500 W	720730			4		0.02	1.1	5.3		45.8				
15 702500 N	1510500 U	720730			6		0.03	0.9	4.1		38.7				
15 702500 N	1510500 W	720730			8		0.04	7.3	2.6		38.4				
15 702500 N	1510508 W	720731			0		0.04	0.b	0.1		1.5				
15 702500 N	15105J?L? W	72080 1			0			0.1			2.2				
15 710500 N	1500200 W	720816			0		0.05	0.3	2.1	0.12	43,8				
15 701400 N	1504600 W	720816			0		Q.05	0.6	2.:		48.8				
15 702400 N	1503400 W	7208 16			0		0.04	e.3	2.2		48.0				
15702488 N	1 503400 W	720816			0		0.04	0.2	2.0		45.9				
1578.2400 N	1502700 W	720816			0		0.03	0.4	1.8	0.12	44.4				
157026$9 N	1502400 W	720816			0		0.03	0.5	1.9		44.4				
157922 N	1502400 u	720816			0		0.03	0.6	2.1		43.0				
15 702900 N	1501709 W	720816			0		0.'24	0.4	1.9		40.4				
15 702500 N	1510500 W	720829			0		0.02	0.6	3.0		69.2				
15 702500 N	1510500 W	720829			2		0.04	0.6	3.0		73.7				
15 702500 N	1510500 W	720829			4		0.03	1.1	3.0		73.6				
15 702500 N	1510500 u	720829			6		%.04	1.1	3.0		73.0				
15 702500 N	1510500 u	720829			8		0.04	1.3	3.0		74.5				
15702500 N	1510500 u	720830			0		0.@4	1.3	0.8		3.5				
15 702500 N	1510500 u	720830			0			0.3			1.5				
15 702500 N	1510500 u	7243831			0		0.08	0.9	2.5		57.2				
157025$8 N	1510500 u	720831			2		ail	1.0	2.6		53.1				
157025$0 N	1510500 W	720831			4		Q.05	1.0	2.6		56.0				
15 702500 N	1510500 H	720831			6		0.10	1.2	2.6		57.1				
15 702500 N	1510500 u	720831			8		0.06	1.4	2.8		57.6				
15 702500 N	1510500 u	720901			0		0.07	2.2	1.0		2.6				
15 702500 N	1510550 u	720901			0			0.5	0.1		1.5				
15 710500 N	1500280 W	720923			0		0.06	0.1	3.1	0.09	45.6			0.11	

ID = 15: from DR. D. M. WELL'S RAW DATA FILES
AT THE UNIVERSITY OF ALASKA
1972 / 1973

LATITUDE		LONGITUDE		DRTE	TIME GMT	DEPTH TO BOTTOM (M)	SAMPLE DEPTH (m)	OXYGEN ml/1	PHOSPHATE PO4-P mg-at/m3	AMMONIA NW-N mg-at/m3	NITRATE NO3-N fog-at /m3	NITRITE NO2-N mg-at /m3	SILICATE S103-SI mg-at /m3	ALKALINITY m-equi/ 1	TEMP Degrees C	SALINITY ppt	ICE SAMPLE
15 710500	N	150w0a	u	720923			2		0. 06		3.0	a. 10	43. 4			0. 09	
15 710500	N	1 500200	u	720923			4		0.05		3. 0	0. 08	45,6			0. w	
15 710500	N	500200	W				0		0. 06	0.3	3.0	0.14	43.4			0.03	
15 710500	N	1500200	H	720924			2		0.05	0.1	3. 0	0.12	43. 5			0. 09	
15 710500	N	1 500200	u	720924			4		0.06	0.4	3.1	0.12	44.2			0.09	
15 710500	N	1500200	W	720930			0		e. 08	0.4	3.1	0. 10	41.4		0.04	0. 09	
15 710500	N	1 500200	u	720930			2		0.87	0.4	3.1	0.10	44.8			0.11	
15 710500	N	1500200	W	720930			4		0. 06	0.4	3.2	0.1?	46. 0			0.09	
15 710500	N	15%0200	u	721001			0		0. 06	0.4	4.2	0.11	45.1		0.05	0.03	
15 710500	N	1 500200	u	721001			2		0.06	0.4	4. j	0.11	44.1			0. 03	
15 710500	N	1 500200	W	721001			4		0. 05	0.4	4.3	0.09	44.6			0.10	
15 701000	N	1500200	W	721005			0		0. 04	0.4	4.6	0.7@	46. 2		0.08	0. 09	
15 701000	N	1500200	u	721005			2		0.05	0. 2	4.6	0.10	45.9			0.08	
15 701000	N	1500200	u	721005			4		0. 04	'a. 3	4.6	0. 09	45.6			e. 08	
15 701000	N	17w32#	u	721005			7		0. 03	0. 3	4.6	0. 09	44,3			0. 09	
15 701000	N	1500200	u	721005			0		0.'22	0. 2	4.7	0.12	34.6		0.13	0. 08	
15 701000	N	1 500200	W	721005			3		0. 02	0.2	3.6	0.09	34.2			0.08	
15 710500	N	1500200	u	721007			0		0. @4	0.6	4.2	0.10	46.0		0.15	0.10	
15 710500	N	1500200	u	711007			2		0.04	0. 5	3.7	0.10	45.9			0.11	
15 710500	N	1500200	W	721807			6		0.05	0.3	3.1	0.12	44.1			0.11	
15 710500	N	1500200	w	721007			0		0.04	0.?	4.:	0.09	45,2		0.10	0.09	
15 710500	N		W	721007			2		0. 05	0.3	4.5	0.10	45.1			0. 09	
15710580	N	1500!200	W	721007			4		0.04	0.4	4.5	0. 09	45.2			0.10	
15 710500	N	1500200	W	721014			0		0. 03	0.5	4.8	0.14	45.4		0.18	all	
15 710500	N	1 500200	w	721014			2		0.03	0.5	4.7	0.12	40.8			0.21	
15 710500	N	1500200	u	721014			4		0.06	2.7	3.4	0.20	42.3			28.77	
15710500	N	15GQ2W	W	7.21014			6		0.88	3.2	3.1	0.24	59.4			34.58	
15710500	N	1500200	W	721014			0		0.%7	0.6	5.1	0.12	41.6		0.20	0.10	
15710500	N	150022	u	721014			2		0.10	0.7	5.1	0.15	46. 2			0.0'3	
15 710500	N	1 500200	u	721014			4		0.04	0.7	5.3	0. 28	47.0			0.10	
15 701000	N	1 500200	W	721018			0		0. 05	0. 6	0.6	0.14	47. 6		0.23	0. 13	
15 701000	N		u	721018			2		0.04	0.1	6.6	0.11	47. 8			0.09	
15 701000	N	1500220	w	721018			3		0. 04	0. 2	b. 6	0.10	47.0			0.10	
15 701000	N	1500200	W	721019			0		0.0:	e. 2	6.1	0.12	47.2			0.12	
15701000	N	1 500200	u	721019			2		e. 06	0.1	6.5	0.03	49.8			0,11	
15 701000	N	1500200	u	721019			4		0.05	0.1	6.4	0.10	43,4			0.10	
15701000	N	1 500200	W	721019			8		0. 06	0.1	6.0	0.08	45.6			0.11	
15 710500	N	1500200	u	721020			0		0.04	0.5	5.6	0.09	72. 5		0.20	0.11	
15 710580	N	1500200	W	721020			2		0.05	0.1	5.5	'a. 08	72. 2			0.11	
15 710500	N	1500200	u	721 020			4		0.03	0.2	5.7	0. 06	71.9			0.12	
15 710500	N	1500200	u	721020			7		0. 02	0.2	5.8	0.07	72.0			0.14	
15 71 0500	N	1500?00	W	72:820			0		0.04	0.7	4. B	0.08	49.8		0.23	0.33	
15 710500	N	1500200	u	721 020			2		0.04	3.6	2.8	0.14	37.6			6. 06	
15 710500	N	1500200	W	721020			4		0.10	5.0	2.7	0.18	35. 2			6.:3	
15 710500	N	1 500200	u	721 020			6		0.09	4.9	2. 6	0.18	35. 2			7.33	
15 710500	N	1500?430	W	721022			0		e. 10		6.9		69. 5		0.28	0.44	

ID = 15: from DR. D. h. SCHELL'S RAWDATA FILES
AT THE UNIVERSITY OF ALASKA
1372 / 1973

LATI TUDE		LONGITUDE		DATE	DEPTH TIME TO BOTTOM GMT (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi / l	TEMP Degrees C	SALINITY ppt
15 710500	N	1500200	u	721022		2	0.06		6.3			67.5			0.11
15 710500	N	1500200	W	721022		4	0.05		7.@			67.6			0.12
15710500	N	1500200	u	721022		7	a.08	0.1	6.9			67.5			0.11
15710500	N	1500200	W	721022		0	0.05	0.9	4.5			71.3		0.25	0.25
15710503	N	1500200	W	721022		2	a.07	4.9	3.3			51.5			7.07
15710500	N	1500200	W	721022		4	'a.06	5.3	3.0			49.0			7.77
15 710500	N	1500200	W	721022		9	0.12	3.3	2.7			63.8			19.02
15 701700	N	1505900	W	721023		0	0.08	3.9	4.1			60.2		0.20	4.71
15701780	N	1505900	u	721023		2	0.13	5.2	3.1			39.9			15.43
15 701700	N	1505900	W	721023		4	0.18	4.3	2.8			35.0			17.91
15 701700	N	15'a59e+l	u	721023		6	0.13	4.0	2.8			33.5			18.58
1 5 702500	N	1510568	u	721023		0	a.10	4.6	3.6			57.4			7.03
15 702500	N	1510500	u	721023		2	0.14	4.1	2.7			38.4			15.32
15 702500	N	1510500	u	721023		4	0,18	3.6	2.5			32.6			16.19
15 702500	N	1510500	u	721023		8	0.21	3.0	2.4			28.0			22.18
15 710500	N	1 500200	W	721026		0	0.08	0.4	7.2			69.2		0.22	0.39
15 710500	N	1500200	u	721026		2	0.04	0.6	7.3			65.7			0.23
1571055	N	1500200	u	721026		4	0.03	0.6	10.5			65.2			0.40
15 710500	N	150ea0	W	721026		7	0.03	0.6	7.0			68.2			0.%
15 710500	N	1 500200	W	721026		0	0.05	2.7	5.7			71,5		0.32	3.72
15710560	N	15wa0	W	721026		2	a.13	6.1	3.4			43.5			10.06
15 710500	N	15ew6	u	721026		4	0.10	5.6	3.5			43,2			10.74
15 710500	N	1500280	W	721026		9	0.10	5.3	3.5			4a.8			11.04
15 710500	N	1 500200	W	721028		0	0.04	0.8	5.5			69.3			2.44
15 710500	N	15'a@?00	u	721028		2	0.10	4.8	2.3			43.7			10.38
157105430	N	1500?00	W	721028		4	0.08	3.3	2.6			47.6			12.35
15 710500	N	15@w00	W	721028		9	e.10	5.0	2.4			47.5			11.33
15 710500	N	1500200	W	721030		0	0.03		6.5			70.9		0.31	e.44
15 710500	N	1 500200	u	721030		2	0.04		6.4			71.4			0.13
15 710500	N	1500200	u	721030		4	0.02	0.2	6.4			71.0			0.17
15710500	N	150e12a0	W	721030		7	0.05	0.6	5.3			68.0			2.11
15 701700	N	1504500	W	721030		0	0.04	1.7	6.8			63.8		0.36	2.43
15701700	N	1504500	u	721030		2	0.20	4.,?	5.0			53.2			12.11
15701700	N	1504500	W	721030		4	0.38	4.5	3.2			36.5			20.44
15 701700	N	1504500	W	721030		6	0.45	4.1	3.1			36.5			21.51
15 702100	N	1502500	u	721030		0	'a.04	1.4	8.6			68.7		0.36	1.39
15 702100	N	1502500	W	721030		2	0.02	1.3	3.0			71,3			0.94
15 702100	N	1502500	W	721030		4	0.28	5.5	3.3			45.0			16.86
15 702400	N	1503400	W	721030		0	0.08	3.2	5.a			63.?		0.31	4.82
15 702400	N	1503400	W	721030		2	0.32	4.4	4.0			43.6			13.55
15 762460	N	1503400	W	721030		4	0.50	2.5	2.2			27.0			22.76
15 702400	N	1503400	W	721030		7	0.59	2.3	1.8			22.5			26.42
15 710500	N	1 5(40200	u	721102		0	0.06	0.3	7.7			69.2		0.36	0.20
15 710500	N	1541@200	W	721102		2	e.05	0.4	7.3			63.7			0.17
15 710500	N	1500200	u	721102		4	0.24	3.3	5.6			58.1			7.67
15 710500	N	1500200	W	721102		7	0.24	3.9	5.0			54.1			3.66

ID = 15; from DR. D. M. SCHELL'S RAW DATA FILES
AT THE UNIVERSITY OF ALASKA
1972 I 1973

LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at /m3	SILICATE S103-S1 tag-at /m3	ALKALINITY m-equi/l	TEMP Degrees C	SALINITY ppt	ICE SAMPLE
15 710500	N	1 500200	W	721102			0		0.06	1.8	6.4		69.2		0.33	2.10	
15710500	N	1500200	W	721 102			2		0.23	6.7	3.6		47.8			12.36	
15 710500	N	1 500200	W	721102			4		0.21	6.8	3.5		45.6			13.23	
15 710500	N	1500200	U	721102			9		a. 29	7. a	3.5		45. 2			13.50	
15710500	N	1330200	H	721108			0		0.08	0. '3	8.4		7. i		0.46	0.4?	
15 710500	N	1500200	W	721 108			2		0.06	0.5	7.7		71.2			0.18	
15 710500	N	150@.2a0	W	721108			4		a. 13	2.8	6.?		59.8			5.31	
15 710500	N	1500200	W	721 108			7		0. 15	3.6	5.6		57.5			a. 59	
15 710500	N	15a0200	W	721109			0		'a. 08	3.7	7.6		83.5		0. 43	3.03	
15 710500	N	1 500200	W	721 109			2		a. 32	7.2	3.7		45.9			12.91	
15710500	N	1 500200	U	721 109			4		0.14	7.3	3.8		44.3			13.74	
15 710500	N	1500200	w	721 109			9		0. 16	7,6	3.9		45.9			13.96	
15 701000	N	15aw0a	W	721112			0		0.05	0.5	8.7		66. ?		0.39	0.12	
15 701000	N	15@020a	W	721112			2		0.1?	0.5	3.@		72.4			0.11	
15701000	N	150@200	w	721112			4		0.04	0.4	8.5		70.9			0.11	
15 701000	N	1500200	u	721112			8		0.05	0.5	8.5		70.8			0.13	
15 701000	N	1 500200	W	721112			0		0. 04	a. 5	8.8		61. ?		0.38	a. 42	
15 701000	N	1500200	W	721112			2		0. 04	0.4	EL 5		63.9			Q. 14	
15 701000	N	15klf&30	u	721112			3		0.03	a.:	8.6		63.7			0.12	
15 701000	N	1500?00	u	721113			0			1.4	3.6		77.2		0. 48	0.12	
15701000	N	1500200	W	721113			2		0.08	0.6	9.3		77.1			0.11	
15 701000	N	1 500200	u	721113			3		a. 04	a. 5	3.6		77.3			0.11	
15 710500	N	130WW	u	721115			0		a. 05	0.9	8.7		74.1		a. 51	0.15	
15 710500	N	1500200	u	721115			2		0.06	a. 5	6.5		74.3			0.16	
15 710500	N	1500200	w	721115			4		0. 12	3.3	6.3		61.1			6.65	
15 710500	N	1500200	u	721115			7		0.16	3.6	5.6		58.4			8.63	
15710500	N	1500200	W	721115			0		0. 10	5.4	8.:		93.0		0.51	4.32	
15 710500	N	1 500200	u	721115			2		0.12	8.6	4.0		46.2			13.58	
15710500	N	1500200	W	721115			4		0.12	8.8	4.0		45.0			14.14	
15 710500	N	15W3?LW	W	721115			8		0.12	EL 5	3.9		44.5			14.28	
15 702400	N	1 503400	W	7'21113			0		0.10	2.7	8.1		63.7			3.16	
15 702400	N	1503400	W	721119			2		0.10	3.El	7.0		59.4			4.40	
15 702400	N	15034a0	w	721119			3		0.16	6.3	6.7		44.4			17.74	
15703100	N	1495130	W	720914			0		0.33	0.3	1.4		16.2		0. 27	22. 40	
15703100	N	1495130	W	720914			1								0.59	26. 00	
15 703100	N	14951.33	W	72091 4			2		0.55	'a. 5	0.3		il. i		0. 71	28.49	
15 703100	N	1495130	w	720914			3								0.62	28.88	
15 703100	N	1495130	u	721021			1		0.36	2.0	1.4	0.24	1s..4			27.99	
15 703100	N	1495130	u	721120			0		0.65	3.0	2.6		24.4			30.57	
15 703100	N	1495130	w	721 120			2		a. 42	3.1	2.3		25.7			30.20	
15703100	N	1495130	u	721120			0		0.20	3.3	3.7		24.5			30.77	
157'2300	N	1495130	W	721120			2		0.54	3.6	3.7		24.2			30.97	
1570:100	N	1435133	W	721120			0		0.31	3.4	3.5		24.3			30.30	
15 703100	N	1495130	u	721120			0		0.50	3.3	3.5		30.a			23.00	
15 703100	N	1495130	w	721 127			0		0.65	3.6	2.6		28.7				
15 703100	N	1495130	W	721 L?7			2		0.63	4.2	3.7		29.5				

ID = 15: from DR. D. M. SCHELL' S RAW DATA FILES
AT THE UNIVERSITY OF ALASKA
1972 / 1973

LATITUDE		LONGITUDE		DATE	DEPTH TIME TO BOTTOM GMT (m)	SAMPLE DEPTH (m)	OXYGEN ml/1	PHOSPHATE PO4-P g-at /m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at /m3	SILICATE SiO3-Si mg-at /m3	ALKALINITY m-equi/l	TEMP Degrees C	SALINITY IC ppt SF
15 703100	N	1495130	w	720729		0	0.38	0.7				14.2		3.57	14.29
15 703100	N	1495130	u	720729		1								3.52	14.26
15703100	N	1435130	W	720729		2								2.00	18.80
15 703100	N	1495130	w	720729		2	0.57	1.4	0.3			9.9		-%.10	29.71
15 703100	N	14951 30	W	720729		2								-0.10	23.71
15 703430	N	143343%	W	710801		0	0.27	1.3				5.8		3.37	14.90
15 703430	N	1493430	W	7208431		1								3.00	15.71
15 703430	N	1493430	W	080		2	0.42	1.2				7.8		2.12	22.62
15703430	N	14%43@	W	720801		3								1.80	24.40
15703430	N	1433430	H	720801		4	0.59	0.6				9.2		0.85	26.40
15703430	N	1433438	W	720801		5								0.42	27.36
1 5703438	N	1493430	W	720801		6	e.62					9.6		-0.58	28.43
15703100	N	1495130	w	720805		0	0.30	a.3				4.6		6.57	21.57
15703100	N	1495130	W	720805		1								4.34	23.89
15 703100	N	1435138	w	720805		2	L?.47					3.1		1.42	29.20
15703100	N	1495130	w	720805		3								0.lb	30.96
15703180	N	1495130	W	720812		0	0.22	2.2	0.1			10.2		8.69	18.10
15703188	N	1495130	W	720812		1								8.63	18.49
15703180	N	1495130	W	720812		2	0.28	0.3	0.1			7.0		7.56	21.44
15 703100	N	1495130	W	720812		3								7.85	21.55
15703418	N	1493430	w	720815		0	0.38	0.4	0.2			6.0		2.46	21.64
15 7%3418	N	1433430	W	720815										2.51	21.47
15703418	N	1493430	w	720815		2	0.44		0.1			6.0		2.47	21.26
15 703418	N	1493430	w	720815		3								0.64	26.40
15703418	N	1493430	w	720815		4	0,71		a.1			4.8		-1.00	30.15
15 703418	N	1 493430	W	720815		5								-led	30.25
15703410	N	1493430	W	720815		6	0.77		a.1			5.2		-1.15	30.15
15703418	N	14934 30	w	720815		7								-1.00	323.45
15 703100	N	1435130	w	720819		0	0.27	0.8	0.1			10.8		4.54	18.01
15 703100	N	1435130	H	720819		1								3.91	20.61
15 703100	N	1435130	w	720819		2	0.13	0.1	0.1			2.2		0.46	28.%5
15 703100	N	14951 30	w	720819		3								-0.20	30.05
15 703100	N	1495130	W	720826		0	0.06	0.?	3.2			51.1		6.13	1.46
15 703100	N	1495130	w	720826		1								4.67	22.28
15703180	N	1495130	W	720826		2	0.54	0.1	0.1			6.1		3.27	25.27
15 703100	N	1495130	u	720826		3								1.10	30.46
15 703418	N	1493430	u	720829		0	0.71		0.1			3.1		0.42	29.34
15 703418	N	1433430	w	720829		1								0.28	29.44
15782416	N	1493420	w	720829		2	0.71	a.1				3.0		0.14	23.41
15 703418	N	1493430	W	720829		3									29.30
15 703415	N	1493430	w	720829		4	0.76	0.5	0.1			3.8		-0.30	30.51
15 703418	N	1493430	w	720829		5								-0.45	30.61
15 703418	N	1493430	w	720829		6	0.74		0.1			3.6		-L-4.50	30.45
15 702500	N	1510500	w	720412		2	0.57	3.9	7.1	1.72		35.9			34.33
15 702500	N	1510500	w	720412		4	0.80	3.3	5.4	0.90		22.8			40.56
15 702500	N	1510500	W	720412		6	a.62	3.9	16.4	0.36		24.0			41.38

ID = 15: from DR. D. M. SCHELL'S RAW DATA FILES
AT THE UNIVERSITY OF ALASKA
1972 / 1973

LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMP Degrees C	SALINITY ppt	ICE SAMPLE
15 702500	N	1510500	W	720412			2		0.20	4.7	17.2	0.14	20.0			40.49	
15 712150	N	1562400	u	720505			2		1.28	0.5	3.2	0.06	17.0			32.58	
15 712150	N	1562400	u	720505			4		1.09	0.2	3.1	0.07	16.7			31.92	
15 712150	N	1562400	w	720505			6		1.17	0.6	3.1	0.07	16.7			32.11	
15 712150	N	1562400	W	720505			8		1.05	0.2	3.1	0.07	16.6			31.92	
15 712150	N	1562400	W	720505			10		1.06	0.7	3.1	0.07	16.7			31.92	
15 712150	N	1562400	u	720505			15		1.30	2.2	3.3	0.16	22.3			39.23	
15 712200	N	1565000	W	721126			0		1.50	0.9	12.1		28.4			32.72	
15 710500	N	1500200	u	730419			2		0.24	7.2	16.6		57.8			23.83	
15 710500	N	1500200	u	730419			4		0.21	6.0	15.5		55.0			24.00	
15 710500	N	1500200	W	730419			7		0.17	5.0	14.5		57.6			24.16	
15 710500	N	1500200	u	730421			2		0.18	7.1	44.3		68.0			27.61	
15 710500	N	1500200	u	730421			4		0.20	7.2	44.2		68.2			27.61	
15 710500	N	1500200	W	730421			6		0.21	7.0	44.4		68.0			27.66	
15 710500	N	1500200	W	730421			7		0.21	6.7	44.6		68.0			27.70	
15 701000	N	1500200	W	730421			2		0.13	7.1	17.2		67.0			14.75	
15 701000	N	1500200	W	730421			4		0.17	3.0	14.7		52.0			15.80	
15 701000	N	1500200	u	730421			7		0.25	7.5	14.8		42.5			18.03	
15 710500	N	1500200	u	730424			2		0.22	6.5	16.8		52.6			23.86	
15 710500	N	1500200	u	730424			4		0.23	6.0	17.2		58.8			24.00	
15 710500	N	1500200	W	730424			6		0.22	5.0	15.5		58.5			24.25	
15 703100	N	1495150	u	730220					0.99	2.4	4.4		23.9			37.88	
15 703100	N	1495150	W	730220			3		1.02	2.4	5.5		34.1			39.48	
15 703100	N	1495150	W	730220			1		1.04	2.5	5.9		36.4			43.37	
15 703100	N	1495150	W	730220			2		0.99	3.0	6.1		36.4			43.56	
15 703100	N	1495150	u	730221			2		1.18	2.6	3.5		29.2			37.76	
15 712150	N	1562400	u	730118			2		1.21	1.3	5.2	0.17	16.8			32.40	
15 712150	N	1562400	u	730118			4		1.28	1.3	5.2	0.17	16.8				
15 712150	N	1562400	u	730118			6		1.32	1.3	5.2	0.17	16.7			32.37	
15 712150	N	1562400	W	730118			10		1.32	1.3	5.2	0.17	17.0				
15 712150	N	1562400	W	730118			15		1.30	1.3	5.2	0.17	16.9			32.31	
15 712150	N	1562400	u	730209			1		2.04	5.4	6.7		33.5			30.38	
15 712150	N	1562400	W	730209			4		1.53	5.4	7.4		36.5			33.58	
15 712150	N	1562400	u	730209			6		1.54	5.4	7.2		36.7			33.71	
15 712150	N	1562400	u	730209			10		1.95	5.4	7.1		34.5			32.38	
15 712150	N	1562400	u	730209			15		1.93	5.6	7.3		35.1			35.63	
15 712000	N	1563000	W	730209			2		1.62	5.2	7.4		37.3			33.35	
15 712000	N	1563000	u	730209			3		1.56	5.9	7.5		37.0			24.18	
15 712150	N	1562400	W	730215			10		0.22	2.7	0.7		7.4			6.34	I
15 712150	N	1562400	u	730215			20		0.18	1.8	0.7		5.9			5.79	I
15 712150	N	1562400	u	730215			30		0.19	1.8	0.5		5.1			4.08	I
15 712150	N	1562400	u	730215			40		0.22	1.6	0.4		6.3			3.25	I
15 712150	N	1562400	W	730215			50		0.21	1.6	0.7		5.1			3.55	I
15 712150	N	1562400	W	730215			60		0.14	0.7	0.7		4.4			3.61	I
15 712150	N	1562400	u	730215			70		0.28	1.3	0.9		5.7			3.94	I
15 712150	N	1562400	u	730215			80		0.30	1.1	1.0		6.2			4.56	I

