

OCEANOGRAPHICAL STATION LIST

VOLUME 75

INVESTIGATIONS BY F.V. *DEGEI* IN NEW SOUTH WALES,
SOUTH, AND WESTERN AUSTRALIAN WATERS IN 1966

DIVISION OF FISHERIES AND OCEANOGRAPHY
COMMONWEALTH SCIENTIFIC AND INDUSTRIAL
RESEARCH ORGANIZATION, AUSTRALIA 1968

OCEANOGRAPHICAL STATION LIST

VOLUME 75

INVESTIGATIONS BY F.V. DEGEI IN NEW SOUTH WALES
SOUTH, AND WESTERN AUSTRALIAN WATERS IN 1966

COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANIZATION

AUSTRALIA

MELBOURNE, 1968

CONTENTS

	Page
I. INTRODUCTION	3
II. WORK ACCOMPLISHED	3
III. METHOD OF COLLECTION AND ANALYSIS OF SAMPLES	4
1. Physics	4
2. Chemistry	4
REFERENCES	5
IV. TRACK CHARTS	7
V. DATA	13
Part 1 Hydrology - Surface Samples	15
Part 2 Hydrology - Subsurface Samples	23

When citing this station list, abbreviate as follows:
CSIRO Aust. Oceanogr. Stn List 75.

OCEANOGRAPHICAL STATION LIST

VOLUME 75

Investigations by F.V. Degei in New South Wales,
South, and Western Australian Waters in 1966

I. INTRODUCTION

This report lists the hydrological data collected during 11 cruises of F.V. Degei in 1966 (De1/66-De11/66). The first eight of these cruises were on the South Australian tuna fishing grounds, during January-March. In May and June Degei was chartered for marking sperm whales, and hydrological data were collected. Cruise 11 was on the New South Wales tuna fishing grounds. Track charts and station positions are shown in Figures 1-5.

II. WORK ACCOMPLISHED

Table 1 gives details of cruise dates, number of stations worked, nature of work, and staff on each cruise. Fifteen sperm whales were marked on Cruise 9, and 21 sperm whales were marked on Cruise 10.

TABLE 1
DETAILS OF CRUISES AND WORK DONE

Cruise	Dates	Staff	Number of Stations Occupied	Hydrology		BT
				1	2	
De1/66	Jan. 30-Feb. 9	R. Bradley	50	48	11	26
De2/66	Feb. 11-14	R. Bradley	10	10	5	9
De3/66	Feb. 16-22	R. Bradley L. Brown	23	23	14	16
De4/66	Feb. 24-Mar. 2	R. Bradley L. Brown	22	22	16	21
De5/66	Mar. 4-8	L. Brown	6	6	4	4
De6/66	Mar. 10-12	L. Brown	2	2	1	2
De7/66	Mar. 13-15	L. Brown	3	3	3	3
De8/66	Mar. 16-20	L. Brown	8	8	8	8
De9/66	May 8-23	R. Bradley L. Brown K. Godfrey	61	37	22	33

TABLE 1 (Cont.)

Cruise	Dates	Staff	Number of Stations Occupied	Hydrology		BT
				1	2	
Del0/66	May 25-June 18	R. Bradley K. Godfrey	23	9	14	17
Del1/66	Nov. 25-30	L. Brown	20	20	0	0

Hydrology 1 Number of stations at which surface samples were collected
2 Number of stations at which subsurface samples were collected

BT Bathythermographs

III. METHOD OF COLLECTION AND ANALYSIS OF SAMPLES

1. Physics

Temperature.—Surface temperatures were measured using a surface sampler fitted with a thermometer graduated to 0.1 degC and accurate to ± 0.2 degC. Subsurface temperatures were obtained from the bathythermograph and are considered accurate to about ± 0.3 degC.

Bathythermographs.—A special electric-hydraulic winch was fitted to Degei so that BT lowerings could be conveniently made. Up to five Nansen water-bottles were used on the BT wire at the same time as the BT was lowered. The bottles were used to collect water samples only; they were not fitted with reversing thermometers. A 180-ft or a 900-ft bathythermograph was used, depending on the depth of water. Occasionally both were used when the vessel was amongst tuna. Slides were digitized on board according to the method of the U.S. National Oceanographic Data Center (1964). The results were transferred to punched cards and computer listings are held at Cronulla.

Sigma-t.—Sigma-t values were computed from temperature and salinity values, using the equations of Knudsen (La Fond 1951)

2. Chemistry

Salinity.—Samples were analysed at Port Lincoln or Cronulla using a chlorinity-temperature meter of the conductivity type

(Hamon 1956). Chlorinity was converted to salinity by the relation -

$$\text{Salinity} = 0.03 + 1.805 \times \text{Chlorinity}$$

Salinities are considered accurate to $\pm 0.05\%$.

REFERENCES

- HAMON, B.V. (1956).—A portable temperature-chlorinity bridge for estuarine investigations and seawater analysis. J. scient. Instrum. 33, 329-33.
- LA FOND, E.C. (1951).—Processing oceanographic data. U.S. Navy Hydrogr. Off. Publ. No. 614.
- U.S. NATIONAL OCEANOGRAPHIC DATA CENTER (1964).—Manual for processing bathythermograph data. Part 1 Instructions for manually digitizing bathythermograph data. Publ. M-3. (U.S. Naval Oceanographic Office : Washington, D.C.)
- U.S. NAVY HYDROGRAPHIC OFFICE (1955).—Instruction manual for oceanographic observations. Publ. No. 607.

