

INFORMAL REPORT AND INDEX OF  
NAVIGATION, DEPTH, MAGNETIC AND SUBBOTTOM PROFILER DATA \*

(Issued October 1983)

BENTHIC EXPEDITION

LEG 2

Honolulu, Hawaii (30 October 1982)  
to  
Honolulu, Hawaii (28 November 1982)

R/V Melville

Chief Scientist - K. Smith (SIO)

Resident Marine Tech - R. Wilson

Post-Cruise Processing and Report Preparation  
by S.I.O. Geological Data Center

Data Collection Funded by NSF  
Grant Number NSF-OCE80-24472  
Data Processing funded by SIA and NSF

NOTE

This is an index of underway geophysical data edited and processed after the completion of the cruise leg and is intended primarily for informal use within the institution. This document is not to be reproduced or distributed outside Scripps without prior approval of the chief scientist or the Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093.

GDC Cruise I.D.# - 204

\* Only navigation and Sample Index included in this report.

INFORMAL REPORT AND INDEX OF NAVIGATION, DEPTH, \*  
MAGNETIC AND SUBBOTTOM PROFILER DATA

Contents:

- Index Chart - gives track of cruise leg, dates, ports, and mileage of each type of data collected.
- Track Charts - annotated with dates (day/month) and hour ticks. The scale is .312 in/degree longitude.
- Profiles - depth and magnetic anomaly vs. distance. Dates (day/month) and positions of major course changes (greater than 30 degrees) are annotated. Sections of track having subbottom profiler (airgun) records have a wide black line along the bottom of the profile. Sections having Sea Beam are indicated by a narrow line.
- Sample Index - list of beginning and end times and positions of all underway records as well as all other samples (geology, biology, physical oceanography, etc.) collected on the cruise leg.

For information on the availability and reproduction costs of data in the following forms, contact S. M. Smith, Curator, Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92095. Phone (714) 452-2752.

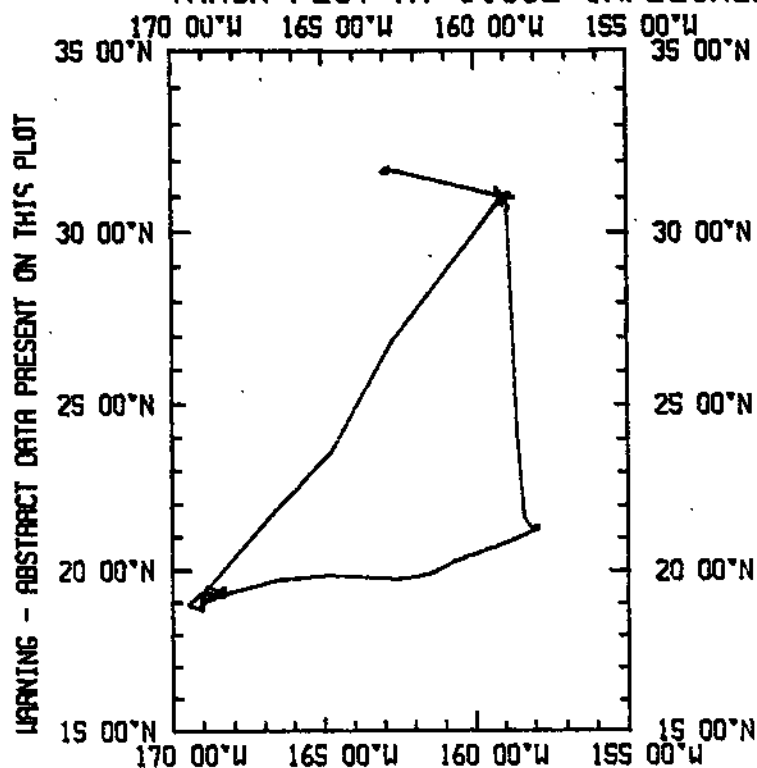
1. Navigation listing of times and positions of course and speed changes, fixes and drift velocity.
2. Depth Compilation Plots - Compilation plots at the traditional scale of 4"/degree longitude (1:1,000,000) are no longer produced for Sea Beam cruises. Custom plots may be requested of vertical beam (2 $\frac{2}{3}$  degree beam width) depths retrieved at one minute intervals of ship time.
3. Plots of magnetic anomaly profiles along track - map scale = 1.2inch/degree, anomaly scale between 15N and 15 S latitude = 500 gamma/inch, anomaly scale north of 15N and south of 15S = 1000 gamma/inch, from values retrieved at approximately 1 mile spacing and regional field removed using the 1980 IGRF.
4. Separate time series files of navigation, depth and magnetics of data merged in the MGD77 Exchange format on magnetic tape.
5. Microfilm or Xerox copies of:
  - a. Echosounder records - 12 and 3.5 kHz frequency
  - b. Subbottom profiler records (airgun)
  - c. Magnetometer records
  - d. Underway data log