ID = 15: from DR. D, M. SCHELL' S RAW DATA FILES
AT THE UN1VER51 TY OF ALASKA
1972 / 1973

LATITUDE		LONGITUDE		DATE	TINE GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN Ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMP Degrees C	SALINITY ppt
15 712150	N	1562400	W	730215			90		0.28	1.1	0.9		7.1			4.85
15 712150	N	1562400	U	730215			110		0.16	0.8	0.8		5.7			4.62
15 712000	N	1563000	W	730215			20		0.12	0.9	0.4		4.3			4.56
15 712000	N	1563000	W	730215			40		0.09	1.4	0.3		4.1			3.66
15 712000	N	1563000	W	7302 15			60		0.10	1.7	0.4		4.5			3.23
15 712000	N	1563000	W	730215			80		0.15	1.6	0.6		4.2			3.12
15 712000	N	1563000	W	730215			100		0.19	1.4	0.9		5.1			3.19
15 712000	N	1563000	W	730216			20		0.14	1.3	0.3		3.2			4,45
15 712000	N	1563000	W	730216			40		0.11	1.7	0.3		2.8			3.59
15 712000	N	1563000	W	730216			60		0.12	2.0	0.6		4.0			4.02
15 712000	N	1563000	W	730216			80		0.16	1.7	0.7		5.8			4.47
15 712000	N	1563000	U	730216			100		0.17	2.0	0.7		5.8			3.86
15 712000	N	1563000	W	730216			10		0.17	1.3	1.0		6.2			8.&?
15 712000	N	1563000	U	730216			20		0.08	1.7	0.4		3.2			4.01
15 712000	N	1563000	w	730216			30		0.11	1.6	0.4		3.9			5.27
15 712000	N	1563000	W	730216			40		0.10	1.3	0.5		4.7			5.52
15 712000	N	1563000	U	730216			50		0.07	1.1	0.3		3.8			4.10
15 712000	N	1563000	W	730216			70		0.10	1.3	0.5		4.9			4.3:
15 712000	N	1563000	w	730216			80		0.17	2.3	0.4		7.2			5.99
15 712000	N	1563000	W	73021 6			90		0.22	2.4	1.2		6.6			4.86
15 712000	N	1563000	W	730216			100		0.16	1.6	0.8		7.3			4.33
15 712000	N	1563000	W	730216			110		0.20	1.6	1.1		8.5			5.17
15 712000	N	1563000	W	7302 16			10		0.07	1.3	0.1		2.7			3.78
15 712000	N	1563000	w	730216			20		0.13	1.3	0.3		2.9			4.3.5
15 712000	N	1563000	W	730216			30		0.12	1.9	0.3		3.8			4.11
15 712000	N	1563000	W	730216			40		0.11	1.8	0.3		4.7			4.21
15 712000	N	1563000	w	730216			50		0.10	2.1	0.4		4.1			4.23
15 712000	N	1563000	W	730216			60		0.08	1.5	0.4		5.0			4.24
15 712000	N	1563000	W	730216			70		0.13	1.9	0.6		6.0			4.61
15 712000	N	1563000	W	730216			80		0.20	2.0	0.9		7.7			5.69
15 712000	N	1563000	W	730216			90		0.23	2.0	1.1		7.9			6.42
15 712000	N	1563000	W	730216			100		0.19	2.0	0.9		6.8			5.24
15 712000	N	1563000	U	730216			110		0.28	2.6	1.3		10.7			5.61
15 712150	N	1562400	W	730216			0		0.13	2.6	1.6		8.8			
15 712150	N	1562400	W	730216			1		1.00	5.3	10.2		33.5			41.40
15 712150	N	1562400	W	73W16			2		1.01	5.2	10.2		33.2			41.46
15 712010	N	1562700	W	730216			1		1.16	5.5	9.8		36.0			38.36
15 712010	N	1562700	W	730216			2		1.16	5.7	9.9		35.6			38.34
15 712000	N	1563000	w	730216			1		1.79	6.3	9.3		41.7			43.28
15 712150	N	1562400	u	730401			2		0.99	1.7	4.7		17.0			32.08
15 712150	N	1562400	U	730407			2		1.09	2.6	14.7		47.6			48.99
15 712150	N	1562400	W	730407			2		1.27	2.7	13.3		45.3			50.21
15 712000	N	1563000	W	730407			0		1.62	9.9	40.6		48.7			99.99
15 712000	N	1563000	W	730410			2		2.51	6.1	14.7		50.1			56.26
15 710900	N	1551600	U	730404			1		1.47	2.9	9.9		40.5			37.93
15 710500	N	1551800	W	730404			2		1.40	3.1	10.9		41.4			38.94

ID . 15: from DR. D. M. SCHELL'S RAW DATA FILES
AT THE UNIVERSITY OF ALASKA
1972 / 1973

LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/1	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE SiO3-Si mg-at /m3	ALKALINITY m-equi / 1	TEMP Degrees C	SALINITY ppt	ICE SAMPLE
15711100	N	1552500	U	730405			1		1.57	2.9	9.5		39.1			36.91	
15 711100	N	1552500	U	730404			2		1.50	3.8	9.4		38.4			36.98	
15 710200	N	1552600	W	730409			2		0.51	2.7	11.5		44.2			38.04	
15 710200	N	1552600	W	730409			3		0.47	2.0	11.7		46.0			38.27	
15 705900	N	1552900	W	730403			2		0.51	1.9	12.0		44.3			38.06	
15 705900	N	1552900	W	730403			3		0.53	2.2	12.5		44.7			38.24	
15 705700	N	1553500	W	730405			2		0.48	2.0	11.7		47.3			38.77	
15 705700	N	1553500	W	730409			3		0.46	1.7	11.5		51.9			39.33	
15 705400	N	1553800	u	730409			2		0.48	2.2	12.8		49.5			38.59	
15 705600	N	1555000	u	730409			2		0.42	3.3	8.4		47.5			39.73	
15 705200	N	1562700	W	730411			2		0.22	9.2	20.0		53.2			8.21	
15705200	N	1562700	w	730411			4		0.24	8.9	19.4		53.0			8.16	
15 705200	N	1562700	u	730411			6		0.25	7.8	20.6		54.0			8.17	
15 705200	N	1562700	u	730411			8		0.21	9.8	20.2		53.1			8.20	
15714900	N	1555600	w	730411			2		0.41	2.6	10.1		47.3			40.02	
15714380	N	1555600	u	730411			3		0.40	2.3	9.9		46.6			40.03	
15 705400	N	1554300	w	730411			2		0.39	1.8	10.8		47.2			38.34	
15 705200	N	1554400	W	73$411			2		0.42	3.6	11.5		50.3			38.67	
15 705200	N	1554400	u	730411			2		0.37	3.6	11.5		49.6			39.72	
15705700	N	1555500	W	730411			2		0.36	6.1	10.1		69.3			55.12	
15 705800	N	1554600	W	730411			2		0.46	2.0	12.1		47.1			40.06	
15 705800	N	1554600	W	730411			3		0.49	2.0	12.1		48.2			40.30	
15710100	N	1551200	w	730411			2		0.69	9.9	8.0		60.2			99.99	

ID = 16: from SCHELL, F.M.
NODC ARCHIVED FILES
UNIVERSITY OF ALASKA
11/8/78 - 11/30/78

IO	LATITUDE	LONGITUDE	DATE	TIME SNT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITKITE NO3-N g-at /m3	NITRITE NO2-N mg-at/m3	SILICATE S103-S1 g-at /m3	ALKALINITY m-equi /1	TEMPERATURE Degree C	SALINIT' ppt
16	703530 N	1501630 W	781108			0.0			4.0	1.1		1.4			31.21
16	703530 N	1501630 U	781108			4.0			2.1			1.0			31.31
16	703538 N	1501630 W	781108			7.@			2.2	0.4		1.B			31.54
16	703518 N	1 503248 W	781108			0.0		9.16	5.7	1.5		5.6			31.52
16	703S18 N	1503248 H	781108			4.0		0.21	9.1	1.9		6.@			31.47
16	703518 N	1503248 u	781108			7.5			3.2			1.4			31.50
16	701412 N	1472948 U	781109			0.@			1.7			0.6			32.13
16	701412 N	1472348 W	781109			4.7		0.01	2.@	0.9		1.8			32.21
16	7431038 N	1470700 W	781109			0.0			1.6			0.6			32.63
16	701038 N	14767(?Q W	781103			4.5		0.31	4.8	3.9		8.5			32.76
16	701642 N	1471718 U	781109			e.0		0.19	2.2	1.9		3.1			33.57
16	701642 N	1471718 U	781109			4.'a									32.59
16	701642 N	1471718 H	781 199			8.5									32.61
16	701918 N	1473430 W	781109			0.0		0.21	2.8	1.9		5.2			32.32
16	701918 N	1473438 W	781109			3.0		0.21	2.7	1.9		5.2			32.29
16	701918 N	147343a U	781109			6.a		0.22	2.9	1.1		3.7			32.41
16	702236 N	1474324 U	781183			0.0		0.19	2.a	1.1		3.7			32.2a
16	762236 N	1474324 W	781109			4.0		0.21	2.8	1.1		3.3			32.27
16	702236 N	1474324 W	781109			7.5		0.23	2.7	1.1		4.1			32.37
16	702606 N	1475554 W	781 109			0.0									32.54
16	702606 N	1475554 W	781109			3.0									32.53
16	702606 N	1475554 H	781109			6.5		8.27	3.3	2.0		4.5			32.70
16	702630 N	1481842 U	781109			0.0									32.86
16	702630 N	1481842 U	781103			4.0									32.91
16	702630 N	1481842 W	781189			7.2									33.13
16	702000 N	1482030 u	781103			0.0		0.02	1.7	1.9		1.4			33.3
16	702000 N	1482030 H	781109			2.5			1.7	0.9		0.2			34.67
16	702730 N	1500442 u	781103			0.0			2.2	7.5		4.6			23.34
16	703206 N	1435142 U	781103			0.0			3.3	2.4		5.2			26.31
16	76322 N	1435142 H	781109			2.8			2.0	a.4		2.3			28.69
16	703S36 N	1435324 u	781103			0.0			2.7	0.9		3.1			30.06
16	703536 N	1435024 u	781109			2.7			3.0	'a.4		3.1			3a.73
16	703'3843 N	1490912 W	781110			2.5		0.01	1.7	0.9		2.3			31.6a
16	702348 N	1481900 u	781110			0.0			1.4			0.2			33.00
16	712130 N	1562100 u	701123			0.'a		0.12	5.0	2.8		5.7			3.3,59
16	712130 N	1562100 U	781129			2.2		43.18	4.8	2.3		5.3			34.4$3
16	711300 N	1552800 W	781130			0.0		0.02	6.5	7.3		4.3			34.85
16	7114843 N	15543$0 W	781130			0.0		0.10	4.8	4.0		4.9			33,70
16	711400 N	1555309 W	781130			2.3			4.7	3.6		3.0			33.88

ID ▫17: from SCHELL, D.M.
NODC ARCHIVE FILES
uNIVERSITY OF ALASKA
11/11/79

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (u)	SAMPLE DEPTH (m)	OXYGEN mill	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE S103-S] rig-at /m3	ALKALINITY ❑ -pq"l /l	TEMPERATURE Degree c	SALINITY ppt	ICE SAMPM
17	703200 N	14'3-2724! u	791111			0. 'a		0. 01				7.2			31.23	
17	703200 N	149273a W	791111			2.4						0.4			32. 20	
17	703454 H	1492733 U	791111			0.0		0.01				2.7			31.55	
17	703454 N	1492730 u	791111			3. 5		0.04				5.7			32.01	
17	703454 N	1492730 W	791111			7.2		0.04				5.7			32. 82	
17	703206 N	1495135 W	791111			0. 0						5.3			31.41	
17	703206 N	1495135 u	791111			2.0						3.0			32.91	
17	703154 N	14s8435 W	791111			0.0		0. 02				4.2			32.77	
17	703154 N	1490435 u	791111			6.5		0. 04				6.4			32.78	
17	703000 N	1490912 W	791111			0.0						4.3			32. 68	
17	703000 N	1490912 U	791111			1.8		0.01				6.8			33.20	
17	703024 N	1485500 u	791111			0.0		e. 02				3.8			32.69	
17	703024 N	1485500 u	791111			5. 0		0. 02				4.?			33.74	
17	702754 N	1 485500 W	791111			1.0						3.1			32. 80	
17	702630 N	1481935 W	791111			'a. 0		0.0?				4.6			32. 66	
17	702630 N	1481935 W	791111			6.5		0.01				2. 7			34.20	
17	702230 N	1474324 u	791111			'a. 0		0.02				3.8			31.14	
17	702230 N	1474324 W	791111			6.5		0.02				3.4			32.61	
17	701930 N	1473430 u	791111			0.0		0. 02				4.9			30.53	
17	701930 N	1473430 u	791111			6.0		0.03				6.@			32. 58	
17	701642 N	1471718 W	791111			0.0		0. 03				6.0			32. 79	
17	701642 N	1471716 u	791111			6.0		0.03				5.7			33.55	
17	701412 N	1472948 U	791111			5. a						3.8			33.55	
17	701412 N	1472948 W	791111			0.0		0.01				4.6			31.92	
17	702000 N	1482030 W	791111			0.0						2. 3			26. 58	
17	702000 N	1482030 W	91111			2.5						2.3			28.41	

ID=18: from SCHELL, D. M., 1975
EPA-660/W-75-026
APRIL 1973

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN mill	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE Degrees C	SALIN ppt
*18	711724 N	1554050 W	730415						1.7						
18	711036 N	1552615 U	730415				8.00	8.00	2.9						36.9
18	710836 N	1552255 W	730415				8.10	8.!@	2.9						37.9
18	710416 N	1552410 u	730415				7.50	7.50	3.1						38.9
18	7101211 N	1552140 W	730415				2,70	4.80	2.7						38.0
18	710112 N	1551148 H	730415				0.07	0.07							
18	705844 N	1552705 W	730415				4.50	4.50	1.9						39.0
18	705756 N	1554525 H	730415				4.00	4.00	2.0						4's.0
18	705612 N	1555412 W	730415				3.30	3.30	2.6						40.0
18	705452 N	1554948 U	730415				2.60	2.60	3.3						35,7
18	705120 N	1554700 W	730415				2.70	2.70	3.6						3a.7
18	705356 N	1s53910 W	739415				2.70	2.78	1.8						38.3
18	705308 N	1553550 W	730415				3.30	3.80	2.2						38.6
18	705604 N	1553410 W	730415				3.50	3.50	2.0						3a.7

*Latitudes and longitudes in this file are extrapolated

ID , 19: from SCHELL, PARRISH AND/IEMANN
1994
JULY - AUGUST , 1982

ID	LATITUDE		LONGITUDE		DATE	TIME TO GMT	DEPTH BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE S103-S1 mg-at /m3	ALKALINITY m-eq u1 / l	TEMPERATURE Degree C	SALINITY ppt	ICE SAMP
*19	695204	N	1421512	W	820806		3	1		1.15	1.2	0.1		11.7			16. 80	
! 9	695204	N	1421412	W	820806		3	2		1.38	1.2	0.1		9.3			17. 80	
19	695222	N	1421430	W	820806		3	1		1.33	1.4	0.1		9. 6			17. 00	
19	695222	N	1421430	W	820806		3	3		1.22	1.4	0.1		8. !			18. 10	
19	695242	N	1421348	W	820806		3	1		0.76	0. 3	0.1		8. '3			16.30	
19	695242	N	1421348	W	820806		3	3		1.27	1.0	0.1		7.4			18.10	
1'3	695304	N	1421300	W	820806			1		1.68	2.2	0.1		7.9			16. 40	
13	6'35315	N	1421648	W	820806		2	1		1.06	1.3	0.1		8.1			17.70	
19	695330	N	1421618	W	820806		4	1		1.27	1.5	0.1		5. '3			18.00	
19	695330	N	1421618	W	820806		4	4		1.22	1.2	0.1		5.2			10.20	
19	695348	N	1421542	W	820806		4	1		1.22	1.0	0.1		3.1			18.10	
19	695348	N	1421542	W	820806		4	3		1.45	1.2	0.1		6. 9			18. 50	
19	695450	N	1422130	W	820806		3	1		1.11	1.0	0.1		5. '3			17.90	
19	595450	N	1422130	W	820806		3	2		1.11	1.0	0.1		9.1			18.70	
19	695516	N	1422039	W	820806		3	1		0. 77	0. 7	0.1		4.3			18. 20	
19	695516	N	1422039	W	820806		3	3		0.71	0.6	0.1		5.4			18. 7@	
19	695514	N	1422145	W	820921		3	1		0.70	0.0	0.3		6.0			20.10	
19	595514	N	1422145	W	820921		3	2		0.70	0.0	0.3		8.0			20. 40	
19	6'ZL14	N	1422148	W	820921		3	1		0. 70	0.0	0.6		6.0			24. 00	
19	695614	N	1422148	W	820921		3	2		0. 80	0.0	0.7		5.0			24. 20	
19	695607	N	1422342	W	820731			1		1.33	e. 9	0.1		4.7			18.20	
19	635644	N	1422542	W	820804		4	1		1.17	0.6	0.1		6.4			17.90	
19	695644	N	1422642	W	820804		4	3		0.97	0.5	0.1		6.2			18.80	
19	695720	N	1422809	W	820804		4	1		1.17	e. 4	1.1		4.3			18..90	
19	695720	N	1422809	W	820804		4	3		0. 91	0.6	0.1		5.7			18.80	
19	6%744	N	1422921	W	820804		2	1		1,17	0. 7	0.1		4,9			18. %	
19	695620	N	1422600	W	820804		1	1		0.97	0.6	0.1		5.9			17.00	
19	695605	N	1422342	W	820726		1	1		0.87	1.3	0.1		4.3			17.10	
19	695630	N	1422515	W	820804		2	1		0. 87	0.5	0.1		5.?			e. 00	
13	695636	N	1422442	W	820804		5	1		1.07	0.9	0.1		5.7			17. 90	
19	695636	N	1422442	W	820804		5	5		0. 87	0.6	0.4		5.6			16. 80	
19	635644	N	1422406	W	820804		4	1		0.77	0.6	0.1		5.4			16.80	
19	695644	N	1422406	W	820804		4	3		0. '37	0.6	0.1		5.4			17.40	
1 9	695650	N	1422330	W	820804		5	1		0.00	0.0	0.1		6.4			16. 90	
19	695650	N	1422330	W	820804		5	4		1.17	0.4	0.1		5.9			17.60	

*Latitudes and longitudes in this file are extrapolated

ID = 20: from SCHELL, D.M. ETAL
1984
MARCH 1980 - APRIL 1981

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN (ml/l)	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE Degree C	SALINITY ppt
*20	701936 N	1473438 W	800305		5	0		0.55				18.0			35.84
20	701936 N	1473430 w	800305		5	3		0.57				17.6			35.89
20	701936 N	1473433 w	800305		5	5		0.51				17.6			35.93
20	702630 N	1481942 N	800403		4	0		0.57				18.2			36.20
20	702630 N	1481342 w	800403		4	4		0.58				18.1			35.80
20	702606 N	1475554 H	800403		6	0		0.65				14.2			36.30
20	702606 N	1475554 H	800403		6	6		a.30				14.5			36.10
20	702236 N	14742?4 W	800403		5	0		0.72				18.2			36.50
20	702236 N	1474324 W	800403		5	5		1.34				17.7			36.80
20	701642 N	1471718 u	800403		6	0		0.90				20.6			36.40
20	701642 N	1471718 u	800403		6	6		0.86				21.0			
20	701100 N	1470330 w	800403		5	0		1.05				19.7			37.30
20	701100 N	1470330 u	800403		5	5		0.77				19.6			
20	701412 N	1472940 W	800403		3	0		0.56				19.6			37.80
20	701412 N	1472948 W	800403		3	3		0.56				19.6			37.70
20	702348 N	1481900 W	800403		1	1		0.76				13.7			
20	703318 N	1502136 W	800404		7	0		0.63				0..2			35.70
20	703318 N	1502136 W	800404		7	3		0.63				13.2			35.80
20	703318 N	1502136 W	800404		7	7		0.65				17.1			36.00
20	703454 N	1504130 w	800404		8	0		0.63				12.9			35.30
20	703454 N	1504130 w	800404		8	4		0.71							35.45
20	703454 N	1504130 W	800404		8	8		0.63				13.6			
2%	703206 N	1435142 w	800404		2	2		0.55				17.3			
20	702730 N	1500442 u	800404		2	2		0.50				40.7			
20	703524 N	1495142 u	800404		12	0		'a.68				12.8			35.20
20	703524 N	1495142 W	800404		12	5		0.61				14,6			34.90
20	703524 N	1435142 W	800404		12	8		0.68				13.1			29.60
20	703524 N	1495142 U	800404		12	12		0.59				15.6			36.90
2%	703248 N	1494254 H	800405		2	2		0.62				25.1			
20	703536 N	1494254 W	800405		14	0		0.71				13.1			34.90
20	703536 N	14s4224 u	800405		14	4		0.67				13.?			34.90
20	703536 N	1494254 H	800405		14	9		0.69				12.5			34.81
20	703536 N	14'34255 U	800405		14	14		0.67				14.2			36.40
20	702600 N	1502300 H	800405		5	0		0.19				32.2			23.71
20	702600 N	1502300 u	800405		5	5		0.27				45.7			31.00
20	703336 N	1492512 W	800406		2	2						26.5			
20	703518 N	1492700 U	800406		11	0		0.54				17.0			35.29
20	703518 N	149?700 H	800406		11	6		0.57				16.9			35.24
20	703518 N	1492700 w	800406		11	11		0.55				17.1			35.60
20	703218 N	1498236 U	800406		8	0						17.4			35.17
20	703218 N	14 90236 w	800406		8	5		0.44				15.9			35.50
20	703218 N	1490236 W	800406		El	8		0.61				20.3			3.2.60
20	703106N	1485403 W	800406		7	4		0.4'3				17.2			35.55
20	703106 N	1485400 W	800406		7	7		0.50				18.1			35.50
20	703106 N	1485400 u	800406		2	2		0.41				33.1			
20	702912 N	1485006 U	800406		2	2		0.59				26.5			

*Latitudes and longitudes in this file are extrapolated

ID = 20: from SCHELL, D, M. ETAL
1984
MARCH 1980 - APRIL 1981

ID	LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN mill	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE N03-N mg-at /m3	NITRITE NO2-N mg-at /m3	SILICATE SiO3-Si mg-at /m3	ALKALINITY m-equi/l	TEMPERATURE Degree C	SALINITY ppt	ICE SAM
20	702912	N	1483300	W	800406		7	0		0.56				17.2			35.70	
20	702912	N	1483300	u	800406		7	4		0.55				17.4			34.20	
20	702912	N	1483300	W	800406		7	7		e. 57				17.3			36.00	
20	703436	N	1495024	u	800524		9	0		0.67				)6. S			35.10	
20	703436	N	1495024	W	800524		9	9		0.67				17.4			35.80	
20	714948	N	1494636	W	800525		13	0		0.62				10.7			32.40	
20	714948	N	1494636	U	800525		13	5		0.51				10.5			32.40	
20	714948	N	1494636	W	800525		13	13		0.54				10.5			32.40	
20	712254	N	1494936	u	800524		12	0		0.62				16.5			32.90	
20	712254	N	1494336	W	800524		12	7		0.60				19.4			32.80	
20	712254	N	1494936	W	800524		12	12		0.61				17.6			32.80	
20	705142	N	1494036	W	800525		13	0		0.61				9.7			32.50	
%0	705142	N	1494036	W	800525		13	7		0.61				3.3			32.50	
20	705142	N	1494036	W	800525		13	13		0. 50				9.3			32.50	
20	701106	N	1470312	W	800528		5	0		0.58				17.5			35.80	
20	701106	N	1470312	W	800528		5	5		0.47				19.4			37.60	
20	701624	N	1471212	U	800528		5	0		0.57				18.1			35.90	
20	701624	N	1471212	H	800528		5	5		0. 53				19.0				
20	701412	N	1472918	u	800528		5	0		0.15				27.6			3. 30	
20	701412	N	1472918	u	800528		5	5		0. 53				19.7			30. 00	
20	701742	N	1473224	u	800528		6	0		0.65				17.8			35.30	
20	701742	N	1473224	U	800528		6	6		0.55				20.2			35.90	
20	702224	N	1473348	W	800528		7	0		0.55				18.1			33. 00	
20	702224	N	1473348	U	800528		7	7		0.51				22. 7			38. 10	
20	702000	N	1482030	u	800529		2	0		e. 55				14.4				
20	702606	N	1475554	W	800529		7	0		0.58				16.0				
20	702606	N	1475554	u	800529		7	7		0. 56				17.6			35.00	
20	702348	N	1481900	U	800529		2	0		0.61				16.9			35. 30	
20	702630	N	*148194? u*		800529		7	0		e. 53				20. 6				
20	702630	N	1481942	W	800529		7	7		0.52				16.5				
20	702754	N	1485442	*u*	800529		2	0		0.54				16.1				
20	703042	N	*148532'4*	W	800529		7	0		0. 56				16.1				
20	703042	N	1485324	u	800529		7	7		0.40				?4.9			34.90	
20	7@313%	N	143'.3112	U	800529		10	0		0.56				15.4				
20	703130	N	14%3112	U	800529		10	5		a. 58				17.4				
20	703130	N	14'30112	u	800529		10	10		0.53				16.6			35. 30	
20	703448	N	149?7@6	W	800529		12	0		0. 57				17,9			35.30	
20	703448	N	1492706	U	800529		12	7		0.58				17.1			35. 60	
20	703448	N	1492706	W	800529		12	12		0. 53				17.5			35.60	
20	703530	N	1493700	W	800529		10	0		0.57				16.8			35. 30	
20	703530	N	1493700	u	800529		10	5		0.53				17.6			35. 50	
20	703530	N	1493700	U	800529		10	10		0.56				17.5			35.90	
20	703000	N	14%3930	U	800530		2	0		0.51				29.5				
20	703306	N	1502100	U	800530		8	0		0.53				18.1			36.40	
20	703306	N	1502100	u	800530		8	8		e. 40				17.6			36.20	
20	703142	N	1495024	u	800530		0	0		0.18				23.9			15. 70	