IV. TRACK CHARTS

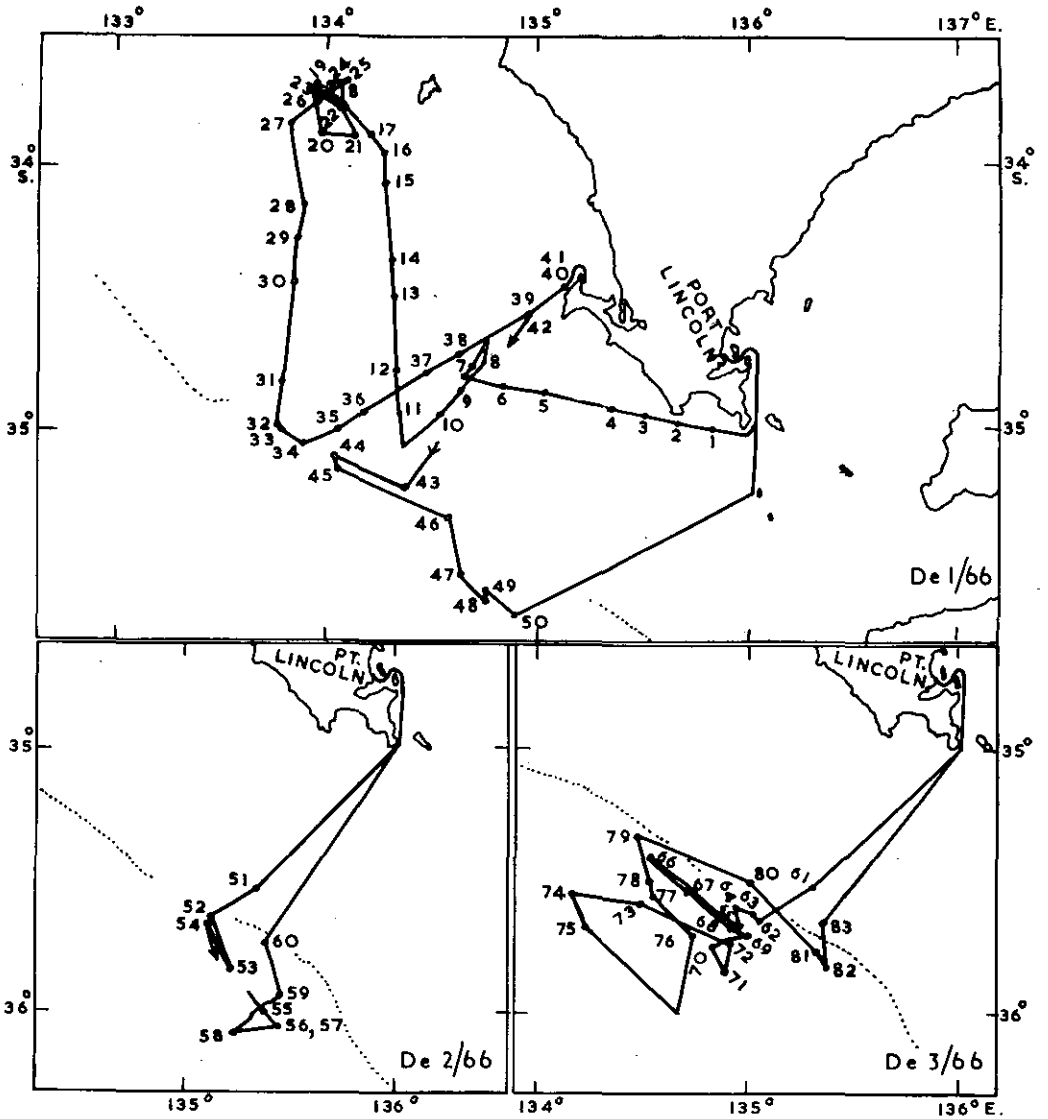


Fig. 1.- Track chart Cruises De 1/66, De 2/66 & De 3/66

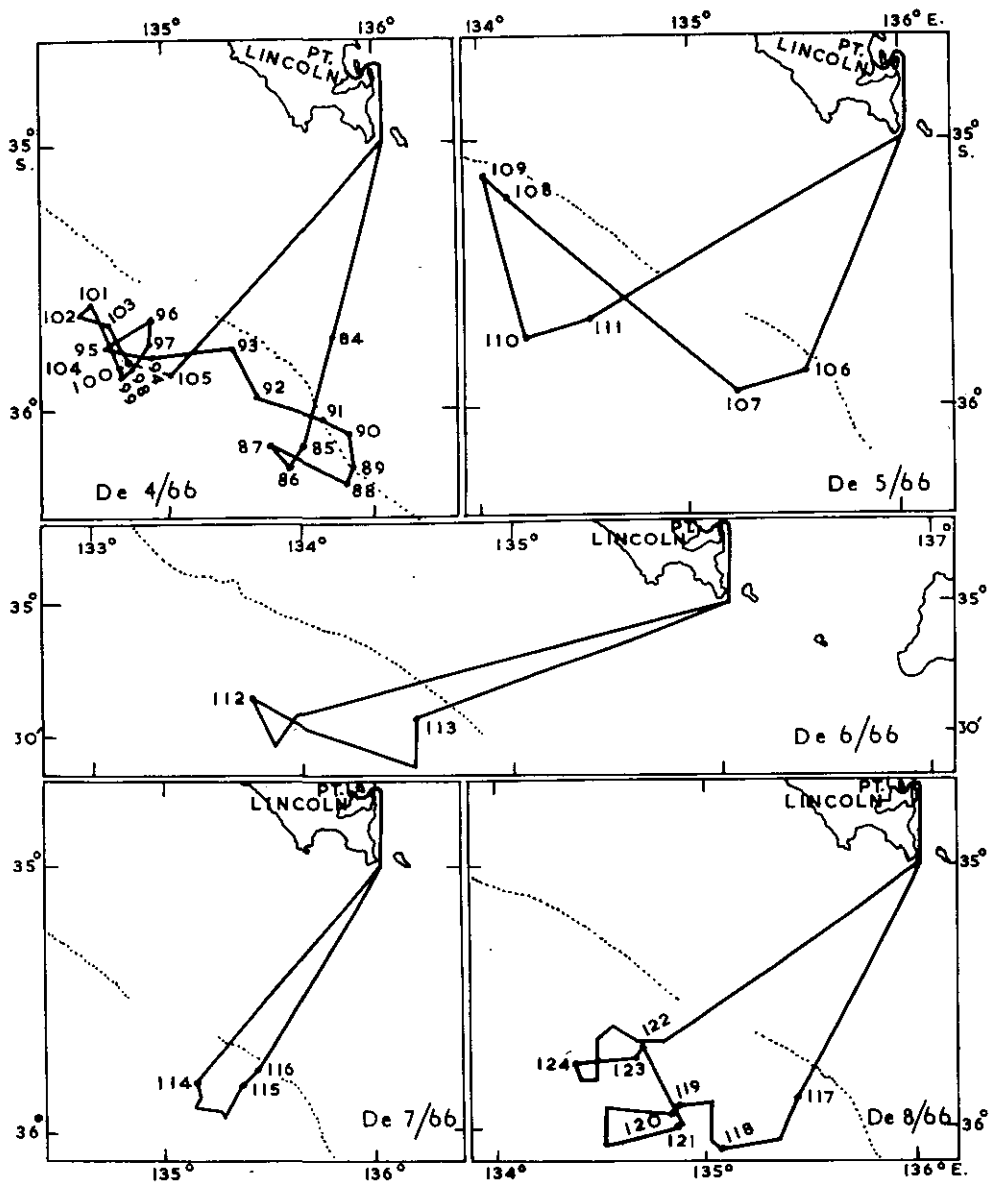


Fig.2.—Track chart Cruises De 4/66, De 5/66, De 6/66, De 7/66 & De 8/66

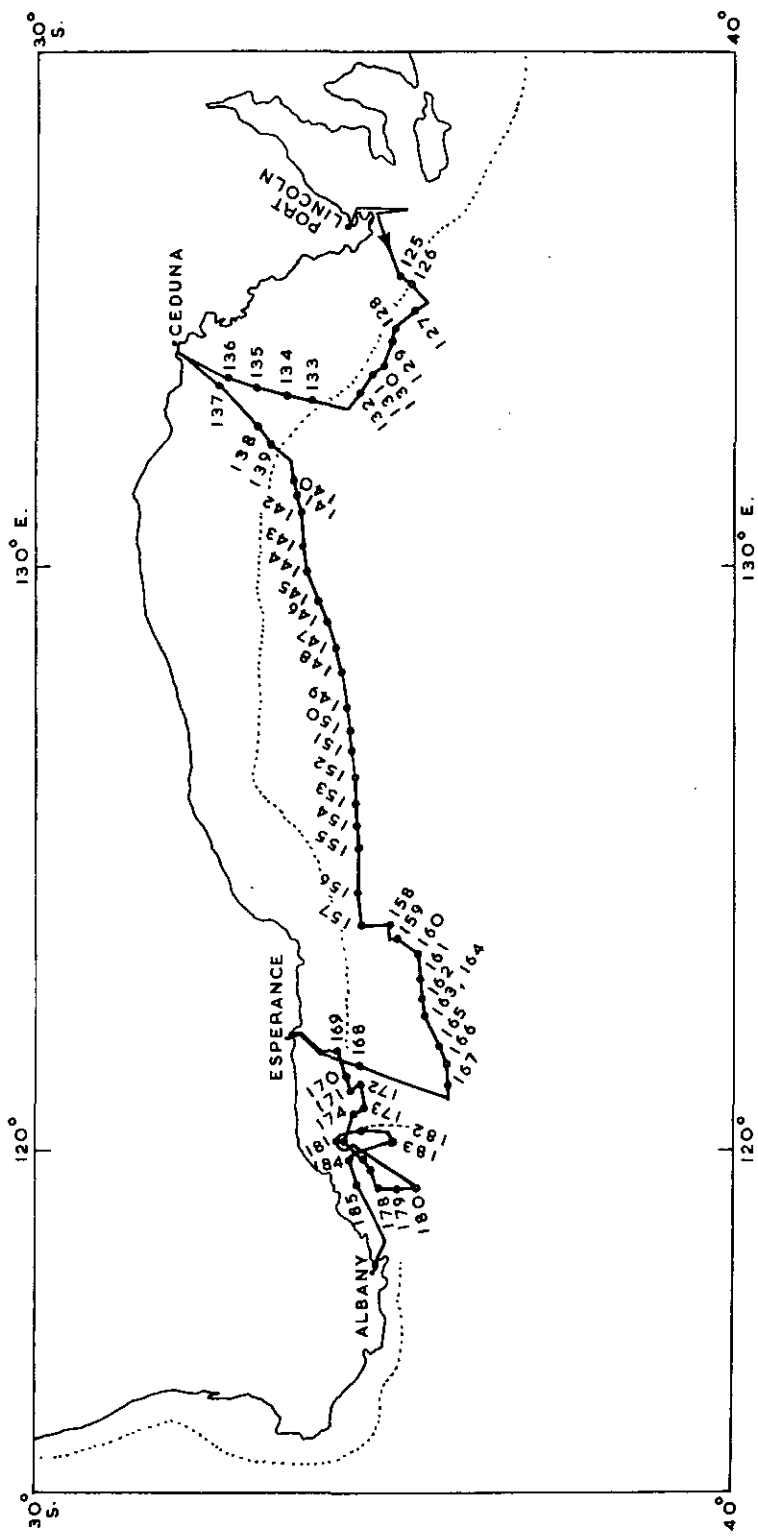


Fig. 3.-Track chart Cruise De 9/66

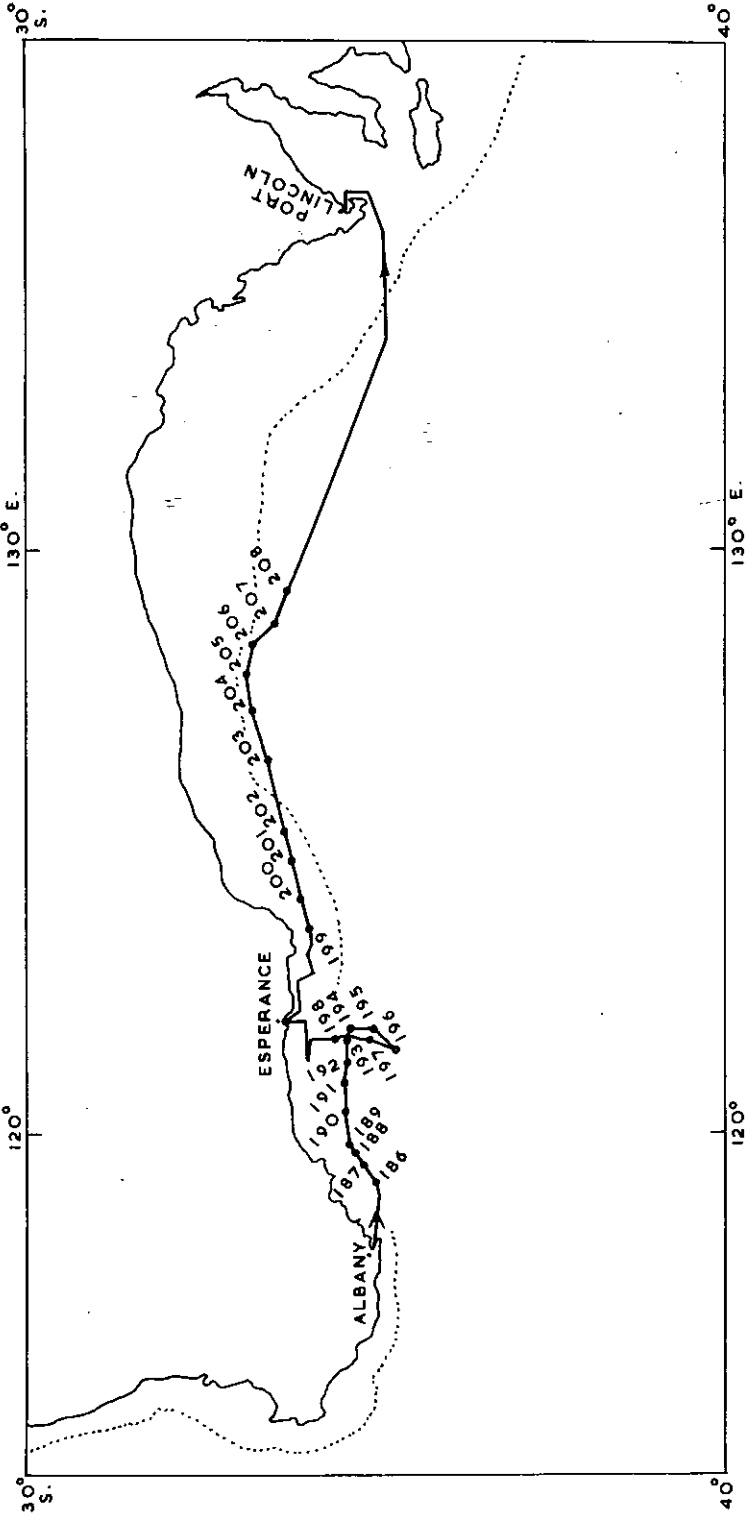


Fig. 4.-Track chart Cruise De 10/66

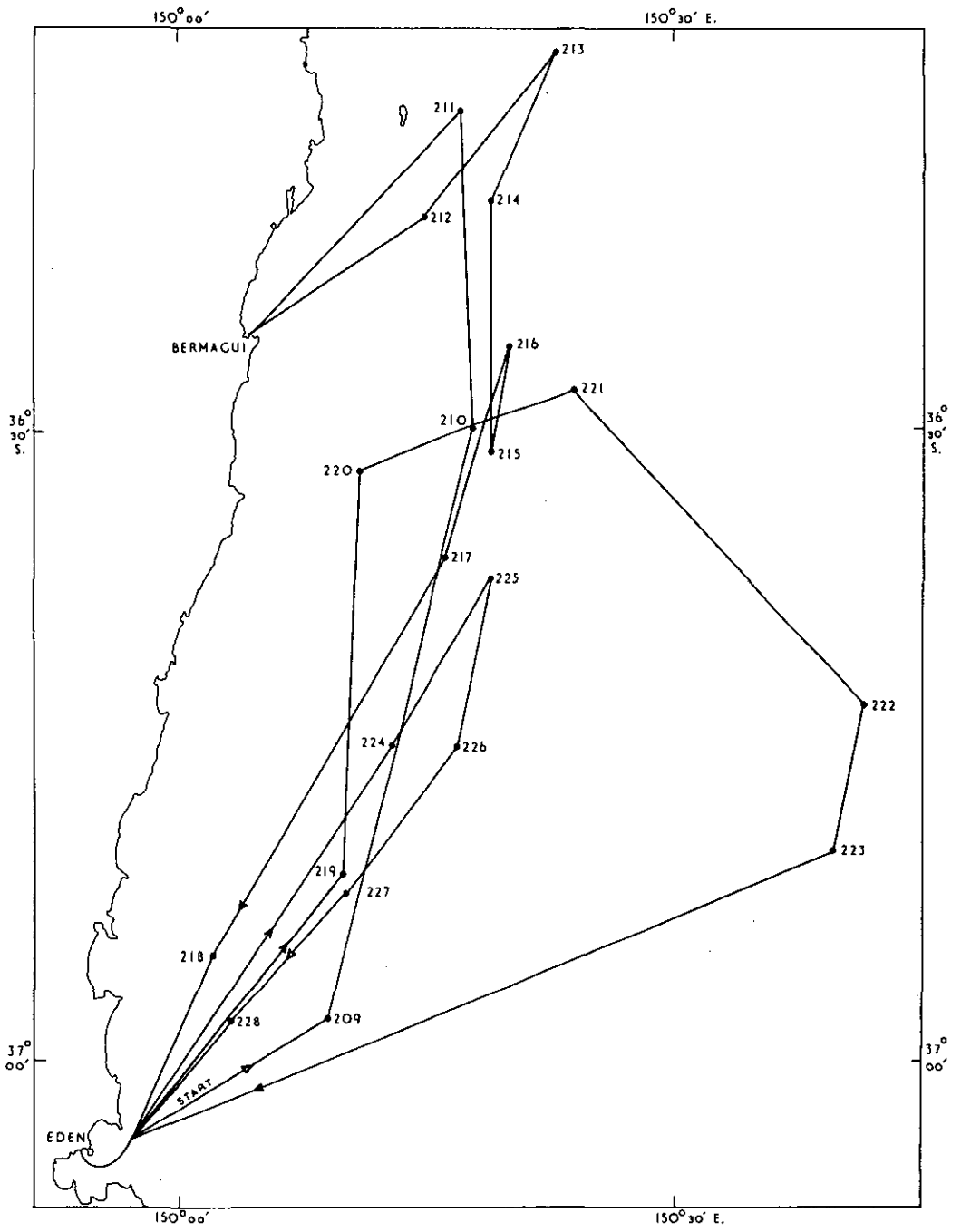


Fig. 5. - Track chart Cruise De 11/66

V. DATA

The data were processed in a C.D.C. 3600 Computer.

EXPLANATION OF HEADINGS

Parts 1 and 2Hydrology

STATION	Gives the station identification. For example, D1/14/66 signifies the 14th station worked by <u>Degei</u> in 1966, on her 1st cruise for that year
DATE	Given as day/month/year
TIME	Given in Zone Time, and is the time at the beginning of the first cast. Zone Times are given in Codes H, I, J, and K, GMT +8 hr, 9 hr, +9 $\frac{1}{2}$ hr, and +10 hr, respectively
LATITUDE LONGITUDE	Given in degrees and minutes
SONIC DEPTH	Given in metres, measured at standard sound velocity of 800 fm (1463 m) per second
AIR TEMP. WET DRY	Air temperatures recorded from wet and dry bulb thermometers in °C
WIND DIR. SP.	Wind direction and speed are coded using Tables 8 and 9 in U.S. Navy Hydrogr. Office (1955)
ANEM. HEIGHT	Average height of the anemometer above sea level, given in feet
CLOUD TYPE AMT.	Cloud type and amount are coded using Tables 2 and 3 in U.S. Navy Hydrogr. Office (1955)
VIS.	Visibility is coded using Table 4 in U.S. Navy Hydrogr. Office (1955)
SEA DIR. AMT.	Sea direction and amount are coded using Tables 5 and 8 in U.S. Navy Hydrogr. Office (1955)

SWELL DIR. AMT.	Sea swell direction and amount are coded using Tables 6 and 8 in U.S. Navy Hydrogr. Office (1955)
BAROM. or ATMOS. PRESSURE	Atmospheric pressure given in millibars
CAST	Gives the cast number
DEPTH	Sampling depth given in metres
TEMP.	Sea temperatures recorded in °C
SALINITY	Given in parts per thousand
SIGMA-T	Sigma-t to 2 decimal places

*, ***, or a blank indicates no data available

DATA
PART 1
HYDROLOGY
SURFACE SAMPLES

VESSEL	CRUISE	STATION	YR.	MTH.	DAY	TIME	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAROM.			
		NUMBER								DN, AMT.	AMT.	DN, AMT.	DN, AMT.						
T2	1	1	66	1	31	0900	J 35	00 S	135	51 E	17.6	36.06	25	4	25	3	21	2	1020.7
T2	1	2	66	1	31	1000	J 34	58 S	135	40 E	18.2	36.06	24	4	24	2	21	2	1021.0
T2	1	3	66	1	31	1100	J 34	56 S	135	31 E	18.2	36.02	25	3	24	2	21	2	1021.3
T2	1	4	66	1	31	1200	J 34	55 S	135	22 E	18.7	36.02	25	3	25	2	21	2	1021.3
T2	1	5	66	1	31	1400	J 34	52 S	135	02 E	18.6	35.93	25	3	25	2	21	2	1021.0
T2	1	6	66	1	31	1500	J 34	50 S	134	50 E	19.2	36.05	25	3	25	2	21	2	1020.7
T2	1	7	66	1	31	1700	J 34	45 S	134	42 E	18.8	35.71	99	1	99	1	21	2	1020.7
T2	1	8	66	2	1	0700	J 34	44 S	134	45 E	18.6	36.06	22	1	22	1	21	2	1020.7
T2	1	9	66	2	1	0800	J 34	50 S	134	36 E	18.8	35.95	22	1	22	1	21	2	1020.7
T2	1	10	66	2	1	0900	J 34	56 S	134	31 E	18.6	35.68	27	2	27	1	21	2	1021.3
T2	1	11	66	2	1	1100	J 34	56 S	134	21 E	19.1	35.68	27	2	27	1	21	2	1021.0
T2	1	12	66	2	1	1200	J 34	46 S	134	20 E	19.2	35.68	26	3	26	1	21	2	1021.3
T2	1	13	66	2	1	1400	J 34	30 S	134	19 E	19.0	35.84	26	3	26	1	21	2	1020.0
T2	1	14	66	2	1	1500	J 34	21 S	134	18 E	18.8	35.95	26	3	26	1	21	2	1020.7
T2	1	15	66	2	1	1700	J 34	04 S	134	16 E	18.4	35.75	19	2	19	1	21	2	1020.0
T2	1	16	66	2	1	0700	J 33	57 S	134	16 E	18.4	35.75	10	2	10	1	19	1	1017.9
T2	1	17	66	2	2	0900	J 33	53 S	134	12 E	18.5	35.73	04	3	04	1	19	1	1018.3
T2	1	18	66	2	2	1200	J 33	45 S	133	02 E	19.3	35.77	09	3	09	1	19	1	1017.6
T2	1	19	66	2	2	1500	J 33	42 S	133	57 E	19.2	35.75	14	3	14	1	19	1	1015.6
T2	1	20	66	2	2	1700	J 33	53 S	133	58 E	19.1	35.79	15	4	15	1	19	1	1014.9
T2	1	21	66	2	2	1800	J 33	54 S	134	08 E	19.1	35.79	17	4	17	1	19	1	1014.6
T2	1	22	66	2	2	0600	J 33	46 S	133	03 E	18.5	35.73	18	3	18	1	19	1	1013.5
T2	1	23	66	2	3	0800	J 33	43 S	133	59 E	18.4	35.73	18	3	18	1	19	1	1014.6
T2	1	24	66	2	3	0900	J 33	41 S	134	00 E	18.7	35.64	16	3	16	1	19	1	1014.6
T2	1	25	66	2	3	1100	J 33	41 S	134	00 E	18.7	35.79	16	3	16	1	19	1	1014.9
T2	1	26	66	2	3	1200	J 33	41 S	133	58 E	18.9	35.86	18	3	18	1	19	1	1014.9
T2	1	27	66	2	3	1400	J 33	50 S	133	50 E	18.9	35.79	18	3	18	1	19	1	1014.6
T2	1	28	66	2	3	1600	J 34	09 S	133	54 E	19.2	35.93	18	3	18	1	19	1	1013.9
T2	1	29	66	2	3	1700	J 34	17 S	133	53 E	19.4	35.86	18	3	18	1	19	1	1013.9
T2	1	30	66	2	3	1800	J 34	26 S	133	51 E	19.3	35.77	20	3	20	1	19	1	1013.9
T2	1	31	66	2	3	0001	J 34	49 S	133	48 E	19.3	35.70	20	3	20	1	19	1	1014.9
T2	1	32	66	2	4	0700	J 34	59 S	133	47 E	18.9	35.59	18	3	18	1	19	1	1015.6
T2	1	33	66	2	4	0910	J 35	00 S	133	47 E	18.9	35.59	19	3	19	1	19	1	1016.6
T2	1	34	66	2	4	1100	J 35	03 S	134	54 E	19.3	35.70	17	4	17	1	19	1	1016.6
T2	1	35	66	2	4	1200	J 34	56 S	134	11 E	19.0	35.71	16	4	16	1	19	1	1016.9
T2	1	36	66	2	4	1400	J 34	47 S	134	09 E	18.8	35.70	16	4	16	1	19	1	1016.6
T2	1	37	66	2	4	1500	J 34	43 S	134	29 E	18.8	35.86	16	4	16	1	19	1	1016.6
T2	1	38	66	2	5	1100	J 34	33 S	134	59 E	18.9	35.52	14	4	14	1	19	1	1016.3
T2	1	39	66	2	5	1200	J 34	27 S	135	07 E	16.1	35.53	14	3	14	1	18	1	1020.3
T2	1	40	66	2	5	1200	J 34	27 S	135	07 E	16.1	35.53	14	3	14	1	18	1	1019.6