Rev June 1982 (Sea Beam)

\* Only navigation and Sample Index included in this report

BNTH02MV

TRACK PLOT AT .1632 IN/DEGREE



BENTHIC EXPEDITION  
LEG 2

CHIEF SCIENTIST- K. Smith

Ports: Honolulu - Honolulu, Hawaii

Dates: 30 October - 26 November 1982

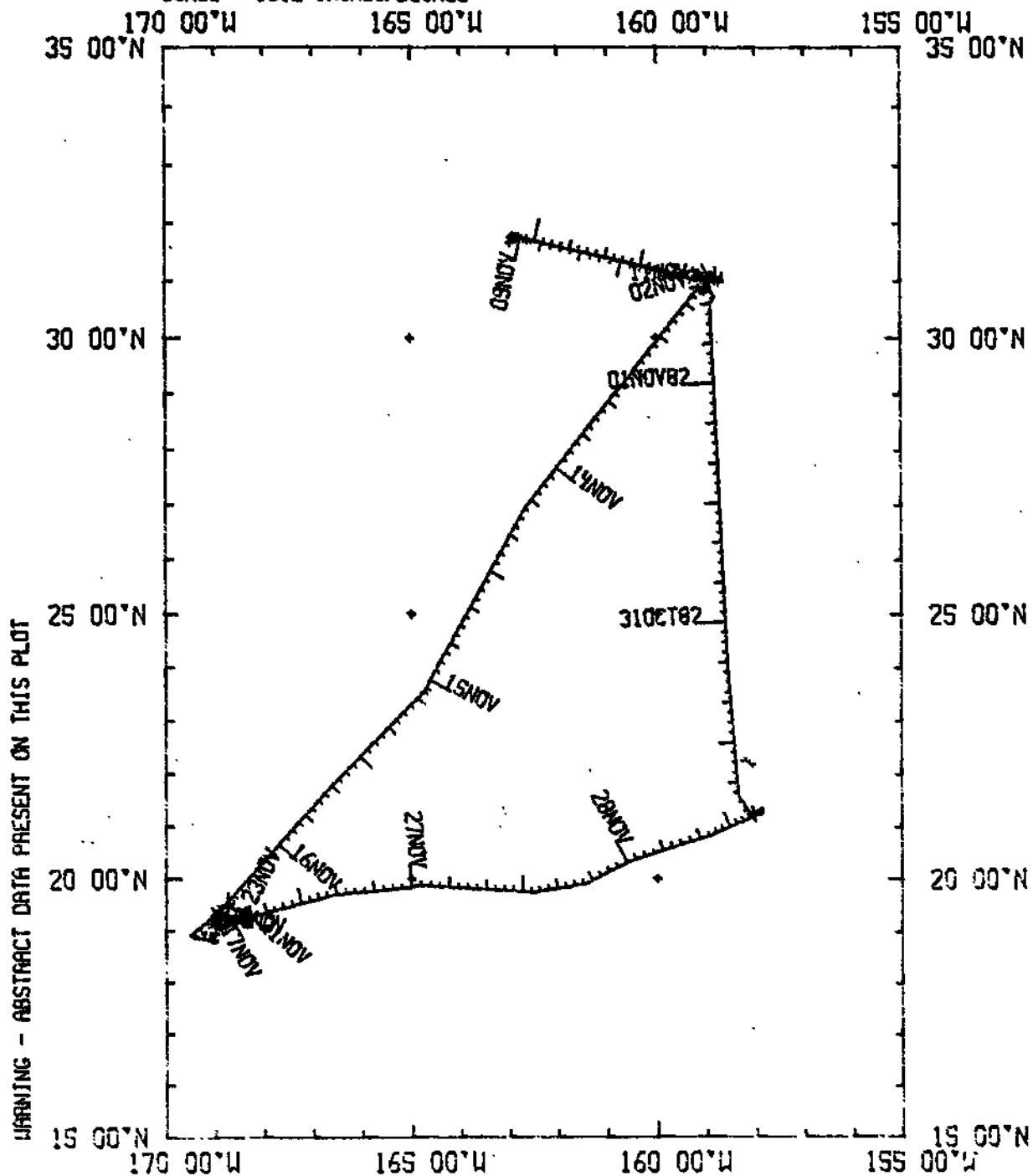
Ship: R/V Melville

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

- 1) Cruise - 3813 miles
- 2) Bathymetry - collected but not processed
- 3) Magnetism - none collected
- 4) Seismic Reflection - none collected
- 5) Gravity - none collected
- 6) Seabeam - none collected

BNTH02MV

SCALE = .312 INCHES/DEGREE



S.I.O. Sample Index  
(Issued October 1983)

BENTHIC EXPEDITION

Leg 2

Honolulu, Hawaii (30 October 1982)  
to  
Honolulu, Hawaii (28 November 1982)

R/V Melville

Chief Scientist - K. Smith

Resident Marine Tech - R. Wilson

Post-Cruise Processing and Report Preparation  
by S.I.O. Geological Data Center

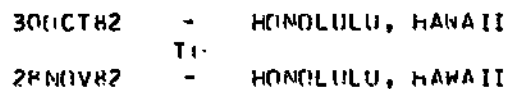
Index Encoding Funded by NSF  
Grant Number OCE80-22996  
Index Processing and Report Preparation  
funded in part by SIA

The Sample Index is a first level interdisciplinary listing of time, position, sample identification and disposition of all samples, records and measurements collected on this cruise leg. The index data are encoded at sea by the resident technician and processed on shore by the S.I.O. Geological Data Center shortly after the completion of the cruise leg.