ID = 20: from SCHELL, D. H. ETAL
1984
MARCH 1980 - APRIL 1981

ID	LATITUDE	LONGITUDE	DATE	TIME TO GMT	DEPTH BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/1	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at /m3	NITRITE NO2-N mg-at /m3	51 LICATE S]02-S] mg-at /m3	ALKALINITY m-equi/ 1	TEMPERATURE Degree c	SALINITY ppt
20	703524 N	1495142 U	800617		9	0		0.29						8.2	1.10
20	703524 N	1435142 W	800617		9	5		0.34						3.7	0.80
20	703524 N	1435142 W	800617		9	9		0.71						14.1	33.00
20	703336 N	1492512 W	888$17		2	0		0.20						5.8	0.80
20	703336 N	1492512 U	800617		2	2		0.25						13,2	3.30
20	704448 N	1492706 W	800617		12	0		0.53						9.7	32.80
20	704448 N	1492706 W	800617		12	6		0.72						3.3	33.20
20	704448 N	143?706 W	8a@617		12	12		0.72						11.0	33.45
20	704042 N	1485324 W	800617		12	6		'a. 74						13.1	34.40
20	704042 N	1485324 H	800617		12	12		0.71						12.1	33.80
20	702030 N	1473348 W	800618		7	0		0.16						13.1	0.20
20	702030 N	147S348 W	800618		7	4		0.16						17.1	4.60
20	702030 N	1473348 W	800618		7	7		0.35						16.3	
20	703818 N	1472018 W	800618		12	0		0.68						10.0	31.60
20	703818 N	1472018 W	800618		12	12		0,64						11.5	32.90
20	703836 N	1460200 U	800618		12	0		0.25						2.4	5.20
20	703836 N	1460200 U	800618		12	12		0.92						13.5	31.68
20	701030 N	1470700 W	f3L3@618		5	0		0.21						3.4	27.30
20	703336 N	1492512 W	800702		2	0		0.09						9.2	35.4a
20	703336 N	1432212 W	800702		2	2		0.23						7.0	39.90
20	705448 N	1492706 w	800702		12	0		0.03						0.4	0.80
20	705448 N	149?706 U	800702		12	6		0.46						le. ?	33.50
20	705448 N	1492706 u	800702		12	12		0.51						12.4	33.50
20	705042 N	1485324 W	800702		12	0		0.21						0.6	0.80
20	705042 N	1485324 W	800702		12	6		0.53						11.0	32.20
20	703042 N	14853?4 W	800702		12	0		0.37						32.9	1.60
20	703042 N	1485324 W	800702		12	6		0.57						13.0	33.00
20	703042 N	1405324 u	800702		12	12		0.56						15.5	34.58
20	703024 N	1485500 W	800702		0	0		0.05						9.0	2.90
20	704400 N	1515300 u	800808		6	0								6.9	21.11
20	704400 N	I 515300 w	800808		6	3								5.7	21.43
20	704400 N	1515380 H	800808		6	6		0.35						8.7	27.'30
20	704000 N	1514600 u	800808		6	0		0.14						8.5	22.74
20	704000 N	1514688 H	800808		6	3		0.26						10.0	22.84
20	704000 N	1514600 W	800808		6	6		0.28						9.0	25.95
20	703718 N	151?842 W	800808		7	0		0.21						16.7	24.57
20	703718 N	1512842 W	800808		7	3		0.25						16.9	24 .54
20	703718 N	1512842 U	800808		7	6		0.30						12.3	26.82
20	703406 N	1511536 w	800813		7	0		'a. 50	9.0					13.9	27.43
20	703406 N	1511536 W	800813		7	3		0.45						12.4	28.05
20	703406 N	1511536 W	800813		7	6		0.44						3.1	30.26
20	703330 N	1510000 u	800813		7	0		0.22						30.3	20.30
20	703330 N	1510000 W	800813		7	3		m. 49						9.7	29.92
20	703330 N	1510000 W	800813		7	6		0.60						9.4	30.76
20	703500 N	1544236 W	800813		7	0		0.:5						3.1	23.25
20	703500 N	1504236 U	800813		7	3		e. 49						9.6	29.72

ID = 20: from SCHELL, D.M. ETAL
1984
MARCH 1980 - APRIL 1391

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/1	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMPERATURE Degree C	SALINITY ppt	IC SA
20	703500 N	1584236 W	800813		7	6		0.55				8.3			31.09	
20	703330 N	1501706 U	800813		6	0		0.16				9.9			28.70	
20	703330 N	1501706 U	800813		6	3		0.50				9.7			28.78	
20	703330 N	1501706 u	800813		6	6						7.0			31.22	
20	703500 N	1501500 W	800809		3	0		0.16				22.1			22.80	
20	703500 N	1501500 W	800809		3	5		0.50				le.?			28.27	
20	703500 N	1501500 W	800809		9	9		e.54				8.:			34172	
20	703500 N	1510300 W	800809		9	0		0.11				25.8			20.29	
20	703500 N	1510300 W	800809		9	9		0.12				19.9			21.57	
20	703618 N	151 i 354 w	80'2809		9	0		0.14				16.4			19.50	
20	703618 N	i 51 1354 W	800809		9	5		0.16				11.3			23.47	
20	703618 N	1511354 H	800809		9	9		0.51				7.6			30.87	
20	703618 N	1511730 w	800809		9	0		0.20				8.3			24.37	
20	703618 N	i 511730 W	800809		3	5		0.20				9.1			?4.34	
20	703618 N	1511730 u	800809		9	9		0.48				6.0			30.59	
20	704300 N	1514700 W	800809		9	0		0.08				7.0			23.19	
20	704300 N	1514700 u	800809		9	5		'a.22				7.0			29.44	
20	704300 N	1514700 U	800809		9	9		0.31				6.3			27.:3	
20	704712 N	1514000 W	800814		13	0		0.26				10.5			23.73	
20	704712 N	1514000 U	8130814		13	7						2.1			30.89	
20	704712 N	1514000 H	800814		13	13		0.80				4.0			31.77	
20	703724 N	1504900 U	800814		13	0		0.61				9.0			26.13	
20	703724 N	1504900 W	800814		13	7		0.62				7.9			23,'37	
20	703724 N	1504900 U	800814		13	13		0.66				9.1			32.10	
20	703248 N	1500930 u	800807		3	0		0.28				9.8			25.19	
20	703248 N	1500930 W	800807		3	3		0.32				11.7			.?6.30	
20	703348 N	1520242 W	800809		1	0						7.6			13.84	
20	703348 N	1520242 H	800809		1	1		0.11				8.3			13.90	
20	701500 N	1485930 W	800904		0	0						60.5				
20	702854 N	1482054 U	800S04		0	0		0.31				13.2			23.46	
20	702518 N	1472936 H	800909		10	0		0.54				19.5			28.28	
20	702518 N	147?326 H	800909		10	5		0.84				25.8			30.84	
20	702518 N	1472336 U	800909		10	10		0.91				30.8			31.07	
20	701918 N	1473506 W	800909		5	0		0.14				28.8			28.16	
20	701918 N	1473506 u	800909		5	5		0.32				13.0			28.76	
20	701942 N	148?224 U	810412		2	2		0.77	1.4						43.55	
20	703600 N	1513800 U	810412		5	2		1.13	0.5						30.82	
20	703600 N	1513800 W	810412		5	5		1.15	0.5						34.41	
20	703354 N	1510800 u	81'241?		7	2		1.25	0.3						31.78	
20	703354 N	1510800 W	810412		7	3		1.17	0.7						32.79	
20	703354 N	1510800 W	810412		7	7		1.13	0.2						32.92	
20	703454 N	1504124 u	810412		7	2		1.27							33.03	
20	703454 N	1504124 W	810412		7	4		1.29							32.83	
20	703454 N	1504124 U	810412		7	7		1.29	0.2						32.67	
20	702430 N	1502854 W	810412		2	2		0.12	2.1						1.20	
20	701412 N	1472648 U	81'?41S		5	2		1.30							32.88	

ID = 20: from SCHELL, D. M. ETAL
1984
MARCH 1980 - APRIL 1981

ID	LATITUDE	LONGITUDE	DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN Mill	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at /m3	NITRATE NO3-N mg-at /m3	NITRITE NW-N mg-at /m3	SILICATE SiO3-Si mg-at /m3	ALKALINITY m-equi /l	TEMPERATURE Degree C	SALINI ppt
20	7'31412 N	1472848 W	810413		5	5		1.29	0.1						33.98
20	7011 00 N	1470330 W	810413		4	2		1.27	0.1						33.45
20	701100 N	1470330 W	810413		4	4		1.32	0.2						33.59
20	701642 N	1471718 w	810413		5	2		1.20							28.33
20	701642 N	1471718 W	810413		5	5		1.22	0.1						32.98
20	701800 N	1473218 W	810413		7	2		1.15	1.1						32.92
20	701800 N	1473?19 W	810413		7	3		1.20	0.1						32.80
20	701800 N	1473218 W	810413		7	7		1.30	0.2						31.52
20	701800 N	1473219 W	810413		7	2		1.44	2.2						32.88
20	703318 N	1502136 u	810414		7	3		1.24	2.7						32.16
20	703318 N	1502136 W	810414		7	7		1.28	0.1						32.71
20	703200 N	1435142 W	810414		2	1		0.83	0.7						39.76
20	703506 N	1432936 w	810414		12	2		1.28	0.5						32.53
20	703506 N	149,? 836 u	810414		12	6		1.32	0.2						32.45
20	703506 N	1492836 W	810414		12	12		1.29	0.2						32.47
20	703100 N	1485500 W	810414		12	2		1.32	0.3						33.07
20	703100 N	1485500 W	810414		12	6		1.32							32.93
20	703100 N	1485500 U	810414		12	12		1.27	0.1						32.94
20	702624 N	1481%?0 W	81(3414		8	2		1.33							33.06
20	702624 N	14813$014	810414		8	4		1.27							32.15
20	702624 N	14 81900 u	810414		8	8		1.27							33.92

ID=21:
from M. K. KR ICHEVSKY
1975 / 1976

LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N j-at/fi	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si g-dt /m3	ALKALINITY m-equi/l	TEMP Degrees C	SALINITY ppt	ICE SAMPLE
21 712300	N		H	760418			0									5.00	I
21 712113	N	1563210	H	750820			1						7.0		3.20	26. 5a	
21 712500	N	1 562000	u	750828									7.0		%. 50	23. 80	
21 711542	N	1560000	u	750828			1						5.0		2. 0a	22.50	
21 711900	N	1561547	W	75083 1			1						6.0		2. 00	17. 00	
21 711542	N	1560000	W	750831			1						6.0		1.50	21. 00	
21 712100	N	1564210	u	750831			1						7.0		2. 00	25. 50	
21 712133	N	1562104	W	750905			1						40.0		-0. 20	20. 00	
21 7122'77	N	1562144	U	750905									15.0		-0.213	20. 5a	
21 703036	N	143341?	U	750905			1						10.0		1.90	12,10	
21 702000	N	14w203	U	750905									17.0		1.50	20. 00	
21 701908	N	1481921	U	750908			1						17.0		-a. 80	11.80	
21 702018	N	14 82001	W	750908			1						10,0		-0.80	11.10	
21 702018	N	1482001	W	750908			2						19.0		-a. 40	19.80	
21 702852	N	1482357	W	750908			1						13.0		-0.50	11.40	
21 702006	N	1482608	U	0908			1						18.0		-0. 4a	9.00	
21 712113	N	1562210	U	750911			1						13.0		-0. 50	18.30	
21 712123	N	1562611	U	75091 1			1						8.0			18. 2a	
21 712133	N	1562104	U	750911									5.0			18.50	
21 712207	N	1562144	U	75091 1			1						7. 0			18.80	
21 701908	N	1401321	W	75a312			1						15.0		1.00	14.50	
21 702018	N	1482081	U	750912			1						14. 0		1.50	16. 00	
21 702144	N	1482050	U	750912									11.0		1.50	19.50	
21 702431	N	1402217	U	750912									12.0		1.00	20. 00	
21 702634	N	1482328	W	750912			1						11.0		0.50	21.50	
21 702146	N	14a273 1	W	75091 3			1						11.0		2.50	17.80	
21 702000	N	1402223	W	750913			1						12. 0		1.90	18. 10	
21 702254	N	1482127	U	750913									12. 0		2. 20	16. 20	
21 702431	N	1482217	W	7543913			1						12.0		1.50	18. 50	
21 782634	N	1482320	W	750913			1						11.0		0.30	20. 20	
21 702438	N	14022557	W	750914			1						13.0		1.90	16.00	
21 78.2335	N	1482715	U	758914									12.0		2. 30	15. 80	
21 712113	N	1563210	U	750917			1						5.0		-0. 50	22. 00	
21 712129	N	1562611	W	750917			1						6. 0		-0. 50	22. 2a	
21 712133	N	15s2104	W	758317									3. a		-a. 50	22. 20	
21 712056	N	1%3513	H	750923			0						16. a		-i. 00	27. 00	
21 712048	N	1562s10	H	750923			0						10.0		-1.00	25. 50	
21 712309	N	1562914	W	750925			0						9. a		-1.20	26. 00	
21 713900	N	15504aa	H	768405			0		0.10	0.1	2.7		8. 0				I
21 712300	N	1555600	W	7S4407			0		0.08	0.1	0.7		1.0				I
21 712300	N	1552600	u	760407			0		0.12	0.6	2.4		7. a				I
21 712300	N	1545400	W	760407			0			9.8	1.2		2. a				I
21 710800	N	1463000	W	760414			0		0.25	0.5	2.3		5.0			3. 20	I
21 703100	N	1472400	u	760414			0			0.:	1.0		3. a				I
21 702800	N	1473000	W	7643414			0				0.7		2. 0				1
21 704700	N	1470000	W	760414			0		a. 16	0.1	1.6		4.0		0. 02	23. 80	I

ID=21 :
from M. K. KRICHEVSKY
1975 / 1976

LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMP Degrees C	SALINITY ppt
21 702250	N	1482000	U	760414			0			'a.1	1.6		3.a			1.00
21 713600	N	1521200	W	768416			0				3.1		4.0			6.00
21714648	N	1515200	U	760416			0			0.1?	3.1		5.0			2.50
21 712600	N	1522200	U	760416			0		a.08	12.	3.0		4.0			11.00
21 711900	N	1523300	W	768416			0				1.6		4.0			8.50
21 710800	N	1525500	U	760418			0				1.6		4,0			3.50
21 712300	N	1535000	W	760418			0		0.10	0.3	2.1		4.0			5.00
21 712300	N	1542200	W	760418			0			0.2	a.9		4.@			5.00
21 713430	N	1553500	U	760418			0		0.33	1.0	2.b		4.0			4.00
21 703600	N	1481200	U	760823			1		0.21	1.9	m.7		6.a		-a.20	la.04
21 713000	N	1500600	W	760405			1		1.83	1.3	5.8		29.0	O	-1.60	28.00
21 713430	N	1553500	W	760405			1		1.67	0.7	6.8		28.0		-2.0a	22.00
21 713900	N	1550400	U	760405					1.25		4.5		17.0		-2.00	19.20
21 712136	N	1562100	W	760405					a.76	32.	5.2		25.0		-2.00	24.50
21 71.2124	N	1562700	U	760410			1		0.93		4.1?		22.0		-2.00	31.00
21 712136	N	1562100	W	760410					1.21	1.3	6.0		25.0		-2.00	29.00
21 710800	N	1463000	U	760414			1		1.11		2.7		11.0		-2.00	23.00
21 703200	N	1482200	W	760412					1.33		3.b		16.6		-1.5a	28.00
21 703100	N	1472400	W	760412			1		0.52	0.2	3.1		11.0		-2.00	20.'24
21 702800	N	1473000	W	760412			1		1.12	1.1	5.0		20.0		-1.50	29.00
21 704700	N	1470000	U	760414			1		1.37	0.6	2.b		12.0		-2.00	17.00
21 713600	N	1521200	U	760416			1		1.03	2.8	8.3		33.0		-2.00	33.00
21 714600	N	1 525200	H	760416					1,14		6.6		26.a		-2.00	20.50
21 712600	N	1522200	W	760416					0.67	0.8	2.0		8.0		-2.00	19.00
21 711900	N	1523300	U	760416					0.52		2.8		12.0		-2.00	19.00
21 710800	N	1525500	W	760418					1.07		6.3		23.0		-2.00	25.50
21 712300	N	1535000	W	760418			1		1.24		7.1		30.0		-2.00	28.00
21 712300	N	1542200	W	760418			1		1.28	a.2	8.5		31.8		-2.00	2-3.00
21 713430	N	1553500	U	7647418			1		1.15	0.8	6.5		23.0		-1.50	28.00
21 703600	N	1481200	W	760824			1		0.11	2.2	0.5		7,a		-0.20	10.04
21 703200	N	1473300	U	760825			1		0.07	2.0			4.a		-1.30	6.'22
21 703900	N	1473700	U	76$2.26			1			a.9	0.2		6.0		e.3a	5.05
21 705700	N	1493300	U	760827						0.7	0.5		5.0		0.30	10.75
21 705700	N	1493300	U	760827			1		0.16	1.9			5.a		a.40	7.64
21 710800	N	1511900	W	760828			1		0.21	2.1	0.3		7.0		0.70	19.05
21 714300	N	1514700	U	760829			1		0.21	2.7	a.?		5.0		0.3a	10.18
21 714300	N	1514700	W	760829			15		a.58	4.1	0.6		14.0		-1.00	29.54
21 713300	N	152$3$0	W	760830					0.23	3.2	0.2		7.@		0.40	13.00
217132$8	N	1520300	U	760830			15		'a.38	3.1	0.4		10.0		0.48	22.00
21 71222	N	1522000	U	760830			1		a.18	3.2	0.2		10.a		0.50	15.71
21 712200	N	1522000	U	760830			15		a.34	4.4	a.5		9.0		2.70	28.84
21 711900	N	15232$8	U	760831			1		0.21	3.2	0.5		10.0		0.30	17.s
21 710800	N	1525700	W	76090 1			1		a.28	3.3	0.:		12.0		1.80	20.47
21712380	N	1542100	W	760902			1		a.24	4.0	0.3		8.a		1.20	17.40
21 713600	N	1553200	U	760902			1		'a.19	3.5	0.3		8.0		0.10	8.35
21 713600	N	1553200	U	760902			15		0.55	7.4	0.5		16.0		-0.70	28.48

ID=21 :
from M.K. KRICHEVSKY
1975 / 1976

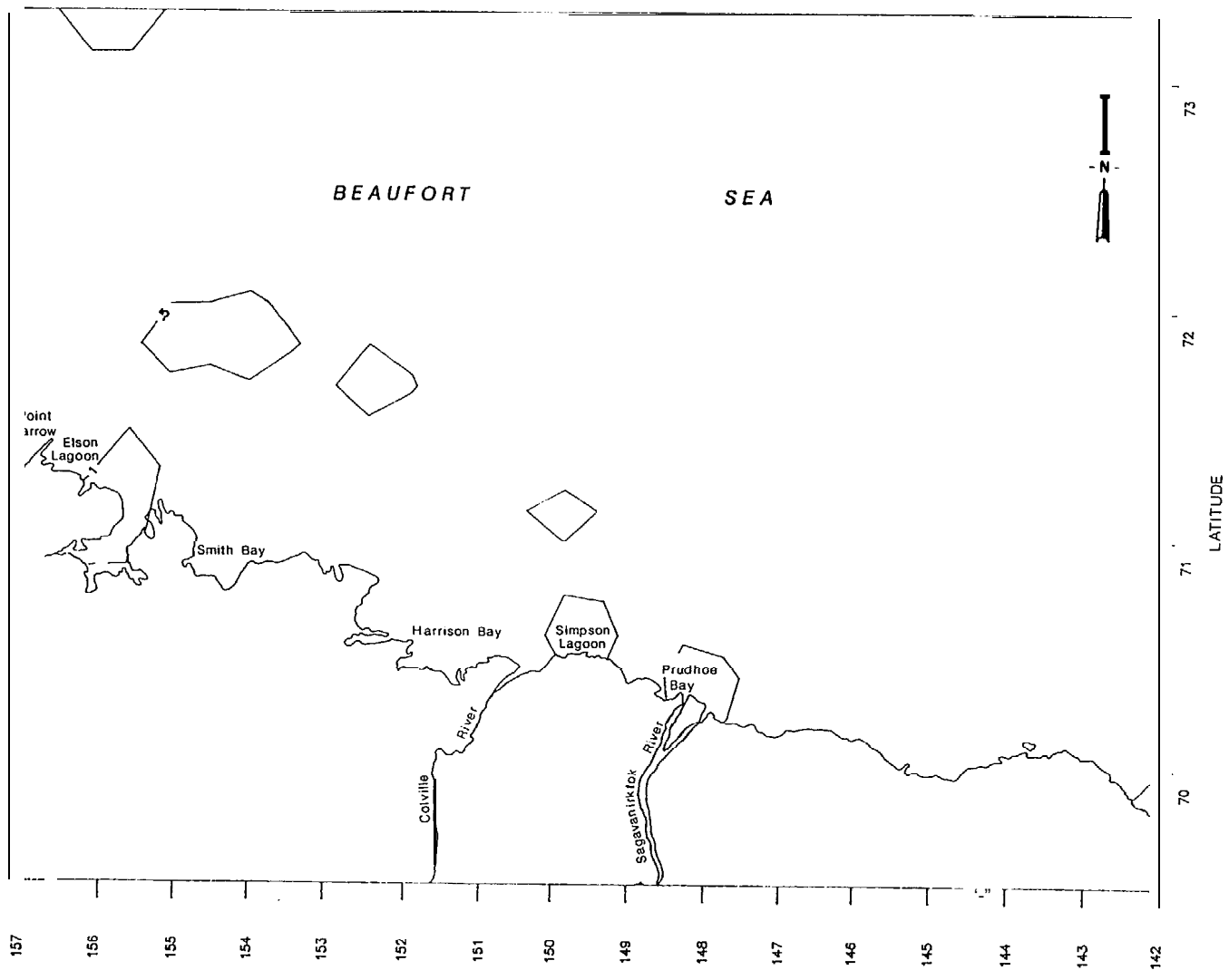
LATITUDE	LONGITUDE	DATE	GMT	DEPTH TINE TO BOTTOM (u)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at /m3	AMMONIA NH3-N mg-at/m3	NITRATE NO3-N ug-at/m3	NITRITE NO2-N g-at /m3	SILICATE SiO3-Si mg-at /m3	ALKALINITY m-equ i /l	TEMP Degrees C	SALINITY ppt	ICE SAMPLE
21 712100 N	1 563200	u	760908		1		%.30	4.9	0.5		8.0		2. 00	24,50	
21 712100 N	1562600	u	760908		1						7.0		2. 00	25. 50	
21 64111.2 N	1612542	u	7%7		2								11.10	19.30	
21 641206 N	1662742	u	7907		1				0.1				6.90	30. 00	
21 641200 N	1655942	u	7907		2				0.1				7.&a	29. 40	
21 641206 N	1653100	W	7987		2								8.20	2a. 70	
21 641606 N	1654542	u	7387		18				0.1				7.20	29. 60	
21 648706 N	1653000	u	7907		2				0.1				i'. 20	29.70	
21 641136 N	1650142	u	7907										a. 90	27. S0	
21 641406 N	1651636	W	7907		1				0.1				8. 80	2a. 00	
21 641942 N	1650100	u	7907		1								13.40		
21 641%2 N	1650100	W	7907		1								13.48		
21 642012 N	165214?	W	7907		1				0.1				10. 4a	27.40	
21 641954 N	16-54224	W	7%7		4								9. 00	2a 10	
21 642000 N	1655348	u	7907		1								8.80	2a. 00	
21 642530 N	1662654	W	7907		1								9.40	28. 50	
21 642800 N	1660606	W	7307		3								10. 4a	28.30	
21 642648 N	1654142	W	7%7		1								10.60	21. 4a	
21 640018 N	1 630400	W	7907		1				0.1				11.70	23. 40	
21 641912 N	16201 18	W	7907		1				0.2				11.18	20. 7%	
21 633954 N	1611740	W	7907		3				1.7				11.10		
21 634006 N	1615854	u	7907		1				0.1				10. 40	24.6$	
21641442 N	1630606	u	7907		1								11.60	22. 00	
21 641100 N	1630142	u	7307		2				0.1				11.60	22.10	
21 640012 N	1640006	u	7907		1				e.1				11. 00	26.10	
21 634018 N	1635906	W	7907						e.1				9.90	26. 80	
21 630800 N	16316$0	u	7%7		1				2.5				10.60	20.00	
21 640812 N	1640000	W	7987		1								11.90	23.40	
21 642012 N	164%110	W	7307		1				0.2				11. 60	23. 30	
21 635936 N	1645830	W	7907		1								9.10	28.60	
21 634000 N	1 650030	W	7907		1				0.5				9.3	28.70	
21 632018 N	1660018	W	7907						0.1				7. 50	30. 70	
21 63071.2 N	16446343	W	75437		3				5.2				9.60	27, 80	
21 62394a N	1654iW6	W	7907		1				2.0				10. 10	21. 90	
21 632300 N	1682900	u	7307		3				0.1				4.20	31. %	
21 632000 N	1670133	W	7587		2				0.1				6.33	31.40	
21 640006 N	1690054	u	7307		2				0.2				6.40	3a. 50	
21635934 N	1680118	W	7987		4				0.1				6.70	31.70	
21 634000 N	1670148	u	7s07		5				0.2				6.80	31.%	
21 633942 N	1655906	W	7907		2				0.6				9.10	30.40	
21 640$12 N	165.5942	u	7907		4				0.1				10.00	2a. 90	
21 644018 N	1670148	u	7997		1				0.1				9. 70	29.30	
21 644812 N	68004	H	7%7		3				0.1				7.50	31.10	
21 643336 N	1685948	u	7907		1				0.1				4.20	31.50	
21 642000 N	1675936	u	7907		2				0.1				7. 00	30. 60	
21 703600 N	1473842	u	7809		1								-e. 70	21.29	

