#### Report and Index of

### Underway Marine Geophysical Data

Cook Expedition

Leg 14

(COOK14MV)

R/V Melville

(Issued February 2002)

Ports:

Suva, Fiji (6 October 2001) to Apia, Western Samoa (29 October 2001)

Chief Scientist: Aristides Yayanos Scripps Institution of Oceanography

Computer Tech - Jim Charters Resident Marine Tech - Tammy Baiz

Post-Cruise processing and report preparation by Shipboard Technical Support Group, Scripps Institution of Oceanography La Jolla, CA 92093-0223

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 Shipboard Technical Support Group, Scripps Institution of Oceanography, La Jolla, California 92093-0223.

GDC Cruise ID# 295

## Report and Index of Navigation and Underway Geophysical Data

### Processed by the Shipboard Technical Support Group Scripps Institution of Oceanography

#### Contents:

Index Chart – gives track of cruise leg, dates, ports, and mileage of each type of data collected.

Track Charts- annotated with dates and hour ticks

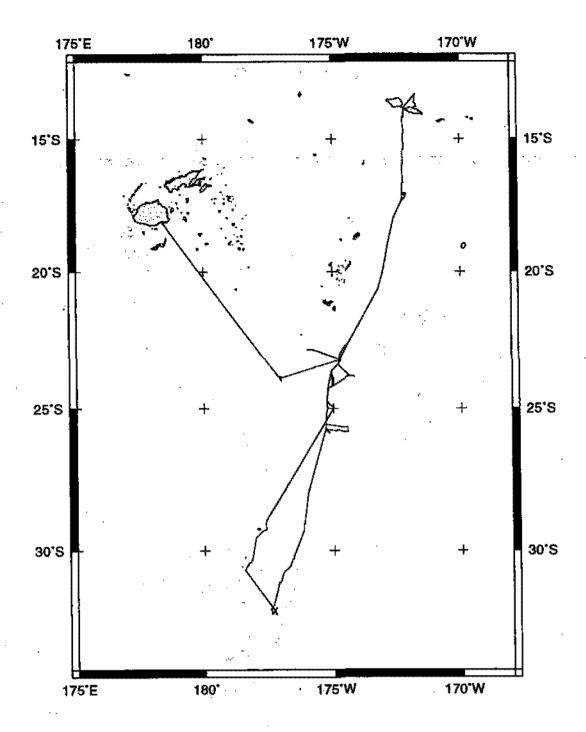
**Profiles** – depth, magnetic and gravity free air anomaly vs. distance. (Sections of track with seismic reflection data have a wide black line along the bottom of the profile.)

Sample Index – list of begin/end times and positions of all underway records as well as samples and measurements from other disciplines collected on the leg.

#### NOTE:

For information on the availability of this current digital data as well as archived digital data contact Stephen P. Miller, Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093-0220 Phone: (858)534-1898, internet email: <a href="mailto:spmiller@ucsd.edu">spmiller@ucsd.edu</a>; or his Website: <a href="http://SIOExplorer@ucsd.edu">http://SIOExplorer@ucsd.edu</a>