Positions are interpolated on the basis of sample time by comparison to a single, edited navigation file. Samples beginning at one time and position and ending at another are entered on two consecutive cards. Disposition and sample type are represented by three and four character codes to permit future computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

GENERATED 29SEP83

(RNTHO2MV) \*\*\*



SHIP - R/V NELVILLE (SIG)

PRODUCED BY GEOLOGICAL DATA CENTER, SCRIPPS INSTITUTION  
OF OCEANOGRAPHY, LA JOLLA, CALIFORNIA 92093

NUMBER OF SAMPLES OF CLASS 'TYPE' GOING TO DESTINATION 'DISP'

DISP	CA	CM	CD	DP	GB	HC	PE	PH	SD	TB	TM	TR	TOTAL
GUC	1			3								1	3
MBU	1	2	2	5	4	9	4	2	5			13	46
NTG	1						1					1	1
SCG	1						1					1	1
UCS	1						2			3	7	1	12
USE	1									1		1	1
TOTAL	1	2	2	5	4	9	8	2	5	4	7	13	64

SAMPLE 'TYPE' CODES USED ABOVE

CA = CAMERA  
 CM = CURRENT MEASUREMENT  
 CD = CORE  
 DP = DEPTH  
 GB = GRAB SAMPLE  
 HC = HYDROGRAPHIC CAST  
 PE = PERSONNEL IN SCIENTIFIC PARTY  
 PH = PLANKTON  
 SD = SEDIMENT TRAP  
 TB = TUNED BOTTOM GEAR  
 TM = MIDWATER TRAWL  
 TR = TRAP

SAMPLE 'DISP' CODES USED ABOVE

GUC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 27521)  
 MBU = MARINE BIOLOGY RESEARCH DIVISION (EXT. 4245)  
 NTG = MARINE TECHNOLOGY GROUP (EXT. 4194)  
 SCG = SHIPBOARD COMPUTER GROUP (EXT. 4195)  
 UCS = UNIV. CALIF. SANTA BARBARA

29SEP83 PAGE 1

GMT D /M /Y TIME DATE	LUC LOC TIME TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT., LONG.	LEG-SHIP CRUISE
/ / 000		BENTHIC LEG /	SAMPLE INDEX	00 00.	00 00.	BNTH02MV

\*\*\* PORTS \*\*\*

0241 30/10/82	LGPT R HONOLULU, HAWAII	21 18. N 157 52. W F BNTH02MV
1110 28/11/82	LGPT R HONOLULU, HAWAII	21 18. N 157 52. W F BNTH02MV