ID=21:
from M. K. KRICHEVSKY
1975 / 1976

LATITUDE		LONGITUDE		DATE	TIME GMT	DEPTH TO BOTTOM (m)	SAMPLE DEPTH (m)	OXYGEN ml/l	PHOSPHATE PO4-P mg-at/m3	AMMONIA NH3-N g-at Jti	NITRATE NO3-N mg-at/m3	NITRITE NO2-N mg-at/m3	SILICATE SiO3-Si mg-at/m3	ALKALINITY m-equi/l	TEMP Degrees C	SALINITY ppt
21 702900	N	1472300	W	7809			1				0.3				-0.30	21.11
21 702154	N	146514?	W	7809			1				0.1				-0.10	22.47
21 701300	N	1471700	H	7809			1				0.3				4.00	25 / 50
21 701030	N	1455500	W	7003			1				0.3				1.50	26.30
21 700500	N	1 452900	W	7809			1				0.3				1.50	24.70
21 695900	N	1445400	W	7809			1				0.3				3.50	27.04
21 701300	N	1432000	u	7809			1				0.3				2.60	26.28
21 700900	N	1432100	W	7809			1				0.3				2.00	29.30
2 1 695900	N	1421600	W	7809			1				0.3				4.10	28.51
21 695600	N	1421900	W	72$9			1				0.2				2.00	28.10
21 695700	N	14Z2W	u	7809			1				0.3				2.00	27.50
21 694100	N	1411600	W	7809			1				0.2				6.80	25.99
21 694900	N	1415100	u	7809			1				0.3				5.00	
21 700800	N	1424980	W	7809			1				0.1				3.00	28.11
21 702690	N	1434200	W	7809			1				0.2				4.40	25 · 60
2 1 702800	N	1434200	W	7809			1				0.2				4.20	26.25
21 701500	N	1434800	W	7809			1				0.2				2.90	27,35
21 700900	N	1444730	W	7809			1				0.3				2.30	25.13
21 701918	N	1463018	W	7809			1				0.2				-1.00	26.08
21 710124	h	1475400	W	7809			1				0.2				-0.20	15.93
21 704600	N	1423400	W	7809			1				0.1				0.10	18.35
21 702600	N	1462480	W	7809			0				0.3					
21 702030	N	1481900	W	7603			0				0.4					
21 704700	N	1493633	W	7505			1				0.2				-6.50	10.48
21 711416	N	1433330	H	7809			1				0.2				1.40	27.26
21 710100	N	15%2W	W	7809			1								-1.08	26.57

Appendix D

Isopleth Plots



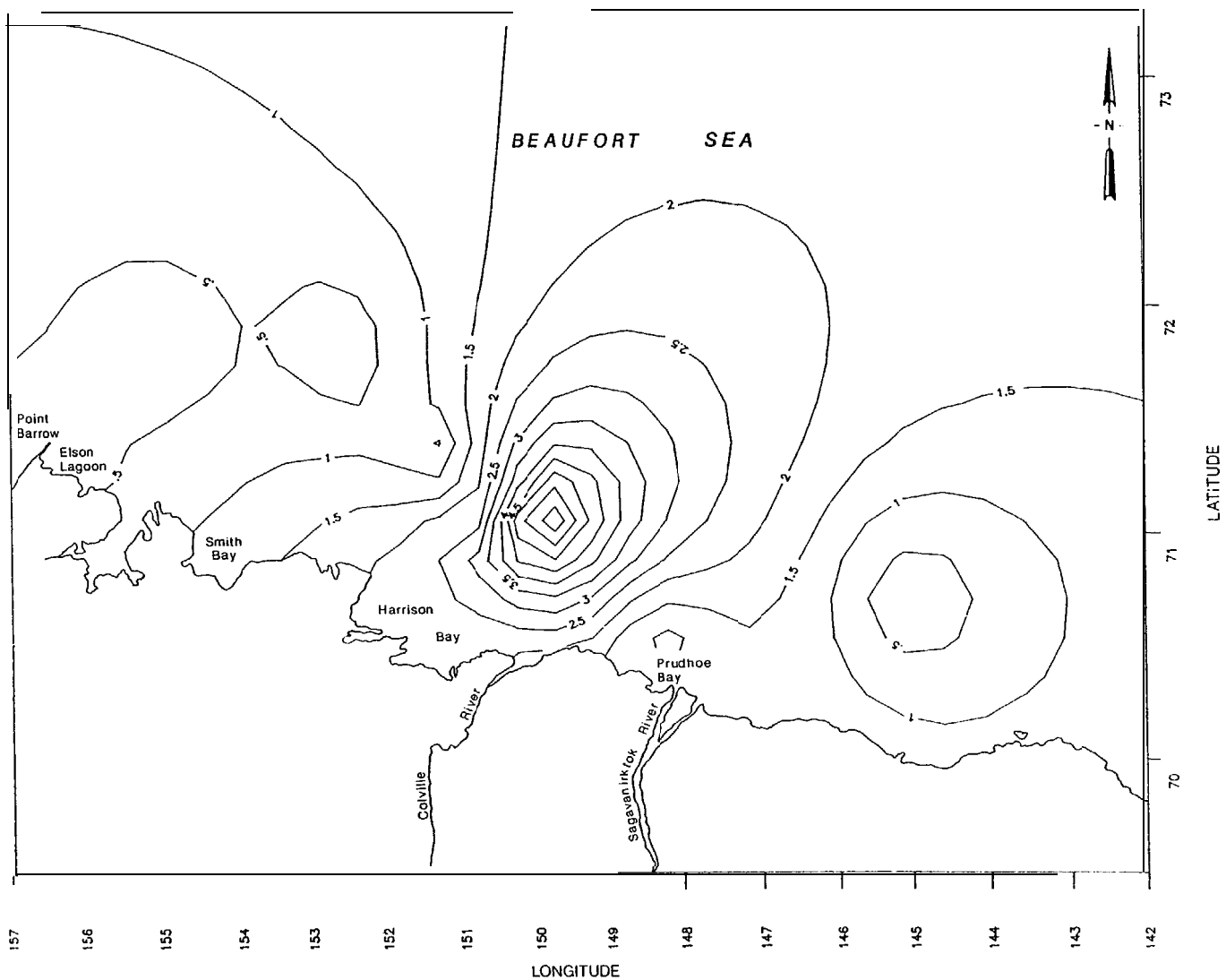
Contour Intervals = 0.5 mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
0m AMMONIUM-N ISOPLETH
ICE-FREE PERIOD

Woodward-Clyde Consultants*

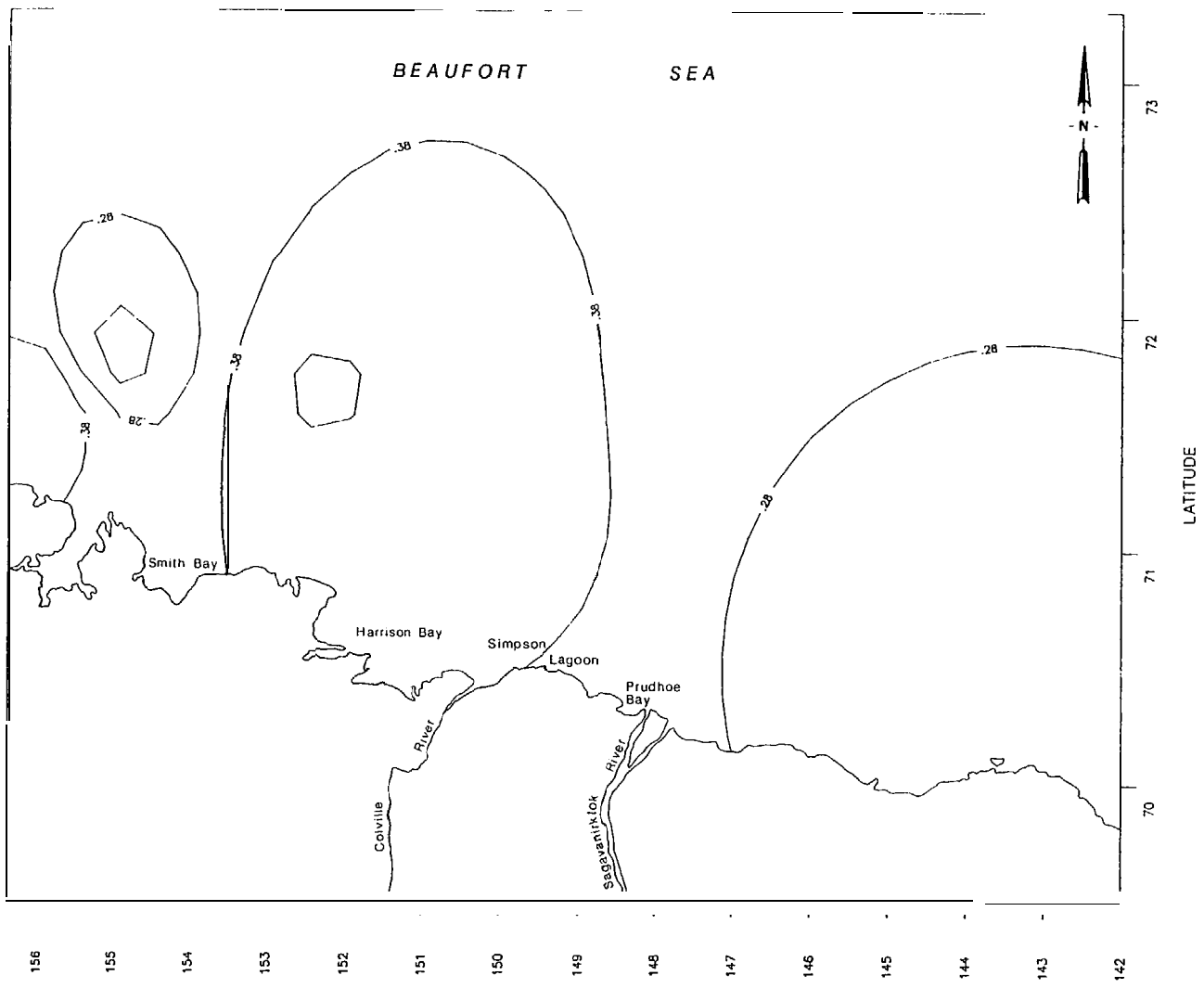
Figure 1



Contour Intervals = 0.5 mg-at m-3

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
10m AMMONIUM-N ISOPLETH
ICE-FREE PERIOD



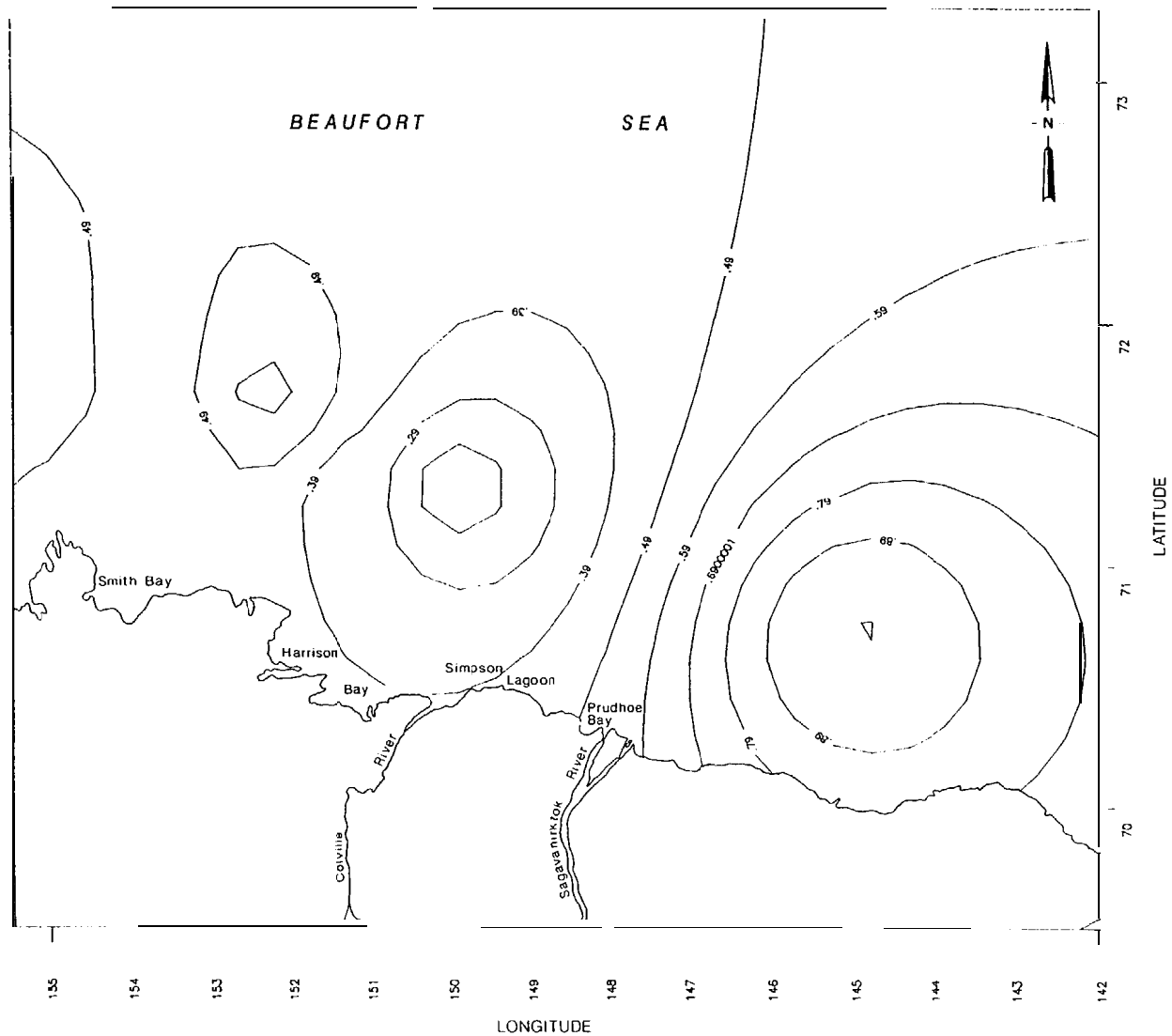
Contour Intervals = 0.1 mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
2 m AMMONIUM-N ISOPLETH
ICE-FREE PERIOD

Wood-Clyde

Figure

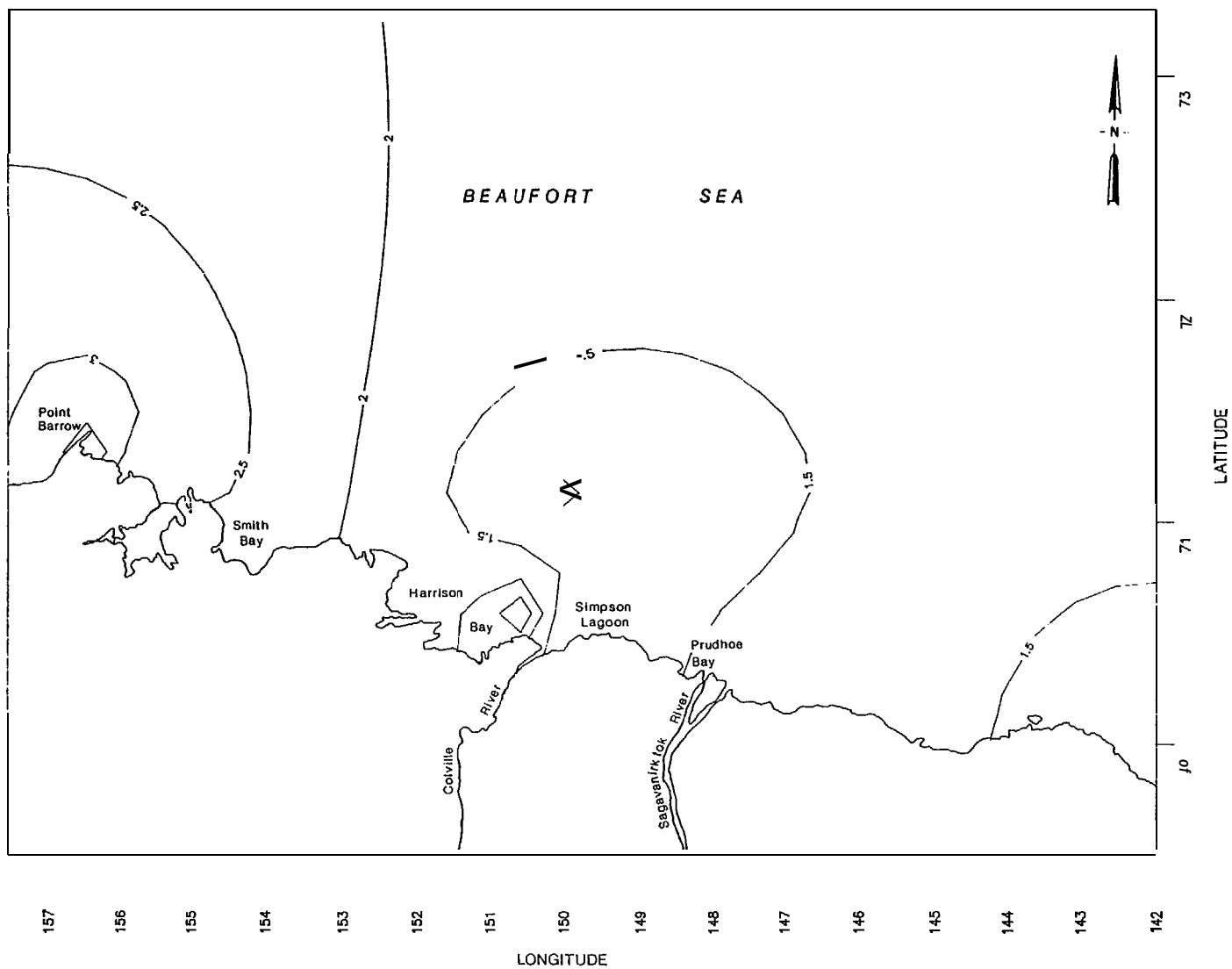


Intervals 0.1mg-at m^{-3}

Scale: inch approx. 37

BEAUFORT SEA
5°m AMMONIUM-N ISOPLETH
ICE-FREE PERIOD

Figure



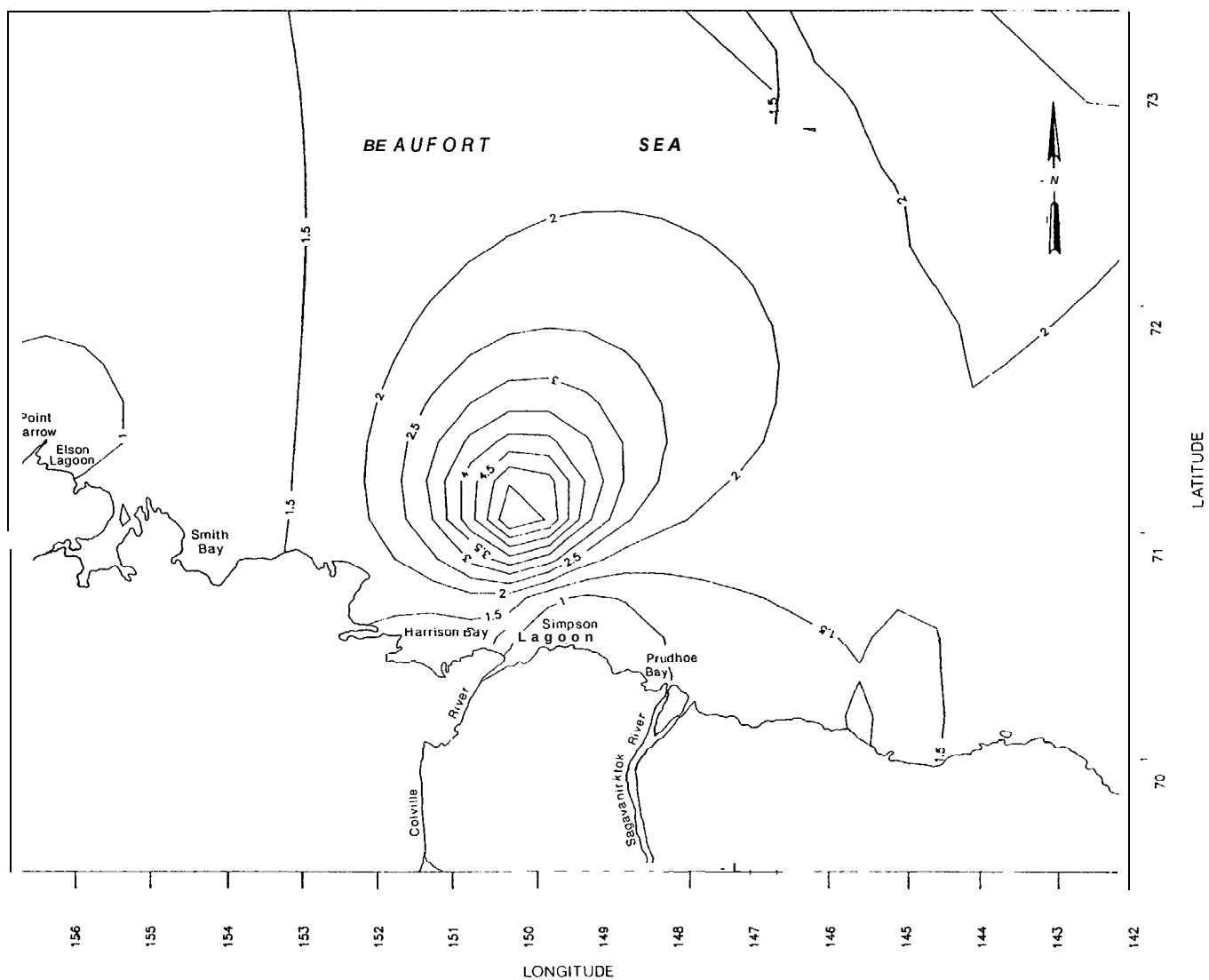
Intervals 0.5 mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
0m AMMONIUM-N ISOPLETH
ICE-COVERED PERIOD

Woodward-Clyde Consultants

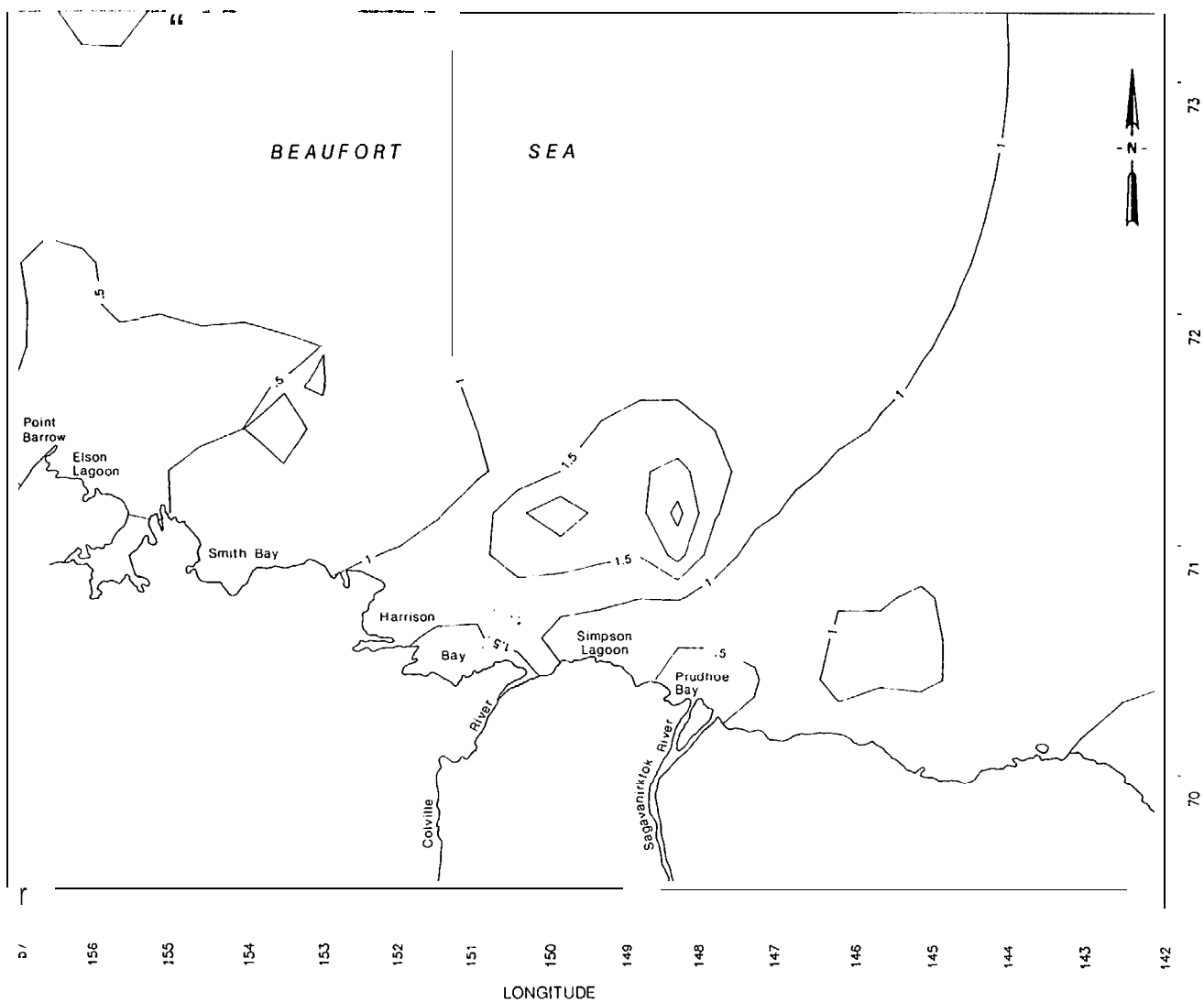
Figure 7



Contour Intervals = 0.5 mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
10m AMMONIUM-N ISOPLETH
ICE-COVERED PERIOD



