

Silva

DAN TALBERT

2/2/79

RECEIVED FEB 16 1979

INFORMAL REPORT AND INDEX OF
NAVIGATION AND DEPTH DATA
(Issued November 30, 1978)

DIC
MARA
Cruise
Report

MARIANA EXPEDITION

LEG 2

Honolulu, Hawaii (3 August 1978)
to
Honolulu, Hawaii (2 September 1978)
R/V T. Washington

Chief Scientist - Ken Smith (SIO)

Resident Marine Tech - R. Wilson

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

Data Collection Funded by Sandia Labs., New Mexico
Grant Number PA246

Data Processing Funded by SIA, NSF, ONR

NOTE: This is an index of underway geophysical data edited and processed shortly 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 Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093.

Informal Report and Index of Navigation, Depth, Magnetic and Subbottom Profiler Data* *

Contents:

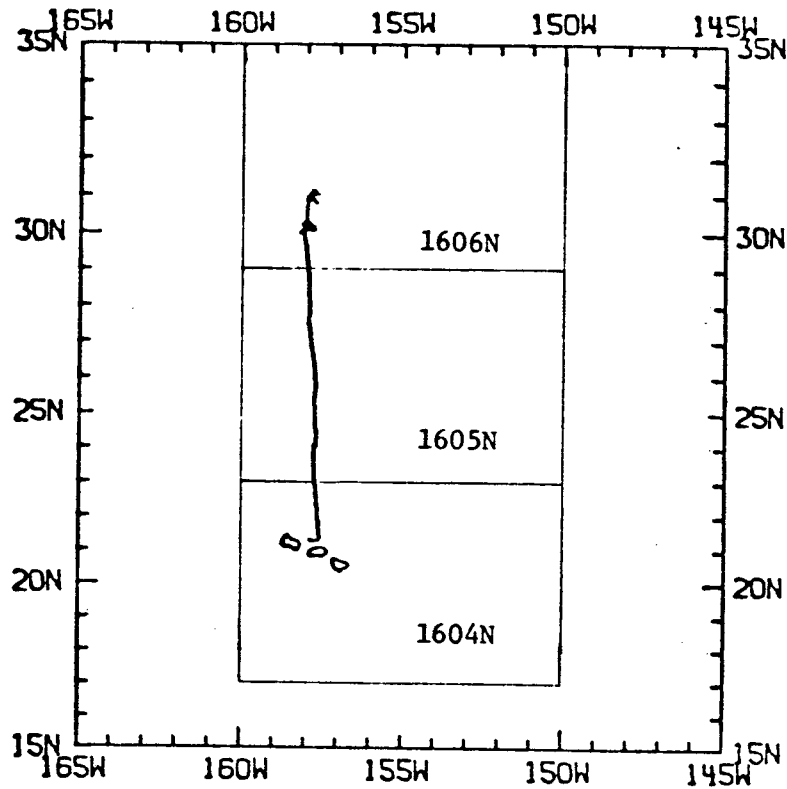
- Index Chart** - gives track of cruise leg and boundaries of depth compilation plots (see below).
- Track Charts** - annotated with dates (day/month) and hour ticks. The scale is .3"/deg. long.
- Profiles** - Depth and magnetic anomaly vs. distance. Dates (day/month) and positions of major course changes (greater than 30 degrees) are annotated. Sections of track having subbottom profiler (airgun) records have a solid black line along the bottom of the profile.

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 92093. Phone: (714) 452-2752.

1. Navigation listing of times and positions of course and speed changes, fixes and drift velocity.
2. Depth compilation plots - in fathoms (assumed sound velocity of 800 fm./sec.) at approximately 1 mile spacing, plotted at 4"/degree with standard U. S. Navy Oceanographic Office BC series boundaries (see index chart).
3. Plots of magnetic anomaly profiles along track - map scale = 1.2"/degree; anomaly scale between 15°N and 15°S latitude = 500 gamm/inch; anomaly scale north of 15°N and south of 15°S = 1000 gamm/inch; from values retrieved at approximately 1 mile spacing and regional field removed using the 1975 IGRF.
4. Card decks of navigation, depth and magnetics (for specific formats, contact S. M. Smith, Geological Data Center).
5. S. I. O. 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.
6. 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

* NO SUBBOTTOM PROFILER DATA COLLECTED

** NO MAGNETIC DATA COLLECTED



MARIANA EXPEDITION
LEG 2

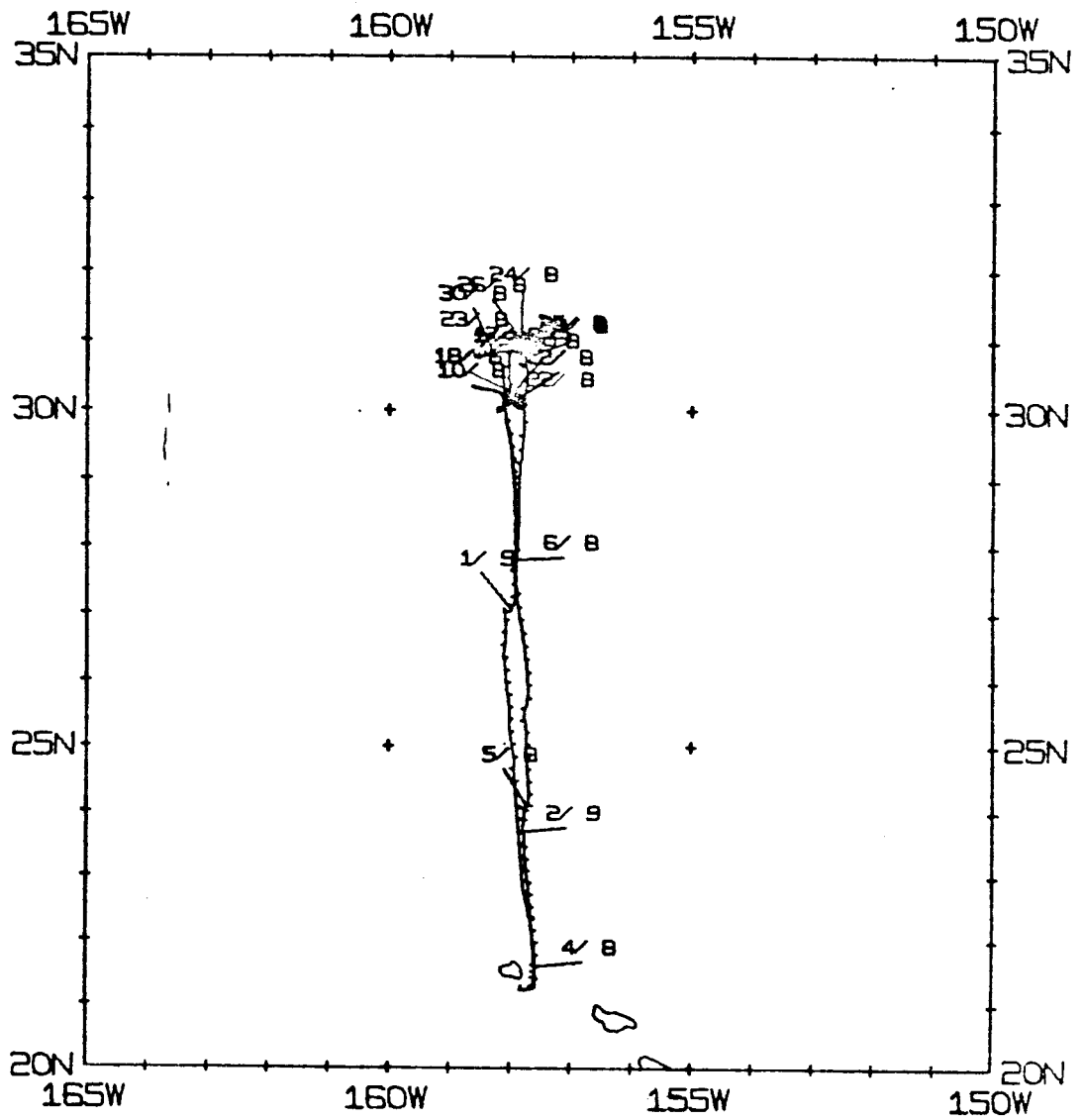
Chief Scientist - Ken Smith (SIO)
 Ports - Honolulu to Honolulu, Hawaii
 Dates - 3 August to 2 September 1978
 Ship - R/V T. Washington