\*\*\* PERSONNEL \*\*\*

\*\*\* NAME \*\*\*

\*\*\* TITLE \*\*\*

\*\*\* AFFILIATION \*\*\*

1 SMITH, K.	CHIEF SCIENTIST	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA	CAL. 92093
2 WILSON, R.	RESIDENT TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA	CAL. 92093
3 STUBER, D.	COMPUTER TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA	CAL. 92093
4 BALDWIN, R.	SCIENTIST	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA	CAL. 92093
5 BROWN, N.	RESEARCH ASSI.	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA	CAL. 92093
6 EDELMAN, J.	ELECTRONICS TECH.	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA	CAL. 92093
7 BAILEY, T.	SCIENTIST	UNIV. CALIF. SANTA BARBARA	
8 GRUSS, J.	STUDENT	UNIV. CALIF. SANTA BARBARA	

CODE INDICATES NO SAMPLE OR DATA RECOVERED.

A 'C' INDICATES CONTINUATION OF DATA COLLECTION FROM BEFORE THE BEGINNING OR AFTER THE END OF THIS LEG. (MIXED BOTTOM INSTRUMENTS, FOR EXAMPLE).

THE NUMBER APPEARING IN THE COLUMNS BETWEEN THE SAMPLE IDENTIFIER AND THE DISPOSITION CODE, FOR MANY SAMPLE ENTRIES, IS THE WATER DEPTH IN CORRECTED METERS.



GMT D / M / Y	LUC LNC	CODE	SAMPLE	IDENT.	CODE	LAT.	LONG.	LEG-SHIP
TIME DATE	TIME TZ	SAMP			DISP			CRUISE

\*\*\* UNDERWAY DATA CIRATOR - STUART M. SMITH EXT. 2752 \*\*\*

\*\*\* FATHOGRAMS \*\*\*

2216	30/10/82	DPRT	R	FIX	12KHZ	R-01	GDC	24	30.3N	158	35.9W	S	RNTH02MV
1945	4/11/82	DPRT	E	FDO	12KHZ	R-01	GDC	31	00.2N	159	01.7W	S	RNTH02MV
1934	1/11/82	DPRT	R	FIX	12KHZ	R-02	GDC	30	59.2N	159	01.1W	S	RNTH02MV
0631	17/11/82	DPRT	E	FDO	12KHZ	R-02	GDC	18	51.6N	169	20.7W	S	RNTH02MV
0631	17/11/82	DPRT	R	FIX	12KHZ	R-03	GDC	18	51.6N	169	20.7W	S	RNTH02MV
2103	24/11/82	DPRT	E	FDO	12KHZ	R-03	GDC	19	17.2N	168	17.8W	S	RNTH02MV