VESSEL	CRUISE NUMBER	STATION NUMBER	YR.	MTM.	DAY	TIME	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN. AMT.	SEA DN. AMT.	SWELL UN. AMT.	WEA.	VIS.	BAROM.	
T2	1	41	66	2	5	1600	J 34	27 S 135	07 E 16.0	35.53	16	4	16	2	18	1	1017.6
T2	1	42	66	2	5	1700	J 34	23 S 134	58 E 15.5	35.52	14	3	14	2	18	2	1017.6
T2	1	43	66	2	7	0900	J 35	13 S 134	23 E 18.6	35.70	09	3	09	2	19	1	1015.9
T2	1	44	66	2	7	1330	J 35	06 S 134	02 E 19.6	35.71	09	1	09	1	14	1	1014.6
T2	1	45	66	2	7	1800	J 35	09 S 134	03 E 19.6	35.61	11	2	11	1	14	1	1013.9
T2	1	46	66	2	8	0001	J 35	20 S 134	55 E 19.1	35.66	18	1	18	1	19	1	1011.5
T2	1	47	66	2	8	0300	J 35	32 S 134	38 E 18.9	35.70	04	1	09	1	19	1	1011.5
T2	1	48	66	2	8	0615	J 35	38 S 134	46 E 18.7	35.66	09	1	09	1	19	1	1012.2
T2	1	49	66	2	8	1115	J 35	36 S 134	46 E 18.7	35.66	14	1	09	1	19	1	1011.5
T2	1	50	66	2	8	2215	J 35	42 S 134	54 E 19.3	35.66	14	1	09	1	19	1	1011.2
T2	2	51	66	2	12	0600	J 35	32 S 135	21 E 18.8	35.70	14	2	14	1	19	1	1011.5
T2	2	52	66	2	12	1130	J 35	40 S 135	07 E 18.7	35.41	10	2	10	1	19	1	1011.2
T2	2	53	66	2	12	1500	J 35	50 S 135	13 E 19.1	35.68	10	2	10	1	19	1	1009.5
T2	2	54	66	2	12	1930	J 35	43 S 135	07 E 18.6	35.37	09	3	09	1	19	1	1008.5
T2	2	55	66	2	13	0700	J 36	00 S 135	23 E 18.5	35.55	09	2	09	1	19	1	1003.4
T2	2	56	66	2	13	0900	J 36	03 S 135	27 E 18.7	35.52	09	2	09	1	19	1	1003.0
T2	2	57	66	2	13	0940	J 36	03 S 135	27 E 18.7	35.46	04	2	09	1	19	1	1002.4
T2	2	58	66	2	13	1225	J 36	05 S 135	13 E 18.5	35.44	09	2	09	1	19	1	1000.3
T2	2	59	66	2	13	1500	J 35	56 S 135	28 E 19.0	35.66	09	1	09	1	19	1	998.6
T2	2	60	66	2	13	1900	J 35	44 S 135	19 E 19.0	35.59	09	1	09	1	19	1	997.6
T2	3	61	66	2	17	0600	J 35	31 S 135	19 E 19.1	35.71	14	2	14	1	19	1	1017.9
T2	3	62	66	2	17	0900	J 35	38 S 135	03 E 19.4	35.64	14	2	14	1	22	3	1017.9
T2	3	63	66	2	17	1000	J 35	37 S 135	01 E 19.4	35.64	17	3	17	2	22	3	1020.3
T2	3	64	66	2	17	1750	J 35	35 S 134	56 E 19.5	35.64	17	4	17	2	22	3	1019.6
T2	3	65	66	2	17	1940	J 35	40 S 134	58 E 19.4	35.61	17	4	17	3	22	1	1019.6
T2	3	66	66	2	18	0640	J 35	24 S 134	32 E 19.1	35.61	14	4	14	3	22	1	1021.3
T2	3	67	66	2	18	0900	J 35	32 S 134	44 E 19.4	35.62	15	4	15	3	22	1	1021.3
T2	3	68	66	2	18	1048	J 35	40 S 134	56 E 19.3	35.62	15	4	15	3	22	1	1021.3
T2	3	69	66	2	19	1200	J 35	42 S 135	00 E 19.6	35.64	14	5	14	3	22	1	1019.6
T2	3	70	66	2	19	1500	J 35	44 S 134	50 E 19.6	35.64	14	5	14	3	22	1	1019.6
T2	3	71	66	2	19	1030	J 35	50 S 134	54 E 19.3	35.64	14	5	14	3	22	1	1019.6
T2	3	72	66	2	19	1200	J 35	41 S 134	55 E 19.3	35.62	14	4	14	3	22	1	1015.6
T2	3	73	66	2	19	1615	J 35	35 S 134	30 E 19.3	35.62	09	3	09	1	12	1	1012.5
T2	3	74	66	2	19	1920	J 35	32 S 134	10 E 19.2	35.59	09	2	09	1	14	1	1012.5
T2	3	75	66	2	20	0730	J 35	40 S 134	14 E 19.1	35.62	09	1	09	1	14	1	1011.5
T2	3	76	66	2	20	1200	J 35	42 S 134	45 E 19.0	35.61	11	1	11	1	12	1	1011.5
T2	3	77	66	2	20	1500	J 35	33 S 134	33 E 20.0	35.61	09	1	09	1	14	1	1010.8
T2	3	78	66	2	20	1500	J 35	30 S 134	33 E 19.6	35.64	09	1	09	1	14	1	1010.8
T2	3	79	66	2	20	1827	J 35	19 S 134	29 E 20.1	35.70	09	1	09	1	14	1	1010.8
T2	3	80	66	2	21	0150	J 35	30 S 135	01 E 19.0	35.68	13	2	13	1	14	1	1008.1

VESSEL	CRUISE NUMBER	STATION NUMBER	YR.	MTH.	DAY	TIME	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN.	SEA DN.	SWELL DN.	WEA.	VIS.	BAROM.		
12	3	81	66	2	21	1205	J 35	46 S	135	20 E	20.1	32.81	05	1	08	1	19	1009.5
12	3	82	66	2	21	1500	J 35	43 S	135	20 E	19.9	32.68	05	1	05	1	19	1007.1
12	3	83	66	2	21	1800	J 35	21 S	135	39 E	19.6	32.70	05	1	05	1	19	1006.8
12	4	84	66	2	25	0610	J 35	43 S	135	48 E	18.8	32.66	10	2	10	1	22	1035.6
12	4	85	66	2	25	0908	J 36	07 S	135	40 E	19.1	32.66	09	1	09	1	22	1036.3
12	4	86	66	2	25	1205	J 36	12 S	135	36 E	19.2	32.50	09	1	09	1	22	1036.3
12	4	87	66	2	25	1417	J 36	07 S	135	30 E	19.2	32.46	12	1	12	1	24	1035.6
12	4	88	66	2	25	1857	J 36	16 S	135	53 E	19.1	32.52	12	3	12	1	24	1034.2
12	4	89	66	2	26	0716	J 36	12 S	135	43 E	18.8	32.46	11	1	11	1	24	1034.2
12	4	90	66	2	26	0932	J 36	05 S	135	23 E	19.4	32.71	11	3	11	1	23	1034.2
12	4	91	66	2	26	1205	J 36	02 S	135	45 E	19.3	32.61	11	3	11	1	23	1034.2
12	4	92	66	2	26	1500	J 35	56 S	135	27 E	19.1	32.43	12	2	12	1	23	1033.9
12	4	93	66	2	26	1940	J 35	46 S	135	20 E	19.4	32.66	12	3	12	1	23	1032.9
12	4	94	66	2	27	0830	J 35	48 S	134	27 E	19.3	32.79	08	2	08	1	23	1032.5
12	4	95	66	2	27	1108	J 35	46 S	134	43 E	19.6	32.68	08	2	08	1	23	1032.2
12	4	96	66	2	27	1609	J 35	40 S	134	26 E	19.9	32.68	10	1	10	1	23	1031.2
12	4	97	66	2	27	1905	J 35	45 S	134	56 E	19.7	32.66	10	1	10	1	23	1031.2
12	4	98	66	2	28	0645	J 35	50 S	134	51 E	19.3	32.62	05	3	05	1	09	1030.8
12	4	99	66	2	28	0906	J 35	52 S	134	48 E	19.4	32.62	12	2	12	1	14	1031.9
12	4	100	66	2	28	1402	J 35	50 S	134	48 E	20.0	32.62	12	2	12	1	14	1031.9
12	4	101	66	2	28	1930	J 35	36 S	134	40 E	19.8	32.59	06	2	06	1	24	1031.2
12	4	102	66	3	1	0616	J 35	38 S	134	46 E	19.2	32.52	13	3	13	1	23	1032.5
12	4	103	66	3	1	1235	J 35	41 S	134	35 E	19.6	32.61	13	3	13	1	23	1031.3
12	4	104	66	3	1	1440	J 35	47 S	134	50 E	19.8	32.75	13	4	13	1	23	1031.3
12	4	105	66	3	1	1600	J 35	51 S	135	54 E	19.8	32.53	13	4	13	1	23	1031.3
12	5	106	66	3	5	1955	J 35	52 S	135	44 E	19.8	32.75	13	3	13	1	23	1031.3
12	5	107	66	3	5	0645	J 35	57 S	135	14 E	19.8	32.77	11	3	11	1	19	1031.3
12	5	108	66	3	6	0700	J 35	13 S	134	08 E	21.4	32.86	00	0	00	1	20	1033.9
12	5	109	66	3	7	0700	J 35	08 S	134	02 E	20.3	32.86	00	0	00	1	20	1031.2
12	5	110	66	3	7	1630	J 35	44 S	134	12 E	20.0	32.86	36	2	36	1	20	1007.8
12	5	111	66	3	7	1800	J 35	44 S	134	12 E	20.0	32.86	36	2	36	1	20	1008.8
12	5	112	66	3	11	1140	J 35	34 S	134	48 E	20.3	32.73	16	5	16	1	18	1009.1
12	6	113	66	3	11	1845	J 35	22 S	135	48 E	19.3	32.62	36	5	36	1	18	1009.5
12	6	114	66	3	11	1845	J 35	26 S	134	32 E	19.5	32.55	36	4	36	1	18	1004.7
12	7	115	66	3	14	1005	J 35	49 S	135	09 E	19.3	32.61	01	3	01	1	21	1003.0
12	7	116	66	3	14	1425	J 35	50 S	135	21 E	19.3	32.71	05	2	05	1	21	1007.8
12	7	117	66	3	14	1850	J 35	47 S	135	26 E	20.0	32.64	05	2	05	1	21	997.0
12	8	118	66	3	17	0945	J 35	34 S	135	04 E	19.6	32.61	25	3	25	1	20	1019.0
12	8	119	66	3	17	1325	J 35	05 S	134	52 E	19.4	32.64	25	2	25	1	20	1019.0
12	8	120	66	3	17	1930	J 35	55 S	134	52 E	19.4	32.64	25	2	25	1	20	1018.6
12	8	121	66	3	18	0745	J 35	56 S	134	50 E	19.2	32.62	25	1	25	1	20	1016.6

VESSEL	CRUISE	STATION	YR.	MTH.	DAY	TIME	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAKOM.
		NUMBER								DN, AMT.	DN, AMT.	DN, AMT.	UN, AMT.			
T2	12	121	66	5	16	1533	J 35	59 S 134	E 19.6	35.55	1	04	1	20	1	1016.3
T2	12	122	66	5	18	2103	J 35	41 S 134	E 19.4	35.55	1	02	1	20	1	1012.2
T2	12	123	66	5	19	0725	J 35	44 S 134	E 19.2	35.55	2	05	2	20	1	1009.1
T2	12	124	66	5	19	1200	J 35	46 S 134	E 19.4	35.59	3	05	1	20	1	1007.5
T2	12	125	66	5	9	0610	J 35	17 S 135	E 17.9	35.51	3	30	1	23	1	1022.0
T2	12	126	66	5	9	0900	J 35	24 S 134	E 18.1	35.68	3	34	1	23	1	1022.4
T2	12	127	66	5	9	1200	J 35	24 S 134	E 17.1	35.66	3	34	2	23	1	1021.7
T2	12	128	66	5	9	1510	J 35	19 S 134	E 16.9	35.70	4	34	2	25	1	1019.3
T2	12	129	66	5	9	1820	J 35	11 S 133	E 18.2	35.91	4	34	2	25	1	1019.3
T2	12	130	66	5	9	2100	J 35	01 S 133	E 19.1	35.91	3	34	2	25	1	1019.0
T2	12	131	66	5	9	2400	J 34	51 S 133	E 18.6	36.06	5	34	2	25	1	1015.9
T2	12	132	66	5	10	0300	J 34	40 S 132	E 18.3	36.17	3	64	2	25	1	1022.7
T2	12	133	66	5	10	1500	J 33	59 S 132	E 18.6	35.93	6	64	2	25	1	1019.3
T2	12	134	66	5	10	1800	J 32	57 S 132	E 18.8	36.15	5	99	9	99	1	1022.0
T2	12	135	66	5	10	2100	J 32	08 S 133	E 17.9	36.02	4	99	9	99	1	1022.7
T2	12	136	66	5	11	0001	J 32	39 S 133	E 17.4	35.90	3	99	1	99	1	1023.4
T2	12	137	66	5	11	2100	J 32	56 S 133	E 17.3	35.99	2	20	1	23	1	1026.1
T2	12	138	66	5	12	0300	J 32	10 S 132	E 18.8	36.09	2	20	1	23	1	1024.4
T2	12	139	66	5	12	0600	J 32	26 S 132	E 18.7	35.97	3	36	1	23	1	1024.4
T2	12	140	66	5	12	0900	J 32	58 S 131	E 18.7	35.91	4	29	1	23	1	1025.4
T2	12	141	66	5	12	1200	J 32	43 S 131	E 18.3	35.82	3	34	2	23	1	1024.7
T2	12	142	66	5	12	1500	J 32	47 S 130	E 18.2	35.75	3	34	2	23	1	1022.0
T2	12	143	66	5	12	1807	J 32	57 S 130	E 18.3	35.84	3	34	1	23	1	1021.0
T2	12	144	66	5	12	2100	J 32	03 S 129	E 17.4	35.70	4	29	2	23	1	1021.0
T2	12	145	66	5	13	0001	J 34	03 S 129	E 17.4	35.70	4	36	1	23	1	1019.0
T2	12	146	66	5	13	0305	J 34	08 S 129	E 18.4	36.08	5	34	2	23	1	1016.9
T2	12	147	66	5	13	0600	J 34	13 S 128	E 17.7	35.64	5	29	2	40	1	1015.6
T2	12	148	66	5	13	0858	J 34	19 S 128	E 16.9	35.59	3	34	3	09	1	1015.9
T2	12	149	66	5	13	1200	J 34	25 S 127	E 17.1	35.73	5	35	3	99	1	1013.9
T2	12	150	66	5	13	1500	J 34	29 S 127	E 17.6	35.73	3	32	2	99	1	1012.5
T2	12	151	66	5	13	1800	J 34	29 S 126	E 17.1	35.57	2	99	1	99	1	1012.9
T2	12	152	66	5	13	2100	J 34	31 S 126	E 16.9	35.75	2	25	1	99	1	1013.5
T2	12	153	66	5	14	0001	J 34	33 S 125	E 17.5	35.77	1	99	1	99	1	1013.5
T2	12	154	66	5	14	0305	J 34	34 S 125	E 18.2	35.82	0	99	1	99	1	1013.2
T2	12	155	66	5	14	0605	J 34	36 S 125	E 18.3	35.71	2	99	1	99	1	1013.5
T2	12	156	66	5	14	0900	H 34	34 S 124	E 18.4	35.86	1	50	1	25	1	1014.6
T2	12	157	66	5	14	1153	H 35	41 S 123	E 18.3	35.82	4	20	1	22	1	1014.6
T2	12	158	66	5	14	1500	H 35	04 S 123	E 17.4	35.75	9	99	1	22	1	1014.2
T2	12	159	66	5	14	1800	H 35	12 S 123	E 17.5	35.68	9	99	1	22	1	1015.6
T2	12	160	66	5	15	0755	H 35	19 S 123	E 17.5	35.73	1	99	1	23	1	1014.2

VESSEL	CRUISE	STATION	YR.	MTH.	DAY	TIME	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BA
		NUMBER									DN. AMT.	DN. AMT.	DN. AMT.			
T2	9	161	66	5	15	1200	H 35	29 S 122	51 E 17.2	35.66	32	35	23	1	6	1012.9
T2	9	162	66	5	15	1500	H 35	32 S 122	23 E 17.3	35.70	99	99	23	1	6	1011.5
T2	9	163	66	5	15	1730	H 35	35 S 122	01 E 17.9		99	99	23	1	6	1010.8
T2	9	164	66	5	15	1920	H 35	35 S 121	47 E 18.0	35.81	02	02	23	1	6	1010.8
T2	9	165	66	5	16	0830	H 35	31 S 121	23 E 18.2		25	25	25	1	6	1006.4
T2	9	166	66	5	16	1200	H 35	35 S 121	35 E 17.9	35.68	27	27	25	1	6	1006.4
T2	9	167	66	5	16	1500	H 35	38 S 121	00 E 16.0	35.55	24	24	25	1	6	1006.1
T2	9	168	66	5	17	0800	H 34	38 S 121	22 E 17.9	35.55	24	24	24	1	6	1015.2
T2	9	169	66	5	19	1200	H 34	21 S 121	35 E 19.1	35.77	21	21	20	1	4	1025.4
T2	9	170	66	5	19	1500	H 34	37 S 121	12 E 17.0	35.86	21	21	20	1	6	1025.7
T2	9	171	66	5	19	1715	H 34	40 S 120	39 E 17.9	35.86	21	21	16	1	6	1026.4
T2	9	172	66	5	20	0800	H 34	42 S 121	06 E 16.9	35.75	11	11	16	1	6	1027.8
T2	9	173	66	5	20	1200	H 34	46 S 120	38 E 19.3	35.90	08	08	21	1	7	1026.4
T2	9	174	66	5	20	1500	H 34	38 S 120	25 E 19.4	35.91	04	04	21	1	7	1024.4
T2	9	175	66	5	20	1800	H 34	37 S 120	03 E 17.5	35.95	06	06	21	1	6	1024.4
T2	9	176	66	5	21	0715	H 34	44 S 119	49 E 16.0	35.86	02	02	21	1	7	1021.3
T2	9	177	66	5	21	0900	H 34	48 S 119	40 E 17.7	34	34	21	2	7	1019.3	
T2	9	179	66	5	21	1200	H 35	12 S 119	20 E 16.5	35.52	35	35	21	1	6	1018.6
T2	9	180	66	5	21	1500	H 35	12 S 119	19 E 16.5	35.86	04	04	21	1	6	1015.6
T2	9	181	66	5	21	1800	H 35	26 S 119	19 E 16.5	35.95	04	04	22	1	6	1014.9
T2	9	182	66	5	22	0600	H 34	35 S 120	05 E 18.5	35.91	30	30	22	2	7	1016.6
T2	9	183	66	5	22	0900	H 34	41 S 120	15 E 19.2	35.48	29	29	22	2	7	1015.6
T2	9	184	66	5	22	1200	H 35	07 S 120	05 E 16.0	35.81	24	24	22	1	6	1019.0
T2	9	185	66	5	22	1815	H 34	47 S 119	49 E 17.7	35.90	27	27	22	1	6	1017.3
T2	9	186	66	5	22	2130	H 34	42 S 119	25 E 18.3	35.90	24	24	24	1	7	1024.7
T2	10	187	66	5	25	0900	H 35	00 S 119	10 E 19.7	35.91	34	34	24	1	7	1026.4
T2	10	188	66	5	25	1200	H 34	50 S 119	28 E 19.8	35.93	36	36	24	1	7	1024.7
T2	10	189	66	5	25	1730	H 34	42 S 119	43 E 17.5	35.70	00	00	24	1	7	1023.4
T2	10	190	66	5	26	0900	H 34	40 S 120	19 E 19.3	35.91	33	33	99	1	7	1022.7
T2	10	191	66	5	26	1730	H 34	37 S 120	50 E 18.3	35.88	04	04	23	1	6	1022.7
T2	10	192	66	5	27	0735	H 34	45 S 120	46 E 19.5	35.90	34	34	99	1	7	1022.0
T2	10	193	66	5	27	1200	H 34	41 S 121	33 E 18.7	36	36	18	1	7	1020.7	
T2	10	194	66	5	27	1500	H 34	46 S 121	38 E 17.4	35.75	36	36	18	1	7	1019.0
T2	10	195	66	5	27	1700	H 35	00 S 121	35 E 17.8	35.81	36	36	18	1	6	1018.3
T2	10	196	66	5	28	0745	H 35	15 S 121	18 E 18.0	35.84	32	32	26	1	6	1013.2
T2	10	197	66	6	2	1200	H 34	33 S 121	34 E 18.3	35.79	34	34	26	1	6	1011.2
T2	10	198	66	6	2	0900	H 34	24 S 121	37 E 19.0	35.93	34	34	18	2	6	1015.9
T2	10	199	66	6	15	0900	H 34	03 S 123	27 E 17.1	36.24	30	30	20	2	6	1019.3
T2	10	200	66	6	15	1200	H 33	55 S 124	00 E 17.7	35.97	27	27	20	2	6	1017.9
T2	10	201	66	6	15	1500	H 33	48 S 124	39 E 17.7	36.02	27	27	20	2	6	1018.3