TOTAL MILEAGE

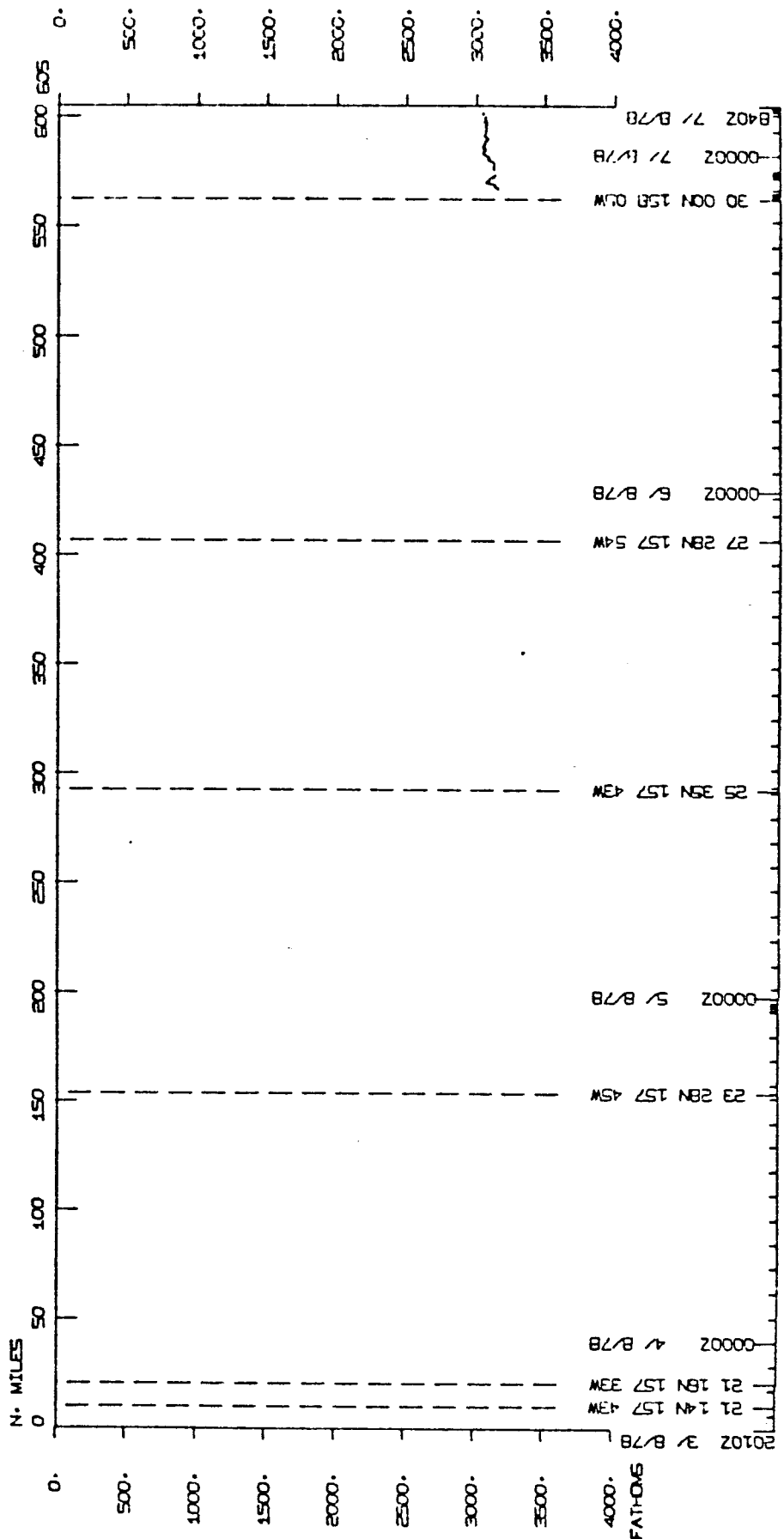
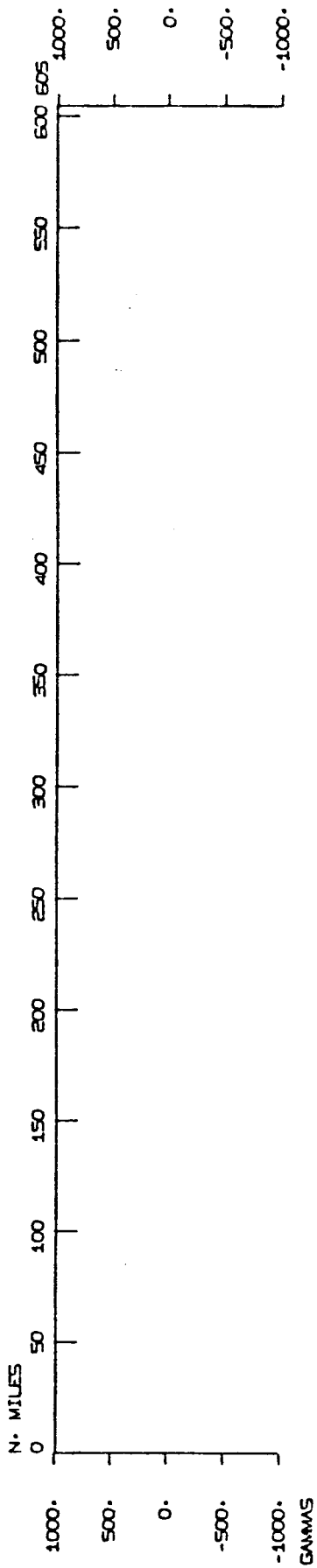
- 1) Cruise - 2423 miles
- 2) Bathymetry - 0285 miles
- 3) Magnetics - none collected
- 4) Seismic Reflection - none collected
- 5) Gravity - none collected

MARA02WT TRACK PLOT (1 OF 1)

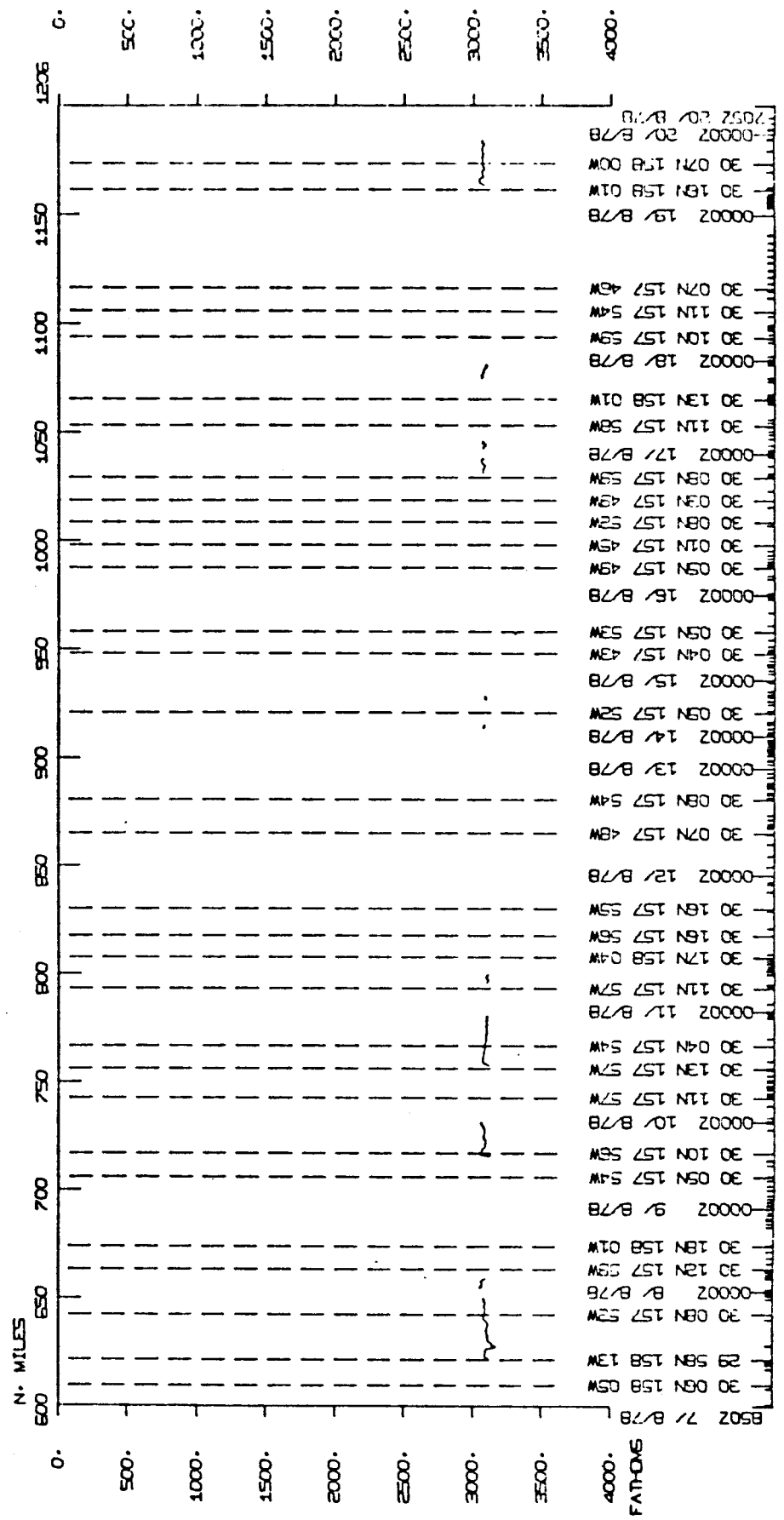
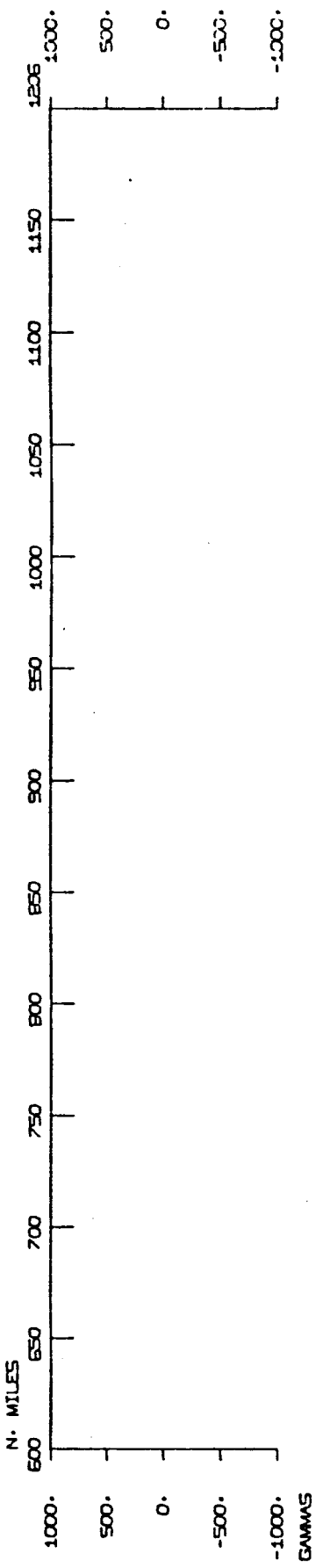
MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE