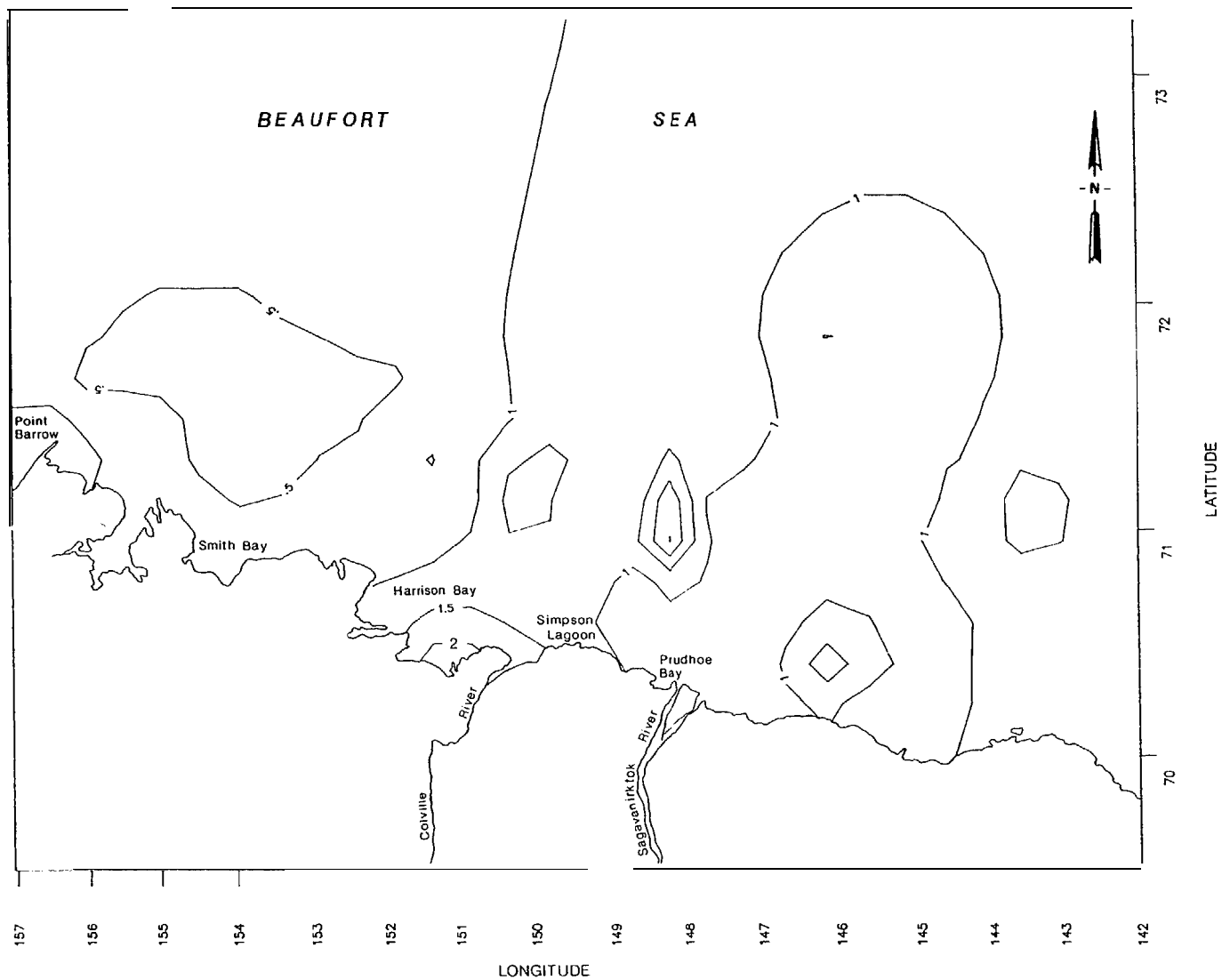
Contour Intervals = 0.5 mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
Om NITRATE-N ISOPLETH
ICE-FREE PERIOD

Woodward-Clyde Consultants

Figure 7



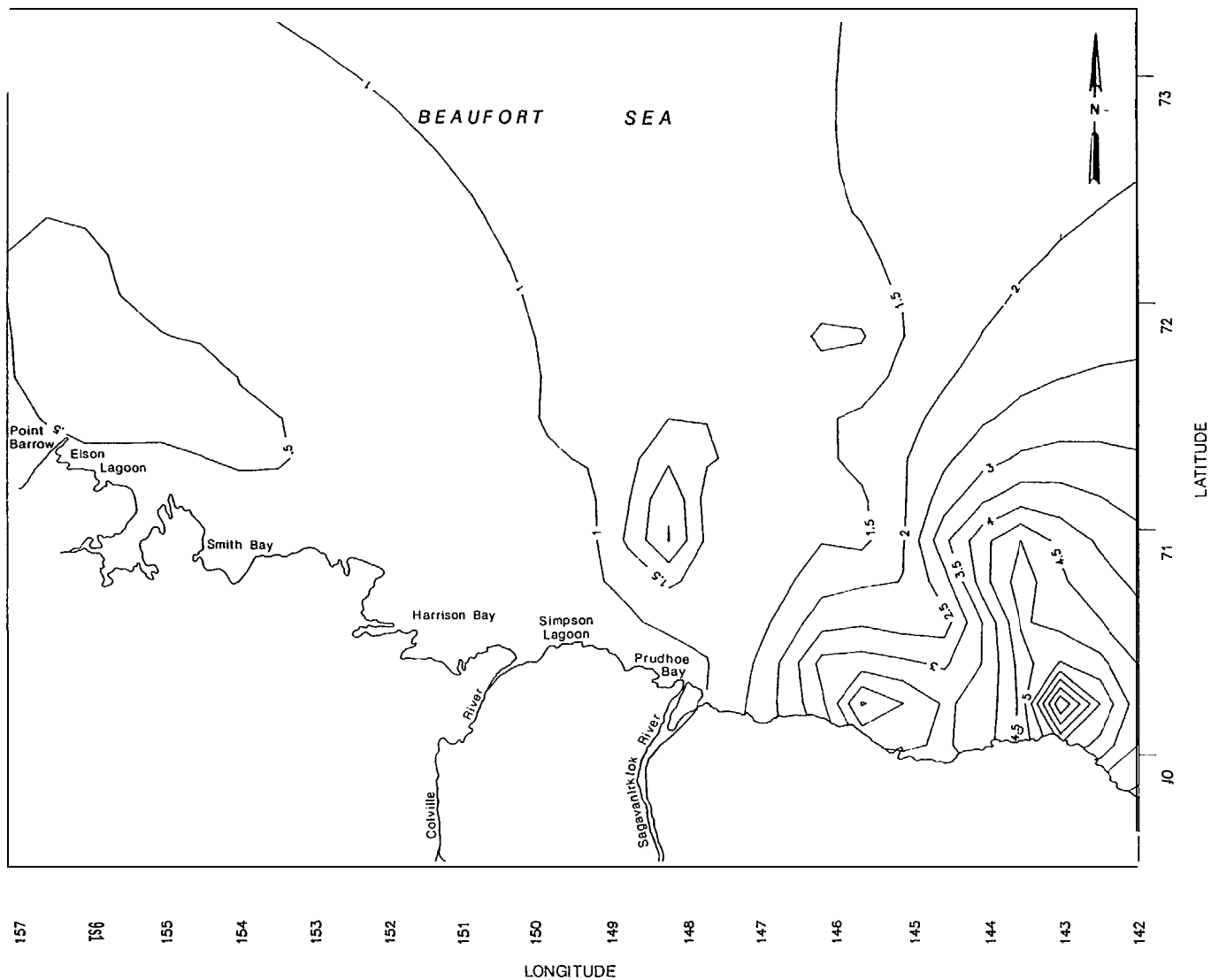
Intervals = 0.5 mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
10m NITRATE-N ISOPLETH
ICE-FREE PERIOD

Woodward-Clyde Consultants

Figure



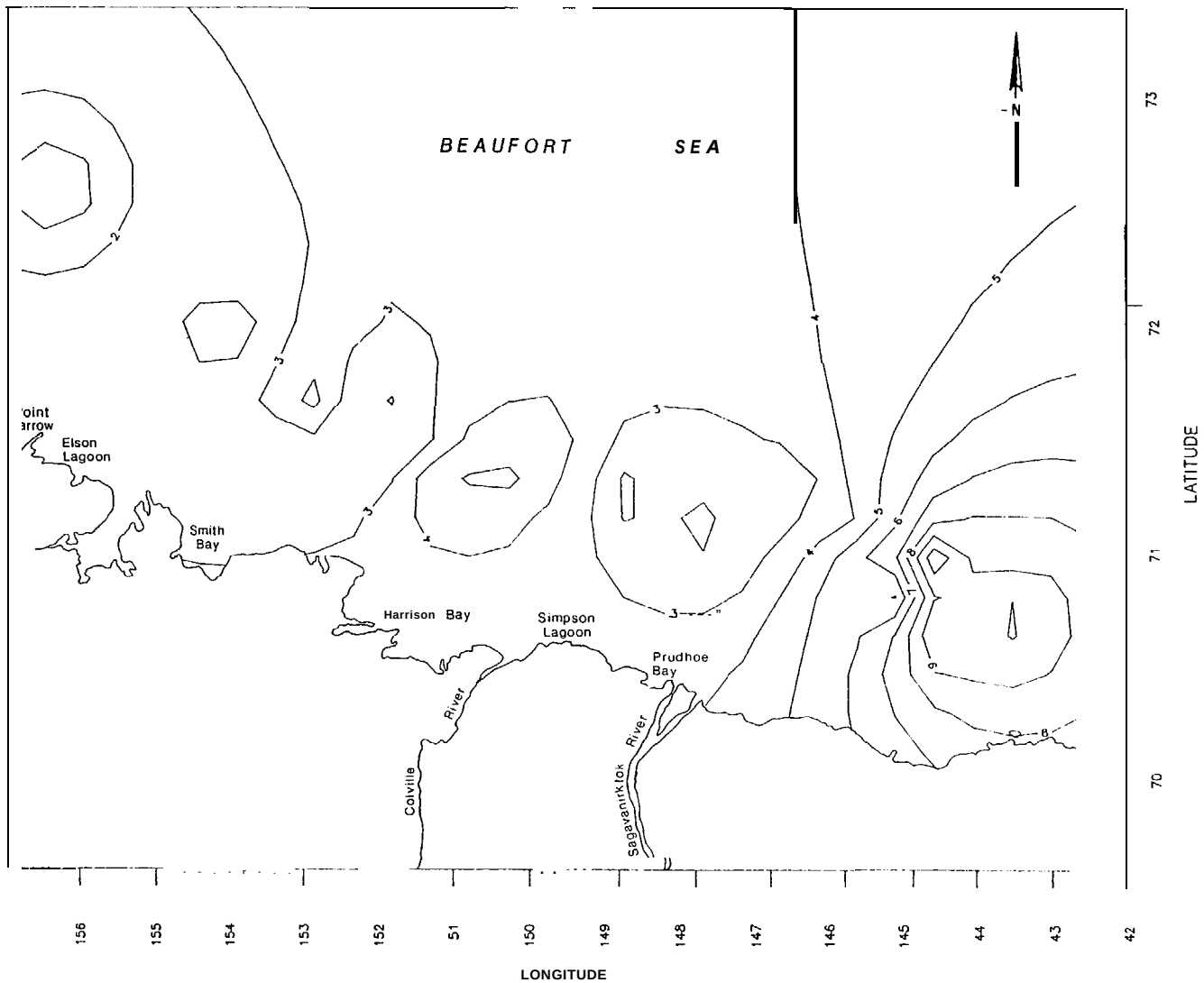
Contour Intervals = 0.5mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
20m NITRATE-N ISOPLETH
ICE-FREE PERIOD

Woodward-Clyde Consultants

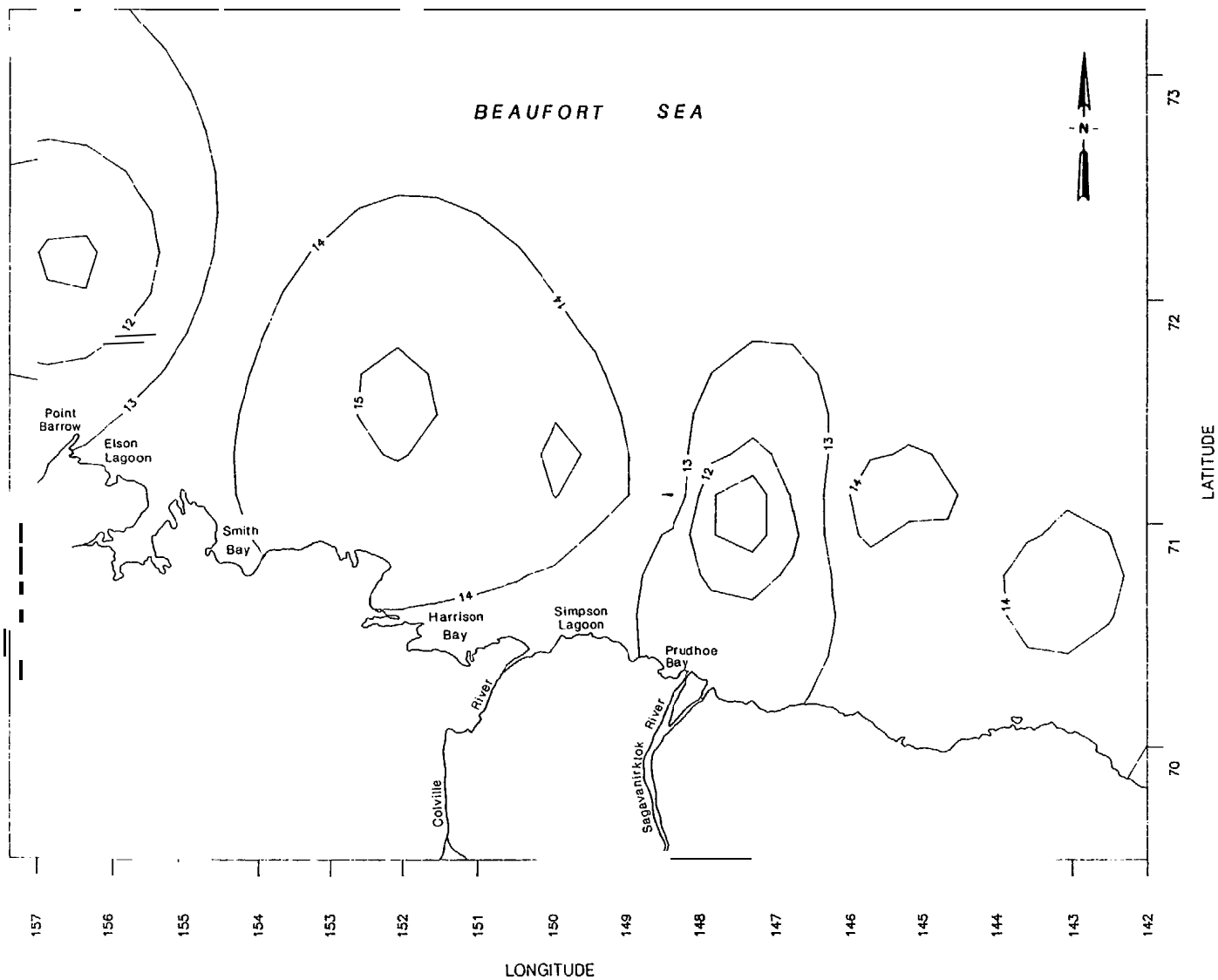
Figure 9



Contour Intervals = 1.0 mg-atm^{-3}

Scale: 1 inch = approx 37 males.

BEAUFORT SEA
50m NITRATE-N ISOPLETH
ICE-FREE PERIOD



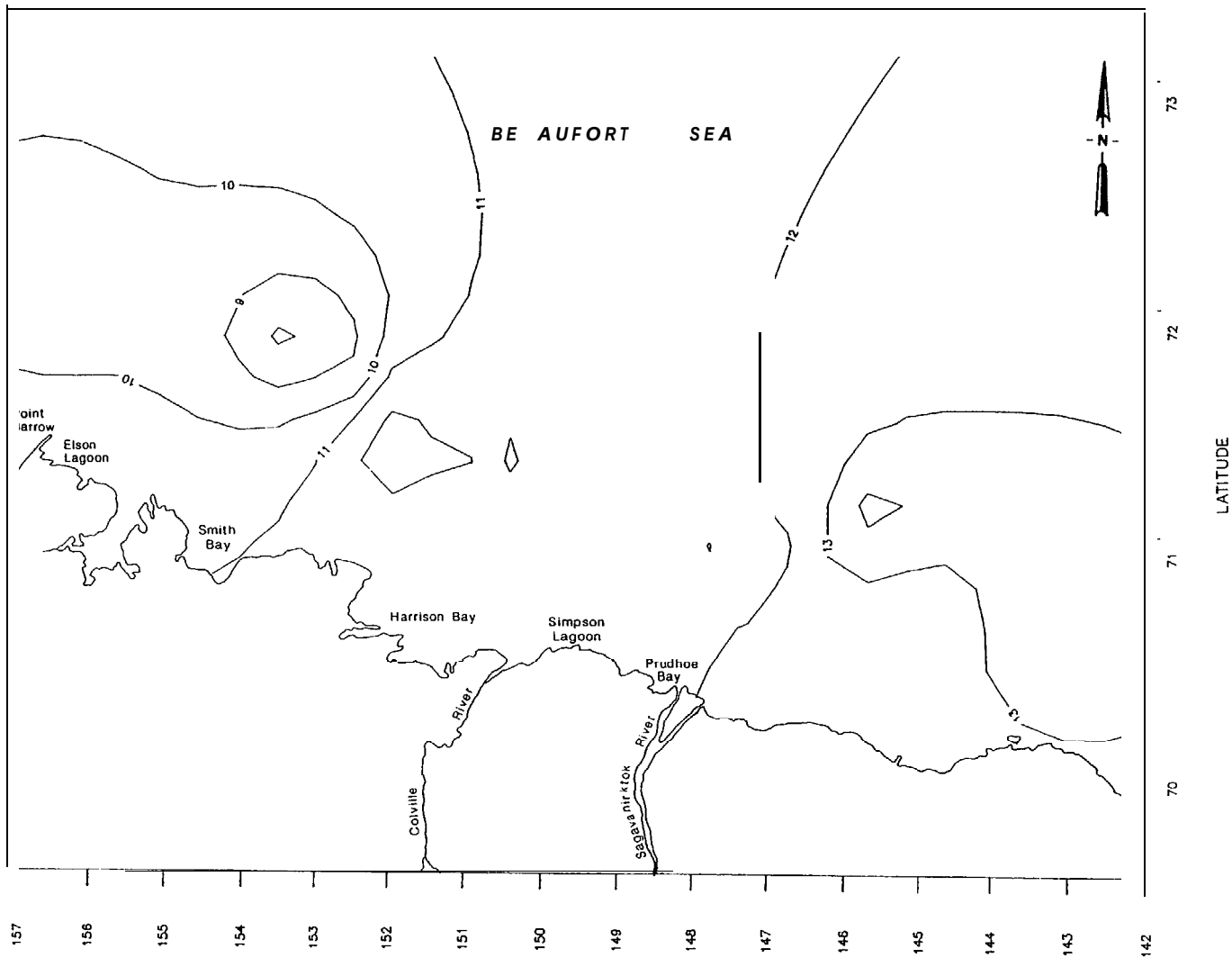
Intervals = 1.0mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
150m NITRATE-N ISOPLETH
ICE-FREE PERIOD

Woodward-Clyde Consultants

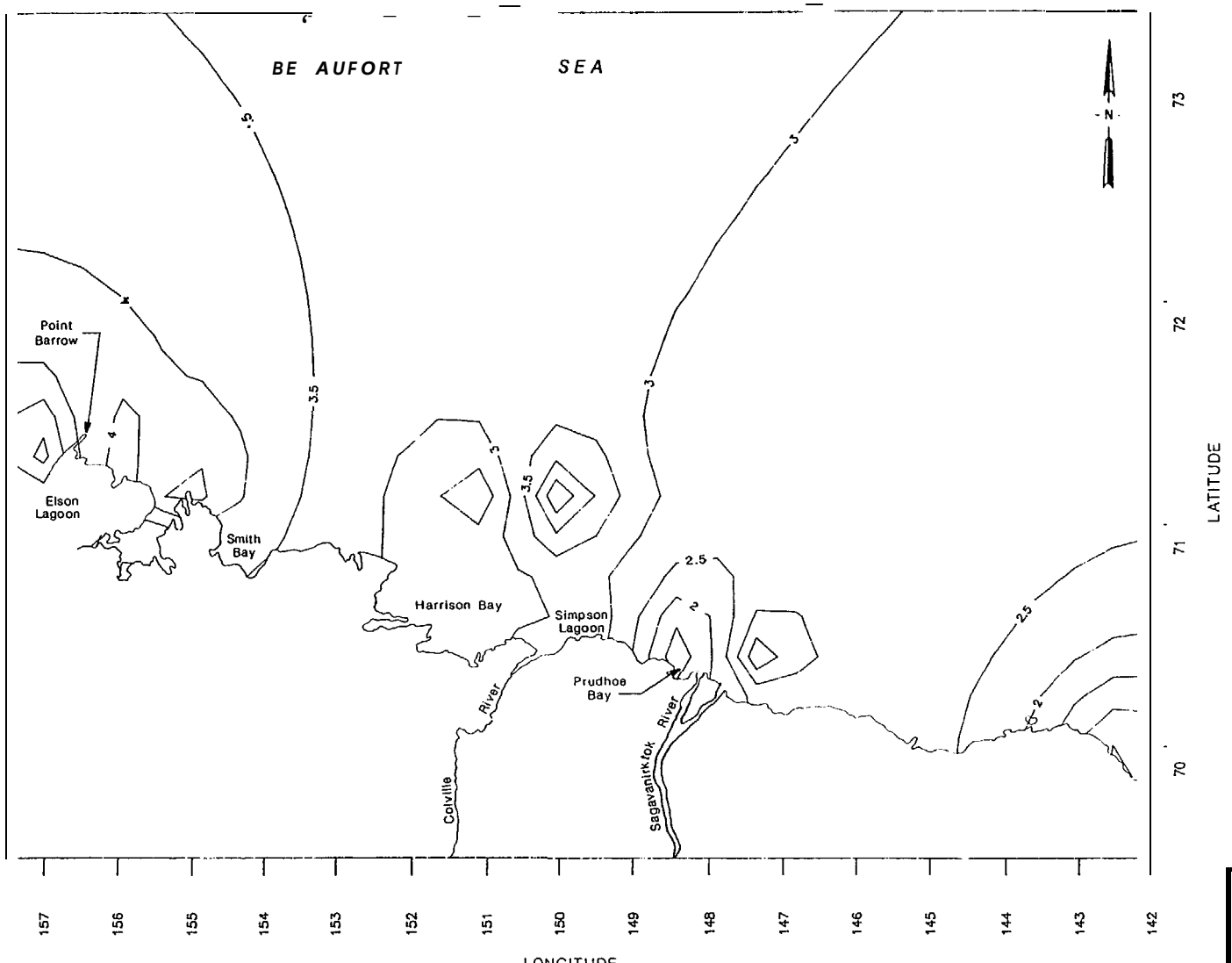
Figure 11



Contour Intervals = I. 0 mg-atm-3

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
200m NITRATE-N ISOPLETH
ICE-FREE PERIOD