VESSEL	CRUISE	STATION	YR.	MTH.	DAY	TIME	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAROM.			
		NUMBER								DN. AMT.	DN. AMT.	DN. AMT.	DN. AMT.						
T2	10	202	66	6	15	1800	H 33	42 S	125	14 E	17.6	35.97	22	2	22	1	20	6	1019.0
T2	10	203	66	6	16	0001	H 33	28 S	126	19 E	17.7	35.93	99	1	99	1	20	6	1019.0
T2	10	204	66	6	16	0600	H 33	13 S	127	25 E	17.4	35.90	35	3	35	1	20	6	1018.6
T2	10	205	66	6	16	0900	I 33	18 S	127	25 E	17.2	35.88	35	4	35	2	20	6	1019.0
T2	10	206	66	6	16	1200	I 33	13 S	128	21 E	17.5	35.88	35	3	35	2	20	6	1016.3
T2	10	207	66	6	16	1500	I 33	28 S	128	46 E	17.0	35.79	36	4	36	3	20	6	1014.2
T2	10	208	66	6	16	1800	I 33	38 S	129	18 E	16.5	35.64	36	4	36	3	20	6	1014.2
T2	11	209	66	11	25	1000	K 36	58 S	150	09 E	18.2	35.50	14	1	14	1	14	7	1012.9
T2	11	210	66	11	25	1300	K 36	30 S	150	18 E	20.0	35.46	05	2	05	2	09	6	1012.9
T2	11	211	66	11	25	1600	K 36	15 S	150	17 E	20.0	35.34	05	2	05	2	09	6	1012.5
T2	11	212	66	11	27	0700	K 36	20 S	150	15 E	18.6	35.32	01	1	01	1	05	7	1006.4
T2	11	213	66	11	27	1100	K 36	12 S	150	23 E	20.1	35.35	14	3	14	2	09	6	1008.5
T2	11	214	66	11	27	1300	K 36	19 S	150	19 E	20.1	35.35	14	4	14	2	09	6	1008.1
T2	11	215	66	11	27	1500	K 36	31 S	150	19 E	20.1	35.40	14	4	14	2	14	5	1009.1
T2	11	216	66	11	27	1700	K 36	26 S	150	20 E	20.1	35.30	17	2	17	1	14	6	1006.4
T2	11	217	66	11	27	1900	K 36	36 S	150	16 E	19.5	35.35	07	1	07	1	14	6	1006.4
T2	11	218	66	11	27	2100	K 36	25 S	150	02 E	17.9	35.35	07	1	07	1	00	6	1006.4
T2	11	219	66	11	28	0600	K 36	51 S	150	10 E	18.4	35.35	32	2	32	1	36	7	1006.1
T2	11	220	66	11	28	0900	K 36	32 S	150	11 E	18.9	35.35	32	3	32	1	36	7	1006.1
T2	11	221	66	11	28	1200	K 36	28 S	150	24 E	20.4	35.37	34	3	34	1	36	7	1006.1
T2	11	222	66	11	29	1500	K 36	43 S	150	48 E	21.0	35.62	14	5	14	2	09	7	1014.6
T2	11	223	66	11	29	0830	K 36	50 S	150	40 E	20.1	35.62	34	5	34	2	36	6	1014.6
T2	11	224	66	11	30	0500	K 36	45 S	150	13 E	19.4	35.39	36	4	36	3	01	6	1006.1
T2	11	225	66	11	30	0630	K 36	37 S	150	19 E	20.1	35.48	36	5	36	3	01	6	1006.1
T2	11	226	66	11	30	0730	K 36	45 S	150	17 E	20.3	35.44	36	5	36	3	01	6	1006.4
T2	11	227	66	11	30	0830	K 36	52 S	150	10 E	19.5	35.41	36	5	36	3	01	6	1006.4
T2	11	228	66	11	30	0930	K 36	58 S	150	03 E	18.0	35.32	36	4	36	2	01	6	1005.8

DATA
PART 2
HYDROLOGY
SUBSURFACE SAMPLES

STATION	DATE	TIME	LATITUDE		LONGITUDE			
D 1/ 14/66	1/ 2/66	1500 J	34	21 S	134	18 E		
SONIC AIR TEMP.	WIND DIR, SP.	WIND ANEM. HEIGHT	CLOUD TYPE	AMT.	SEA DIR, AMT.	SWELL DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
DEPTH WET DRY	16,3 16,2 26 2	20	*	*	7 26 1 21 2	1020,0	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0 18,80	35,950	25,82	***	***	***	***	***
1	30 18,60	35,950	25,87	***	***	***	***	***
1	60 15,10	35,430	26,30	***	***	***	***	***
1	90 14,00	35,410	26,52	***	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE			
D 1/ 17/66	2/ 2/66	0900 J	33	53 S	134	12 E		
SONIC AIR TEMP.	WIND DIR, SP.	WIND ANEM. HEIGHT	CLOUD TYPE	AMT.	SEA DIR, AMT.	SWELL DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
DEPTH WET DRY	16,1 16,6 04 3	20	*	*	5 04 1 19 2	1018,3	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0 18,50	35,730	25,72	***	***	***	***	***
1	25 18,40	35,770	25,78	***	***	***	***	***
1	50 14,20	35,430	26,49	***	***	***	***	***
1	70 14,00	35,390	26,51	***	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE	
D 1/ 18/66	2/ 2/66	1200 J	33	45 S	134	02 E
SONIC AIR TEMP.	WIND DIR. SP.	WIND DIR. SP.	CLOUD TYPE AMT.	SEA DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES
DEPTH WET DRY	DIR. SP.	DIR. SP.	TYPE AMT.	DIR. AMT.	CAST1 CAST2 CAST3	CAST1 CAST2 CAST3
56 16,0 17,2	09 3	6 09 1	* * *	19 2	1017.6	* * *
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P
1 0	19,30	35,770	25,55	***	***	***
1 25	18,80	35,790	25,69	***	***	***
1 50	19,60	35,480	26,23	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE	
D 1/ 19/66	2/ 2/66	1500 J	33	42 S	133	57 E
SONIC AIR TEMP.	WIND DIR. SP.	WIND DIR. SP.	CLOUD TYPE AMT.	SEA DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES
DEPTH WET DRY	DIR. SP.	DIR. SP.	TYPE AMT.	DIR. AMT.	CAST1 CAST2 CAST3	CAST1 CAST2 CAST3
71 16,7 18,4	14 3	7 14 2	* * *	19 2	1019.6	* * *
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P
1 0	19,20	35,750	25,56	***	***	***
1 25	18,70	35,750	25,69	***	***	***
1 50	14,60	35,440	26,42	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE				
D 1/ 21/66	2/ 2/66	1800 J	33 54 S	134 08 E				
SONIC AIR TEMP.	WIND DIR, SP,	ANEM, CLOUD	VIS, SEA	SWELL	ATMOS,	WIRE ANGLES		
DEPTH WET DRY	DIR, SP,	HEIGHT TYPE AMT,	DIR, AMT,	DIR, AMT,	PRESSURE	CAST1 CAST2 CAST3		
79 16.0 18.7 17 4	20 * *	* *	7 17 2	19 2	1014.6	* * *		
CAST DEPTH	TEMP,	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG, P	TOTAL P	NITRATE
1 0	19.10	35.790	25.62	***	***	***	***	***
1 25	16.70	35.660	26.11	***	***	***	***	***
1 50	14.30	35.350	26.41	***	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE				
D 1/ 22/66	3/ 2/66	0600 J	33 46 S	134 03 E				
SONIC AIR TEMP.	WIND DIR, SP,	ANEM, CLOUD	VIS, SEA	SWELL	ATMOS,	WIRE ANGLES		
DEPTH WET DRY	DIR, SP,	HEIGHT TYPE AMT,	DIR, AMT,	DIR, AMT,	PRESSURE	CAST1 CAST2 CAST3		
87 14.9 17.5 18 3	20 * *	* *	7 18 2	19 2	1013.5	* * *		
CAST DEPTH	TEMP,	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG, P	TOTAL P	NITRATE
1 0	18.50	35.730	25.72	***	***	***	***	***
1 25	18.30	35.900	25.90	***	***	***	***	***
1 50	14.50	35.440	26.44	***	***	***	***	***
1 75	14.00	35.370	26.49	***	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE					
D 1/ 24/66	3/ 2/66	0900 J	33 41 S	134 00 E					
SONIC AIR TEMP.	WIND DIR, SP,	ANEM. HEIGHT	CLOUD TYPE AMT,	VIS, SEA DIR, AMT,	SWELL DIR, AMT,	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3		
DEPTH WET	14.8 17.0 16 3	20	* *	7 16 1 19 2	1014.9	*	* *		
CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG. P	TOTAL P	NITRATE
1	0	18.70	35.640	25.60	***	***	***	***	***
1	25	18.50	35.730	25.72	***	***	***	***	***
1	50	***	35.520	***	***	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE					
D 1/ 26/66	3/ 2/66	1200 J	33 44 S	133 58 E					
SONIC AIR TEMP.	WIND DIR, SP,	ANEM. HEIGHT	CLOUD TYPE AMT,	VIS, SEA DIR, AMT,	SWELL DIR, AMT,	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3		
DEPTH WET	15.3 18.5 18 3	20	* *	7 18 2 19 2	1014.6	*	* *		
CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG. P	TOTAL P	NITRATE
1	0	18.90	35.860	25.72	***	***	***	***	***
1	25	18.70	35.900	25.80	***	***	***	***	***
1	50	14.50	35.900	26.48	***	***	***	***	***
1	70	14.00	35.370	26.49	***	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE	
D 1/ 30/66	3/ 2/66	1800 J	34	26 S	133	51 E
SONIC AIR TEMP. WIND ANEM. CLOUD SWELL ATMOS. WIRE ANGLES						
DEPTH WET DRY DIR. SP. HEIGHT TYPE AMT.	VIS. DIR. AMT.	SEA DIR. AMT.	PRESSURE	CAST1	CAST2	CAST3
112 15.5 18.8 20 3	20 * *	7 99 2	19 2 1013.9	*	*	*
CAST DEPTH TEMP. SALINITY SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE	
1 0 19.30 35.770 25.55	***	***	***	***	***	
1 25 19.00 35.770 25.63	***	***	***	***	***	
1 50 17.30 35.640 25.95	***	***	***	***	***	
1 75 14.90 35.610 26.48	***	***	***	***	***	
1 100 14.90 35.700 26.55	***	***	***	***	***	

STATION	DATE	TIME	LATITUDE		LONGITUDE	
D 1/ 43/66	7/ 2/66	0900 J	35	13 S	134	23 E
SONIC AIR TEMP. WIND ANEM. CLOUD SWELL ATMOS. WIRE ANGLES						
DEPTH WET DRY DIR. SP. HEIGHT TYPE AMT.	VIS. DIR. AMT.	SEA DIR. AMT.	PRESSURE	CAST1	CAST2	CAST3
504 18.0 19.1 09 3	20 * *	7 09 2	99 1 1015.9	*	*	*
CAST DEPTH TEMP. SALINITY SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE	
1 0 18.60 35.700 25.68	***	***	***	***	***	
1 25 18.60 35.700 25.68	***	***	***	***	***	
1 75 15.30 35.390 26.22	***	***	***	***	***	
1 150 12.80 35.250 26.64	***	***	***	***	***	
1 265 11.60 35.250 26.88	***	***	***	***	***	

STATION	DATE	TIME	LATITUDE	LONGITUDE			
D 1/ 45/66	7/ 2/66	1800 J	35 09 S	134 03 E			
SONIC AIR TEMP.	WIND DIR, SP.	ANEM. HEIGHT	CLOUD TYPE AMT.	VIS, SEA DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
DEPTH WET DRY	11 2	20	* * *	7 11 1 14 1	1013.9	*	*
900 19.0 20.3							
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1 0	19.60	35.610	25.35	***	***	***	***
1 25	18.80	35.570	25.53	***	***	***	***
1 75	14.30	35.930	26.55	***	***	***	***
1 150	12.80	35.340	26.71	***	***	***	***
1 270	***	35.300	***	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE			
D 2/ 53/66	12/ 2/66	1500 J	35 50 S	135 13 E			
SONIC AIR TEMP.	WIND DIR, SP.	ANEM. HEIGHT	CLOUD TYPE AMT.	VIS, SEA DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
DEPTH WET DRY	10 2	20	6 7	7 10 1 19 1	1009.5	*	*
900 16.0 18.0							
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1 0	19.10	35.680	25.53	***	***	***	***
1 50	14.00	35.680	25.81	***	***	***	***
1 75	13.60	35.260	26.49	***	***	***	***
1 150	12.70	35.350	26.74	***	***	***	***
1 265	11.90	35.250	26.82	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE						
D 2/ 54/66	12/ 2/66	1930 J	35	43 S	135	07 E					
SONIC AIR TEMP.	WIND DIR, SP.	ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS. DIR, AMT.	SEA DIR, AMT.	SHELL DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
900	16.6 18.3 09 3	20	6	8	7	09 2	19 1	1008.5	*	*	*
CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN X SAT.	INORG. P	TOTAL P	NITRATE		
1	0	18.60	35.370	25.42	***	***	***	***	***		
1	25	18.50	35.440	25.50	***	***	***	***	***		
1	75	13.50	35.280	26.33	***	***	***	***	***		
1	150	12.00	35.280	26.82	***	***	***	***	***		
1	260	10.60	35.030	26.89	***	***	***	***	***		

STATION	DATE	TIME	LATITUDE		LONGITUDE						
D 2/ 57/66	13/ 2/66	0940 J	36	03 S	135	27 E					
SONIC AIR TEMP.	WIND DIR, SP.	ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS. DIR, AMT.	SEA DIR, AMT.	SHELL DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	CAST2	CAST3
900	17.4 19.1 04 2	20	6	8	7	99 1	19 1	1002.4	*	*	*
CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN X SAT.	INORG. P	TOTAL P	NITRATE		
1	0	18.70	35.460	25.47	***	***	***	***	***		
1	25	18.60	35.460	25.49	***	***	***	***	***		
1	50	15.70	35.350	26.10	***	***	***	***	***		