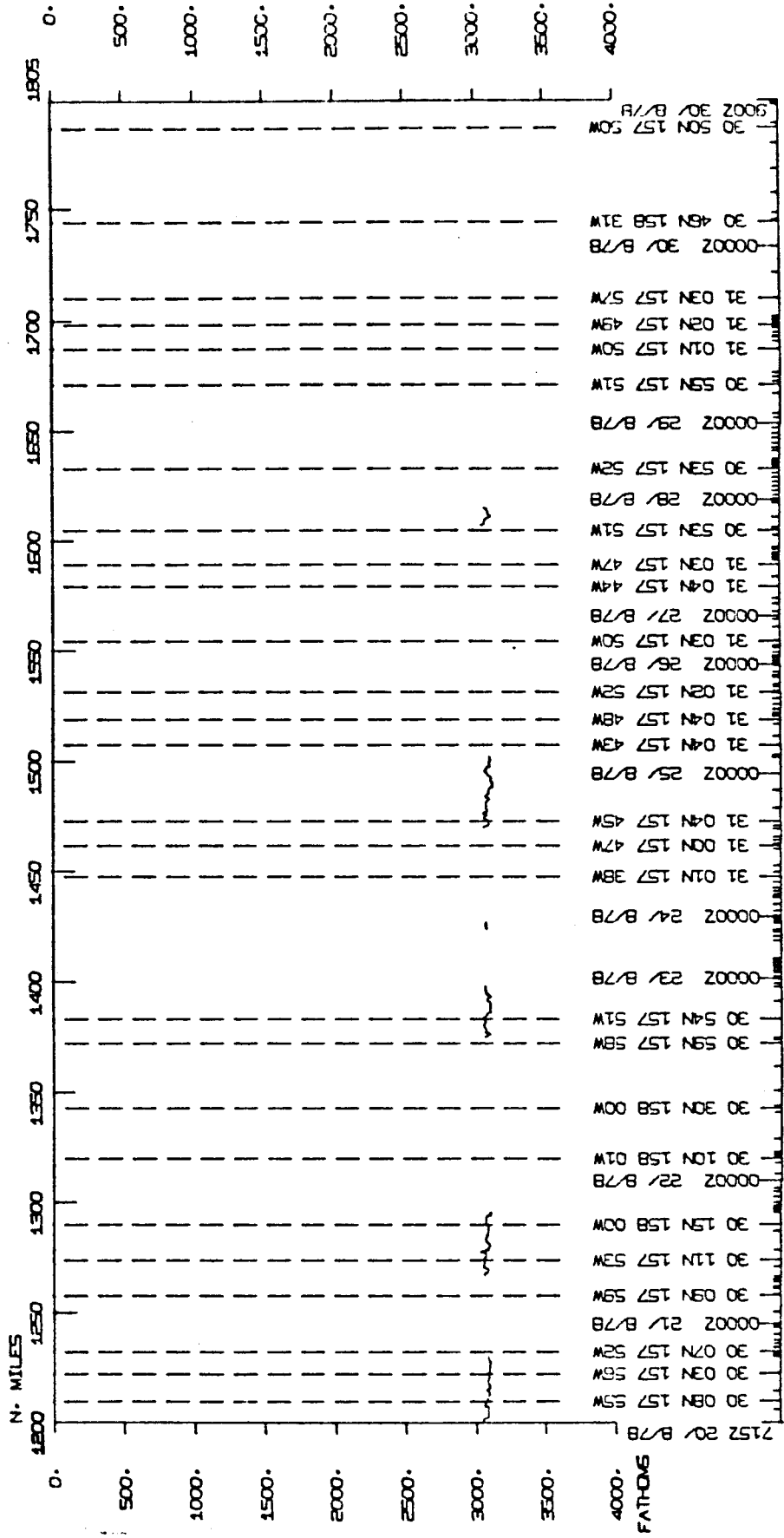
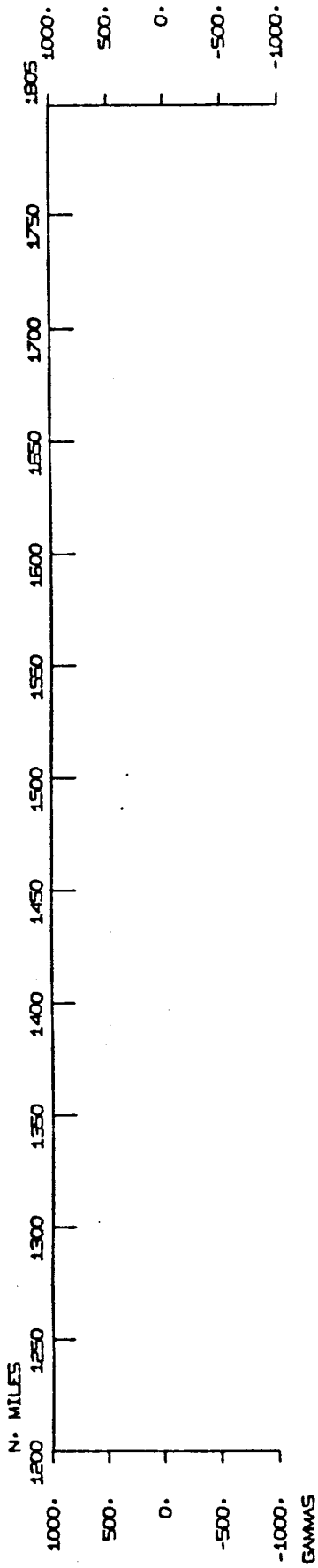
MARIANA LEG 2