\*\*\* TRAP \*\*\*

0500	2/11/82	TRFV	R	TRAPS	KLS105P	3082M	MRO	30	58.2N	159	00.9W	S	RNTH02MV
0649	4/11/82	TRFV	E	TRAPS	KLS105P	3082M	MRO	30	58.6N	159	01.5W	S	RNTH02MV
1940	2/11/82	TRFV	R	TRAPS	KLS108P	5841M	MRO	31	00.2N	159	00.3W	S	RNTH02MV
1928	4/11/82	TRFV	F	TRAPS	KLS108P	5841M	MRO	31	00.2N	159	01.4W	S	RNTH02MV
2141	2/11/82	TRFV	R	TRAPS	KLS109P	5837M	MRO	30	59.6N	159	00.8W	S	RNTH02MV
2220	4/11/82	TRFV	F	TRAPS	KLS109P	5837M	MRO	30	59.1N	159	01.2W	S	RNTH02MV
0224	3/11/82	TRFV	R	TRAPS	KLS111P	5821M	MRO	30	57.3N	159	01.6W	S	RNTH02MV
0607	5/11/82	TRFV	E	TRAPS	KLS111P	5821M	MRO	30	57.0N	159	01.5W	S	RNTH02MV
2233	3/11/82	TRFV	R	TRAPS	KLS114P	5845M	MRO	30	59.9N	158	59.2W	S	RNTH02MV
0531	6/11/82	TRFV	E	TRAPS	KLS114P	5845M	MRO	31	00.3N	158	59.4W	S	RNTH02MV
0236	16/11/82	TRFV	R	TRAP	KLS138HG	1597M	MRO	19	17.0N	168	54.8W	S	RNTH02MV
0408	20/11/82	TRFV	E	TRAP	KLS138HG	1597M	MRO	19	16.8N	168	54.4W	S	RNTH02MV
0408	18/11/82	TRFV	R	TRAP	KLS139HG	1481M	MRO	19	17.6N	168	58.0W	S	RNTH02MV
0408	20/11/82	TRFV	F	TRAP	KLS139HG	1481M	MRO	19	17.7N	168	59.0W	S	RNTH02MV
1415	18/11/82	TRFV	R	TRAPS	KLS141HG	1453M	MRO	19	17.6N	168	59.9W	S	RNTH02MV
0901	21/11/82	TRFV	E	TRAPS	KLS141HG	1453M	MRO	19	17.7N	168	59.9W	S	RNTH02MV
2038	18/11/82	TRFV	R	TRAPS	KLS142HG	1443M	MRO	19	16.1N	168	59.7W	S	RNTH02MV
1406	21/11/82	TRFV	E	TRAPS	KLS142HG	1443M	MRO	19	16.5N	169	00.8W	S	RNTH02MV
2216	18/11/82	TRFV	R	TRAPS	KLS143HG	1453M	MRO	19	18.6N	168	58.8W	S	RNTH02MV
1743	21/11/82	TRFV	F	TRAPS	KLS143HG	1453M	MRO	19	18.6N	169	00.2W	S	RNTH02MV
1400	22/11/82	TRFV	R	TRAPS	KLS154HGH	5178M	MRO	19	16.2N	168	22.1W	S	RNTH02MV
0501	25/11/82	TRFV	F	TRAPS	KLS154HGH	5178M	MRO	19	14.9N	168	21.5W	S	RNTH02MV

29SEP83 PAGE 3  
 GNT D / M / Y LUC LOC CODE SAMPLE IDENT. CODE LAT. LONG. LEG-SHIP  
 TIME DATE TIME TZ SAMP DISP CRUISE

2046 22/11/82 TRFV B TRAPSKLS155HGB 5189M MBD 19 16.0N 168 23.4W S BNTH02MV  
 0733 25/11/82 TRFV E TRAPSKLS155HGB 5189M MBD 19 16.1N 168 24.3W S BNTH02MV  
 2246 23/11/82 TRFV B TRAPSKLS160HGB 5186M MBD 19 17.5N 168 21.0W S BNTH02MV  
 0557 26/11/82 TRFV E TRAPSKLS160HGB 5186M MBD 19 17.3N 168 18.5W S BNTH02MV

\*\*\* MIDWATER TRAWL \*\*\*

0715 3/11/82 TMIK B IKMTOL1500M 50M UCS 30 45.4N 159 03.0W S BNTH02MV  
 1510 3/11/82 TMIK E IKMTOL1500M 50M UCS 31 00.7N 158 57.0W S BNTH02MV  
 0950 4/11/82 TMIK B IKMTOL 500M 100M UCS 30 57.3N 159 02.9W S BNTH02MV  
 1600 4/11/82 TMIK E IKMTOL 500M 100M UCS 31 08.6N 159 08.1W S BNTH02MV  
 0720 5/11/82 TMIK B IKMTOL2000M 200M UCS 30 48.4N 158 59.5W S BNTH02MV  
 1600 5/11/82 TMIK E IKMTOL2000M 200M UCS 31 02.9N 159 03.6W S BNTH02MV  
 0535 11/11/82 TMIK B IKMTOL 800M 100M UCS 30 56.2N 159 09.7W S BNTH02MV  
 1515 11/11/82 TMIK E IKMTOL 800M 100M UCS 31 07.0N 158 48.6W S BNTH02MV  
 0415 12/11/82 TMIK B IKMTOL13500M 100M UCS 31 13.7N 159 16.0W S BNTH02MV  
 0730 12/11/82 TMIK E IKMTOL13500M 100M UCS 31 06.6N 159 11.3W S BNTH02MV  
 0800 19/11/82 TMIK B IKMTOL 800M 100M UCS 19 16.8N 168 18.5W S BNTH02MV  
 1400 19/11/82 TMIK E IKMTOL 800M 100M UCS 19 13.3N 168 29.2W S BNTH02MV  
 0720 20/11/82 TMIK B IKMTOL 600M 100M UCS 19 18.8N 168 58.2W S BNTH02MV  
 1400 20/11/82 TMIK E IKMTOL 600M 100M UCS 19 29.9N 168 51.8W S BNTH02MV