STATION	DATE	TIME	LATITUDE	LONGITUDE	
D 2/ 58/66	13/ 2/66	1225 J	36 05 S	135 13 E	
SONIC AIR TEMP. WIND	ANEM. CLOUD	VIS. SEA	SWELL	ATMOS.	WIRE ANGLES
DEPTH WET DRY DIR. SP. HEIGHT	TYPE AMT.	DIR. AMT. DIR. AMT.	DIR. AMT.	PRESSURE	CAST1 CAST2 CAST3
900 17.7 19.4 09 2 20 6 8 7 09 1 19 1 1000.3					* * *
CAST DEPTH TEMP.	SALINITY SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1 0 18.80	35.440 25.43	***	***	***	***
1 25 18.80	35.520 25.49	***	***	***	***
1 75 13.70	35.300 26.50	***	***	***	***
1 150 12.30	35.230 26.73	***	***	***	***
1 265 10.30	34.990 26.91	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE	
D 2/ 60/66	13/ 2/66	1900 J	35 44 S	135 23 E	
SONIC AIR TEMP. WIND	ANEM. CLOUD	VIS. SEA	SWELL	ATMOS.	WIRE ANGLES
DEPTH WET DRY DIR. SP. HEIGHT	TYPE AMT.	DIR. AMT. DIR. AMT.	DIR. AMT.	PRESSURE	CAST1 CAST2 CAST3
900 18.4 19.2 99 1 20 6 3 7 99 1 19 1 997.6					* * *
CAST DEPTH TEMP.	SALINITY SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1 0 19.00	35.990 25.49	***	***	***	***
1 25 18.80	35.680 25.61	***	***	***	***
1 75 14.20	35.320 26.41	***	***	***	***
1 150 12.50	35.280 26.73	***	***	***	***
1 270 11.60	35.230 26.86	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE		
D 3/ 61/66	17/ 2/66	0600 J	35	31 S	135	19 E	
SONIC AIR TEMP.	WIND DIR. SP.	ANEM. HEIGHT	CLOUD TYPE	SEA DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
139 15.0 17.7 14 2	20 4 2	7 14 1	22 3	1017.9	*	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1 0	19.10	35.710	25.56	***	***	***	***
1 25	19.10	35.790	25.62	***	***	***	***
1 50	18.50	35.730	25.72	***	***	***	***
1 100	13.60	35.370	26.57	***	***	***	***
1 130	13.10	35.340	26.65	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE		
D 3/ 64/66	17/ 2/66	1750 J	35	35 S	134	56 E	
SONIC AIR TEMP.	WIND DIR. SP.	ANEM. HEIGHT	CLOUD TYPE	SEA DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
900 15.8 18.7 17 3	20 4 1	7 17 2	22 3	1020.3	*	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1 0	19.50	35.640	25.40	***	***	***	***
1 25	19.30	35.610	25.43	***	***	***	***
1 75	14.60	35.250	26.27	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE				
D 3/ 65/66	17/ 2/66	1940 J	35	40 S	134	58 E			
SONIC AIR TEMP.	WIND DIR, SP.	WIND ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS, DIR, AMT.	SEA DIR, AMT.	SWELL DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
900 15.6 18.2	17 4	20 *	*	*	7 17 2	22 3	*	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN X SAT.	INORG. P	TOTAL P	NITRATE	
1 0	19.40	35.610	25.40	***	***	***	***	***	
1 75	14.80	35.260	26.23	***	***	***	***	***	
1 150	12.70	35.260	26.67	***	***	***	***	***	

STATION	DATE	TIME	LATITUDE		LONGITUDE				
D 3/ 68/66	18/ 2/66	1048 J	35	40 S	134	56 E			
SONIC AIR TEMP.	WIND DIR, SP.	WIND ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS, DIR, AMT.	SEA DIR, AMT.	SWELL DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
900 16.8 19.2	15 4	20:	4 5	7 15 3	22 1	1021.3	*	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN X SAT.	INORG. P	TOTAL P	NITRATE	
1 0	19.30	35.620	25.44	***	***	***	***	***	
1 25	19.30	35.620	25.44	***	***	***	***	***	
1 75	14.90	35.620	26.49	***	***	***	***	***	

STATION	DATE	TIME	LATITUDE	LONGITUDE									
D 3/ 73/66	19/ 2/66	1615 J	35 35 S	134 30 E									
SONIC AIR TEMP.	WIND DIR, SP.	WIND DIR, SP.	ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS.	SEA DIR. AMT.	DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	WIRE ANGLES CAST2	CAST3
900 13,8	17,5	09 3	20 *	0	*	7	09 1	12 1	1	1012.5	*	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE					
1 0	19.30	35.620	25.44	***	***	***	***	***					
1 25	19.20	35.620	25.46	***	***	***	***	***					
1 75	14.50	35.390	26.40	***	***	***	***	***					
1 150	12.80	35.260	26.65	***	***	***	***	***					
STATION	DATE	TIME	LATITUDE	LONGITUDE									
D 3/ 74/66	19/ 2/66	1920 J	35 32 S	134 10 E									
SONIC AIR TEMP.	WIND DIR, SP.	WIND DIR, SP.	ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS.	SEA DIR. AMT.	DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1	WIRE ANGLES CAST2	CAST3
900 15,0	17,6	09 2	20 *	0	*	7	09 1	14 1	1	1012.5	*	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE					
1 0	19.20	35.590	25.44	***	***	***	***	***					
1 25	19.10	35.590	25.46	***	***	***	***	***					
1 75	14.60	35.350	26.35	***	***	***	***	***					
1 150	12.60	35.230	26.67	***	***	***	***	***					

STATION	DATE	TIME	LATITUDE	LONGITUDE							
D 3/ 75/66	20/ 2/66	0730 J	35 40 S	134 14 E							
SONIC AIR TEMP.	WIND DIR. SP.	CLOUD AMT.	VIS. DIR. AMT.	SEA DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3				
DEPTH WET DRY	*** 09 1	*** 0	7 09 1	14 1	1011.5	*	*				
900	***	09 1	20	*	0	7	09 1	14 1	1011.5	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE			
1	0	35.620	25.49	***	***	***	***	***			
1	25	35.620	25.46	***	***	***	***	***			
1	75	35.390	26.36	***	***	***	***	***			
1	150	35.300	26.72	***	***	***	***	***			

STATION	DATE	TIME	LATITUDE	LONGITUDE				
D 3/ 76/66	20/ 2/66	1200 J	35 42 S	134 45 E				
SONIC AIR TEMP.	WIND DIR. SP.	CLOUD AMT.	VIS. DIR. AMT.	SEA DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3	
DEPTH WET DRY	17.8 19.7 11 1	4 1	7 11 1	12 1	1011.5	*	*	
900	17.8 19.7 11 1	4 1	7	11 1	12 1	1011.5	*	
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	35.610	25.51	***	***	***	***	***
1	25	35.610	25.51	***	***	***	***	***
1	75	35.970	26.25	***	***	***	***	***
1	150	35.300	26.60	***	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE						
D 3/ 78/66	20/ 2/66	1520 J	35	30 S	134	33 E					
SONIC AIR TEMP.	WIND DIR, SP,	WIND ANEM. HEIGHT	CLOUD TYPE	AMT,	SEA DIR, AMT,	SWELL DIR, AMT,	ATMOS. PRESSURE	WIRE ANGLES			
DEPTH WET	99 1	20	*	0	7	99 1	14 1	1010.5	*	*	
900 ***	***	99 1	20	*	0	7	99 1	14 1	1010.5	*	*
CAST DEPTH	TEMP,	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG. P	TOTAL P	NITRATE			
1 0	19.80	35.640	25.32	***	***	***	***	***			
1 25	19.00	35.640	25.53	***	***	***	***	***			
1 75	14.40	35.340	26.38	***	***	***	***	***			
1 150	12.40	35.280	26.75	***	***	***	***	***			

STATION	DATE	TIME	LATITUDE		LONGITUDE					
D 3/ 79/66	20/ 2/66	1827 J	35	19 S	134	29 E				
SONIC AIR TEMP.	WIND DIR, SP,	WIND ANEM. HEIGHT	CLOUD TYPE	AMT,	SEA DIR, AMT,	SWELL DIR, AMT,	ATMOS. PRESSURE	WIRE ANGLES		
DEPTH WET	18.5 20.1 99 1	20	4	2	7	99 1	14 1	1010.8	*	*
900	18.5 20.1 99 1	20	4	2	7	99 1	14 1	1010.8	*	*
CAST DEPTH	TEMP,	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG. P	TOTAL P	NITRATE		
1 0	20.10	35.700	25.29	***	***	***	***	***		
1 25	19.60	35.620	25.36	***	***	***	***	***		
1 75	15.30	35.340	26.19	***	***	***	***	***		
1 150	12.90	35.230	26.61	***	***	***	***	***		

STATION	DATE	TIME	LATITUDE	LONGITUDE											
D 3/ 80/66	21/ 2/66	0150 J	35 30 S	135 01 E											
SONIC AIR TEMP.	WIND DIR, SP.	WIND ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS. DIR. AMT.	SEA DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES						
DEPTH WET	19.7	17.2	13	2	20	*	*	7	13	2	99	1	1008.1	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE							
1	0	19.00	35.680	25.36	***	***	***	***							
1	45	18.70	35.680	25.64	***	***	***	***							
1	75	14.40	35.300	26.35	***	***	***	***							

STATION	DATE	TIME	LATITUDE	LONGITUDE											
D 3/ 81/66	21/ 2/66	1205 J	35 46 S	135 20 E											
SONIC AIR TEMP.	WIND DIR, SP.	WIND ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS. DIR. AMT.	SEA DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES						
DEPTH WET	18.4	20.8	05	1	20	0	2	7	08	1	19	1	1008.5	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE							
1	0	20.10	35.810	25.37	***	***	***	***							
1	25	19.40	35.660	25.44	***	***	***	***							
1	75	14.40	35.320	26.37	***	***	***	***							
1	150	12.60	35.210	26.65	***	***	***	***							

STATION D 3/ 82/66 DATE 21/ 2/66 TIME 1500 J LATITUDE 35 43 S LONGITUDE 135 23 E

SONIC AIR TEMP. WIND DIR, SP, ANEM. CLOUD VIS. SEA SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR, SP, HEIGHT TYPE AMT. DIR, AMT. DIR, AMT. PRESSURE CAST1 CAST2 CAST3

900 18.9 21.0 05 2 20 0 6 7 05 1 19 1 1007.1 * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT, INORG, P TOTAL P NITRATE

1 0 19.90 35.680 25.32 *** **

1 25 19.60 35.680 25.40 *** **

1 75 19.10 35.250 26.16 *** **

1 150 13.00 35.250 26.60 *** **

STATION D 3/ 83/66 DATE 21/ 2/66 TIME 1600 J LATITUDE 35 21 S LONGITUDE 135 39 E

SONIC AIR TEMP. WIND DIR, SP, ANEM. CLOUD VIS. SEA SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR, SP, HEIGHT TYPE AMT. DIR, AMT. DIR, AMT. PRESSURE CAST1 CAST2 CAST3

128 18.4 20.8 05 3 20 0 4 7 05 1 19 1 1006.8 * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT, INORG, P TOTAL P NITRATE

1 0 19.60 35.700 25.42 *** **

1 25 18.80 35.970 25.93 *** **

1 50 18.80 35.440 25.43 *** **

1 75 14.60 35.280 26.29 *** **

1 100 13.50 35.280 26.93 *** **

STATION	DATE	TIME	LATITUDE		LONGITUDE			
D 4/ 84/66	25/ 2/66	0610 J	35	43 S	135	48 E		
SONIC AIR TEMP.	WIND DIR, SP,	ANEM. HEIGHT	CLOUD TYPE	AMT,	VIS. SEA DIR, AMT,	SWELL DIR, AMT,	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
DEPTH WET	14,6 17,3 10 2	20	9 7	7 10 1	22 1	1015,6	* * *	
137								
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG. P	TOTAL P	NITRATE
1	0 18,80	35,660	25,59	***	***	***	***	***
1	15 18,80	35,660	25,59	***	***	***	***	***
1	40 18,80	35,660	25,59	***	***	***	***	***
1	65 17,40	35,620	25,91	***	***	***	***	***
1	120 13,10	35,320	26,64	***	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE			
D 4/ 65/66	25/ 2/66	0908 J	36	07 S	135	40 E		
SONIC AIR TEMP.	WIND DIR, SP,	ANEM. HEIGHT	CLOUD TYPE	AMT,	VIS. SEA DIR, AMT,	SWELL DIR, AMT,	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
DEPTH WET	14,2 17,9 09 1	20	9 7	7 09 1	22 1	1016,3	* * *	
421								
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG. P	TOTAL P	NITRATE
1	0 19,30	35,660	25,47	***	***	***	***	***
1	25 19,30	35,640	25,45	***	***	***	***	***
1	75 15,40	35,430	26,23	***	***	***	***	***
1	150 13,00	35,370	26,70	***	***	***	***	***

STATION DATE TIME LATITUDE LONGITUDE
 D 4/ 87/66 25/ 2/66 1417 J 36 07 S 135 30 E

SONIC AIR TEMP. WIND ANEM. CLOUD SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR. SP. HEIGHT TYPE AMT. DIR. AMT. DIR. AMT. PRESSURE CAST1 CAST2 CAST3

900 13.9 17.8 12 1 20 2 2 7 12 1 24 1 1015.6 * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE

1 0 19.20 35.460 25.34 *** *** ***

1 25 18.80 35.410 25.40 *** *** ***

1 75 14.10 35.340 26.45 *** *** ***

1 150 12.80 35.320 26.70 *** *** ***

40

STATION DATE TIME LATITUDE LONGITUDE
 D 4/ 88/66 25/ 2/66 1857 J 36 16 S 135 53 E

SONIC AIR TEMP. WIND ANEM. CLOUD SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR. SP. HEIGHT TYPE AMT. DIR. AMT. DIR. AMT. PRESSURE CAST1 CAST2 CAST3

900 14.4 17.5 12 3 20 9 3 7 12 1 24 1 1014.2 * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE

1 0 19.10 35.520 25.41 *** *** ***

1 25 18.80 35.480 25.46 *** *** ***

1 75 13.60 35.250 26.48 *** *** ***

1 150 12.50 35.250 26.70 *** *** ***

STATION DATE TIME LATITUDE LONGITUDE
 D 4/ 97/66 27/ 2/66 1905 J 35 45 S 134 56 E

SONIC AIR TEMP. WIND DIR, SP, CLOUD ANEM. HEIGHT TYPE AMT. VIS. DIR. AMT. SWELL DIR. AMT. ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR, SP, AMT. HEIGHT TYPE AMT. DIR. AMT. PRESSURE CAST1 CAST2 CAST3

900 16.3 18.1 10 1 20 4 2 7 10 1 23 1 1010.5 * * * *
 CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE
 1 0 19.70 35.660 25.36 *** ** * * * *
 1 25 19.10 35.660 25.52 *** ** * * * *
 1 75 14.40 35.350 26.39 *** ** * * * *
 1 150 12.30 35.260 26.75 *** ** * * * *

STATION DATE TIME LATITUDE LONGITUDE
 D 4/ 98/66 28/ 2/66 0645 J 35 50 S 134 51 E

SONIC AIR TEMP. WIND DIR, SP, CLOUD ANEM. HEIGHT TYPE AMT. VIS. DIR. AMT. SWELL DIR. AMT. ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR, SP, AMT. HEIGHT TYPE AMT. DIR. AMT. PRESSURE CAST1 CAST2 CAST3

900 17.2 18.5 05 3 20 * 0 7 05 1 09 1 1010.8 * * * *
 CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE
 1 0 19.30 35.620 25.44 *** ** * * * *
 1 25 19.30 35.620 25.44 *** ** * * * *
 1 75 15.30 35.300 26.15 *** ** * * * *
 1 150 13.00 35.300 26.64 *** ** * * * *