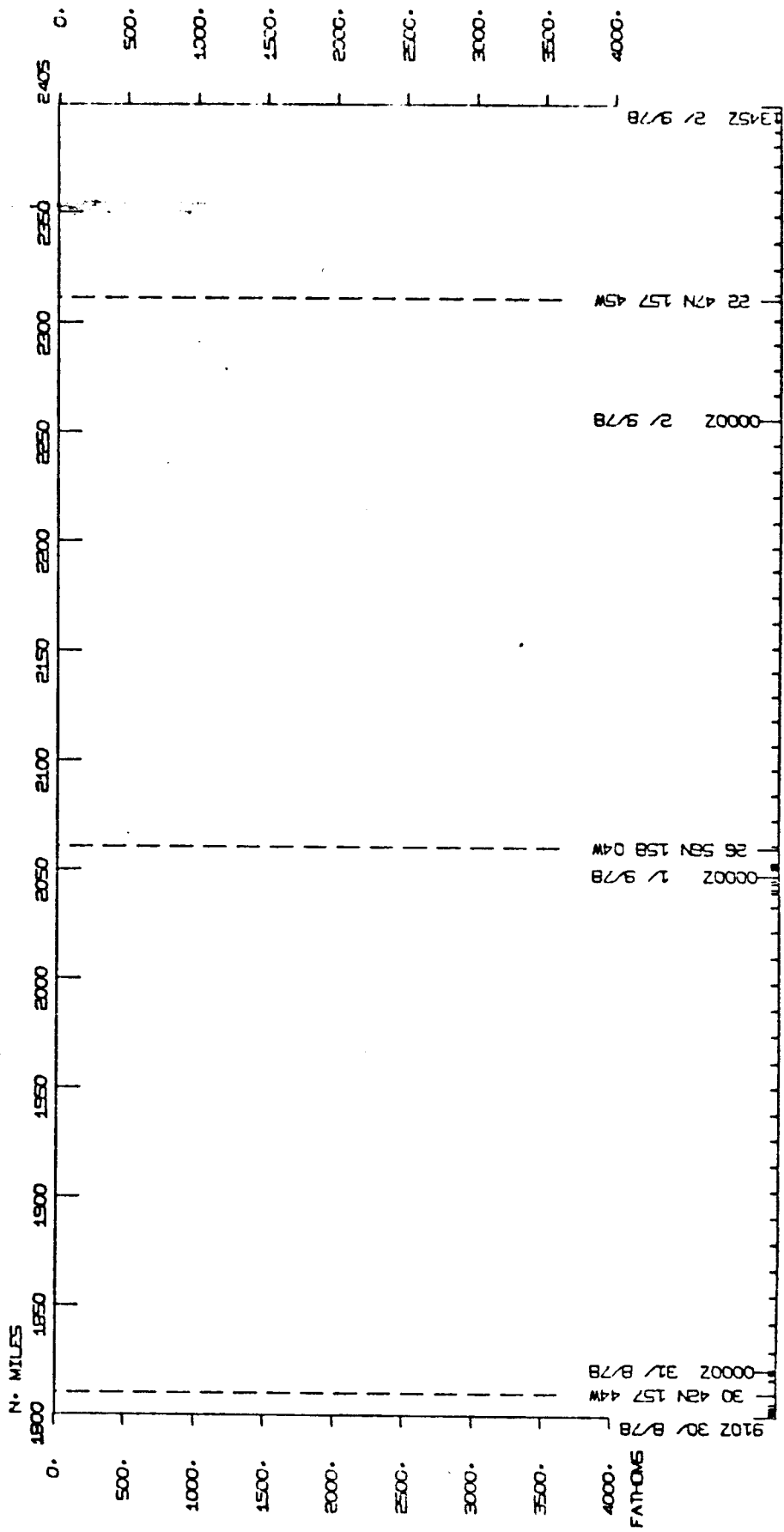
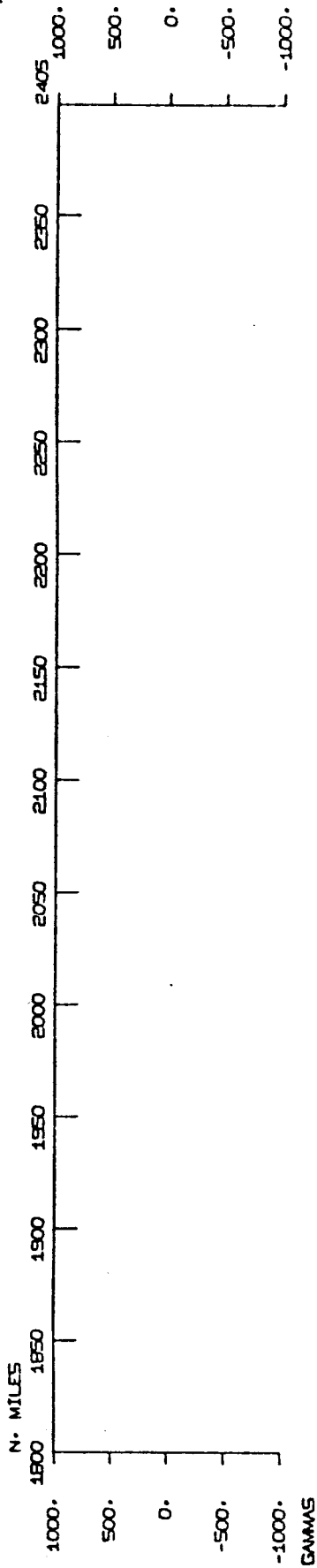
MARIANA LEG 2



MARIANA LEG 2



MARIANA LEG 2



S.I.O. SAMPLE INDEX

GENERATED 06DEC78

*** MAKAOZWT SAMPLE INDEX

(MAKAOZWT) ***



03AUG78 - HONOLULU, HA.
 TO
 02SEP78 - HONOLULU, HA.

CHIEF SCIENTIST - SMITH, K. SIO

SHIP - R/V THOMAS WASHINGTON (SIO)

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

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

DISP	TYPE																		TOTAL
	BC	BD	CA	CM	CU	DN	DP	GR	GC	HC	LB	MN	UN	PE	TD	TM	TR		
DCP	I													1	30			1	31
GCR	I				10													1	10
GDC	I						1				1							1	2
MBD	I		2			16		6		2		3		5				1	34
MLR	I												25	1				1	26
MTG	I													1				1	1
PKL	I													3				17	20
RKH	I	20		8	4													11	43
SCG	I													1				1	1
SIO	I													5				1	5
SIX	I							1						1				1	2
UCB	I													1		15		1	16
WHO	I								5					3	4			1	12
TOTAL	I	20	2	8	4	10	16	1	6	6	2	1	3	25	22	34	15	28	203

SAMPLE 'TYPE' CODES USED ABOVE

- HC = BIOLOGICAL BOX CORE
- BD = BIOLOGICAL SAMPLE COLLECTED BY DIVER
- CA = CAMERA
- CM = CURRENT MEASUREMENT
- CU = CORE (SEE ALSO TYPE DN**)
- DN = DIP NET
- DP = DEPTH
- GR = GRAB SAMPLE
- GC = GEOCHEMICAL SAMPLING
- HC = HYDROGRAPHIC CAST
- LB = LOG BOOKS
- MN = MIDWATER NET
- UN = OPEN NET
- PE = PERSONNEL IN SCIENTIFIC PARTY
- TD = SALINITY/TEMPERATURE/DEPTH (STD)
- TM = MIDWATER TRAWL
- TR = TRAP

SAMPLE 'DISP' CODES USED ABOVE

- DCP = DATA COLLECTION, PROCESSING GROUP -- F. WILKES (EXT. 3668)
- GCR = GEOLOGICAL CURATING FACILITY -- W. RIFDEL, (EXT. 4386)
- GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)
- MBD = MARINE BIOLOGY RESEARCH DIVISION (EXT. 4245)
- MLR = MARINE LIFE RESEARCH GROUP (EXT. 2866)
- MTG = MARINE TECHNOLOGY GROUP (EXT. 4194)
- PKL = PHYSIOLOGICAL RESEARCH LAB. (EXT. 2934)
- RKH = ROBERT R. MESSLER (EXT. 2665)
- SCG = SHIPBOARD COMPUTER GROUP (EXT. 4195)
- SIO = SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CAL. 92093
- SIX = SCRIPPS INSTITUTION NON-EMPLOYEE (CONTACT BORGAS DETER EXT. 2356)
- UCB = UNIV. CALIF. BERKELEY
- WHO = WOODS HOLE OCEANOGRAPHIC INSTITUTION

MARAU2WT SAMPLE INDEX

MARAU2WT

*** PORTS ***

2005 3 878
1626 2 978

LGPT B HONOLULU, HA.
LGPT E HONOLULU, HA.

21 18 N 157 52 W F MARAU2WT
21 18 N 157 52 W F MARAU2WT

PERSONNEL

PECS	SMITH, K.	SIO	MARAU2WT
PERT	WILSON, R.	MTG	MARAU2WT
PECT	MUDRE, M.	SCG	MARAU2WT
PEET	GRAHAM, J.	DGP	MARAU2WT
PEET	LAVOIE	WHO	MARAU2WT
PEMT	LAVER, M.	MRD	MARAU2WT
PEM1	WHITE, A.	MRD	MARAU2WT
PE	BALDWIN, R.	SIO	MARAU2WT
PE	BURNETT, R.	MRD	MARAU2WT
PE	DJFTZ, A.	PKL	MARAU2WT
PES	FIFDLER, P.	SIO	MARAU2WT
PE	GUODREAU, J.	WHO	MARAU2WT
PE	HAYWARD	MLR	MARAU2WT
PE	INGRAM, C.	MRD	MARAU2WT
PES	LEVIN, L.	SIO	MARAU2WT
PE	ROBISON, B.	UCB	MARAU2WT
PE	SCHNEIDER, W.	PKL	MARAU2WT
PE	SCHNEIDER, D.	WHO	MARAU2WT
PES	SMITH, C.	MRD	MARAU2WT
PE	TALBERT, D. (SANDIA)	SIX	MARAU2WT
PE	VON BOXTEL, R.	PKL	MARAU2WT
PE	YAYANOS, A.	SIO	MARAU2WT