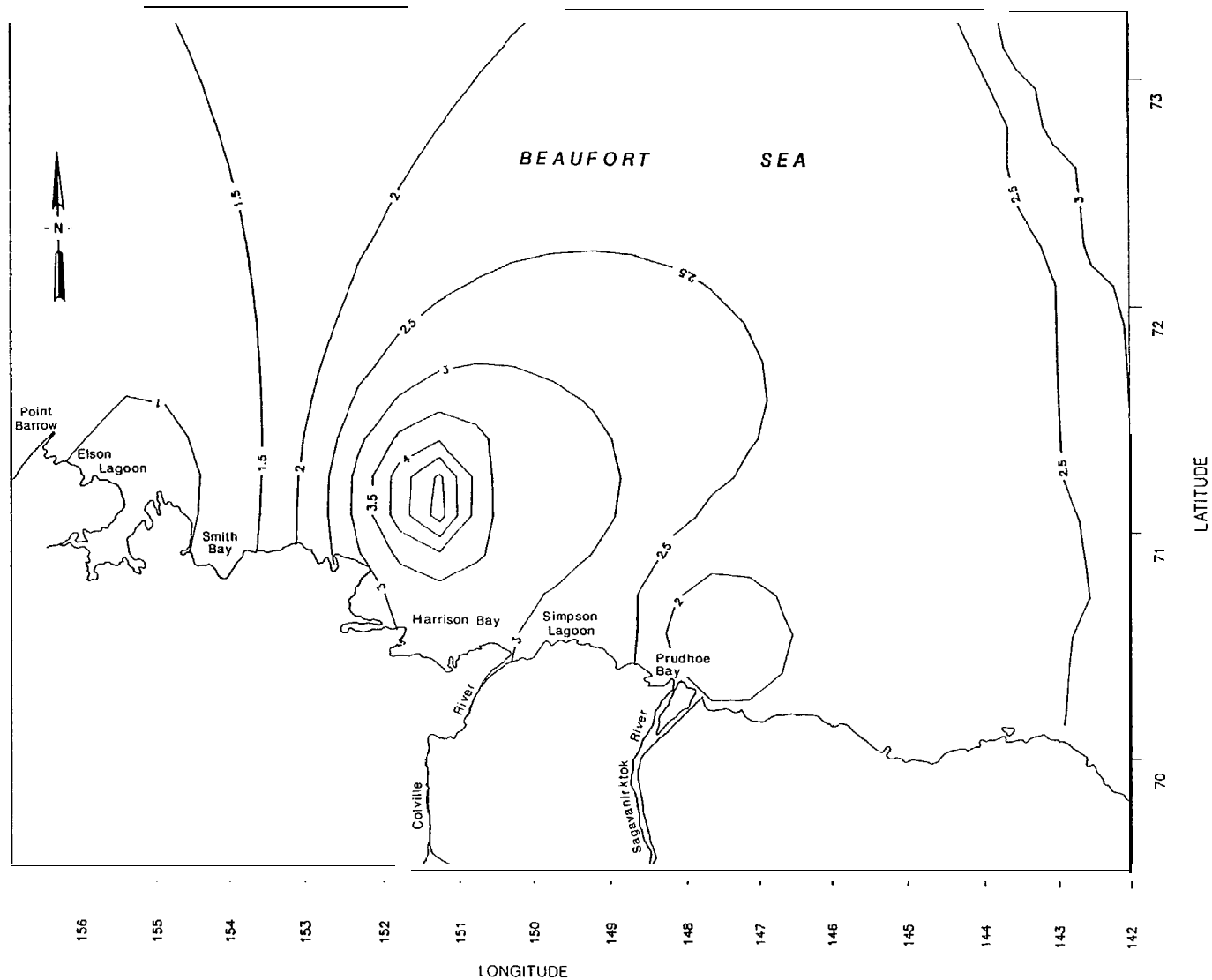
Contour Intervals = 0.5mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAU FORT SEA
Om NITRATE-N ISOPLETH
ICE-COVERED PERIOD

Woodward-Clyde Consultants

Figure 3

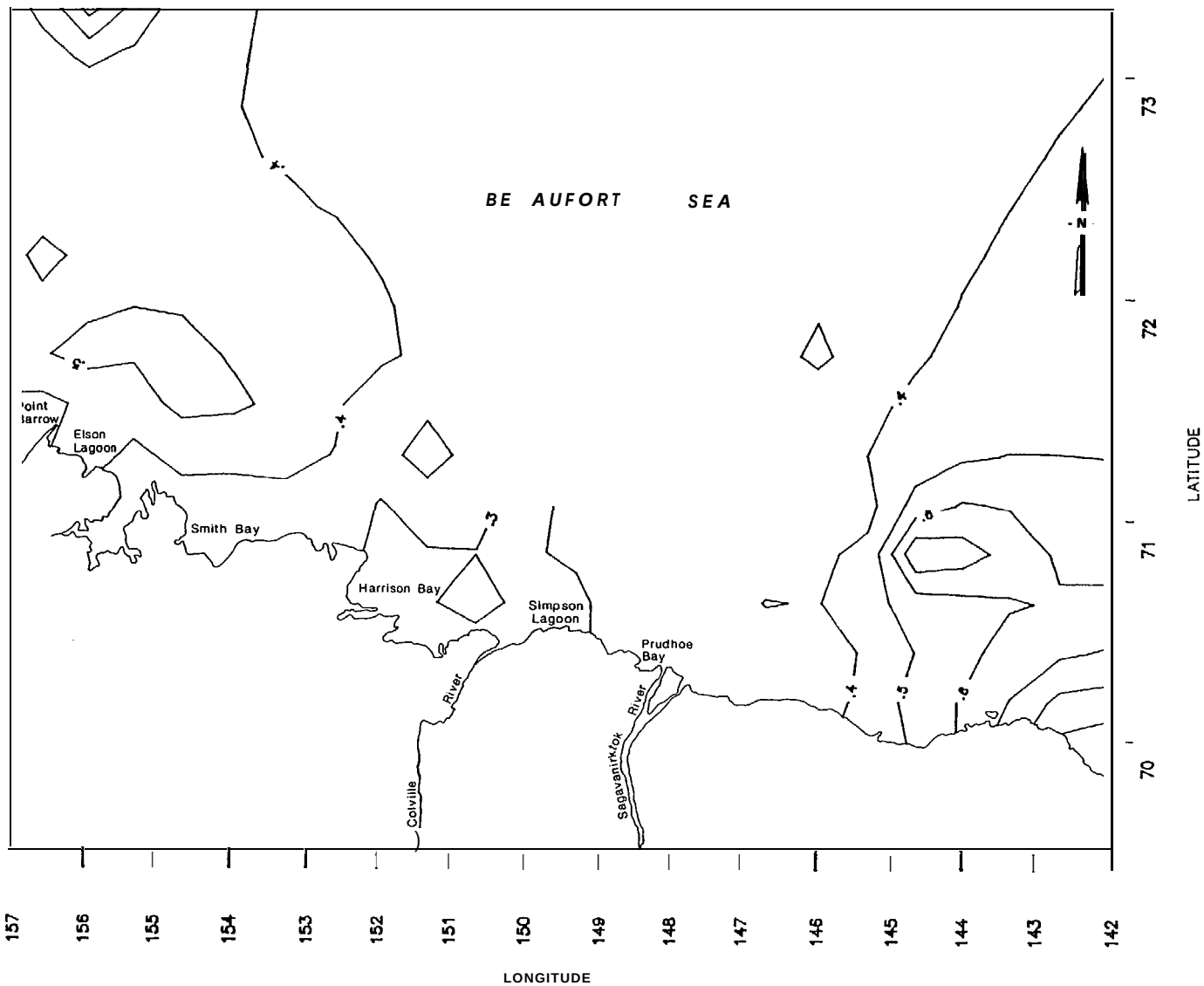


Contour Intervals = 0.5 mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
10m NITRATE-N ISOPLETH
ICE-COVERED PERIOD

Figure

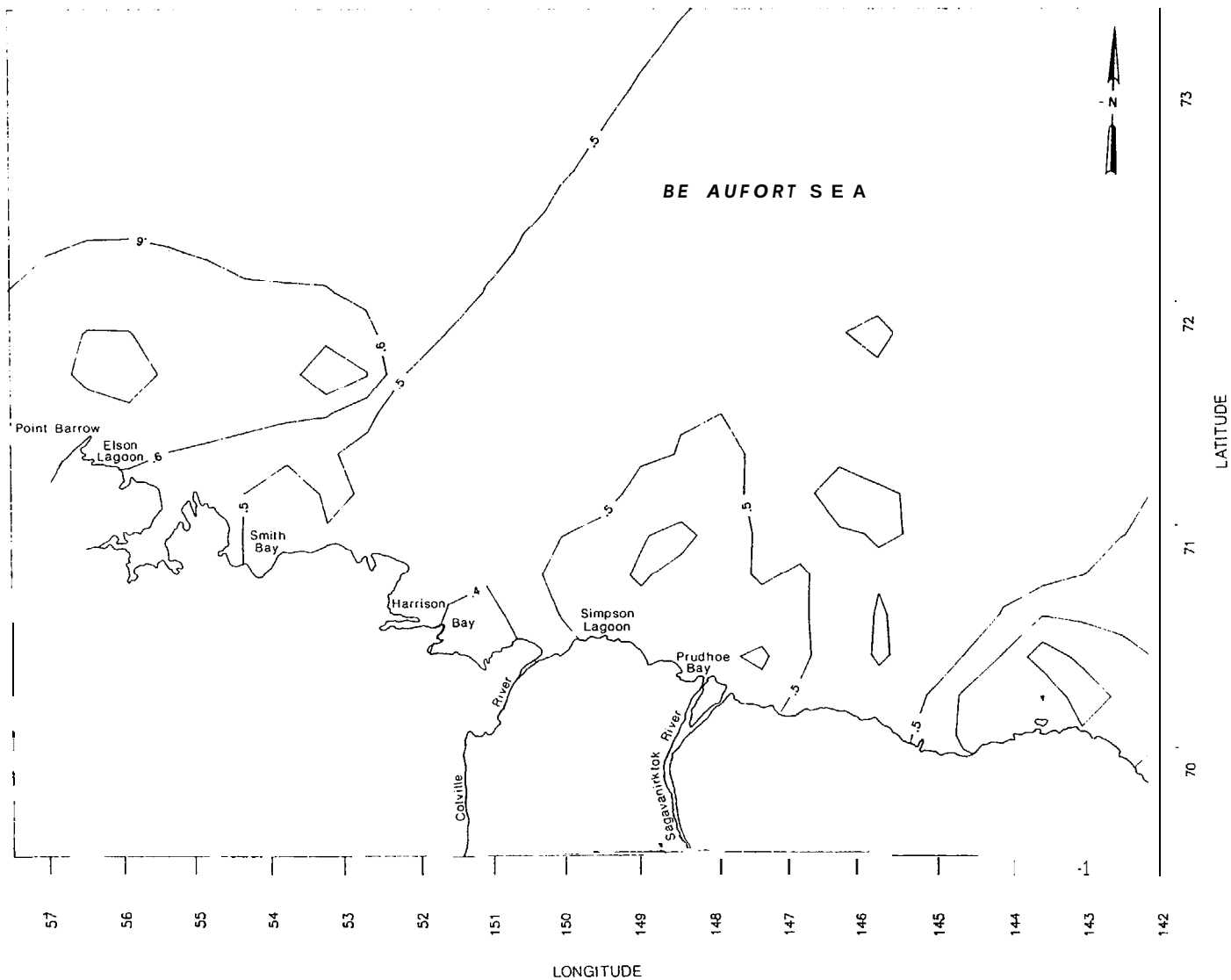


Contour Intervals - 0.1mg-atm^{-3}

Scale: 1 inch approx. 37 miles,

BEAUFORT SEA
Om PHOSPHATE-P ISOPLETH
ICE-FREE PERIOD

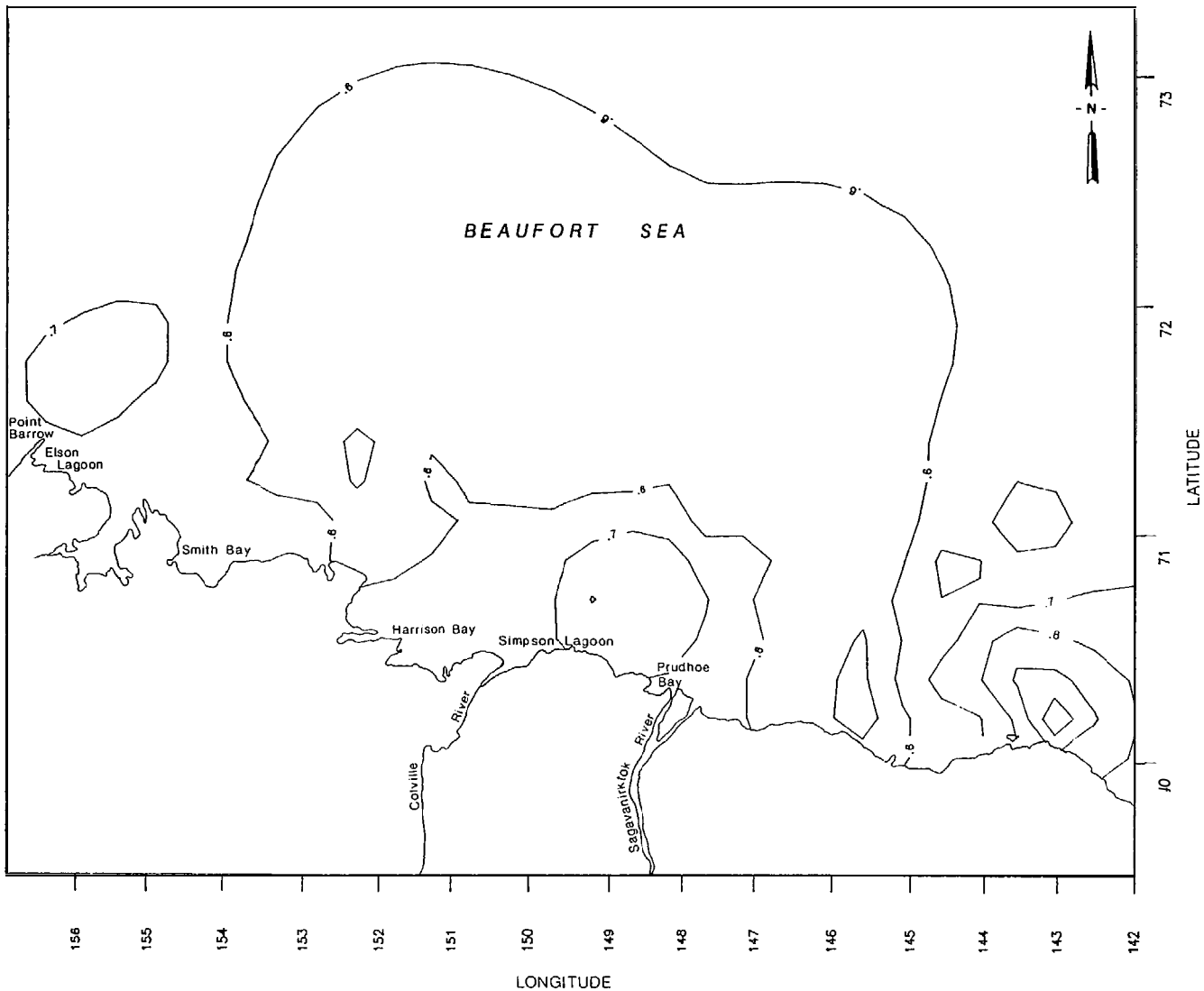
Woodward-Clyde Consultants Figure 15



Contour Intervals = 0.1mg-at m^{-3}

Scale. 1 inch = approx 37 miles,

BEAUFORT SEA
10m PHOSPHATE-P ISOPLETH
ICE-FREE PERIOD



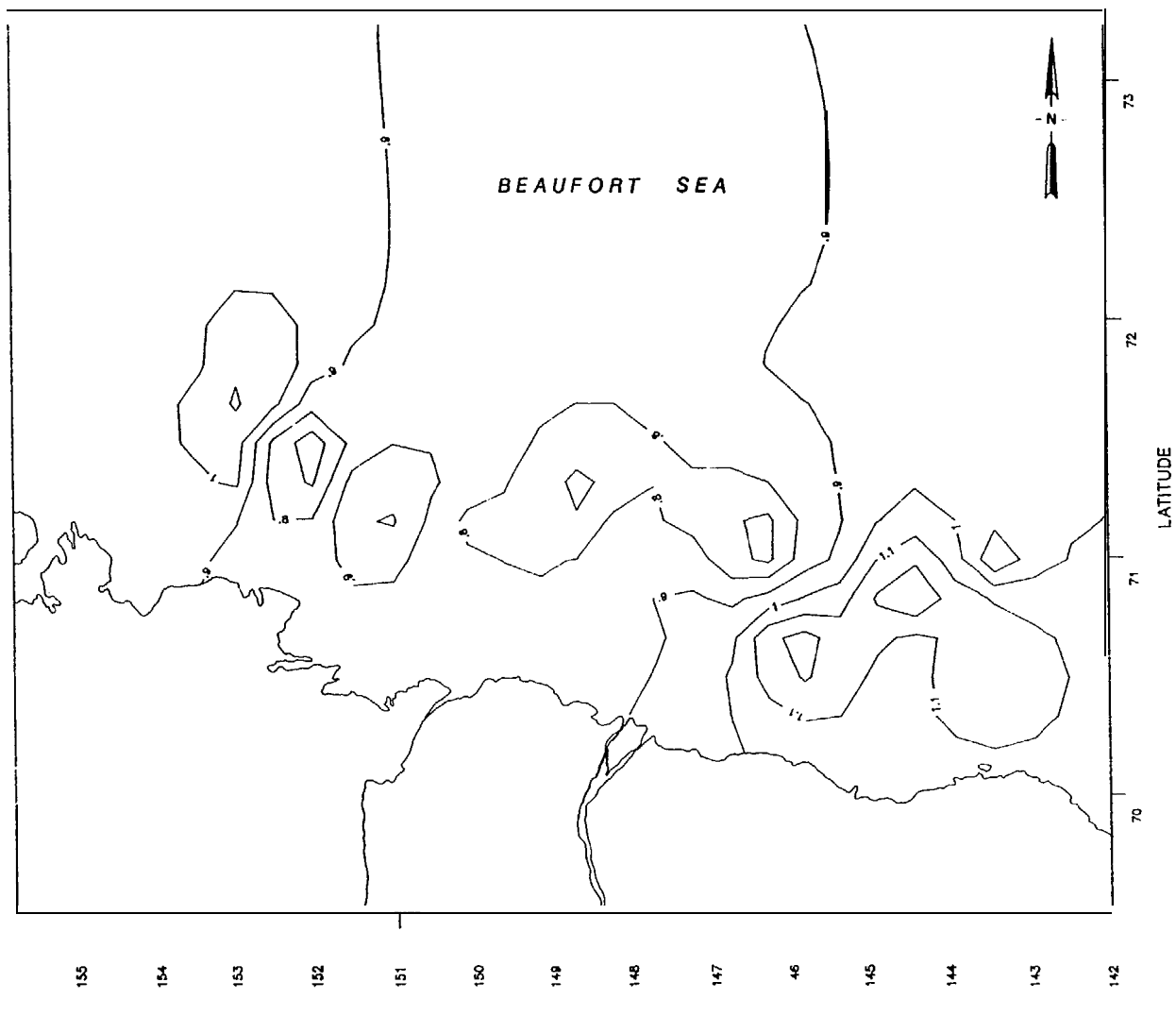
Contour Intervals = 0.1mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
20m PHOSPHATE-P ISOPLETH
ICE-FREE PERIOD

Woodward-Clyde Consultants

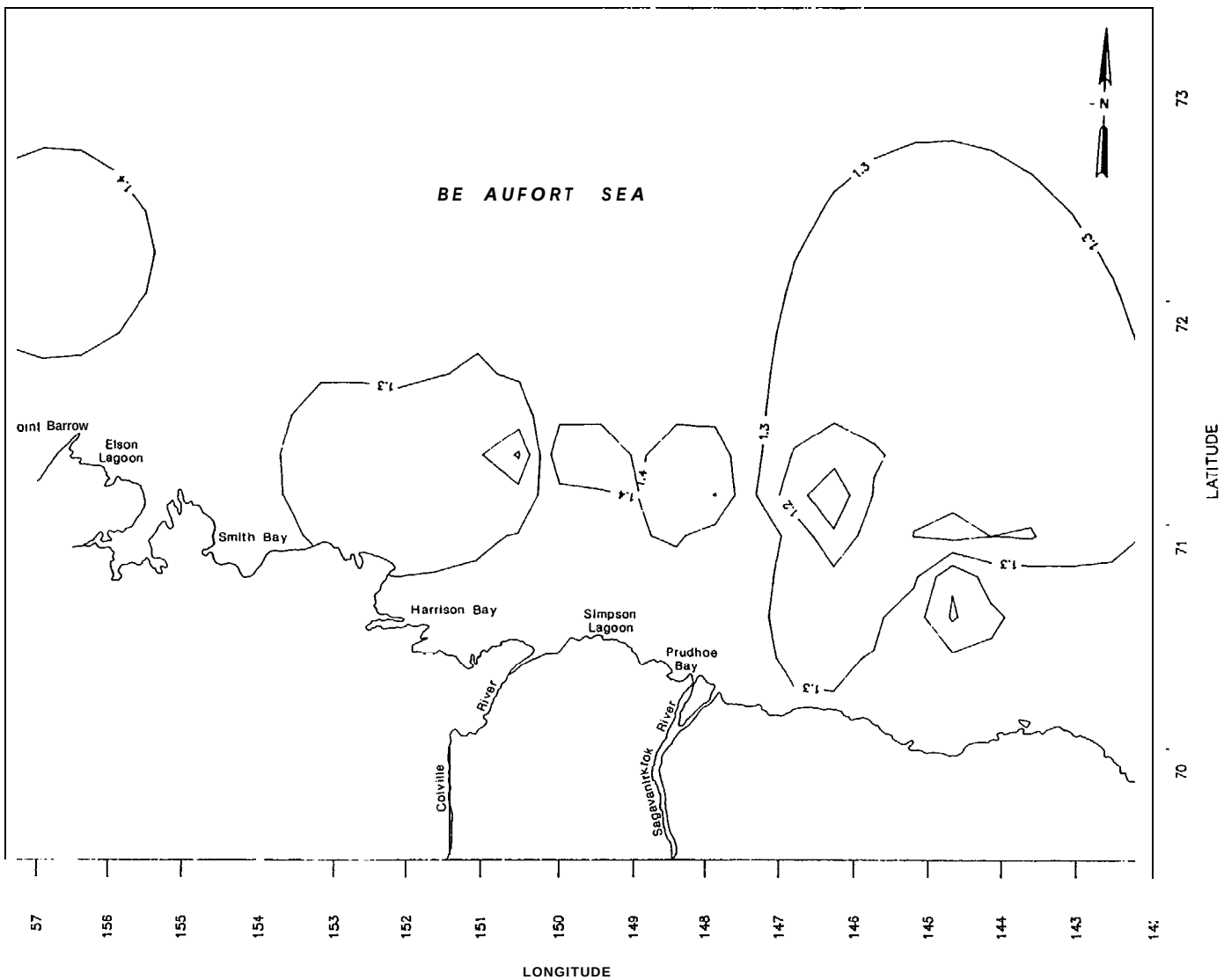
Figure 17



Intervals 0.1mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
50m PHOSPHATE-P ISOPLETH
ICE-FREE PERIOD