STATION	DATE	TIME	LATITUDE		LONGITUDE		
D 4/ 92/66	26/ 2/66	1500 J	35	56 S	135	27 E	
SONIC AIR TEMP.	WIND	ANEM.	CLOUD	VIS.	SEA	ATMOS.	WIRE ANGLES
DEPTH WET DRY	DIR. SP.	HEIGHT	TYPE AMT.	DIR. AMT.	DIR. AMT.	PRESSURE	CAST1 CAST2 CAST3
900	13.9 17.4	12 3	4 3	7 12 2	23 1	1012.9	* * *
CAST DEPTH	TEMP.	SALINITY	SIGMA=t	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1 0	19.10	35.430	25.34	***	***	***	***
1 25	19.00	35.430	25.37	***	***	***	***
1 75	13.70	35.160	26.39	***	***	***	***
1 150	12.30	35.190	26.70	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE		
D 4/ 93/66	26/ 2/66	1940 J	35	46 S	135	20 E	
SONIC AIR TEMP.	WIND	ANEM.	CLOUD	VIS.	SEA	ATMOS.	WIRE ANGLES
DEPTH WET DRY	DIR. SP.	HEIGHT	TYPE AMT.	DIR. AMT.	DIR. AMT.	PRESSURE	CAST1 CAST2 CAST3
900	14.9 17.6	12 3	* 9	7 12 2	23 1	1012.5	* * *
CAST DEPTH	TEMP.	SALINITY	SIGMA=t	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1 0	19.40	35.660	25.44	***	***	***	***
1 25	19.50	35.660	25.41	***	***	***	***
1 75	15.60	35.480	26.23	***	***	***	***
1 150	13.50	35.370	26.60	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE	
D 4/ 95/66	27/ 2/66	1108 J	35	46 S	134	43 E
SONIC AIR TEMP. WIND ANEM. CLOUD SWELL ATMOS. WIRE ANGLES						
DEPTH	WET DRY	DIR. SP.	DIR. SP.	DIR. AMT.	DIR. AMT.	PRESSURE CAST1 CAST2 CAST3
900	15.5 17.6	08 2	20	4 4	7 08 1	23 1 1012.2 * * *
CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE						
1	0	19.60	35.680	25.40	***	***
1	25	19.60	35.680	25.40	***	***
1	75	19.60	35.340	26.12	***	***
1	150	12.80	35.250	26.64	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE	
D 4/ 96/66	27/ 2/66	1609 J	35	40 S	134	56 E
SONIC AIR TEMP. WIND ANEM. CLOUD SWELL ATMOS. WIRE ANGLES						
DEPTH	WET DRY	DIR. SP.	DIR. SP.	DIR. AMT.	DIR. AMT.	PRESSURE CAST1 CAST2 CAST3
900	15.9 18.1	10 1	20	4 2	7 10 1	23 1 1011.2 * * *
CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE						
1	0	19.90	35.680	25.32	***	***
1	25	19.50	35.680	25.43	***	***
1	75	14.90	35.350	26.28	***	***
1	150	12.60	35.320	26.74	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE	
D 4/ 90/66	26/ 2/66	0932 J	36	05 S	135	53 E
SONIC AIR TEMP.	WIND	CLOUD	SEA	SWELL	ATMOS.	WIRE ANGLES
DEPTH WET DRY	DIR. SP.	DIR. SP.	DIR. AMT.	DIR. AMT.	PRESSURE	CAST1 CAST2 CAST3
900 13.9 17.1	11 3	4 6	7 11 2	23 1	1014.2	* * *
CASST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P
1 0	19.40	35.710	25.48	***	***	***
1 25	19.50	35.710	25.45	***	***	***
1 75	14.60	35.340	26.34	***	***	***
1 150	12.70	35.250	26.66	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE	
D 4/ 91/66	26/ 2/66	1205 J	36	02 S	135	45 E
SONIC AIR TEMP.	WIND	CLOUD	SEA	SWELL	ATMOS.	WIRE ANGLES
DEPTH WET DRY	DIR. SP.	DIR. SP.	DIR. AMT.	DIR. AMT.	PRESSURE	CAST1 CAST2 CAST3
900 14.4 17.5	11 3	4 7	7 11 2	23 1	1013.9	* * *
CASST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P
1 0	19.30	35.810	25.58	***	***	***
1 25	19.10	35.680	25.53	***	***	***
1 75	14.30	35.280	26.36	***	***	***
1 150	12.20	35.230	26.75	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE	
C 4/ 99/66	28/ 2/66	0906 J	35	52 S	134	48 E
SONIC AIR TEMP.	WIND DIR, SP,	CLOUD ANEM.	SEA DIR, AMT,	SWELL DIR, AMT,	ATMOS. PRESSURE	WIRE ANGLES
DEPTH WET DRY	DIR, SP, HEIGHT	TYPE AMT,	DIR, AMT,	DIR, AMT,	CAST1 CAST2 CAST3	
900 17.2 18.6	12 2 20 * 0	* 0	7 12 1	14 1	1011.9	* * *
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG. P
1 0	19.40	35.620	25.41	***	***	TOTAL P
1 25	19.40	35.610	25.40	***	***	NITRATE
1 75	16.30	35.430	26.03	***	***	
1 150	12.40	35.250	26.72	***	***	

STATION	DATE	TIME	LATITUDE		LONGITUDE	
C 4/ 100/66	28/ 2/66	1402 J	35	50 S	134	48 E
SONIC AIR TEMP.	WIND DIR, SP,	CLOUD ANEM.	SEA DIR, AMT,	SWELL DIR, AMT,	ATMOS. PRESSURE	WIRE ANGLES
DEPTH WET DRY	DIR, SP, HEIGHT	TYPE AMT,	DIR, AMT,	DIR, AMT,	CAST1 CAST2 CAST3	
900 18.3 19.9	12 2 20 * 0	* 0	7 12 1	99 1	1011.9	* * *
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG. P
1 0	20.00	35.610	25.25	***	***	TOTAL P
1 25	19.10	35.550	25.43	***	***	NITRATE
1 75	14.60	35.320	26.32	***	***	
1 150	12.50	35.260	26.71	***	***	

STATION	DATE	TIME	LATITUDE	LONGITUDE
D 4/ 101/66	28/ 2/66	1930 J	35 36 S	134 40 E
SONIC AIR TEMP.	WIND DIR.	SP.	WIND DIR.	ANGLE
DEPTH WET	DRY	CAST1	CAST2	CAST3
900 18.9	19.6	06 2	* 0	7 06 1 24 1 1012.5
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN
1 0	19.80	35.590	25.28	***
1 25	19.20	35.300	25.22	***
1 75	14.40	35.300	26.35	***
1 150	12.30	35.250	26.74	***
				OXYGEN % SAT.

				INORG. P

				TOTAL P

				NITRATE

SONIC AIR TEMP.	WIND DIR.	SP.	WIND DIR.	ANGLE
DEPTH WET	DRY	CAST1	CAST2	CAST3
900 18.9	19.6	06 2	* 0	7 06 1 24 1 1012.5

STATION	DATE	TIME	LATITUDE	LONGITUDE
D 4/ 102/66	1/ 3/66	0616 J	35 38 S	134 36 E
SONIC AIR TEMP.	WIND DIR.	SP.	WIND DIR.	ANGLE
DEPTH WET	DRY	CAST1	CAST2	CAST3
900 17.0	18.5	13 3	4 1	7 13 2 23 1 1016.3
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN
1 0	19.20	35.920	25.39	***
1 20	18.80	35.920	25.49	***
1 75	13.70	35.250	26.46	***
1 150	12.30	35.250	26.74	***
				OXYGEN % SAT.

				INORG. P

				TOTAL P

				NITRATE

SONIC AIR TEMP.	WIND DIR.	SP.	WIND DIR.	ANGLE
DEPTH WET	DRY	CAST1	CAST2	CAST3
900 17.0	18.5	13 3	4 1	7 13 2 23 1 1016.3

STATION	DATE	TIME	LATITUDE		LONGITUDE				
D 5/ 106/66	5/ 3/66	1955 J	35	52 S	135	34 E			
SONIC AIR TEMP.	WIND DIR. SP.	WIND DIR. SP.	ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS. SEA DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
900 18.1 20.5 11 3	20	* 0	* 11 2 20 1	1013.9	*	*	*	*	
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE	
1 0	19.80	35.750	25.40	***	***	***	***	***	
1 25	19.60	35.730	25.44	***	***	***	***	***	
1 75	15.40	35.520	26.30	***	***	***	***	***	
1 150	13.30	35.430	26.68	***	***	***	***	***	

STATION	DATE	TIME	LATITUDE		LONGITUDE				
D 5/ 107/66	6/ 3/66	0645 J	35	57 S	135	14 E			
SONIC AIR TEMP.	WIND DIR. SP.	WIND DIR. SP.	ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS. SEA DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
900 18.4 20.6 11 2	20	* 0	* 7 11 1 20 1	1011.2	*	*	*	*	
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE	
1 0	19.80	35.770	25.42	***	***	***	***	***	
1 25	19.80	35.770	25.42	***	***	***	***	***	
1 75	15.30	35.430	26.25	***	***	***	***	***	
1 150	13.20	35.370	26.66	***	***	***	***	***	

STATION	DATE	TIME	LATITUDE	LONGITUDE
C 5/ 108/66	6/ 3/66	1930 J	35 13 S	134 08 E
SONIC AIR TEMP. WIND ANEM. CLOUD	ANEM. SEA SWELL ATMOS. WIRE ANGLES	DIR. SP. DIR. AMT. DIR. AMT. DIR. AMT. PRESSURE	DIR. AMT. DIR. AMT. PRESSURE	CAST1 CAST2 CAST3
DEPTH WET DRY	DEPTH WET DRY	DEPTH WET DRY	DEPTH WET DRY	DEPTH WET DRY
900 19.9 23.1 00 0	0 20 * 0	7 00 0	00 0	1007.8 * * *
CAS T DEPTH TEMP.	SALINITY SIGMA-T	OXYGEN OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1 0 21.40	35.860 25.06	***	***	***
1 25 20.50	35.860 25.30	***	***	***
1 75 15.50	35.460 26.23	***	***	***
1 150 13.10	35.320 26.64	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE
D 5/ 109/66	7/ 3/66	0700 J	35 08 S	134 02 E
SONIC AIR TEMP. WIND ANEM. CLOUD	ANEM. SEA SWELL ATMOS. WIRE ANGLES	DIR. SP. DIR. AMT. DIR. AMT. DIR. AMT. PRESSURE	DIR. AMT. DIR. AMT. PRESSURE	CAST1 CAST2 CAST3
DEPTH WET DRY	DEPTH WET DRY	DEPTH WET DRY	DEPTH WET DRY	DEPTH WET DRY
900 19.7 21.5 36 2	20 * 0	7 36 1	20 1	1008.8 * * *
CAS T DEPTH TEMP.	SALINITY SIGMA-T	OXYGEN OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1 0 20.30	36.040 25.49	***	***	***
1 25 20.00	35.840 25.42	***	***	***
1 75 15.60	35.460 26.21	***	***	***
1 150 12.50	35.320 26.76	***	***	***

STATION DATE TIME LATITUDE LONGITUDE
 D 6/ 112/66 11/ 3/66 1140 J 35 22 S 135 48 E

SONIC AIR TEMP. WIND ANEM. CLOUD VIS. SEA SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR, SP. HEIGHT TYPE AMT. DIR. AMT. DIR. AMT. PRESSURE CAST1 CAST2 CAST3

900 19.0 20.9 36 5 20 6 8 5 36 3 99 1 1004.7 * * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE

1 0 19.70 35.620 25.33 *** *** *** **

1 25 19.70 35.620 25.33 *** *** *** **

1 75 14.70 35.340 26.32 *** *** *** **

1 150 12.90 35.260 26.63 *** *** *** **

STATION DATE TIME LATITUDE LONGITUDE
 D 8/ 120/66 18/ 3/66 0745 J 35 56 S 134 50 E

SONIC AIR TEMP. WIND ANEM. CLOUD VIS. SEA SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR, SP. HEIGHT TYPE AMT. DIR. AMT. DIR. AMT. PRESSURE CAST1 CAST2 CAST3

900 14.9 18.6 25 1 20 4 6 6 25 1 20 1 1016.6 * * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE

1 0 19.20 35.620 25.46 *** *** *** **

1 25 19.20 35.660 25.49 *** *** *** **

1 75 14.00 35.340 26.47 *** *** *** **

1 150 12.30 35.320 26.80 *** *** *** **

STATION	DATE	TIME	LATITUDE	LONGITUDE										
D 7/ 115/66	14/ 3/66	1425 J	35 50 S	135 21 E										
SONIC AIR TEMP.	WIND DIR. SP.	WIND DIR. SP.	ANEM. HEIGHT	CLOUD TYPE	VIS. DIR. AMT.	SEA DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3					
900 17.8	19.3	05	2	1	4	7	05	1	21	1	1001.7	*	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE						
1 0	19.90	35,710	25,35	***	***	***	***	***						
1 25	19.70	35,680	25,38	***	***	***	***	***						
1 75	14.70	35,390	26,36	***	***	***	***	***						
1 150	12.60	35,260	26,69	***	***	***	***	***						

STATION	DATE	TIME	LATITUDE	LONGITUDE											
D 7/ 116/66	14/ 3/66	1850 J	35 47 S	135 26 E											
SONIC AIR TEMP.	WIND DIR. SP.	WIND DIR. SP.	ANEM. HEIGHT	CLOUD TYPE	VIS. DIR. AMT.	SEA DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3						
900 18.2	20.4	05	3	2	1	2	6	05	2	21	1	997.0	*	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE							
1 0	20.00	35,840	25,42	***	***	***	***	***							
1 25	19.80	35,710	25,37	***	***	***	***	***							
1 75	14.70	35,390	26,36	***	***	***	***	***							
1 150	12.50	35,260	26,71	***	***	***	***	***							

STATION	DATE	TIME	LATITUDE		LONGITUDE				
C 8/ 117/66	17/ 3/66	0945 J	35	54 S	135	26 E			
SONIC AIR TEMP.	WIND DIR, SP.	ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS, DIR. AMT.	SEA SWELL DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3	
900 15.9 19.1	25 3	20 4 8	4 8	20 2	6 25 1	20 2	1019.0	* * *	
CST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	19.60	35.810	25.50	***	***	***	***	***
1	25	19.60	35.810	25.50	***	***	***	***	***
1	75	14.20	35.570	26.16	***	***	***	***	***
1	150	13.90	35.500	26.61	***	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE				
D 8/ 118/66	17/ 3/66	1325 J	36	05 S	135	04 E			
SONIC AIR TEMP.	WIND DIR, SP.	ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS, DIR. AMT.	SEA SWELL DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3	
900 15.9 18.1	25 2	20 4 6	4 6	20 1	6 25 1	20 1	1019.0	* * *	
CST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	19.10	35.640	25.50	***	***	***	***	***
1	25	19.00	35.620	25.51	***	***	***	***	***
1	75	14.20	35.300	26.39	***	***	***	***	***
1	150	12.60	35.300	26.72	***	***	***	***	***

STATION DATE TIME LATITUDE LONGITUDE
 D 8/ 119/66 17/ 3/66 1930 J 35 55 S 134 52 E

SONIC AIR TEMP. WIND ANEM. CLOUD SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR, SP, HEIGHT TYPE AMT, DIR, AMT, PRESSURE CAST1 CAST2 CAST3
 900 16.1 18.3 25 1 20 * * 25 1 20 1 1018.6 * * *

CAST DEPTH TEMP, SALINITY SIGMA-T OXYGEN OXYGEN % SAT, INORG. P TOTAL P NITRATE
 1 0 19.40 35.640 25.43 *** ** * * * * *
 1 25 19.20 35.590 25.44 *** ** * * * * *
 1 75 14.50 35.350 26.37 *** ** * * * * *
 1 150 12.60 35.280 26.71 *** ** * * * * *

STATION DATE TIME LATITUDE LONGITUDE
 D 7/ 114/66 14/ 3/66 1005 J 35 49 S 135 09 E

SONIC AIR TEMP. WIND ANEM. CLOUD SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR, SP, HEIGHT TYPE AMT, DIR, AMT, PRESSURE CAST1 CAST2 CAST3
 900 16.5 18.5 01 3 20 4 4 6 01 1 21 4 1007.8 * * *

CAST DEPTH TEMP, SALINITY SIGMA-T OXYGEN OXYGEN % SAT, INORG. P TOTAL P NITRATE
 1 0 19.50 35.610 25.38 *** ** * * * * *
 1 25 19.50 35.610 25.38 *** ** * * * * *
 1 75 14.60 35.320 26.32 *** ** * * * * *
 1 150 12.60 35.230 26.67 *** ** * * * * *

STATION	DATE	TIME	LATITUDE		LONGITUDE		
D 8/ 121/66	18/ 3/66	1533 J	35	59 S	134	51 E	
SONIC AIR TEMP.	WIND DIR, SP.	ANEM. HEIGHT	CLOUD TYPE	AMT.	SEA DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
900 15.6 18.7 01 1	20 4 1	6 04 1	20 1	1016.3	*	*	*
CST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN X SAT.	INORG. P	TOTAL P NITRATE
1 0	19.60	35.550	25.30	***	***	***	***
1 25	19.30	35.550	25.38	***	***	***	***
1 75	14.80	35.320	26.28	***	***	***	***
1 150	12.60	35.260	26.69	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE		
D 8/ 122/66	18/ 3/66	2103 J	35	41 S	134	42 E	
SONIC AIR TEMP.	WIND DIR, SP.	ANEM. HEIGHT	CLOUD TYPE	AMT.	SEA DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
900 16.2 18.6 02 1	20 * *	* 02 1	20 1	1012.2	*	*	*
CST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN X SAT.	INORG. P	TOTAL P NITRATE
1 0	19.40	35.550	25.36	***	***	***	***
1 25	19.20	35.550	25.41	***	***	***	***
1 75	14.50	35.280	26.31	***	***	***	***
1 150	12.40	35.280	26.75	***	***	***	***

STATION D 8/ 123/66 DATE 19/ 3/66 TIME 0725 J LATITUDE 35 44 S LONGITUDE 134 40 E

SONIC AIR TEMP. WIND ANEM. CLOUD VIS. SEA SWELL. ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR. SP. HEIGHT TYPE AMT. HEIGHT TYPE AMT. DIR. AMT. DIR. AMT. PRESSURE CAST1 CAST2 CAST3

900 16.2 18.1 05 2 20 4 6 5 05 2 20 1 1009.1 * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE

1 0 19.20 35.550 25.41 *** *** ***

1 25 19.20 35.950 25.41 *** *** ***

1 75 14.90 35.300 26.33 *** *** ***

1 150 12.40 35.250 26.72 *** *** ***

54

STATION E 8/ 124/66 DATE 19/ 3/66 TIME 1200 J LATITUDE 35 46 S LONGITUDE 134 22 E

SONIC AIR TEMP. WIND ANEM. CLOUD VIS. SEA SWELL. ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR. SP. HEIGHT TYPE AMT. HEIGHT TYPE AMT. DIR. AMT. DIR. AMT. PRESSURE CAST1 CAST2 CAST3

900 15.6 19.1 34 2 20 4 3 7 05 1 20 1 1007.5 * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE

1 0 19.40 35.590 25.39 *** *** ***

1 25 19.20 35.970 25.42 *** *** ***

1 75 14.20 35.320 26.41 *** *** ***

1 150 12.30 35.260 26.75 *** *** ***

STATION D 9/ 125/66 DATE 9/ 5/66 TIME 0610 J LATITUDE 35 17 S LONGITUDE 135 10 E

SONIC AIR TEMP. WIND ANEM. CLOUD SEA SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR, SP. HEIGHT TYPE AMT. DIR, AMT. DIR, AMT. PRESSURE CAST1 CAST2 CAST3