*** NOTE *** TIME ZONES AND MINUTES OF LATITUDE AND LONGITUDE ARE LISTED IN TENTHS (E.G. 10.6 IS LISTED AS 106)

*** NOTE *** AN 'X' IN THE (R)EGIN/(F)ND COLUMN FOLLOWING THE SAMPLE CODE INDICATES NO SAMPLE OR DATA RECOVERED

TIME GMT	DATE D.M.Y.	TIME LT	TIME LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
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*** LOG BOOKS ***

1815	6	878		LBOW B	UNDERWAY DATA LOG	GDC 30	16N	158 65W	S MARA02WT
2130	25	878		LBOW E	UNDERWAY DATA LOG	GDC 31	35N	157 485W	S MARA02WT

*** FATHOGRAMS ***

1815	6	878		DPR3 H	UGR 3.5KHZ R-01	GDC 30	16N	158 65W	S MARA02WT
2130	27	878		DPR3 E	UGR 3.5KHZ R-01	GDC 30	486N	157 424W	S MARA02WT

BOX CORE

900	7	878		BC	H247	5830	RRH 30	124N 157 565W	S MARA02WT
940	8	878		BC	H250	5857	RRH 30	119N 157 574W	S MARA02WT
845	10	878		BC	H252	5857	RRH 30	128N 158 2W	S MARA02WT
1445	12	878		BC	H254	5821	RRH 30	90N 157 576W	S MARA02WT
925	13	878		BC	H256	5865	RRH 30	54N 157 514W	S MARA02WT
1111	14	878		BC	H259	5837	RRH 30	84N 157 532W	S MARA02WT
1255	15	878		BC	H261	5821	RRH 30	49N 157 430W	S MARA02WT
830	16	878		BC	H262	5853	RRH 30	63N 157 491W	S MARA02WT
1541	17	878		BC	H266	5813	RRH 30	128N 158 17W	S MARA02WT
910	18	878		BC	H267	5847	RRH 30	131N 158 5W	S MARA02WT
1145	19	878		BC	H269	5821	RRH 30	138N 158 41W	S MARA02WT
1537	20	878		BC	H271	5847	RRH 30	74N 157 529W	S MARA02WT
1620	21	878		BC	H273	5891	RRH 30	160N 158 67W	S MARA02WT
1245	23	878		BC	H277	5914	RRH 31	23N 157 419W	S MARA02WT
1650	24	878		BC	H278	5774	RRH 31	3N 157 489W	S MARA02WT
820	25	878		BC	H282	5837	RRH 31	35N 157 460W	S MARA02WT
1303	26	878		BC	H284	5831	RRH 31	25N 157 503W	S MARA02WT
1320	27	878		BC	H285	5817	RRH 31	6N 157 471W	S MARA02WT
1053	28	878		BC	H288	5853	RRH 30	531N 157 519W	S MARA02WT
1337	30	878		BC	H289	5853	RRH 30	396N 157 459W	S MARA02WT

*** GRAVITY CORE ***

1848	9	878		CUG	MARA001	5876	GCK 30	117N 157 580W	S MARA02WT
758	11	878		CUG	MARA002	5880	GCK 30	134N 157 590W	S MARA02WT
826	14	878		CUG	MARA003	5837	GCK 30	81N 157 534W	S MARA02WT
2010	14	878		CUG	MARA004	5868	GCK 30	67N 157 515W	S MARA02WT
622	17	878		CUG	MARA005	5833	GCK 30	122N 158 27W	S MARA02WT
645	19	878		CUG	MARA006	5911	GCK 30	127N 158 40W	S MARA02WT
1059	22	878		CUG	MARA007	5883	GCK 30	307N 158 4W	S MARA02WT

TIME GMT	DATE D.M.Y.	TIME T2 LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	06DEC78 LONG.	PAGE 2 CRUISE LEG-SHIP
502	24	878		LOG	MARA008	5841	GCR 31	31N 157 496W	S MARA02WT
837	27	878		LOG	MARA009	5805	GCR 31	27N 157 486W	S MARA02WT
1706	30	878		LOG	MARA010	5887	GCR 30	384N 157 475W	S MARA02WT

*** CAMERA ***

0	9	878		LAWS B	CAMERA TEST		RRH 30	154N 157 562W	S MARA02WT
530	9	878		CAFS F	CAMERA TEST		RRH 30	157N 157 555W	S MARA02WT
134	11	878		CAFS B	H253	5861	RRH 30	75N 157 515W	S MARA02WT
45	13	878		CAFS F	H253	5861	RRH 30	93N 157 521W	S MARA02WT
2038	16	878		CAFS B	H263	5811	RRH 30	91N 158 8W	S MARA02WT
250	18	878		CAFS F	H263	5811	RRH 30	107N 158 23W	S MARA02WT
440	17	878		CAFS B	H265	5807	RRH 30	119N 158 9W	S MARA02WT
540	18	878		CAFS F	H265	5807	RRH 30	118N 158 8W	S MARA02WT
2312	19	878		CAFS B	H270	5716	RRH 30	95N 157 593W	S MARA02WT
500	21	878		CAFS F	H270	5716	RRH 30	96N 158 16W	S MARA02WT
2104	22	878		CAFS B	H274	5861	RRH 31	32N 157 497W	S MARA02WT
328	23	878		CAFS F	H274	5861	RRH 31	27N 157 476W	S MARA02WT
1936	25	878		CAFS B	H283	5841	RRH 31	24N 157 486W	S MARA02WT
1729	26	878		CAFS F	H283	5841	RRH 31	18N 157 490W	S MARA02WT
1955	27	878		CAFS B	H286	5792	RRH 30	541N 157 515W	S MARA02WT
412	29	878		CAFS F	H286	5792	RRH 30	538N 157 524W	S MARA02WT

CURRENT MEASUREMENT

136	7	878		CMAB B	H245	5825	RRH 30	132N 157 526W	S MARA02WT
1645	11	878		CMAB E	H245	5825	RRH 30	185N 158 50W	S MARA02WT
214	7	878		CMAB B	H246	5785	RRH 30	101N 157 563W	S MARA02WT
1745	11	878		CMAB E	H246	5785	RRH 30	174N 157 581W	S MARA02WT
401	17	878		CMAB B	H264	5807	RRH 30	120N 158 9W	S MARA02WT
1630	17	878		CMAB E	H264	5807	RRH 30	120N 158 18W	S MARA02WT
247	22	878		CMAB B	H275	5874	RRH 30	103N 157 600W	S MARA02WT
308	27	878		CMAB E	H275	5874	RRH 31	25N 157 488W	S MARA02WT

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
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HYDROGRAPHIC CAST

30	8	878		HCNA	ON	MHD 30	113N	157 530W	S MARA02WT
2250	10	878		HCNA	ON	MHD 30	70N	157 512W	S MARA02WT

SALINITY, TEMPERATURE, DEPTH

550	9	878		TUCT B	000001	1400	DCP 30	157N 157 551W	S MARA02WT
655	9	878		TUCT E	000001	1400	DCP 30	154N 157 558W	S MARA02WT
1435	9	878		TUCT B	000002	1405	DCP 30	55N 157 551W	S MARA02WT
1604	9	878		TUCT E	000002	1405	DCP 30	57N 157 558W	S MARA02WT
2240	9	878		TUCT B	000003	1000	DCP 30	129N 157 512W	S MARA02WT
2342	9	878		TUCT E	000003	1000	DCP 30	129N 157 515W	S MARA02WT
1543	10	878		TUCT B	000004	1500	DCP 30	131N 157 580W	S MARA02WT
1735	10	878		TUCT E	000004	1500	DCP 30	136N 157 582W	S MARA02WT
436	11	878		TUCT B	000005	1000	DCP 30	119N 157 589W	S MARA02WT
556	11	878		TUCT E	000005	1000	DCP 30	120N 157 594W	S MARA02WT
605	12	878		TUCT B	000006	1000	DCP 30	75N 157 505W	S MARA02WT
714	12	878		TUCT E	000006	1000	DCP 30	75N 157 509W	S MARA02WT
1728	12	878		TUCT B	000007	1000	DCP 30	96N 158 9W	S MARA02WT
1825	12	878		TUCT E	000007	1000	DCP 30	99N 158 9W	S MARA02WT
1858	12	878		TUCT B	000008	1000	DCP 30	100N 158 7W	S MARA02WT
1958	12	878		TUCT E	000008	1000	DCP 30	99N 158 10W	S MARA02WT
1450	13	878		TUCT B	000009	1000	DCP 30	58N 157 535W	S MARA02WT
1609	13	878		TUCT E	000009	1000	DCP 30	60N 157 535W	S MARA02WT
2245	13	878		TUCT B	000010	1000	DCP 30	73N 157 532W	S MARA02WT
4	14	878		TUCT E	000010	1000	DCP 30	73N 157 535W	S MARA02WT
1330	14	878		TUCT B	000011	1500	DCP 30	47N 157 535W	S MARA02WT
1458	14	878		TUCT E	000011	1500	DCP 30	46N 157 540W	S MARA02WT
1500	14	878		TUCT B	000012	1500	DCP 30	46N 157 541W	S MARA02WT
1610	14	878		TUCT E	000012	1500	DCP 30	46N 157 543W	S MARA02WT
444	15	878		TUCT B	000013	1500	DCP 30	38N 157 478W	S MARA02WT
556	15	878		TUCT E	000013	1500	DCP 30	38N 157 479W	S MARA02WT
228	17	878		TUCT B	000014	1000	DCP 30	121N 158 10W	S MARA02WT
344	17	878		TUCT E	000014	1000	DCP 30	120N 158 10W	S MARA02WT