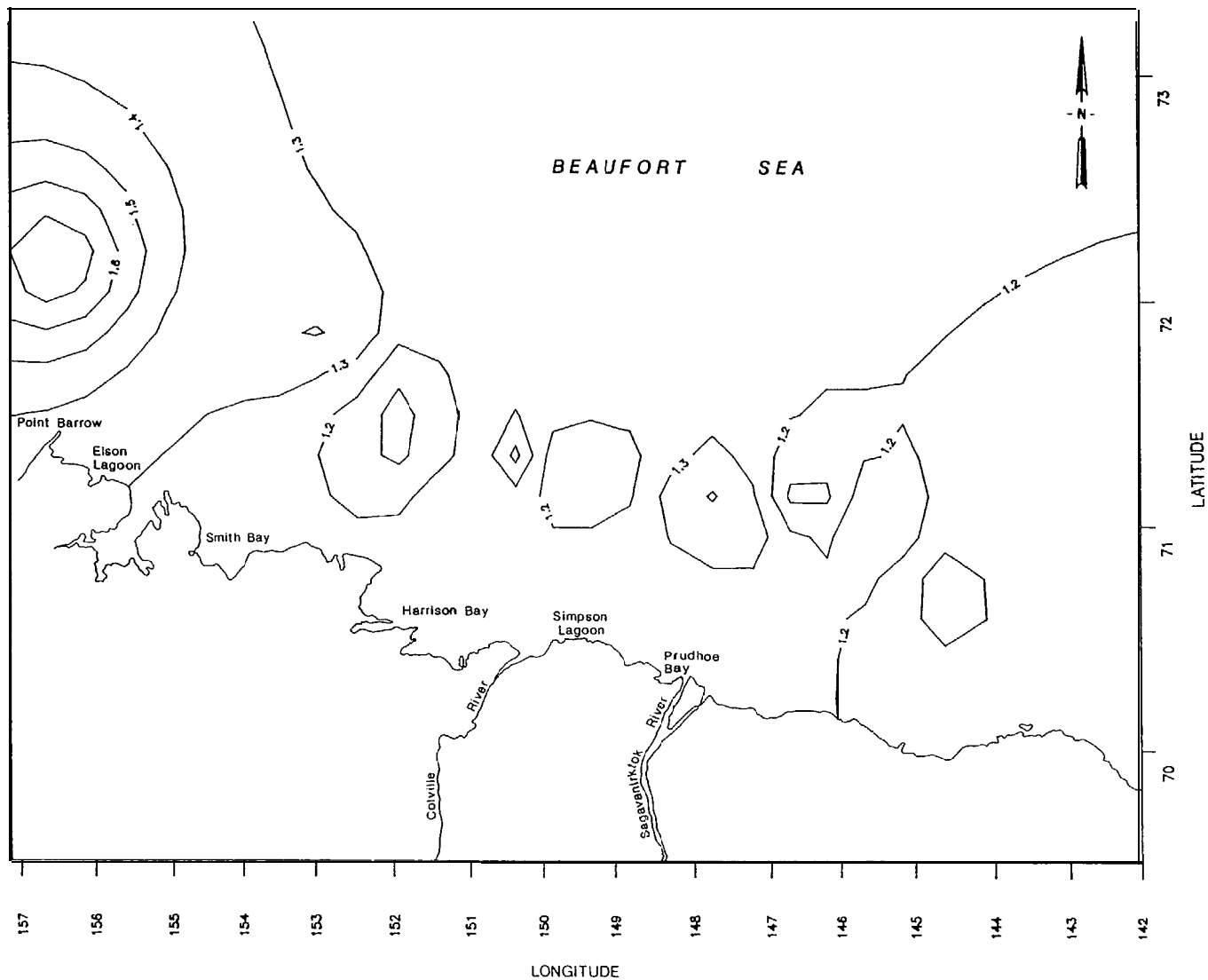
Contour Intervals - 0.1mg-at m^{-3}

Scala: 1 inch approx. 37 miles

BEAUFORT SEA
150m PHOSPHATE-P ISOPLETH
ICE-FREE PERIOD

Woodward-Clyde Consultants

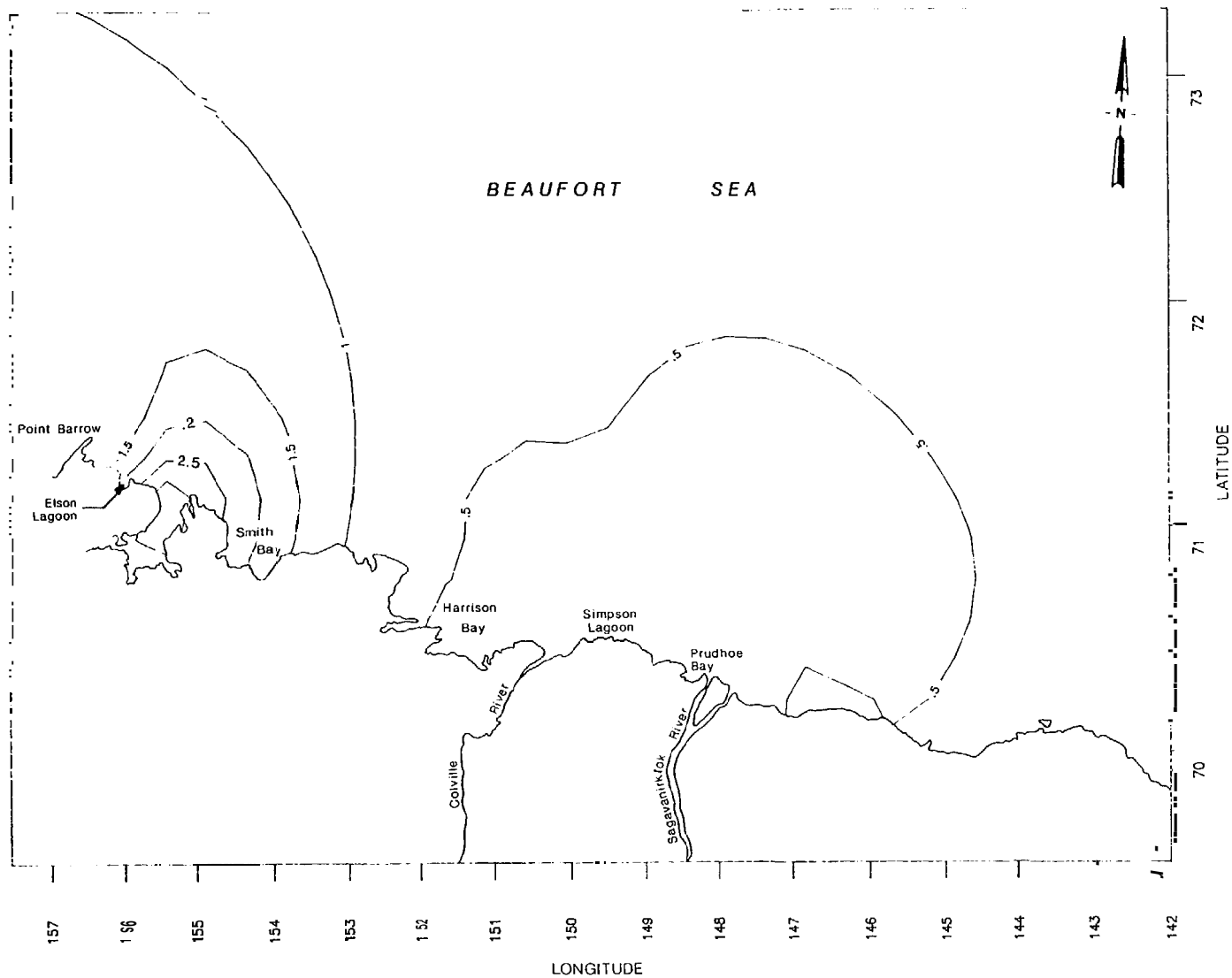
Figure 19



Intervals = 0.1mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
200m PHOSPHATE-P ISOPLETH
ICE-FREE PERIOD



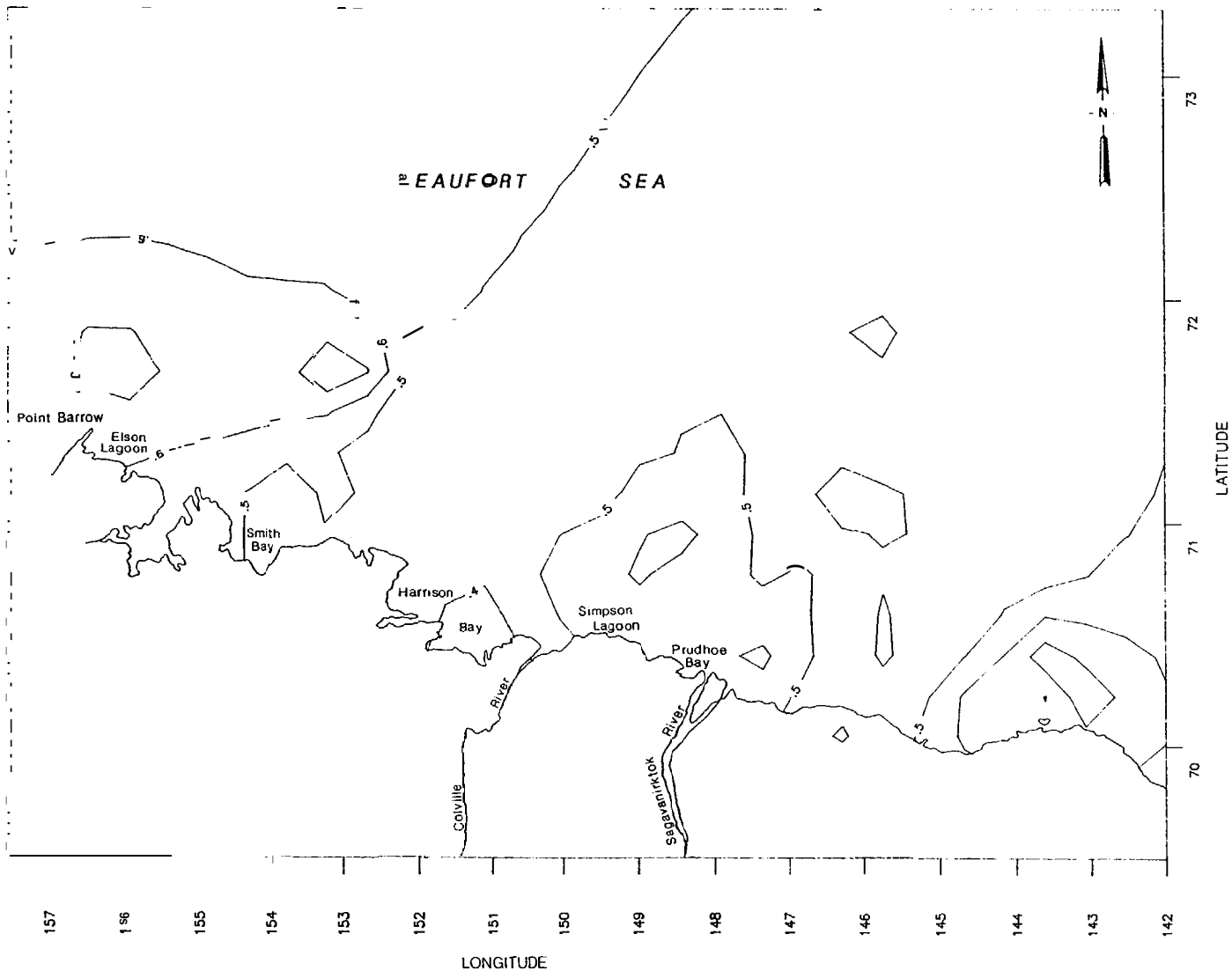
Contour Intervals = 0.5 mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
0m PHOSPHATE-P ISOPLETH
ICE-COVERED PERIOD

Woodward-Clyde Consultants

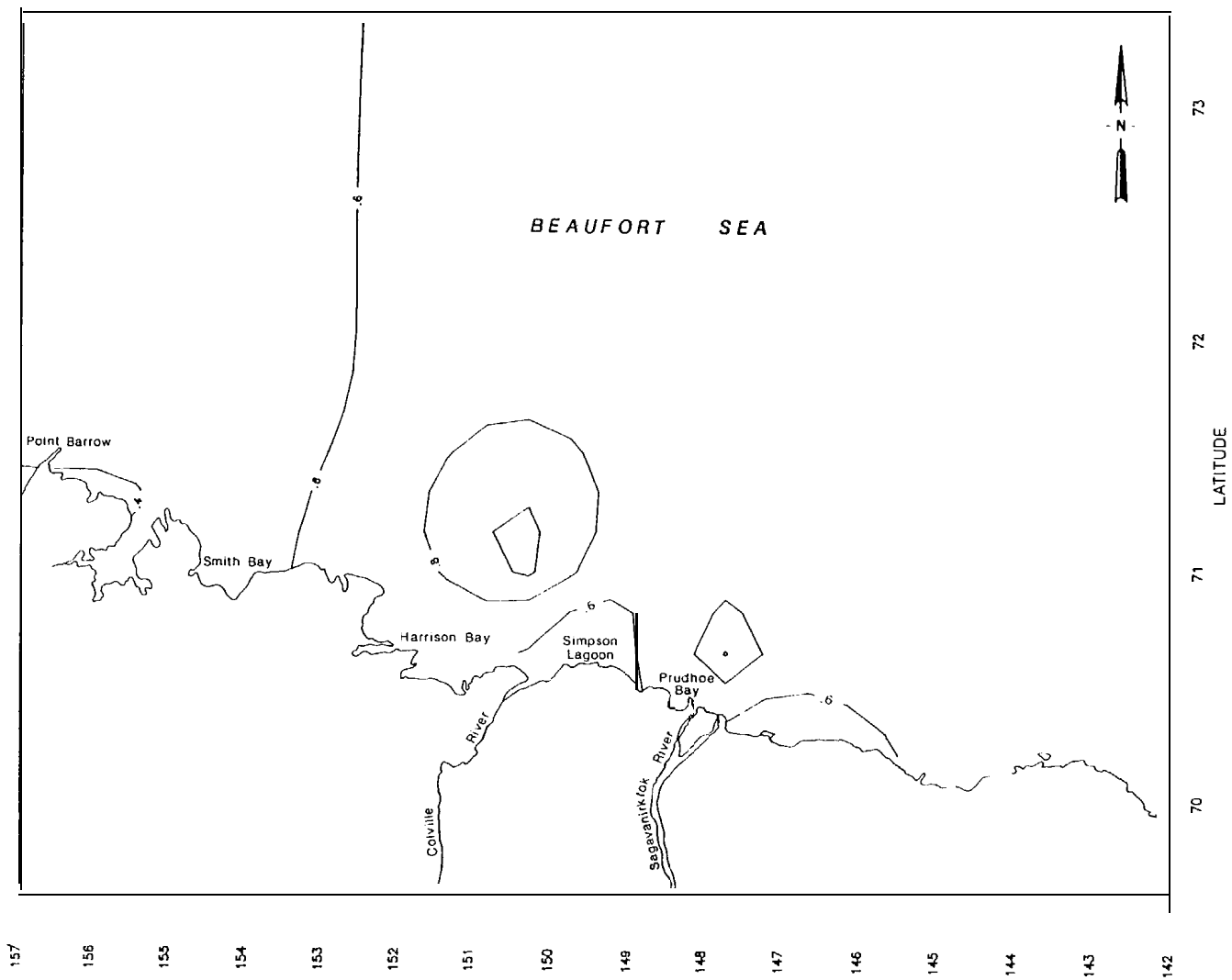
Figure 21



Contour Intervals = 1mg-at m^{-3}

Scale: 1 inch approx. 37 miles.

BEAUFORT SEA
10m PHOSPHATE-P ISOPLETH
ICE-COVERED PERIOD



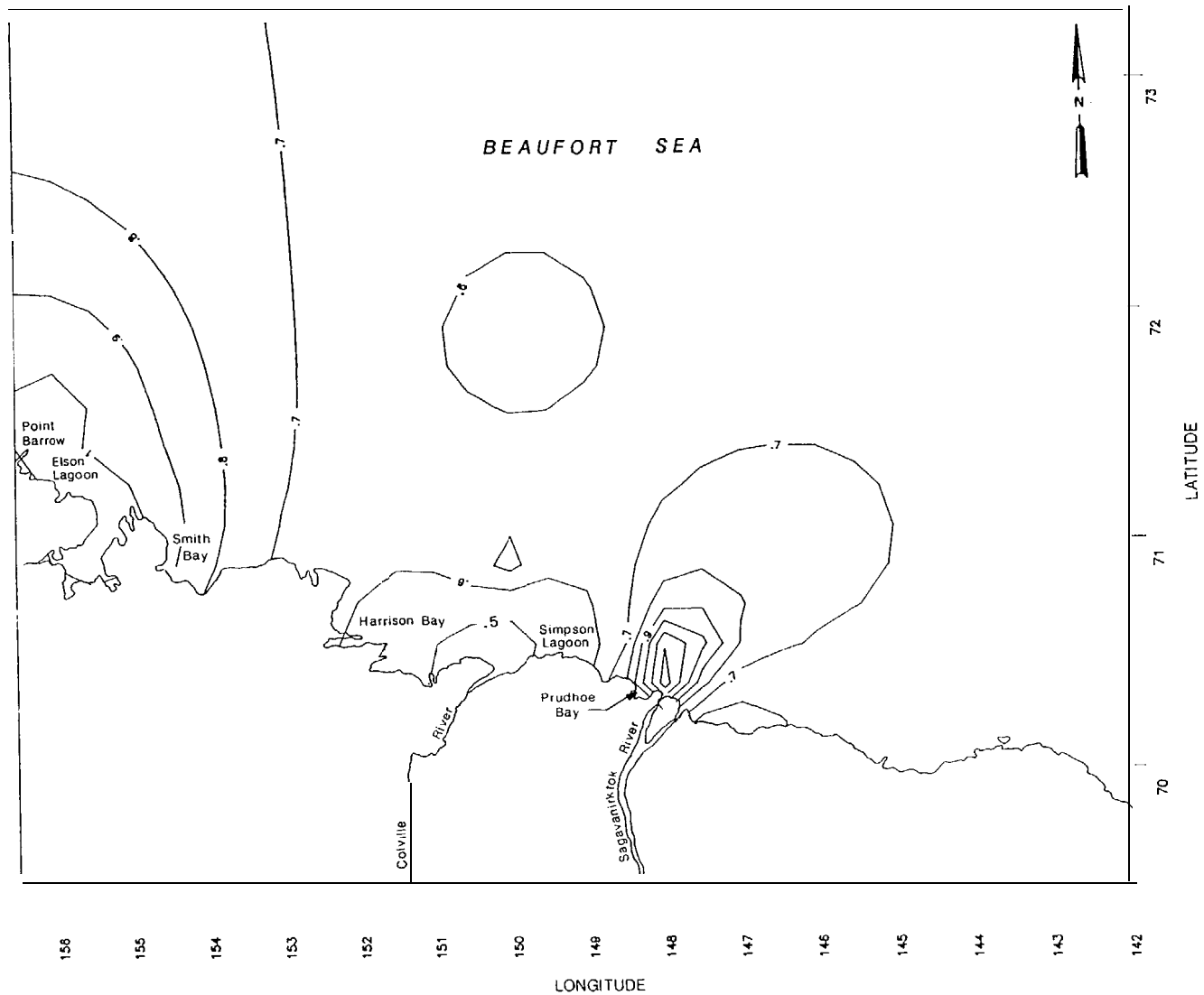
Contour Intervals = 0.2mg at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
20m PHOSPHATE-P ISOPLETH
ICE-COVERED PERIOD

Woodward-Clyde Consultants

Figure 23



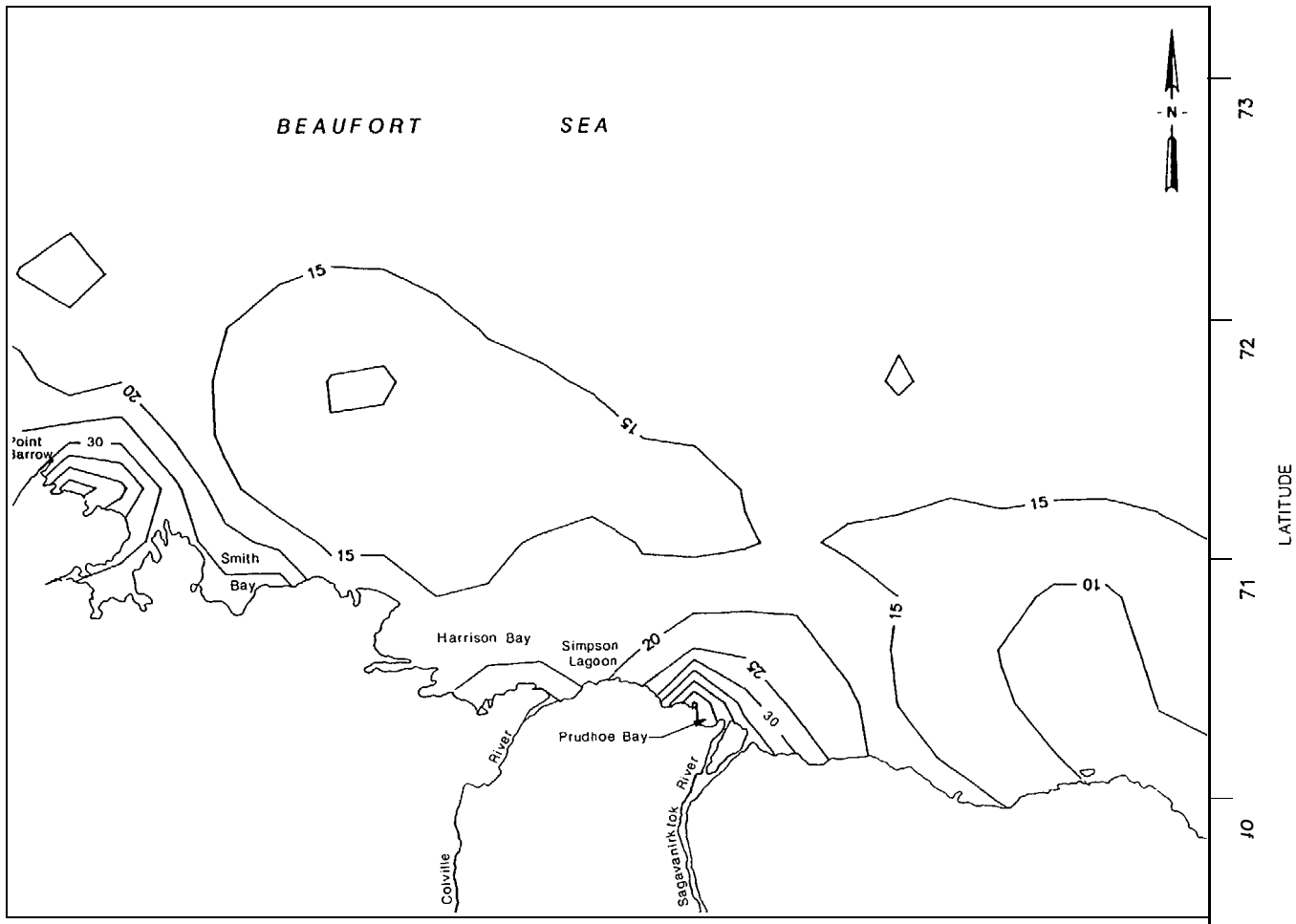
Intervals 0 mg at m^{-3}

Scale: inch = 37 miles.

BEAUFORT SEA
50m PHOSPHATE-P ISOPLETH
ICE-COVERED PERIOD

Woodward-Clyde Consultants

Figure



Contour Intervals = 5.0mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
0m SILICATE-Si ISOPLETH
ICE-FREE PERIOD

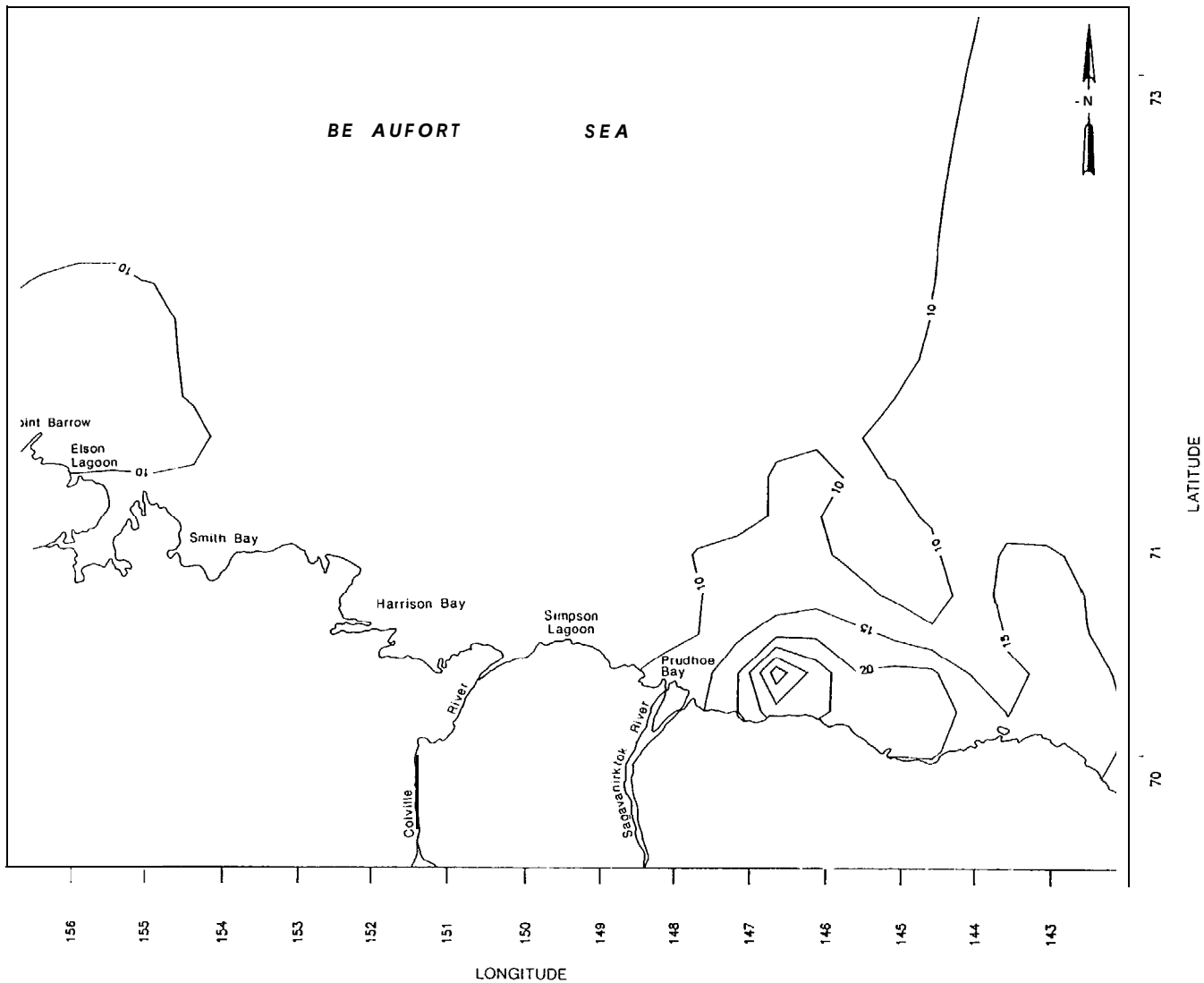
Woodward-Clyde Consultants

Figure 25

Contour Intervals = 5.0mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
10m SILICATE-Si ISOPLETH
ICE-FREE PERIOD



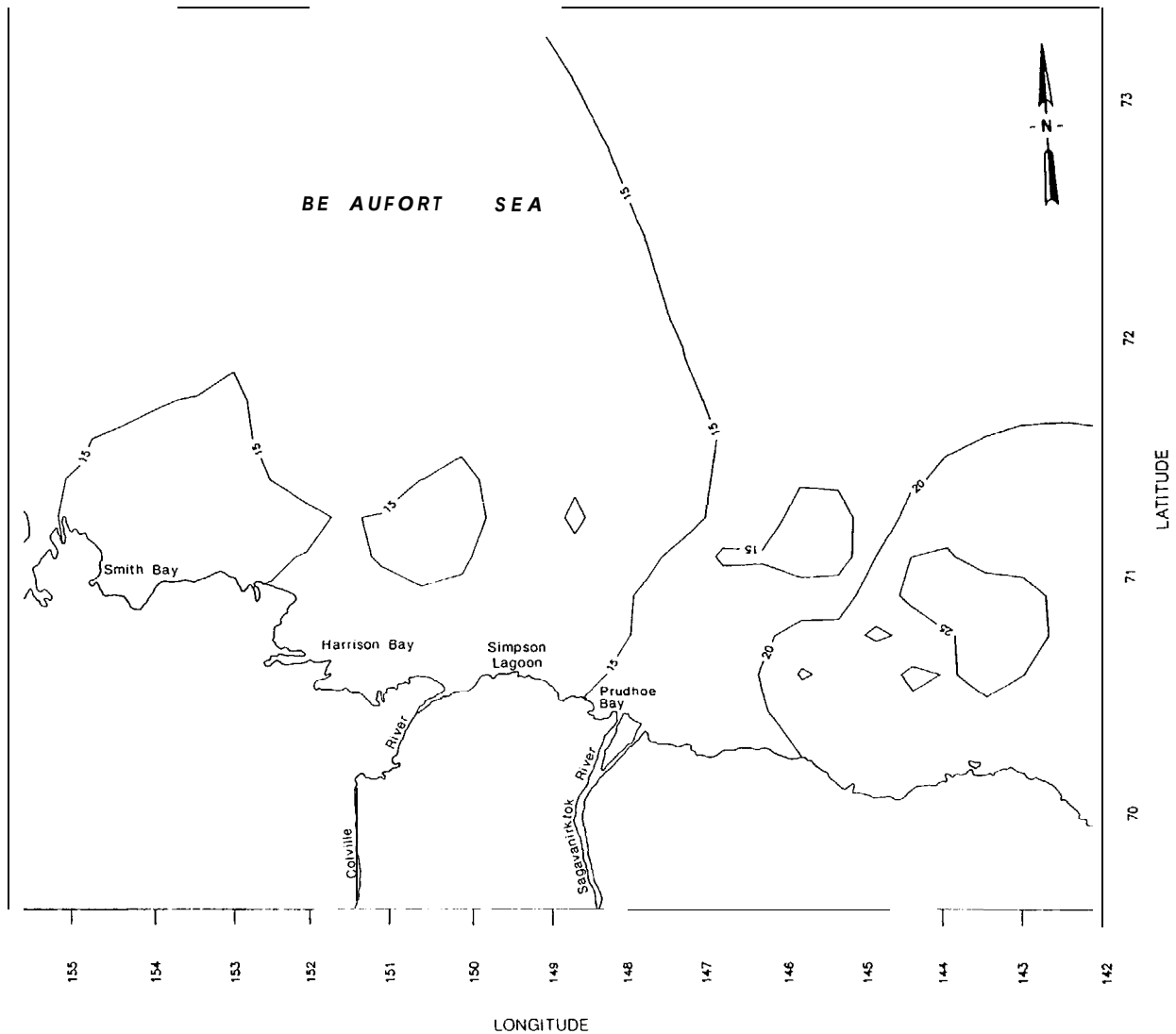
Contour Intervals = 5. 0mg-at m^{-3}

Scale: 1 inch = approx. 37 males.