DEPTH	125	16.5	17.5	30	3	22	4	6	7	30	1	23	1	1022.0	*	*	*
CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE								
1	0	17.90	35.910	26.01	***	***	***	***	***								
1	25	18.00	35.910	25.99	***	***	***	***	***								
1	75	18.00	35.900	25.98	***	***	***	***	***								
1	115	18.00	35.990	26.05	***	***	***	***	***								

STATION D 9/ 126/66 DATE 9/ 5/66 TIME 0900 J LATITUDE 35 24 S LONGITUDE 134 45 E

SONIC AIR TEMP. WIND ANEM. CLOUD SEA SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR, SP. HEIGHT TYPE AMT. DIR, AMT. DIR, AMT. PRESSURE CAST1 CAST2 CAST3

DEPTH	157	15.9	17.8	34	3	22	4	3	7	34	1	23	1	1022.4	*	*	*
CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE								
1	0	18.10	35.880	25.94	***	***	***	***	***								
1	25	***	35.860	***	***	***	***	***	***								
1	50	***	35.840	***	***	***	***	***	***								
1	100	***	35.880	***	***	***	***	***	***								
1	150	***	35.710	***	***	***	***	***	***								

STATION	DATE	TIME	LATITUDE			LONGITUDE		
D 9/127/66	9/5/66	1200 J	35 24 S			134 22 E		
SONIC AIR TEMP.	WIND DIR, SP.	WIND ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS. DIR, AMT.	SEA SWELL DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CASTJ
900 15.8	17.6 34 5	22	4	2	7 34 2	23 1	1021.7	* * *
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG. P	TOTAL P	NITRATE
1 0	17.10	35.660	26.01	***	***	***	***	***
1 25	***	35.970	***	***	***	***	***	***
1 75	***	35.570	***	***	***	***	***	***
1 150	***	35.370	***	***	***	***	***	***
1 270	***	35.230	***	***	***	***	***	***

STATION	DATE	TIME	LATITUDE			LONGITUDE		
D 9/128/66	9/5/66	1510 J	35 19 S			134 05 E		
SONIC AIR TEMP.	WIND DIR, SP.	WIND ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS. DIR, AMT.	SEA SWELL DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CASTJ
900 15.9	18.1 34 4	22	5	6	7 34 2	25 1	1019.3	* * *
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG. P	TOTAL P	NITRATE
1 0	16.90	35.700	26.09	***	***	***	***	***
1 25	16.80	35.500	25.96	***	***	***	***	***
1 75	16.70	35.480	25.97	***	***	***	***	***
1 270	11.40	35.880	27.40	***	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE			
D 9/ 138/66	12/ 5/66	0300 J	33 10 S	132 20 E			
SONIC AIR TEMP.	WIND DIR, SP.	ANEM. HEIGHT	CLOUD TYPE AMT.	VIS. SEA DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
99 ***	20 2	22 * *	* * *	20 1	23 1	1024.4	* * *
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	CXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1 0	18.80	36.090	25.92	***	***	***	***
1 15	18.80	36.020	25.87	***	***	***	***
1 40	18.80	36.020	25.87	***	***	***	***
1 65	18.80	36.090	25.92	***	***	***	***
1 90	18.70	36.040	25.91	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE			
D 9/ 140/66	12/ 5/66	0900 J	33 38 S	131 37 E			
SONIC AIR TEMP.	WIND DIR, SP.	ANEM. HEIGHT	CLOUD TYPE AMT.	VIS. SEA DIR. AMT.	SWELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
454 13.4 16.9	29 4	22 * *	* * *	29 1	23 1	1025.4	* * *
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1 0	18.70	35.910	25.81	***	***	***	***
1 25	18.80	35.910	25.79	***	***	***	***
1 75	18.80	35.990	25.85	***	***	***	***
1 150	18.10	35.840	25.91	***	***	***	***
1 270	12.90	35.230	26.61	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE		
D 9/ 141/66	12/ 5/66	1200 J	33	43 S	131	13 E	
SONIC AIR TEMP.	WIND DIR, SP,	WIND DIR, SP,	CLOUD TYPE AMT.	SEA DIR, AMT.	SWELL DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
DEPTH WET DRY	13,8 17,1	34 3	4 7	34 2	23 1	1024,7	* * *
900							
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG. P	TOTAL P NITRATE
1 0	18.30	35.820	25.84	***	***	***	***
1 25	18.30	35.810	25.84	***	***	***	***
1 75	18.40	35.790	25.79	***	***	***	***
1 150	14.10	35.440	26.52	***	***	***	***
1 270	12.70	35.260	26.67	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE		
D 9/ 142/66	12/ 5/66	1500 J	33	47 S	130	49 E	
SONIC AIR TEMP.	WIND DIR, SP,	WIND DIR, SP,	CLOUD TYPE AMT.	SEA DIR, AMT.	SWELL DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
DEPTH WET DRY	14.1 17,6	34 3	4 5	34 2	23 1	1022,0	* * *
900							
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG. P	TOTAL P NITRATE
1 0	18.20	35.750	25.81	***	***	***	***
1 25	18.20	35.730	25.80	***	***	***	***
1 75	18.20	35.730	25.80	***	***	***	***
1 150	13.90	35.370	26.51	***	***	***	***
1 265	12.70	35.280	26.69	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE	
U 9/ 143/66	12/ 5/66	1807 J	33	52 S	130	17 E
SONIC AIR TEMP.	WIND DIR.	SP.	WIND DIR.	SP.	WIND DIR.	SP.
DEPTH WET	DRY	CAST1	CAST2	CAST3	WIRE ANGLES	
900 14.1 17.4	34 3	30 4 2	7 34 1	23 1	1021.0	* * *
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P
1 0	18.30	35.840	25.86	***	***	***
1 25	18.30	35.840	25.86	***	***	***
1 75	18.40	35.860	25.85	***	***	***
1 150	13.50	35.370	26.60	***	***	***
1 270	12.40	35.320	26.78	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE	
C 9/ 148/66	13/ 5/66	0858 J	34	19 S	128	09 E
SONIC AIR TEMP.	WIND DIR.	SP.	WIND DIR.	SP.	WIND DIR.	SP.
DEPTH WET	DRY	CAST1	CAST2	CAST3	WIRE ANGLES	
900 16.1 18.6	34 4	30 3 3	7 34 3	09 1	1015.9	* * *
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P
1 0	16.90	35.590	26.01	***	***	***
1 25	16.90	35.620	26.03	***	***	***
1 75	16.90	35.610	26.02	***	***	***
1 150	13.40	35.320	26.58	***	***	***
1 270	11.70	35.050	26.70	***	***	***

STATION	DATE	TIME	LATITUDE			LONGITUDE		
D 9/ 149/66	13/ 5/66	1200 J	34	25	S	127	35	E
SONIC AIR TEMP.	WIND DIR, SP,	CLOUD TYPE	AMT.	SEA DIR, AMT,	SWELL DIR, AMT,	ATMOS. PRESSURE	WIRE ANGLES	
DEPTH WET	15.8 18.9 35 5	3 6	3 6	35 3	99 1	1013.9	* * *	* * *
CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1	0	17.10	35.730	26.07	***	***	***	***
1	25	17.00	35.570	25.97	***	***	***	***
1	75	17.00	35.530	25.94	***	***	***	***
1	150	13.50	35.230	26.49	***	***	***	***
1	265	11.90	35.120	26.72	***	***	***	***

STATION	DATE	TIME	LATITUDE			LONGITUDE		
D 9/ 150/66	13/ 5/66	1500 J	34	27	S	127	11	E
SONIC AIR TEMP.	WIND DIR, SP,	CLOUD TYPE	AMT.	SEA DIR, AMT,	SWELL DIR, AMT,	ATMOS. PRESSURE	WIRE ANGLES	
DEPTH WET	16.0 18.7 32 3	3 2	3 2	32 2	99 1	1012.5	* * *	* * *
CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1	0	17.60	35.730	25.95	***	***	***	***
1	25	17.50	35.640	25.90	***	***	***	***
1	75	14.80	35.410	26.35	***	***	***	***
1	150	13.10	35.230	26.57	***	***	***	***
1	270	12.10	35.120	26.68	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE		
U 9/ 151/66	13/ 5/66	1800 J	34	29 S	126	47 E	
SONIC AIR TEMP.	WIND DIR, SP.	CLOUD	ANEM. HEIGHT	SEA DIR, AMT.	SWELL DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
DEPTH WET DRY	16.2 18.0 27 2	4 2	30	99 2	99 1	1012.9	* * *
900							
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1 0	17.10	35.570	25.95	***	***	***	***
1 25	17.10	35.610	25.98	***	***	***	***
1 75	16.50	35.500	26.03	***	***	***	***
1 150	13.70	35.340	26.53	***	***	***	***
1 270	12.10	35.080	26.65	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE		
D 9/ 155/66	14/ 5/66	0605 J	34	36 S	125	05 E	
SONIC AIR TEMP.	WIND DIR, SP.	CLOUD	ANEM. HEIGHT	SEA DIR, AMT.	SWELL DIR, AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
DEPTH WET DRY	15.9 17.6 27 1	* 9	30	99 1	99 1	1013.5	* * *
900							
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P NITRATE
1 0	18.30	35.710	25.76	***	***	***	***
1 25	18.20	35.730	25.80	***	***	***	***
1 75	17.40	35.620	25.91	***	***	***	***
1 150	14.40	35.410	26.44	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE				
D 9/ 156/66	14/ 5/66	0900 H	34	34 S	124	23 E			
SONIC AIR TEMP.	WIND	ANEM.	CLOUD	SEA	VIS.	DIR. AMT.	SWELL	ATMOS.	WIRE ANGLES
DEPTH WET DRY	DIR. SP.	HEIGHT	TYPE AMT.	DIR. AMT.	DIR. AMT.	PRESSURE	DIR. AMT.	PRESSURE	CAST1 CAST2 CAST3
900 15.1 18.2	99 1	30	* 4	7 50 1	25 1	1014.6	*	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE	
1 0	18.40	35.860	25.85	***	***	***	***	***	
1 25	18.40	36.040	25.99	***	***	***	***	***	
1 75	18.30	35.840	25.86	***	***	***	***	***	
1 150	16.00	35.620	26.24	***	***	***	***	***	
1 255	12.90	35.210	26.59	***	***	***	***	***	

STATION	DATE	TIME	LATITUDE		LONGITUDE				
D 9/ 157/66	14/ 5/66	1153 H	34	41 S	123	49 E			
SONIC AIR TEMP.	WIND	ANEM.	CLOUD	SEA	VIS.	DIR. AMT.	SWELL	ATMOS.	WIRE ANGLES
DEPTH WET DRY	DIR. SP.	HEIGHT	TYPE AMT.	DIR. AMT.	DIR. AMT.	PRESSURE	DIR. AMT.	PRESSURE	CAST1 CAST2 CAST3
900 14.5 16.4	20 4	30	9 8	4 20 1	22 1	1014.6	*	*	*
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE	
1 0	18.50	35.820	25.79	***	***	***	***	***	
1 25	18.50	35.880	25.84	***	***	***	***	***	
1 75	18.60	35.880	25.81	***	***	***	***	***	
1 150	18.30	35.860	25.87	***	***	***	***	***	
1 265	13.30	35.230	26.53	***	***	***	***	***	

STATION	DATE	TIME	LATITUDE		LONGITUDE				
D 9/ 158/66	14/ 5/66	1500 H	35	04 S	123	49 E			
SONIC AIR TEMP.	WIND DIR. SP.	WIND DIR. SP.	CLOUD	SEA DIR. AMT.	SMELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES		
DEPTH WET DRY	13,2 16,2	99 1	9 8	6 99 1	22 1	1014,2	CAS1 CAS2 CAS3		
900	13,2 16,2	99 1	9 8	6 99 1	22 1	1014,2	* * *		
CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.40	35,750	26.01	***	***	***	***	***
1	25	17.40	35,840	26.08	***	***	***	***	***
1	75	17.40	35,770	26.03	***	***	***	***	***
1	150	14.30	35,530	26.55	***	***	***	***	***
1	270	12.40	35,190	26.68	***	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE				
D 9/ 159/66	14/ 5/66	1800 H	35	12 S	123	30 E			
SONIC AIR TEMP.	WIND DIR. SP.	WIND DIR. SP.	CLOUD	SEA DIR. AMT.	SMELL DIR. AMT.	ATMOS. PRESSURE	WIRE ANGLES		
DEPTH WET DRY	13,8 16,5	99 1	9 8	6 99 1	22 1	1015,6	CAS1 CAS2 CAS3		
900	13,8 16,5	99 1	9 8	6 99 1	22 1	1015,6	* * *		
CAST	DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE
1	0	17.50	35,680	25.93	***	***	***	***	***
1	25	17.50	35,680	25.93	***	***	***	***	***
1	75	17.40	35,860	26.10	***	***	***	***	***
1	150	14.10	35,370	26.47	***	***	***	***	***
1	270	12.30	35,100	26.63	***	***	***	***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE	
D 9/ 160/66	15/ 5/66	0755 H	35	26 S	123	19 E
SONIC AIR TEMP, WIND DIR, SP, WET DRY	ANEM. HEIGHT	CLOUD TYPE	AMT.	SEA DIR, AMT,	SWELL DIR, AMT,	ATMOS. PRESSURE
DEPTH 16.1 17.6 34 2 30	4 6	7 99	1 23	1 1014.2	*	* * *
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG. P
1 0	17.50	35.730	25.97	***	***	***
1 25	17.50	35.750	25.99	***	***	***
1 75	17.60	35.790	25.99	***	***	***
1 150	14.40	35.530	26.53	***	***	***
1 265	12.80	35.230	26.63	***	***	***
					TOTAL P	NITRATE
					***	***
					***	***
					***	***
					***	***
					***	***

STATION	DATE	TIME	LATITUDE		LONGITUDE	
D 9/ 161/66	15/ 5/66	1200 H	35	29 S	122	51 E
SONIC AIR TEMP, WIND DIR, SP, WET DRY	ANEM. HEIGHT	CLOUD TYPE	AMT.	SEA DIR, AMT,	SWELL DIR, AMT,	ATMOS. PRESSURE
DEPTH 15.9 17.0 32 3 30	9 6	6 35	2 23	1 1012.9	*	* * *
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT,	INORG. P
1 0	17.20	35.660	25.99	***	***	***
1 25	17.20	35.640	25.97	***	***	***
1 75	17.30	35.700	26.00	***	***	***
1 150	14.40	35.500	26.51	***	***	***
1 270	12.70	35.230	26.65	***	***	***
					TOTAL P	NITRATE
					***	***
					***	***
					***	***
					***	***
					***	***

STATION DATE TIME LATITUDE LONGITUDE
 D 10/ 186/66 25/ 5/66 0900 H 35 00 S 119 10 E

SONIC AIR TEMP. WIND DIR, SP. ANEM. CLOUD SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR, SP. HEIGHT TYPE AMT. DIR, AMT. DIR, AMT. PRESSURE CAST1 CAST2 CAST3

900 14.4 18.8 34 5 * 1 2 7 34 1 24 1 1026.4 * * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE

1 0 19.70 35.910 25.55 *** **

1 60 19.00 35.930 25.75 *** **

1 125 16.40 35.410 25.99 *** **

1 225 12.70 35.730 27.04 *** **

STATION DATE TIME LATITUDE LONGITUDE
 D 10/ 187/66 25/ 5/66 1200 H 34 50 S 119 28 E

SONIC AIR TEMP. WIND DIR, SP. ANEM. CLOUD SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR, SP. HEIGHT TYPE AMT. DIR, AMT. DIR, AMT. PRESSURE CAST1 CAST2 CAST3

900 16.0 20.9 36 3 * 1 2 7 36 1 24 1 1024.7 * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE

1 0 19.80 35.930 25.54 *** **

1 60 17.50 35.750 25.99 *** **

1 220 13.70 35.440 26.61 *** **

STATION D 10/ 189/66 DATE 25/ 5/66 TIME 1730 H LATITUDE 34 42 S LONGITUDE 119 43 E

SONIC AIR TEMP. WIND ANEM. CLOUD VIS. SEA SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR. SP. HEIGHT TYPE AMT. DIR. AMT. DIR. AMT. PRESSURE CAST1 CAST2 CAST3

900 16.5 19.0 00 0 * * 9 * 7 00 0 24 1 1023.4 * * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE

1 0 17.50 35.700 25.95 *** *** *** ***

1 25 17.30 35.680 25.98 *** *** *** ***

1 75 16.10 35.570 26.18 *** *** *** ***

1 150 15.50 35.500 26.26 *** *** *** ***

1 270 12.40 35.230 26.71 *** *** *** ***

STATION D 10/ 190/66 DATE 26/ 5/66 TIME 0900 H LATITUDE 34 40 S LONGITUDE 120 19 E

SONIC AIR TEMP. WIND ANEM. CLOUD VIS. SEA SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR. SP. HEIGHT TYPE AMT. DIR. AMT. DIR. AMT. PRESSURE CAST1 CAST2 CAST3