TIME GMT	DATE D.M.Y.	TIME T2 TIC LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
42	18	878	TDCT B	000015	1000	DCP 30	164N 157 592W	S MARA02WT
148	18	878	TDCT E	000015	1000	DCP 30	166N 158 3W	S MARA02WT
1337	18	878	TDCT B	000016	1000	DCP 30	80N 157 453W	S MARA02WT
1447	18	878	TDCT E	000016	1000	DCP 30	73N 157 463W	S MARA02WT
1750	19	878	TDCT B	000017	1000	DCP 30	171N 158 24W	S MARA02WT
1930	19	878	TDCT E	000017	1000	DCP 30	156N 158 22W	S MARA02WT
443	20	878	TDCT B	000018	1000	DCP 30	124N 158 34W	S MARA02WT
559	20	878	TDCT E	000018	1000	DCP 30	128N 158 34W	S MARA02WT
2354	21	878	TDCT B	000019	1150	DCP 30	138N 157 584W	S MARA02WT
45	22	878	TDCT E	000019	1150	DCP 30	136N 157 587W	S MARA02WT
609	22	878	TDCT B	000020	1000	DCP 30	102N 158 15W	S MARA02WT
720	22	878	TDCT E	000020	1000	DCP 30	104N 158 18W	S MARA02WT
120	23	878	TDCT B	000021	1100	DCP 31	25N 157 482W	S MARA02WT
210	23	878	TDCT E	000021	1100	DCP 31	26N 157 479W	S MARA02WT
1620	23	878	TDCT B	000022	1000	DCP 31	29N 157 528W	S MARA02WT
1726	23	878	TDCT E	000022	1000	DCP 31	27N 157 525W	S MARA02WT
2337	23	878	TDCT B	000023	1000	DCP 31	35N 157 488W	S MARA02WT
53	24	878	TDCT E	000023	1000	DCP 31	29N 157 496W	S MARA02WT
1103	25	878	TDCT B	000024	1150	DCP 31	23N 157 438W	S MARA02WT
1154	25	878	TDCT E	000024	1150	DCP 31	16N 157 436W	S MARA02WT
1533	25	878	TDCT B	000025	1000	DCP 31	20N 157 523W	S MARA02WT
1636	25	878	TDCT E	000025	1000	DCP 31	16N 157 524W	S MARA02WT
1705	25	878	TDCT B	000026	1500	DCP 31	28N 157 504W	S MARA02WT
1820	25	878	TDCT E	000026	1500	DCP 31	29N 157 500W	S MARA02WT
1544	26	878	TDCT B	000027	1000	DCP 31	17N 157 496W	S MARA02WT
1651	26	878	TDCT E	000027	1000	DCP 31	13N 157 503W	S MARA02WT
1751	26	878	TDCT B	000028	1000	DCP 31	18N 157 484W	S MARA02WT
1845	26	878	TDCT E	000028	1000	DCP 31	16N 157 481W	S MARA02WT
2300	27	878	TDCT B	000029	1000	DCP 30	466N 157 418W	S MARA02WT
2352	27	878	TDCT E	000029	1000	DCP 30	462N 157 420W	S MARA02WT
1418	28	878	TDCT B	000030	1000	DCP 30	508N 157 515W	S MARA02WT
1530	28	878	TDCT E	000030	1000	DCP 30	502N 157 510W	S MARA02WT
2100	8	778	TDSC B	SELF CONTAINED		WHO 21	185N 157 519W	S MARA02WT
2300	8	778	TDSC E	SELF CONTAINED		WHO 21	185N 157 519W	S MARA02WT

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CRUISE
LEG-SHIP

TIME GMT	DATE D.M.Y.	TIME LUL	TZ LUL	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE	LEG-SHIP
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130	13	878		TOSC B	SELF CONTAINED	WHO 30	72N	157 518W	S	MARAO2WT
510	13	878		TOSC F	SELF CONTAINED	WHO 30	72N	157 521W	S	MARAO2WT
34	14	878		TOSC B	SELF CONTAINED	WHO 30	73N	157 537W	S	MARAO2WT
600	14	878		TOSC E	SELF CONTAINED	WHO 30	84N	157 539W	S	MARAO2WT
200	19	878		TOSC B	SELF CONTAINED	WHO 30	125N	158 37W	S	MARAO2WT
600	19	878		TOSC E	SELF CONTAINED	WHO 30	127N	158 39W	S	MARAO2WT

BIOLOGICAL COLLECTION DIVE

0	10	878		BDIV B	BIOLOGY DIVE	MRD 30	129N	157 514W	S	MARAO2WT
200	10	878		BDIV F	BIOLOGY DIVE	MRD 30	129N	157 521W	S	MARAO2WT
100	28	878		BDIV B	BIO DIVE	MRD 30	454N	157 417W	S	MARAO2WT
200	28	878		BDIV E	BIO DIVE	MRD 30	451N	157 423W	S	MARAO2WT

DIPNET

2108	5	878		DNIV	DIPNET SAMPLE	MRD 27	289N	157 551W	S	MARAO2WT
2245	5	878		DNIV	DIPNET SAMPLE	MRD 27	466N	157 546W	S	MARAO2WT
2345	5	878		DNIV	DIPNET SAMPLE	MRD 27	480N	157 531W	S	MARAO2WT
0	6	878		DNIV	DIPNET SAMPLE	MRD 27	490N	157 535W	S	MARAO2WT
15	6	878		DNIV	DIPNET SAMPLE	MRD 27	498N	157 539W	S	MARAO2WT
440	8	878		DNIV	DIPNET SAMPLE	MRD 30	106N	157 574W	S	MARAO2WT
600	8	878		DNIV	DIPNET SAMPLE	MRD 30	119N	157 575W	S	MARAO2WT
625	10	878		DNIV	DIPNET SAMPLE	MRD 30	114N	157 591W	S	MARAO2WT
2021	15	878		DNIV	DIPNET SAMPLE	MRD 30	53N	157 459W	S	MARAO2WT
2355	15	878		DNIV	DIPNET SAMPLE	MRD 30	56N	157 457W	S	MARAO2WT
14	16	878		DNIV	DIPNET SAMPLE	MRD 30	57N	157 460W	S	MARAO2WT
1925	16	878		DNIV	DIPNET SAMPLE	MRD 30	86N	157 8W	S	MARAO2WT
436	26	878		DNIV	DIPNET SAMPLE	MRD 31	24N	157 501W	S	MARAO2WT
1729	26	878		DNIV	DIPNET SAMPLE	MRD 31	18N	157 490W	S	MARAO2WT
1908	26	878		DNIV	DIPNET SAMPLE	MRD 31	21N	157 486W	S	MARAO2WT
2056	26	878		DNIV	DIPNET SAMPLE	MRD 31	31N	157 524W	S	MARAO2WT

GRAB SAMPLE

2013	7	878		GBFF B	GRAB RESP. 5831	MRD 30	86N	157 529W	S	MARAO2WT
40	12	878		GBFF E	GRAB RESP. 5831	MRD 30	91N	157 534W	S	MARAO2WT
2021	10	878		GBFF B	GRAB RESP. 5868	MRD 30	51N	157 516W	S	MARAO2WT
126	15	878		GBFF E	GRAB RESP. 5868	MRD 30	45N	157 508W	S	MARAO2WT
2202	16	878		GBFF B	GRAB RESP. 5829	MRD 30	92N	158 1W	S	MARAO2WT
154	20	878		GBFF E	GRAB RESP. 5829	MRD 30	94N	157 598W	S	MARAO2WT

TIME GMT	DATE D.M.Y.	TIME T7 LHC	SAMP LHC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
2112	17	878		GBFF B	GRAB RESP. 5870	MBD 30	147N	157 585W	S MARA02WT
202	22	878		GBFF E	GRAB RESP. 5870	MBD 30	146N	157 599W	S MARA02WT
2145	22	878		GBFF X	GRAB RESP. 5847	MBD 31	20N	157 493W	S MARA02WT
2015	23	878		GBFF B	GRAB RESP. 5851	MBD 31	31N	157 498W	S MARA02WT
19	27	878		GBFF F	GRAB RESP. 5851	MBD 31	29N	157 498W	S MARA02WT
2154	27	878		GBFF B	GRAB RESP. 5845	MBD 30	475N	157 416W	S MARA02WT
2145	31	878		GBFF E	GRAB RESP. 5845	MBD 27	74N	157 574W	S MARA02WT