\*\*\* TOWED BOTTOM GEAR \*\*\*

0615 6/11/82 TRTB B BEAM TRAWL 5845M USB 31 04.3N 158 58.9W S BNTH02MV  
 1615 6/11/82 TRTB E BEAM TRAWL 5845M USB 31 04.3N 158 46.7W S BNTH02MV  
 0620 7/11/82 TR04 B OTTER TRAWL 4000M UCS 30 59.4N 159 00.4W S BNTH02MV  
 1630 7/11/82 TR04 E OTTER TRAWL 4000M UCS 30 59.0N 158 38.7W S BNTH02MV  
 0120 22/11/82 TRTB B BEAM TRAWL 1462M UCS 19 17.3N 168 60.0W S BNTH02MV  
 0600 22/11/82 TRTB E BEAM TRAWL 1462M UCS 19 10.5N 169 01.5W S BNTH02MV  
 0645 22/11/82 TRTB B BEAM TRAWL 1653M UCS 19 10.4N 169 01.0W S BNTH02MV  
 0830 22/11/82 TRTB E BEAM TRAWL 1653M UCS 19 10.1N 168 59.0W S BNTH02MV

\*\*\*GRAB SAMPLE\*\*\*

2220 1/11/82 GREF B GRAB IRRE FALL 5841M MBD 30 59.0N 158 58.5W S BNTH02MV  
 2145 5/11/82 GREF F RESPIROMETER MBD 30 58.4N 158 59.5W S BNTH02MV  
 2314 7/11/82 GREF B GRAB IRRE FALL 5849M MBD 30 58.4N 158 57.2W S BNTH02MV  
 2207 11/11/82 GREF F RESPIROMETER MBD 30 58.8N 158 57.8W S BNTH02MV

GRT D / M / Y	LOC LOC	CODE	SAMPLE IDENT.	CODE	LAT.	LONG.	LFG-SHIP
TIME DATE	TIME T2	SAMP		DISP			CRUISE

2100 16/11/82		GRFF B	GRAB FREE FALL 1447M	MAD 19	17.5N	168 59.0W	S BNTH02MV
1923 19/11/82		GRFF E	RESPIROMETER	MAD 19	18.4N	169 00.6W	S BNTH02MV

2018 20/11/82		GRFF B	GRAB FREE FALL 5170	MAD 19	17.4N	168 19.8W	S BNTH02MV
1818 24/11/82		GRFF E	RESPIROMETER	MAD 19	17.0N	168 18.5W	S BNTH02MV

## \*\*\*HYDROGRAPHIC CAST\*\*\*

0048 2/11/82		HCNI T	1RTL 5841M	MAD 30	59.1N	156 58.8W	S BNTH02MV
0445 3/11/82		HCFV B	MINIPID KLS112P	MAD 30	58.7N	158 57.8W	S BNTH02MV
1442 3/11/82		HCFV E	TSUN 6RTL 5895M	MAD 30	58.5N	158 58.3W	S BNTH02MV
0148 5/11/82		HCNI T	1RTL 5831M	MAD 30	59.1N	159 00.9W	S BNTH02MV
0136 6/11/82		HCNI T	1RTL 5855M	MAD 30	56.8N	158 58.9W	S BNTH02MV
2153 16/11/82		HCNI T	1RTL 1471M	MAD 19	17.1N	168 58.7W	S BNTH02MV
0205 17/11/82		HCFV B	MINIPID KLS136HG	MAD 19	15.9N	169 04.6W	S BNTH02MV
1750 17/11/82		HCFV E	TSUN 6RTL 1456M	MAD 19	15.8N	169 03.8W	S BNTH02MV
2327 21/11/82		HCNI T	1RTL 1443M	MAD 19	17.8N	168 59.8W	S BNTH02MV
2334 22/11/82		HCFV B	MINIPID KLS156HG	MAD 19	15.8N	168 23.2W	S BNTH02MV
2020 23/11/82		HCFV E	TSUN 6RTL 5186M	MAD 19	16.1N	168 24.3W	S BNTH02MV
0214 23/11/82		HCNI T	1RTL 5186M	MAD 19	16.5N	168 22.8W	S BNTH02MV