900 14.2 18.3 33 3 * * 1 2 7 33 1 99 1 1024.7 * * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE

1 0 19.30 35.910 25.66 *** *** *** ***

1 20 19.70 35.820 25.74 *** *** *** ***

1 65 16.70 35.710 26.15 *** *** *** ***

1 130 15.90 35.810 26.41 *** *** *** ***

1 230 12.60 35.320 26.74 *** *** *** ***

STATION DATE TIME LATITUDE LONGITUDE
 C 10/ 191/66 26/ 5/66 1730 H 34 37 S 120 50 E

SONIC AIR TEMP. WIND CLOUD SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR, SP. HEIGHT ANEM. TYPE AMT. DIR, AMT. PRESSURE CAST1 CAST2 CAST3
 900 16.1 19.3 04 1 * 1 2 6 04 1 23 1 1022.7 * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT, INORG, P TOTAL P NITRATE
 1 0 18.30 35.880 25.89 *** *** ***
 1 70 17.40 35.820 26.06 *** *** ***
 1 260 12.30 35.710 27.10 *** *** ***

STATION DATE TIME LATITUDE LONGITUDE
 D 10/ 192/66 27/ 5/66 0735 H 34 45 S 120 46 E

SONIC AIR TEMP. WIND CLOUD SWELL ATMOS. WIRE ANGLES
 DEPTH WET DRY DIR, SP. HEIGHT ANEM. TYPE AMT. DIR, AMT. PRESSURE CAST1 CAST2 CAST3
 900 14.0 19.2 34 4 * 1 3 7 34 2 99 1 1022.0 * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT, INORG, P TOTAL P NITRATE
 1 0 19.50 35.900 25.60 *** *** ***
 1 20 19.50 35.950 25.64 *** *** ***
 1 135 16.80 35.750 26.15 *** *** ***
 1 240 12.80 35.350 26.72 *** *** ***

STATION D 10/ 193/66 DATE 27/ 5/66 TIME 1200 H LATITUDE 34 41 S LONGITUDE 121 33 E

SONIC AIR TEMP. WIND DIR, SP. ANEM. HEIGHT CLOUD TYPE AMT. VIS. SEA DIR. AMT. SWELL DIR, AMT. ATMOS. PRESSURE WIRE ANGLES
 DEPTH WET DRY DIR, SP. HEIGHT TYPE AMT. VIS. SEA DIR. AMT. SWELL DIR, AMT. PRESSURE CAST1 CAST2 CAST3

900 14,1 18,1 36 3 * 1 3 7 99 2 18 1 1020.7 * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE

1 0 18.70 *** *** *** *** *** ***

1 25 18.70 35.880 25.79 *** *** *** *** ***

1 75 18.00 35.840 25.93 *** *** *** *** ***

1 150 15.70 35.620 26.31 *** *** *** *** ***

1 270 12.40 35.260 26.73 *** *** *** *** ***

STATION D 10/ 194/66 DATE 27/ 5/66 TIME 1500 H LATITUDE 34 46 S LONGITUDE 121 38 E

SONIC AIR TEMP. WIND DIR, SP. ANEM. HEIGHT CLOUD TYPE AMT. VIS. SEA DIR. AMT. SWELL DIR, AMT. ATMOS. PRESSURE WIRE ANGLES
 DEPTH WET DRY DIR, SP. HEIGHT TYPE AMT. VIS. SEA DIR. AMT. SWELL DIR, AMT. PRESSURE CAST1 CAST2 CAST3

900 15,9 18,5 36 1 * 1 4 7 99 1 18 1 1019.0 * * *

CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE

1 0 17.40 35.750 26.01 *** *** *** *** ***

1 25 17.30 35.770 26.05 *** *** *** *** ***

1 75 17.30 35.840 26.10 *** *** *** *** ***

1 150 14.60 35.440 26.42 *** *** *** *** ***

1 270 11.80 35.120 26.74 *** *** *** *** ***

STATION D 10/ 195/66 DATE 27/ 5/66 TIME 1700 H LATITUDE 35 00 S LONGITUDE 121 35 E
 SONIC AIR TEMP. WIND DIR, SP, WET DRY 18.5 36 3 ANEM. HEIGHT 4 SALINITY 35.810 OXYGEN 25.96 SIGMA-T 25.96 VIS. SEA DIR. AMT. SWELL DIR. AMT. ATMOS. PRESSURE WIRE ANGLES
 DEPTH WET DRY 18.5 36 3 1 4 6 99 1 18 1 1018.3 * * * * * CAST1 CAST2 CAST3
 900 16.0 18.5 36 3 * 1 4 6 99 1 18 1 1018.3 * * * *

CAST DEPTH TEMP. SALINITY OXYGEN % SAT. INCRG. P TOTAL P NITRATE
 1 0 17.80 35.810 *** ** * * * * *
 1 25 17.50 35.790 *** ** * * * * *
 1 150 13.90 35.430 *** ** * * * * *
 1 270 12.00 35.280 *** ** * * * * *

STATION D 10/ 196/66 DATE 28/ 5/66 TIME 0745 H LATITUDE 35 15 S LONGITUDE 121 18 E
 SONIC AIR TEMP. WIND DIR, SP, WET DRY 17.9 32 4 ANEM. HEIGHT * SALINITY 35.840 OXYGEN 25.93 SIGMA-T 25.93 VIS. SEA DIR. AMT. SWELL DIR. AMT. ATMOS. PRESSURE WIRE ANGLES
 DEPTH WET DRY 17.9 32 4 * 2 7 6 32 1 26 1 1013.2 * * * * * CAST1 CAST2 CAST3
 900 15.7 17.9 32 4 * 2 7 6 32 1 26 1 1013.2 * * * *

CAST DEPTH TEMP. SALINITY OXYGEN % SAT. INCRG. P TOTAL P NITRATE
 1 0 18.00 35.840 *** ** * * * * *
 1 25 17.80 35.840 *** ** * * * * *
 1 70 16.90 35.660 *** ** * * * * *
 1 145 14.30 35.440 *** ** * * * * *
 1 260 11.90 35.210 *** ** * * * * *

STATION	DATE	TIME	LATITUDE	LONGITUDE				
D 10/ 197/66	28/ 5/66	1200 H	34 53 S	121 34 E				
SONIC AIR TEMP. WIND ANEM. CLOUD SWELL ATMOS. WIRE ANGLES								
DEPTH	WET DRY DIR. SP.	DIR. SP.	DIR. AMT.	DIR. AMT.	PRESSURE	CAST1	CAST2	CAST3
900	15.1 18.2 32 4	* 2 6	26 1	1011.2	*	*	*	*
CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE								
1	0	18.30	35.790	25.82	***	***	***	***
1	25	18.30	35.770	25.80	***	***	***	***
1	75	18.00	35.770	25.88	***	***	***	***
1	150	15.00	35.430	26.32	***	***	***	***
1	270	12.40	35.210	26.69	***	***	***	***

STATION	DATE	TIME	LATITUDE	LONGITUDE				
D 10/ 202/66	19/ 6/66	1800 H	33 42 S	125 14 E				
SONIC AIR TEMP. WIND ANEM. CLOUD SWELL ATMOS. WIRE ANGLES								
DEPTH	WET DRY DIR. SP.	DIR. SP.	DIR. AMT.	DIR. AMT.	PRESSURE	CAST1	CAST2	CAST3
71	13.9 15.8 72 2	* 6 22 1	20 2	1019.0	*	*	*	*
CAST DEPTH TEMP. SALINITY SIGMA-T OXYGEN OXYGEN % SAT. INORG. P TOTAL P NITRATE								
1	0	17.60	35.970	26.13	***	***	***	***
1	25	17.60	35.950	26.12	***	***	***	***
1	50	17.50	35.970	26.16	***	***	***	***

STATION	DATE	TIME	LATITUDE			LONGITUDE			
D 10/ 206/66	16/ 6/66	1200 I	33	13	S	128	21	E	
SONIC AIR TEMP.	WIND DIR, SP,	ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS, DIR, AMT,	SEA DIR, AMT,	SWELL DIR, AMT,	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
146	13.5 16.1 35 3	* 0 7	0 7		6 35 2	20 2	1016.3	* * *	
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE	
1	0 17.50	35.880	26.09	***	***	***	***	***	
1	50 17.40	35.840	26.08	***	***	***	***	***	
1	125 17.30	35.860	26.12	***	***	***	***	***	
STATION	DATE	TIME	LATITUDE			LONGITUDE			
D 10/ 208/66	16/ 6/66	1800 I	33	38	S	129	18	E	
SONIC AIR TEMP.	WIND DIR, SP,	ANEM. HEIGHT	CLOUD TYPE	AMT.	VIS, DIR, AMT,	SEA DIR, AMT,	SWELL DIR, AMT,	ATMOS. PRESSURE	WIRE ANGLES CAST1 CAST2 CAST3
900	14.0 16.6 36 4	* 0 9	* 9		6 36 3	20 2	1014.2	* * *	
CAST DEPTH	TEMP.	SALINITY	SIGMA-T	OXYGEN	OXYGEN % SAT.	INORG. P	TOTAL P	NITRATE	
1	0 16.50	35.640	26.14	***	***	***	***	***	
1	25 16.50	35.620	26.13	***	***	***	***	***	
1	75 16.50	35.620	26.13	***	***	***	***	***	
1	150 13.60	35.350	26.56	***	***	***	***	***	
1	270 11.60	35.160	26.61	***	***	***	***	***	

OCEANOGRAPHICAL STATION LISTS

1. Hydrological and planktological observations by F.R.V. *Warreen* in south-eastern Australian waters, 1938-39
2. Hydrological and planktological observations by F.R.V. *Warreen* in south-eastern Australian waters, 1940-42
3. Hydrological and planktological observations by F.R.V. *Warreen* in south-western Australian waters, 1947-50
4. Onshore hydrological investigations in eastern Australia, 1942-50
5. Estuarine hydrological investigations in eastern Australia, 1940-50. Queensland: Nerang and Coomera Rivers, Moreton Bay and Brisbane River, Logan River, Dunwich Oyster Lease; New South Wales: Richmond River, Clarence River, Macleay River, Hastings River, Manning River, Port Stephens, Tilligerry Creek, Hawkesbury River
6. Estuarine hydrological investigations in eastern Australia, 1940-50. New South Wales: Middle Harbour and Port Jackson, Georges River-Botany Bay
7. Estuarine hydrological investigations in eastern Australia, 1940-50. New South Wales: Port Hacking, Lake Illawarra, Shoalhaven River, Jervis Bay, Clyde River, Moruya River, Tuross River, Wagonga Inlet; Victoria: Port Phillip; Tasmania: Tamar River, Derwent River, Huon River, D'Entrecasteaux Channel, Pittwater, Lake Dobson (freshwater), Penna Dam (freshwater)
8. Hydrological investigations in south-western Australia, 1944-50
9. Records of twenty-four hourly hydrological observations at selected stations in eastern Australian estuarine systems, 1942-50. Queensland: Logan River; New South Wales: Richmond River, Clarence River, Macleay River, Hastings River, Manning River, Port Stephens, Hawkesbury River, Georges River, Port Hacking, Clyde River, Tuross River; Tasmania: Tamar River, Derwent River
10. Records of twenty-four hourly hydrological observations at Shell Point, Georges River, New South Wales, 1942-50
11. Analyses of bottom deposits in eastern Australia, 1946-50
12. Estuarine hydrological investigations in eastern and south-western Australia, 1951
13. Analysis of bottom deposits in eastern and south-western Australia, 1951 and records of twenty-four hourly hydrological observations at selected stations in eastern Australian estuarine systems, 1951
14. Onshore hydrological investigations in eastern and south-western Australia, 1951
15. Estuarine hydrological investigations in eastern and south-western Australia, 1952
16. Analysis of bottom deposits in eastern and south-western Australia, 1952 and records of twenty-four hourly hydrological observations at selected stations in eastern Australian estuarine systems, 1952
17. Onshore hydrological investigations in eastern and south-western Australia, 1952
18. Onshore hydrological investigations in eastern and south-western Australia, 1953
19. Onshore planktological investigations in eastern Australia, 1945-54
20. Surface sampling in the Tasman Sea, 1953
21. Estuarine hydrological investigations in eastern and south-western Australia, 1953
22. Further onshore planktological investigations in eastern Australia, 1945-54
23. Planktological investigations made by F.R.V. *Derwent Hunter* in eastern Australian waters, 1952-54
24. Onshore hydrological investigations in eastern and south-western Australia, 1954
25. Surface sampling in the Tasman Sea, 1954
26. Estuarine hydrological investigations in eastern and south-western Australia, 1954
27. Onshore and oceanic hydrological investigations in eastern and south-western Australia, 1955
28. Surface sampling in the Tasman and Coral Seas, 1955
29. Estuarine hydrological investigations in eastern and south-western Australia, 1955
30. Onshore and oceanic hydrological investigations in eastern and south-western Australia, 1956
31. Surface sampling in the Tasman and Coral Seas and the south-eastern Indian Ocean, 1956
32. Estuarine hydrological investigations in eastern and south-western Australia, 1956
33. Coastal hydrological investigations in eastern and south-western Australia, 1957
34. Coastal hydrological investigations at Port Hacking, New South Wales, 1957
35. Coastal hydrological investigations at Eden, New South Wales, 1957

OCEANOGRAPHICAL STATION LISTS

(Continued)

36. Surface sampling in the Tasman and Coral Seas, 1957
37. Hydrological investigations from F.R.V. *Derwent Hunter*, 1957
38. Coastal hydrological investigations in the New South Wales tuna fishing area, 1958
39. Surface sampling in the Coral and Tasman Seas, 1958
40. Coastal hydrological investigations in south-eastern Australia, 1958
41. Oceanic investigations in eastern Australian waters, F.R.V. *Derwent Hunter*, 1958
42. Coastal investigations at Port Hacking, New South Wales, 1958
43. Oceanic investigations in eastern Australia, H.M.A. Ships *Queenborough*, *Quickmatch*, and *Warrego*, 1958
44. Oceanic observations in Antarctic waters, M.V. *Magga Dan*, 1959
45. Coastal hydrological investigations in eastern Australia, 1959
46. Coastal hydrological investigations in the New South Wales tuna fishing area, 1959
47. Coastal investigations at Port Hacking, New South Wales, 1959
48. Oceanic investigations in eastern Australian waters, F.R.V. *Derwent Hunter*, 1959
49. Coastal hydrological sampling Rottnest Island, W.A., and Port Moresby, Papua, during the I.G.Y. (1957-58), and surface sampling in the Tasman and Coral Seas, 1959
50. Surface sampling in the Coral and Tasman Seas, 1960
51. Coastal hydrological investigations in eastern Australia, 1960
52. Coastal investigations at Port Hacking, New South Wales, 1960
53. Coastal hydrological investigations in the New South Wales tuna fishing area, 1960
54. Investigations by F.R.V. *Derwent Hunter* on the eastern Australian tuna grounds in 1961
55. Investigations by F.R.V. *Weerutta* on the South Australian tuna grounds in 1961
56. Investigations by F.R.V. *Marelda* on the eastern Australian tuna grounds in 1961
57. Investigations by F.V. *Estelle Star* in Western Australian waters in 1961
58. Temperature observations from Australian tuna fishing vessels in 1961
59. Investigations by F.R.V. *Derwent Hunter* on the eastern Australian tuna grounds in 1962
60. Investigations by F.R.V. *Investigator* on the South Australian tuna grounds in 1962
61. Investigations by F.R.V. *Marelda* on the eastern Australian tuna grounds in 1962
62. Investigations by F.V. *Estelle Star* in Western Australian waters in 1962
63. Temperature and salinity observations from Australian tuna fishing vessels in 1962
64. Investigations by F.R.V. *Investigator* on the South Australian tuna grounds in 1963
65. Investigations by F.R.V. *Marelda* on the eastern Australian tuna grounds in 1963
66. Temperature and salinity observations from Australian tuna fishing vessels in 1963
67. Investigations by F.R.V. *Investigator* on the South Australian tuna grounds in 1964
68. Investigations by F.R.V. *Marelda* on the eastern Australian tuna grounds in 1964
69. Temperature and salinity observations from Australian tuna fishing vessels in 1964
70. Investigations by F.R.V. *Investigator* on the South Australian tuna grounds in 1965
71. Investigations by F.V. *Estelle Star* in South Australian and New South Wales waters in 1965
72. Investigations by F.R.V. *Marelda* on the eastern Australian tuna grounds in 1965
73. Investigations by F.V. *Degei* in Queensland waters in 1965
74. Temperature and salinity observations from Australian tuna fishing vessels in 1965
75. Investigations by F.V. *Degei* in New South Wales, South, and Western Australian waters in 1966
76. Investigations by F.V. *Estelle Star* in South and Western Australian waters in 1966
77. Temperature and salinity observations from Australian tuna fishing vessels in 1966
78. Drift bottle releases and recoveries in Bass Strait and adjacent waters, 1958-1962
79. Drift bottle releases and recoveries in Western Australia, 1956-1957
80. Investigations by F.R.V. *Lancelin* in Western Australian waters in 1963