BEAUFORT SEA
20m SILICATE-SiISOPLETH
ICE-FREE PERIOD

Woodward-Clyde Consultants

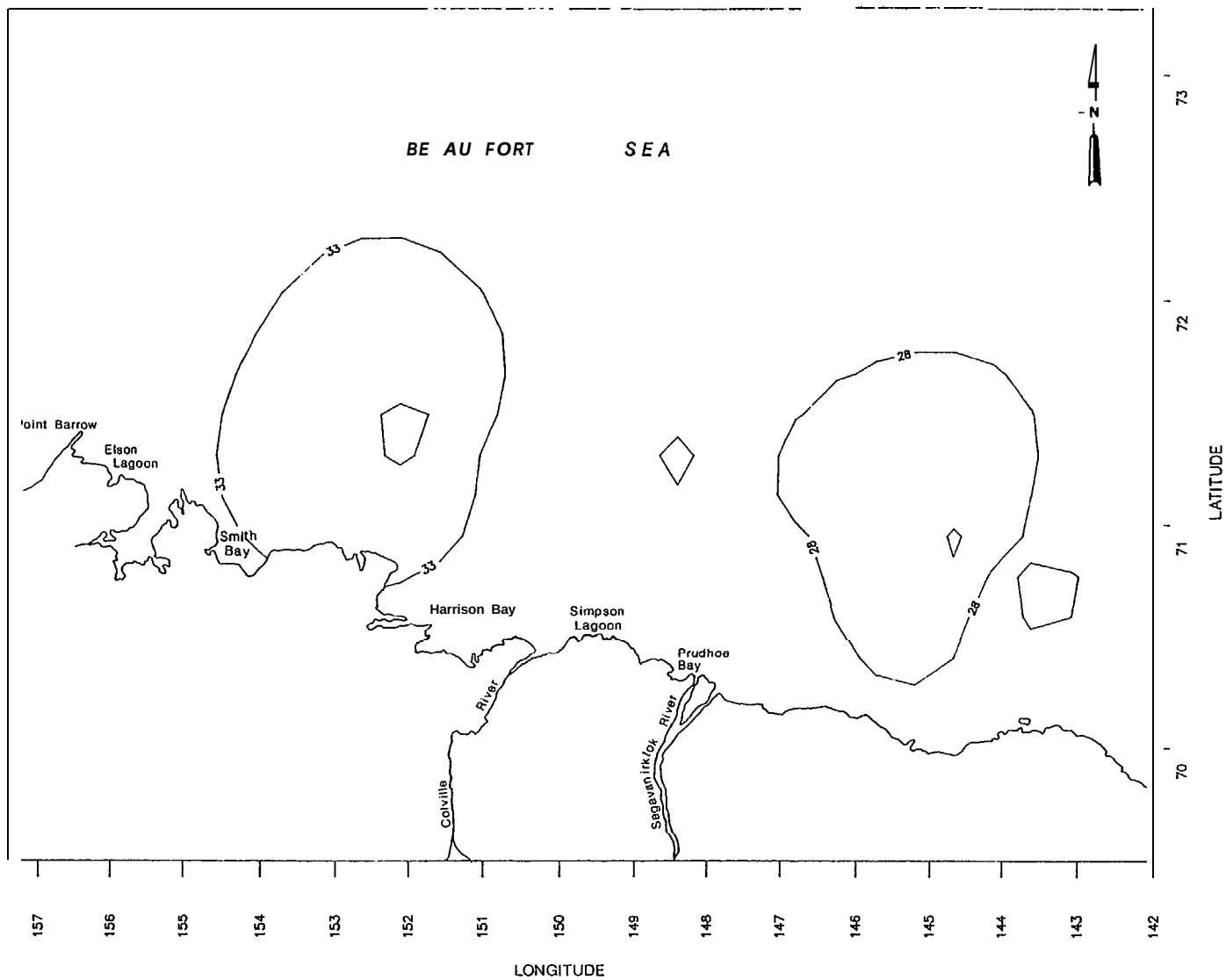
Figure 27



Contour Intervals = 5.0mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
50m SILICATE-Si ISOPLETH
ICE-FREE PERIOD

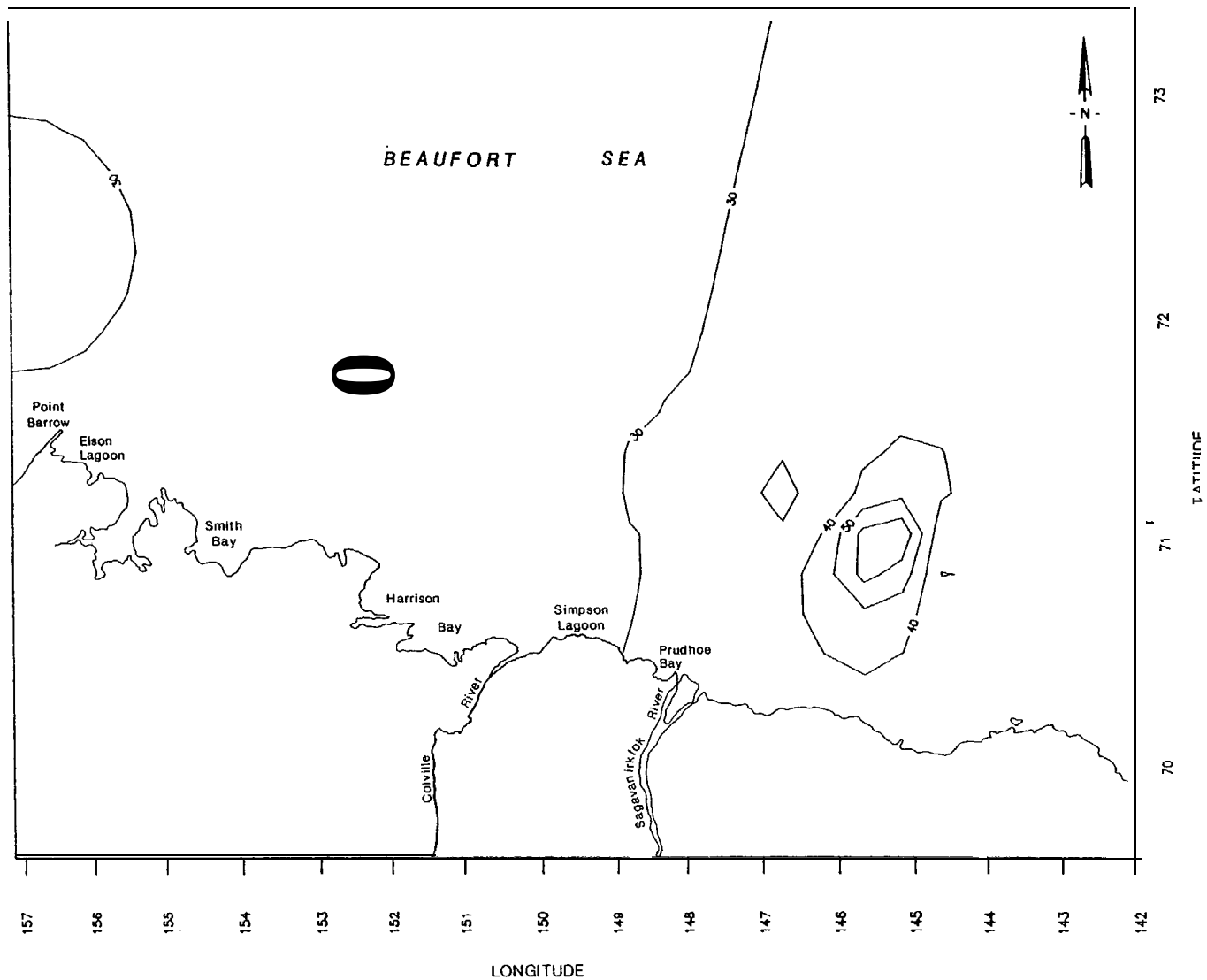


Contour Intervals - 5. 0mg-at m^{-3}

Scale: 1 inch - approx. 37 miles,

BEAUFORT SEA
150m SILICATE-Si ISOPLETH
ICE-FREE PERIOD

Woodward-Clyde Consultants | Figure 29



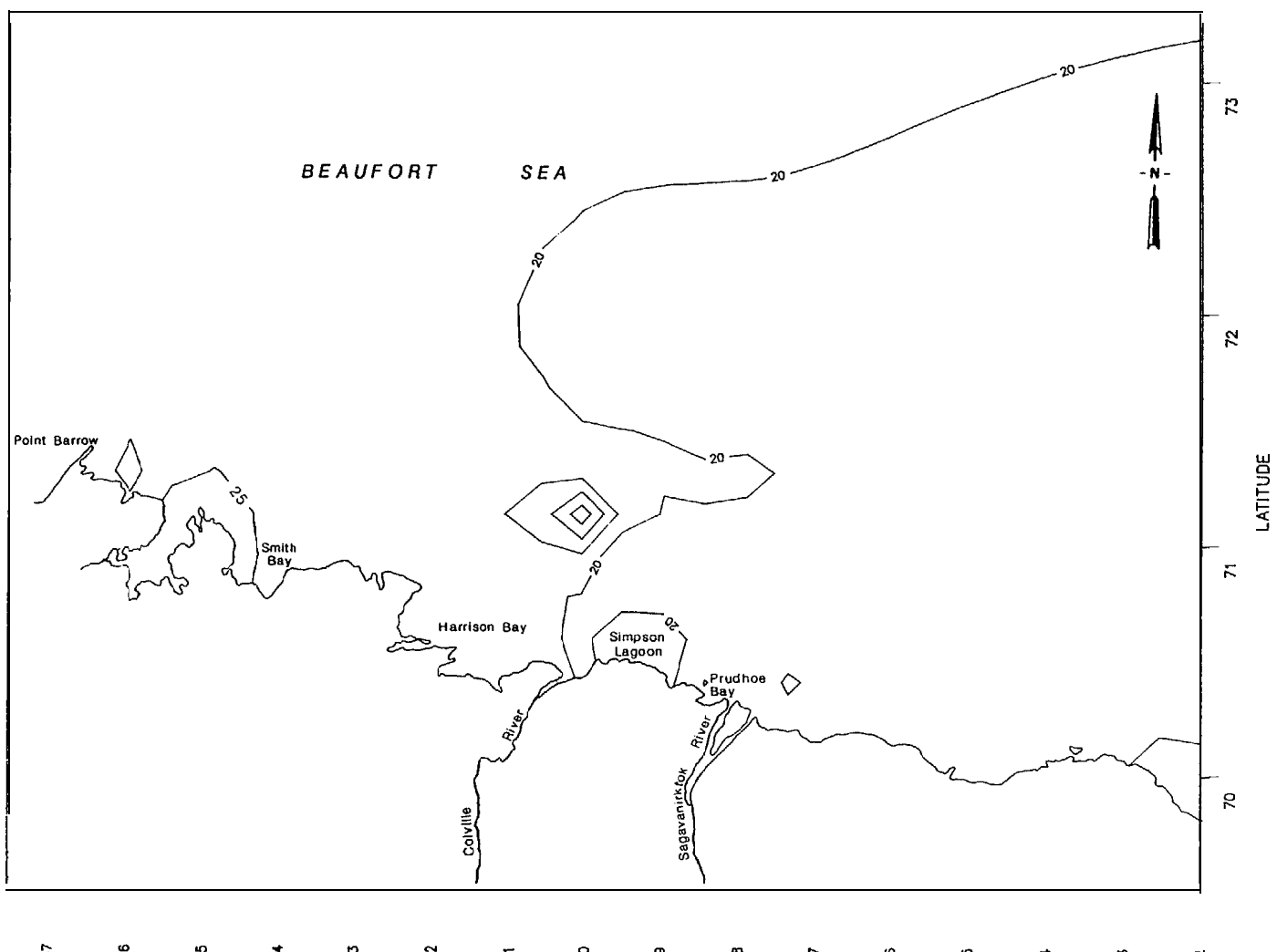
Intervals = 10.0mg-at m^{-3}

1 inch = approx. 37 miles.

BEAUFORT SEA
SILICATE-Si ISOPLETH
ICE-FREE PERIOD

Woodward Clyde Consultants

Figure



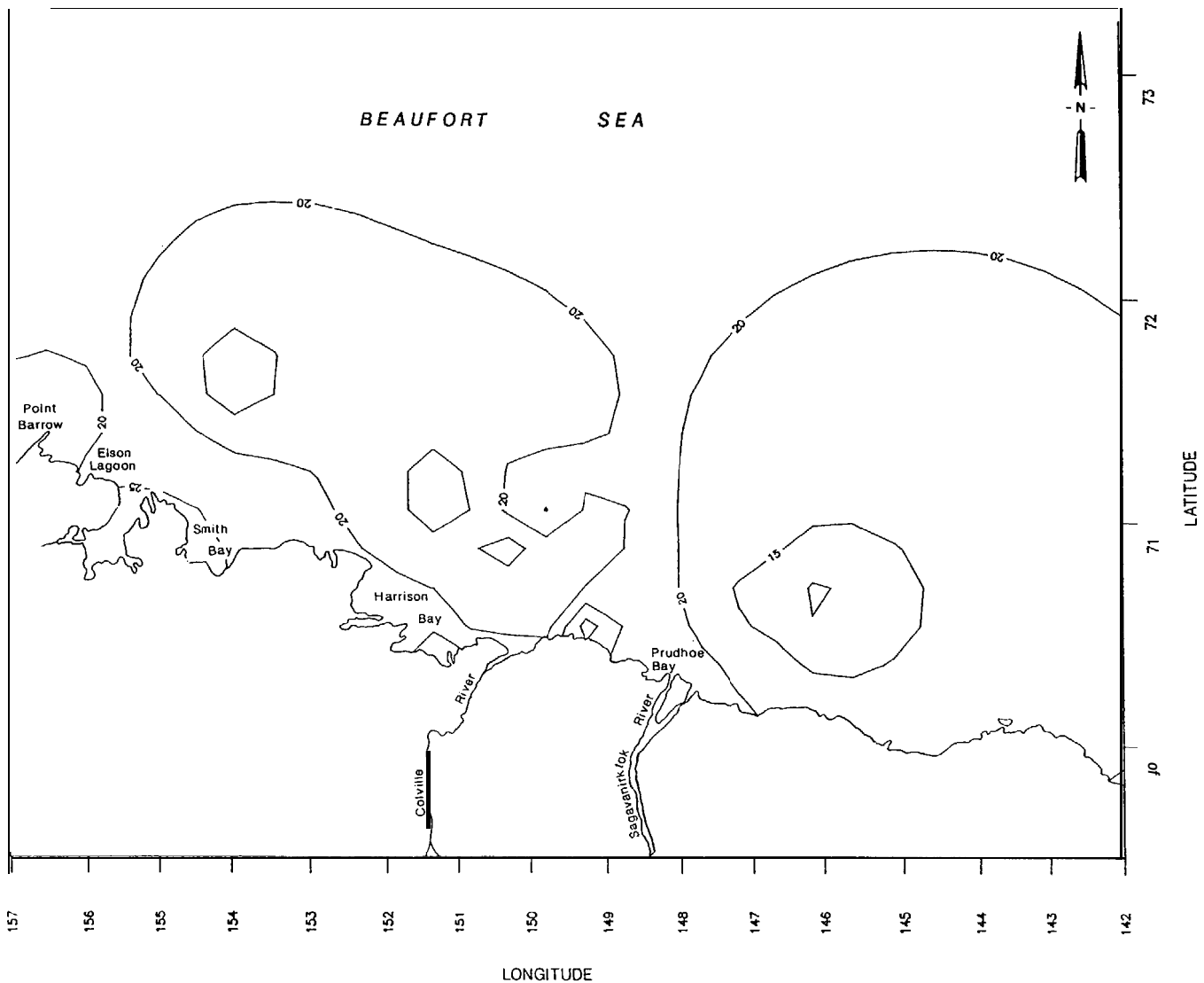
= 5.0mg-at m^{-3}

Scale: inch = 37

BEAUFORT SEA
0m SILICATE-Si ISOPLETH
ICE-COVERED PERIOD

Woodward Clyde Con lta

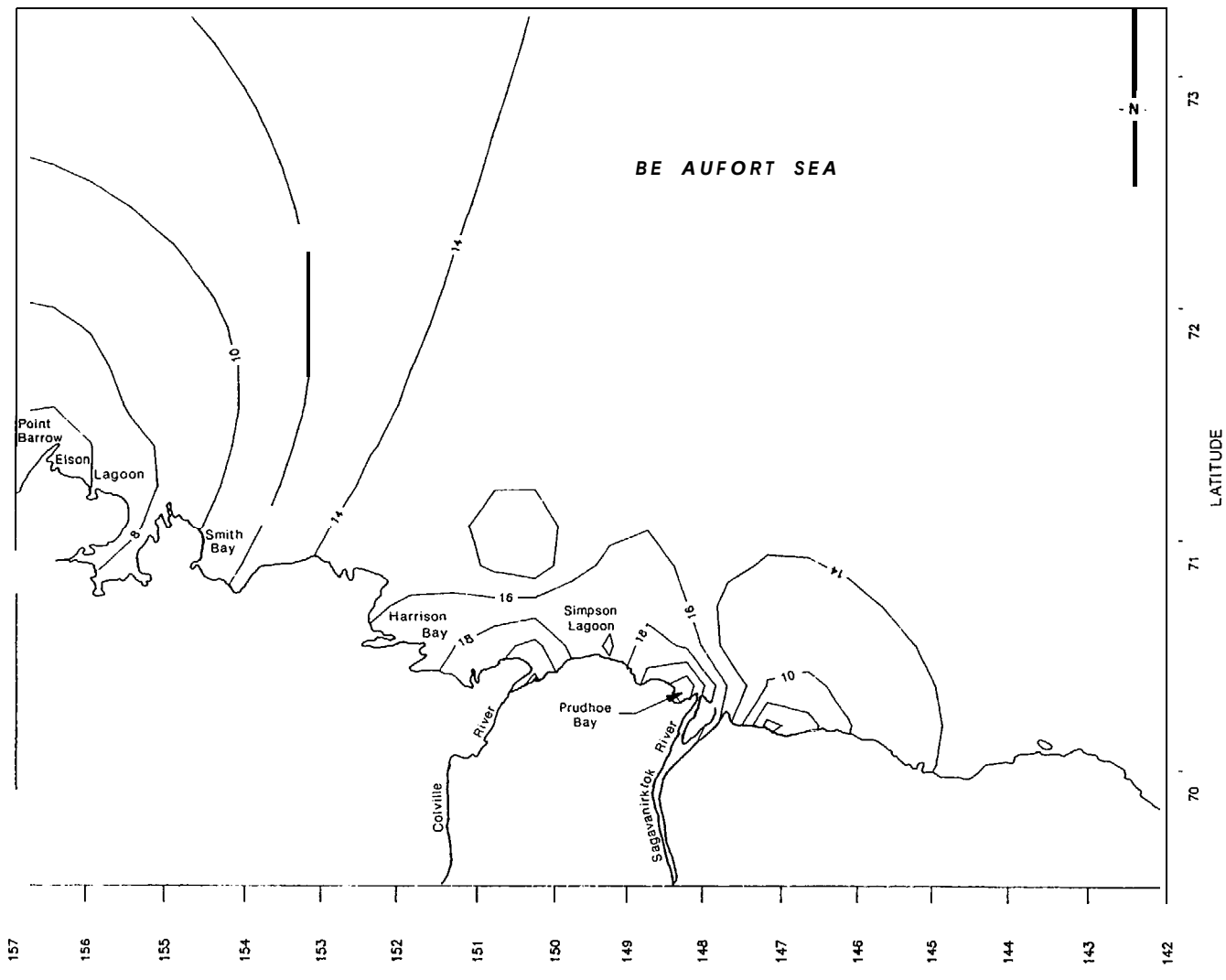
Figure



Contour Intervals = 5.0mg-at m^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
10m SILICATE-Si ISOPLETH
ICE-COVERED PERIOD



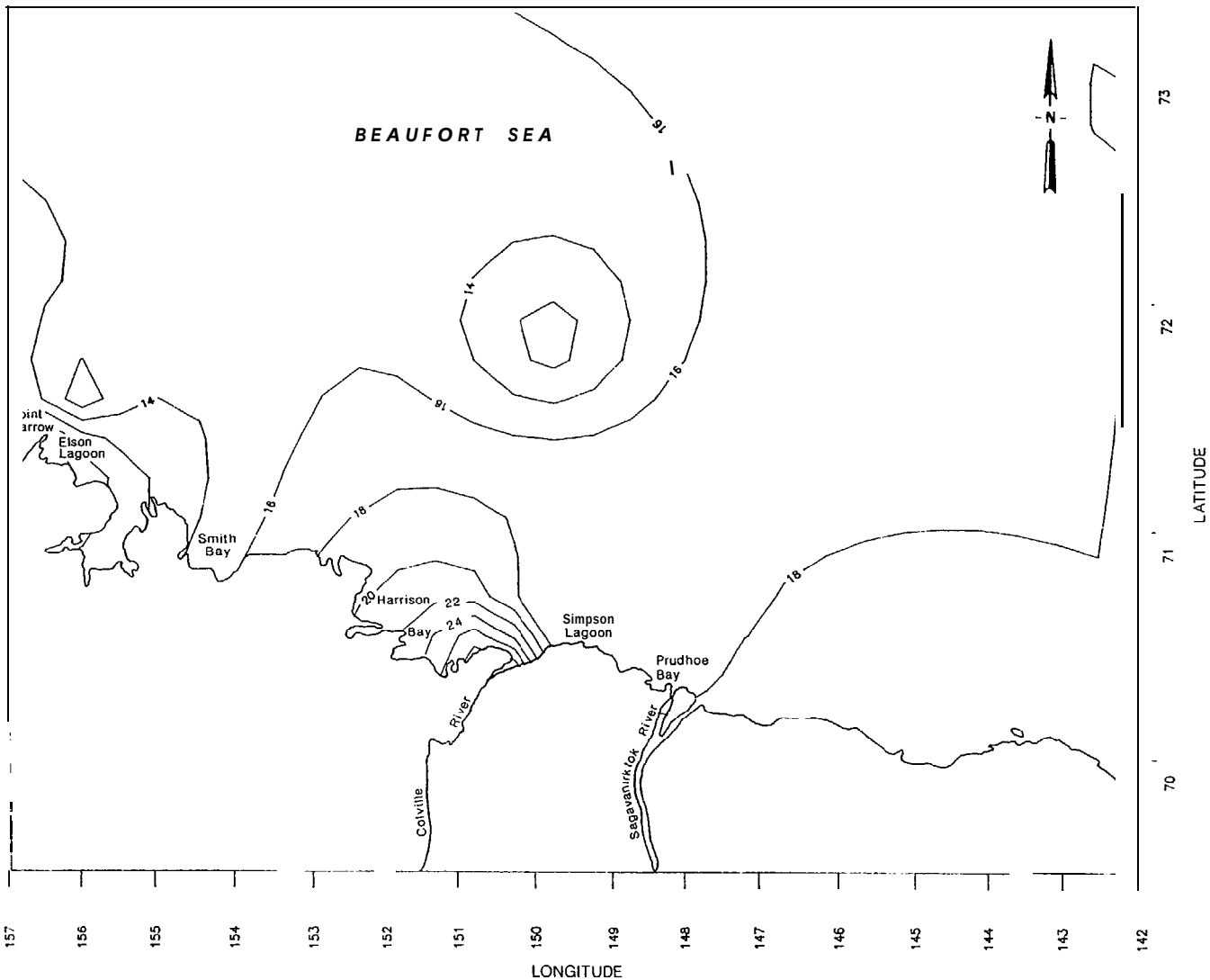
Contour Intervals = 2.0mg-atm^{-3}

Scale: 1 inch = approx. 37 miles.

BEAUFORT SEA
20m SILICATE-Si ISOPLETH
ICE-COVERED PERIOD

Woodward-Clyde Consultants

Figure 33



Contour Intervals = 2.0 mg-at m^{-3}

Scale: 1 inch = approx. 37 miles

BEAUFORT SEA
50m SILICATE-Si ISOPLETH
ICE-COVERED PERIOD