## \*\*\*CURRENT MEASUREMENT\*\*\*

0044 17/11/82		CMAB B	CURNT KLS135HG 1462M	MAD 19	17.0N	169 01.2W	S BNTH02MV
1720 18/11/82		CMAB E	KLS135HG	MAD 19	16.6N	168 59.9W	S BNTH02MV
2254 20/11/82		CMAB B	CURNT KLS149HG 5172M	MAD 19	17.7N	168 18.6W	S BNTH02MV
0015 24/11/82		CMAB E	KLS149HG	MAD 19	17.9N	168 18.6W	S BNTH02MV

## \*\*\*CAMERA\*\*\*

0023 3/11/82		CAEV B	FREE CAMERA 5771M	MAD 31	01.9N	159 01.3W	S BNTH02MV
0510 4/11/82		CAEV E	KLS111P	MAD 31	04.3N	159 00.9W	S BNTH02MV
2018 10/11/82		CAEV B	FREE CAMERA 5845M	MAD 31	00.2N	158 59.0W	S BNTH02MV
0411 11/11/82		CAEV E	HOOKS KLS127P	MAD 31	00.6N	158 59.4W	S BNTH02MV

## \*\*\*COKE\*\*\*

0037 7/11/82		COGV	BNTH01 5831M	MAD 30	59.8N	159 01.3W	S BNTH02MV
0113 8/11/82		COGV	BNTH02 5870M	MAD 30	58.1N	158 56.8W	S BNTH02MV
1812 16/11/82		COGV	BNTH04 1468M	MAD 19	18.4N	169 00.0W	S BNTH02MV
1408 16/11/82		COGV	BNTH04 1453M	MAD 19	18.7N	169 00.5W	S BNTH02MV
0615 19/11/82		COGV	BNTH08 5170M	MAD 19	16.4N	168 18.9W	S BNTH02MV

GMT D /M /Y	LUC LUC	CODE	SAMPL + IDENT.	CODE	LAT.	LONG.	LFG-SHIP
TIME DATE	TIME TZ	SAMP		DISP			CRUISE

## \*\*\*SEDIMENT TRAP\*\*\*

1901	1/11/82		SOTR H SEDIMENT TRAP	5800M	MHD 30 59.4N	159 00.6W	S BNTH02MV
2157	6/11/82		SOTR F KLS101 P		MHD 31 00.1N	159 01.3W	S BNTH02MV
0425	7/11/82		SOTR H SEDIMENT TRAP	5825M	MHD 30 59.5N	159 01.0W	S BNTH02MV
0054	13/11/82		SOTR F KLS121 P		MHD 30 59.1N	159 02.6W	S BNTH02MV
2256	16/11/82		SOTR H SEDIMENT TRAP	1475M	MHD 19 16.8N	168 58.9W	S BNTH02MV
2012	21/11/82		SOTR F KLS131 HG		MHD 19 17.6N	168 59.0W	S BNTH02MV
0234	21/11/82		SOTR H SEDIMENT TRAP	5172M	MHD 19 16.5N	168 19.2W	S BNTH02MV
0431	26/11/82		SOTR F KLS151 HG		MHD 19 16.8N	168 17.7W	S BNTH02MV
0037	22/11/82		SOTR H SEDIMENT TRAP	1453M	MHD 19 17.6N	168 59.9W	S BNTH02MV
1655	25/11/82		SOTR F KLS141 HG		MHD 19 17.7N	168 58.8W	S BNTH02MV

## \*\*\*PUMP\*\*\*

2248	10/11/82		PHXX H FREE PUMP	5841M	MHD 31 01.3N	159 00.2W	S BNTH02MV
1730	11/11/82		PHXX E FREE PUMP	5841M	MHD 31 01.5N	159 00.8W	S BNTH02MV
2344	4/11/82		PHXX H FREE PUMP	5837M	MHD 30 58.7N	159 00.4W	S BNTH02MV
1715	5/11/82		PHXX F KLS111 P		MHD 30 58.7N	159 00.4W	S BNTH02MV

9900

END SAMPL + INDEX

BNTH02MV