GEOCHEMICAL SAMPLE

1500	4	878		GCLV B	LARGE VOLUME WATER	WHO 24	40N	157 449W	S MARA02WT
1100	5	878		GCLV E	LARGE VOLUME WATER	WHO 25	361N	157 417W	S MARA02WT
2106	6	878		GCXX H	SANDIA CORROSION VEH	SIX 30	23N	158 73W	S MARA02WT
907	30	878		GCXX B	SANDIA CORROSION VEH	SIX 30	411N	157 445W	S MARA02WT
1215	6	878		GCLV B	LARGE VOLUME WATER	WHO 30	1N	158 52W	S MARA02WT
1815	6	878		GCLV F	LARGE VOLUME WATER	WHO 30	16N	158 65W	S MARA02WT
1100	11	878		GCLV B	LARGE VOLUME WATER	WHO 30	160N	157 597W	S MARA02WT
1800	11	878		GCLV F	LARGE VOLUME WATER	WHO 30	166N	157 569W	S MARA02WT
1830	15	878		GCLV B	LARGE VOLUME WATER	WHO 30	56N	157 459W	S MARA02WT
130	16	878		GCLV E	LARGE VOLUME WATER	WHO 30	36N	157 488W	S MARA02WT
400	23	878		GCLV B	LARGE VOLUME WATER	WHO 31	28N	157 475W	S MARA02WT
1000	23	878		GCLV E	LARGE VOLUME WATER	WHO 31	28N	157 434W	S MARA02WT

MIDWATER NFT

544	8	878		MNVF B	FREE NET 5898	MBD 30	118N	157 575W	S MARA02WT
336	11	878		MNVF E	FREE NET 5898	MBD 30	117N	157 582W	S MARA02WT
2004	8	878		MNVF X	FREE NET 5681	MBD 30	121N	157 577W	S MARA02WT
632	9	878		MNVF B	FREE NET 5831	MBD 30	155N	157 556W	S MARA02WT
1830	11	878		MNVF F	FREE NET 5831	MBD 30	164N	157 575W	S MARA02WT
2200	13	878		MNVF B	FREE VEHICLE NET	MBD 30	71N	157 561W	S MARA02WT
1925	19	878		MNVF F	FREE VEHICLE NET	MBD 30	164N	157 23W	S MARA02WT
513	16	878		MNVF X	FREE VEHICLE NET	MBD 30	65N	157 483W	S MARA02WT
506	18	878		MNVF X	FREE VEHICLE NET	MBD 30	112N	158 14W	S MARA02WT

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LFG-SHIP
OPEN NET									
1050	4	878		UNIM B	.50 200 M1	MLK 23	281N	157 457W	S MARA02WT
1113	4	878		UNIM E	.50 200 M1	MLK 23	279N	157 453W	S MARA02WT
1116	4	878		UNIM B	.50 200 M2	MLK 23	279N	157 452W	S MARA02WT
1138	4	878		UNIM E	.50 200 M2	MLK 23	276N	157 449W	S MARA02WT
2140	4	878		UNIM B	.50 200 M3	MLK 24	24N	157 414W	S MARA02WT
2202	4	878		UNIM E	.50 200 M3	MLK 24	24N	157 414W	S MARA02WT
2207	4	878		UNIM B	.50 200 M4	MLK 24	24N	157 413W	S MARA02WT
2229	4	878		UNIM E	.50 200 M4	MLK 24	23N	157 407W	S MARA02WT
1020	5	878		UNIM B	.50 200 M5	MLK 25	357N	157 430W	S MARA02WT
1041	5	878		UNIM E	.50 200 M5	MLK 25	358N	157 423W	S MARA02WT
1047	5	878		UNIM B	.50 200 M6	MLK 25	354N	157 421W	S MARA02WT
1109	5	878		UNIM E	.50 200 M6	MLK 25	362N	157 414W	S MARA02WT
2249	5	878		UNIM B	.50 200 M7	MLK 27	468N	157 544W	S MARA02WT
2311	5	878		UNIM E	.50 200 M7	MLK 27	474N	157 538W	S MARA02WT
2317	5	878		UNIM B	.50 200 M8	MLK 27	475N	157 537W	S MARA02WT
2338	5	878		UNIM E	.50 200 M8	MLK 27	479N	157 533W	S MARA02WT
2218	6	878		UNIM B	.50 200 M9	MLK 30	23N	158 75W	S MARA02WT
2240	6	878		UNIM E	.50 200 M9	MLK 30	19N	158 71W	S MARA02WT
2247	6	878		UNIM B	.50 200 M10	MLK 30	18N	158 69W	S MARA02WT
2308	6	878		UNIM E	.50 200 M10	MLK 30	16N	158 65W	S MARA02WT
1558	19	878		UNIM B	.50 200 M11	MLK 30	147N	158 31W	S MARA02WT
1620	19	878		UNIM E	.50 200 M11	MLK 30	152N	158 29W	S MARA02WT
1623	19	878		UNIM B	.50 200 M12	MLK 30	152N	158 28W	S MARA02WT
1647	19	878		UNIM E	.50 200 M12	MLK 30	159N	158 21W	S MARA02WT
1650	19	878		UNIM B	.50 200 M13	MLK 30	160N	158 20W	S MARA02WT
1714	19	878		UNIM E	.50 200 M13	MLK 30	166N	158 19W	S MARA02WT
1108	20	878		UNIM B	.50 200 M14	MLK 30	60N	157 535W	S MARA02WT
1120	20	878		UNIM E	.50 200 M14	MLK 30	63N	157 531W	S MARA02WT
1134	20	878		UNIM B	.50 200 M15	MLK 30	64N	157 530W	S MARA02WT
1155	20	878		UNIM E	.50 200 M15	MLK 30	67N	157 528W	S MARA02WT
1201	20	878		UNIM B	.50 200 M16	MLK 30	68N	157 527W	S MARA02WT
1223	20	878		UNIM E	.50 200 M16	MLK 30	71N	157 525W	S MARA02WT

TIME GMT	DATE D.M.Y.	TIME T/ LUC	T/ LUC	SAMP CODE	SAMPLE IDENT.			DISP CODE	LAT.	LONG.	OBJECT	PAGE	R CRUISE LEG-SHIP
2314	20	878		UNIM B	.50	200	M17	MLK 30	115N	157 461W	S	MARA02WT	
2336	20	878		UNIM E	.50	200	M17	MLK 30	119N	157 460W	S	MARA02WT	
2340	20	878		UNIM B	.50	200	M18	MLK 30	120N	157 461W	S	MARA02WT	
2302	21	878		UNIM E	.50	200	M18	MLK 30	167N	157 586W	S	MARA02WT	
6	21	878		UNIM B	.50	200	M19	MLK 30	125N	157 461W	S	MARA02WT	
33	21	878		UNIM E	.50	200	M19	MLK 30	129N	157 463W	S	MARA02WT	
1119	24	878		UNIM B	.50	200	M20	MLK 31	14N	157 385W	S	MARA02WT	
1142	24	878		UNIM E	.50	200	M20	MLK 31	15N	157 375W	S	MARA02WT	
1146	24	878		UNIM B	.50	200	M21	MLK 31	15N	157 373W	S	MARA02WT	
1208	24	878		UNIM E	.50	200	M21	MLK 31	16N	157 365W	S	MARA02WT	
1213	24	878		UNIM B	.50	200	M22	MLK 31	16N	157 364W	S	MARA02WT	
1235	24	878		UNIM E	.50	200	M22	MLK 31	18N	157 357W	S	MARA02WT	
2106	25	878		UNIM B	.50	200	M23	MLK 31	30N	157 487W	S	MARA02WT	
2129	25	878		UNIM E	.50	200	M23	MLK 31	35N	157 485W	S	MARA02WT	
2132	25	878		UNIM B	.50	200	M24	MLK 31	35N	157 484W	S	MARA02WT	
2154	25	878		UNIM E	.50	200	M24	MLK 31	39N	157 482W	S	MARA02WT	
2158	25	878		UNIM B	.50	200	M25	MLK 31	40N	157 481W	S	MARA02WT	
2221	25	878		UNIM E	.50	200	M25	MLK 31	43N	157 479W	S	MARA02WT	

*** MIDWATER TRAWL ***

1315	8	878		TMK8 B	0			UCH 30	114N	158 7W	S	MARA02WT
1600	8	878		TMK8 E	0			UCH 30	189N	158 11W	S	MARA02WT
930	10	878		TMK8 B	0			UCH 30	129N	158 3W	S	MARA02WT
1400	10	878		TMK8 E	0			UCH 30	137N	158 8W	S	MARA02WT
1300	11	878		TMK8 B	0			UCH 30	167N	158 15W	S	MARA02WT
1515	11	878		TMK8 E	0			UCH 30	174N	158 33W	S	MARA02WT
840	13	878		TMK8 B	0			UCH 30	54N	157 509W	S	MARA02WT
1050	13	878		TMK8 E	0			UCH 30	53N	157 518W	S	MARA02WT
725	15	878		TMK8 B	0	200		UCH 30	34N	157 475W	S	MARA02WT
925	15	878		TMK8 E	0	200		UCH 30	42N	157 459W	S	MARA02WT
1156	16	878		TMK8 B	0	520		UCH 30	57N	157 501W	S	MARA02WT
1456	16	878		TMK8 E	0	520		UCH 30	13N	157 454W	S	MARA02WT
830	17	878		TMK8 B	0	400		UCH 30	123N	158 18W	S	MARA02WT
1130	17	878		TMK8 E	0	400		UCH 30	97N	157 560W	S	MARA02WT

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LIG-SHIP
1520	18	878		TMRB B	0 1200	UCB 30	71N	157 463W	S MARA02WT
2150	18	878		TMRB E	0 1200	UCB 30	141N	158 76W	S MARA02WT
1940	20	878		TMRB B	0 750	UCB 30	91N	157 532W	S MARA02WT
2240	20	878		TMRB E	0 750	UCB 30	112N	157 463W	S MARA02WT
1940	21	878		TMRB B	0 200	UCB 30	174N	158 45W	S MARA02WT
2205	21	878		TMRB E	0 200	UCB 30	180N	157 580W	S MARA02WT
815	24	878		TMRB B	0 375	UCB 31	28N	157 466W	S MARA02WT
1115	24	878		TMRB E	0 375	UCB 31	14N	157 386W	S MARA02WT
1215	25	878		TMRB B	0 500	UCB 31	15N	157 440W	S MARA02WT
1515	25	878		TMRB E	0 500	UCB 31	20N	157 520W	S MARA02WT
235	27	878		TMRB B	0 1250	UCB 31	30N	157 491W	S MARA02WT
700	27	878		TMRB E	0 1250	UCB 31	34N	157 483W	S MARA02WT
1910	28	878		TMRB B	0 2000	UCB 30	522N	157 509W	S MARA02WT
50	29	878		TMRB E	0 2000	UCB 31	38N	157 572W	S MARA02WT
2000	31	878		TMRB B	0 800	UCB 27	102N	157 556W	S MARA02WT
1	1	978		TMRB E	0 800	UCB 27	34N	157 593W	S MARA02WT

TRAP

305	8	878		TKVF B H248	5765	RRH 30	119N	157 527W	S MARA02WT
156	10	878		TKVF E H248	5765	RRH 30	129N	157 522W	S MARA02WT
431	8	878		TKVF B H249	5845	RRH 30	105N	157 575W	S MARA02WT
314	10	878		TKVF E H249	5845	RRH 30	120N	157 587W	S MARA02WT
614	13	878		TKVF B H255	5865	RRH 30	53N	157 509W	S MARA02WT
1125	15	878		TKVF E H255	5865	RRH 30	44N	157 432W	S MARA02WT
342	15	878		TKVF B H260	5861	RRH 30	36N	157 475W	S MARA02WT
238	16	878		TKVF E H260	5861	RRH 30	36N	157 476W	S MARA02WT
133	19	878		TKVF B H268	5813	RRH 30	123N	158 34W	S MARA02WT
2108	19	878		TKVF E H268	5813	RRH 30	124N	158 43W	S MARA02WT
352	21	878		TKVF B H272	5812	RRH 30	102N	157 596W	S MARA02WT
350	22	878		TKVF F H272	5812	RRH 30	99N	158 13W	S MARA02WT
341	23	878		TKVF B H276	5874	RRH 31	27N	157 475W	S MARA02WT
325	27	878		TKVF E H276	5874	RRH 31	28N	157 482W	S MARA02WT
315	25	878		TKVF B H279	5882	RRH 31	49N	157 431W	S MARA02WT
411	27	878		TKVF F H279	5882	RRH 31	49N	157 448W	S MARA02WT

TIME GMT	DATE D.M.Y.	TIME TZ LTC LTC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	06DEC78	PAGE 10 CRUISE LEG-SHIP
343	25	878	TRVF B	H280	5940	RRH 31	34N	157 453W	S MARA02WT
520	27	878	TRVF E	H280	5940	RRH 31	16N	157 464W	S MARA02WT
525	25	878	TRVF B	H281	5825	RRH 31	40N	157 480W	S MARA02WT
636	27	878	TRVF E	H281	5825	RRH 31	35N	157 486W	S MARA02WT
203	28	878	TRVF B	H287	5805	RRH 30	451N	157 424W	S MARA02WT
650	30	878	TRVF E	H287	5805	RRH 30	424N	157 435W	S MARA02WT
1700	6	878	TRVF B	111 PRAT	5801	PRL 30	13N	158 48W	S MARA02WT
1330	7	878	TRVF E	111 PRAT	5801	PRL 29	591N	158 104W	S MARA02WT
1702	7	878	TRVF B	125 PRAT	5813	PRL 29	587N	158 134W	S MARA02WT
1830	8	878	TRVF E	125 PRAT	5813	PRL 30	115N	157 572W	S MARA02WT
1714	9	878	TRVF B	136 PRAT	5876	PRL 30	110N	157 578W	S MARA02WT
500	10	878	TRVF E	136 PRAT	5876	PRL 30	114N	157 582W	S MARA02WT
352	11	878	TRVF B	146 PRAT	5870	PRL 30	118N	157 585W	S MARA02WT
200	12	878	TRVF E	146 PRAT	5870	PRL 30	122N	157 583W	S MARA02WT
452	12	878	TRVF B	152 TUBE	5861	PRL 30	75N	157 512W	S MARA02WT
507	13	878	TRVF E	152 TUBE	5861	PRL 30	71N	157 521W	S MARA02WT
430	14	878	TRVF B	163 PRAT	5870	PRL 30	81N	157 545W	S MARA02WT
1700	14	878	TRVF E	163 PRAT	5870	PRL 30	68N	157 541W	S MARA02WT
1816	14	878	TRVF B	172 TUBE	5865	PRL 30	60N	157 536W	S MARA02WT
1745	15	878	TRVF E	172 TUBE	5865	PRL 30	62N	157 534W	S MARA02WT
212	16	878	TRVF B	181 PRAT	5870	PRL 30	32N	157 471W	S MARA02WT
1720	16	878	TRVF E	181 PRAT	5870	PRL 30	31N	157 484W	S MARA02WT
1942	16	878	TRVF B	187 TUBE	5801	PRL 30	90N	158 9W	S MARA02WT
1930	17	878	TRVF E	187 TUBE	5801	PRL 30	89N	158 12W	S MARA02WT
1950	17	878	TRVF B	197 PRAT	5801	PRL 30	90N	158 12W	S MARA02WT
4	19	878	TRVF E	197 PRAT	5801	PRL 30	94N	158 22W	S MARA02WT
54	19	878	TRVF B	205 TUBE	5835	PRL 30	121N	158 28W	S MARA02WT
415	20	878	TRVF E	205 TUBE	5835	PRL 30	121N	158 39W	S MARA02WT
700	20	878	TRVF B	217 TUBE	5821	PRL 30	103N	157 589W	S MARA02WT
230	21	878	TRVF E	217 TUBE	5821	PRL 30	102N	157 595W	S MARA02WT
525	21	878	TRVF B	TUFF	5817	PRL 30	57N	158 16W	S MARA02WT
520	22	878	TRVF E	TUFF	5817	PRL 30	56N	158 21W	S MARA02WT
2025	22	878	TRVF B	235 PRAT	5861	PRL 31	32N	157 507W	S MARA02WT
1845	23	878	TRVF E	235 PRAT	5861	PRL 31	29N	157 508W	S MARA02WT

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
1908	23	878		TKVF B	245 TUBE	5841	PRL 31	30N 157 504W	S MARA02WT
1925	24	878		TKVF F	245 TUBE	5841	PRL 31	28N 157 492W	S MARA02WT
2030	24	878		TKVF H	255 TUBE	5809	PRL 31	32N 157 490W	S MARA02WT
2020	25	878		TKVF E	255 TUBE	5809	PRL 31	29N 157 489W	S MARA02WT
1945	25	878		TKVF B	268 PRAT	5817	PRL 31	24N 157 486W	S MARA02WT
2105	25	878		TKVF E	268 PRAT	5817	PRL 31	29N 157 487W	S MARA02WT
9900					END SAMPLE INDEX				MARA02WT