Rev 6/2001



## COOK EXPEDITION LEG 14 (COOK14MV)

CHIEF SCIENTIST: Art Yayanos, Scripps Institution

PORTS: Suva, Fiji - Apia, Western Samoa

DATES: 6 - 29 October 2001

SHIP: R/V Melville

## TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise-3304 miles

Magnetics-none collected

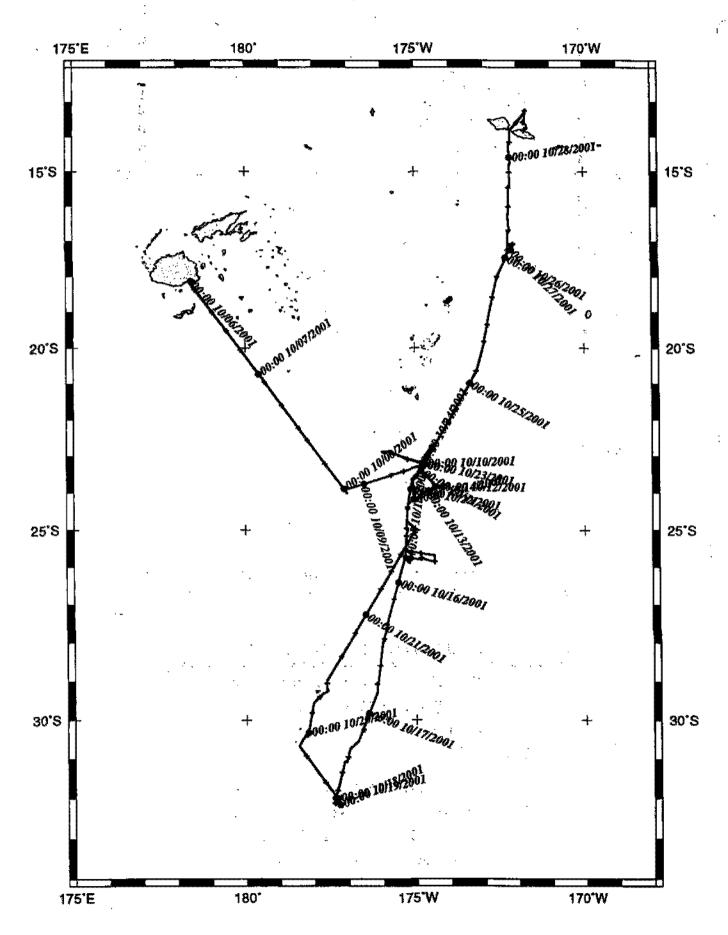
Bathymetry-3300 miles

Seismic Reflection-none collected

Sea Beam-3300 miles

Gravity-3304 miles

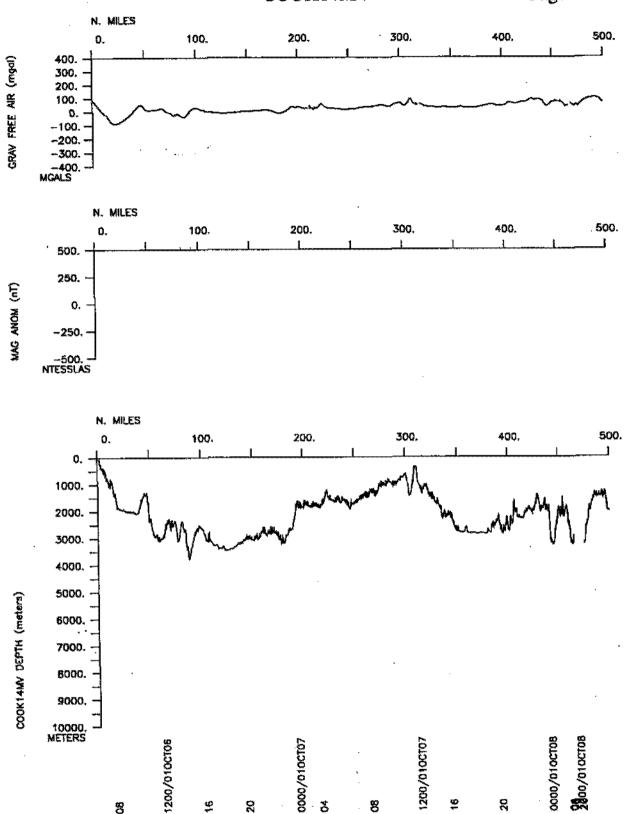
# COOK14MV



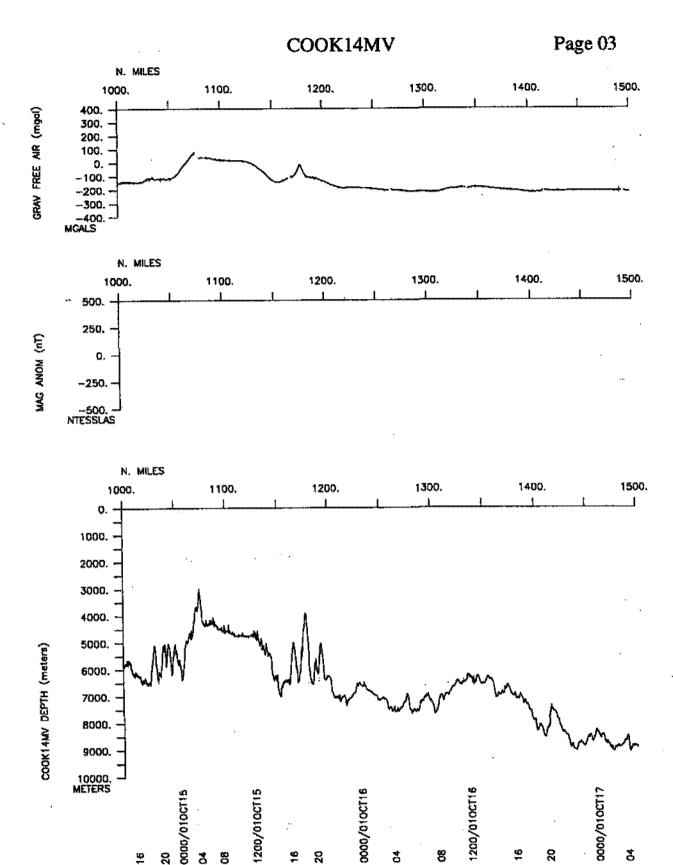


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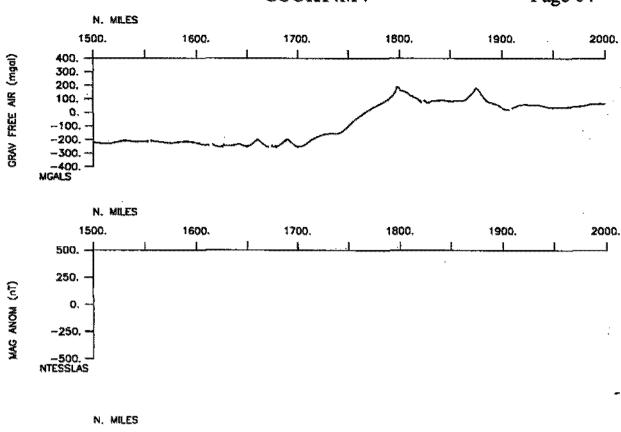
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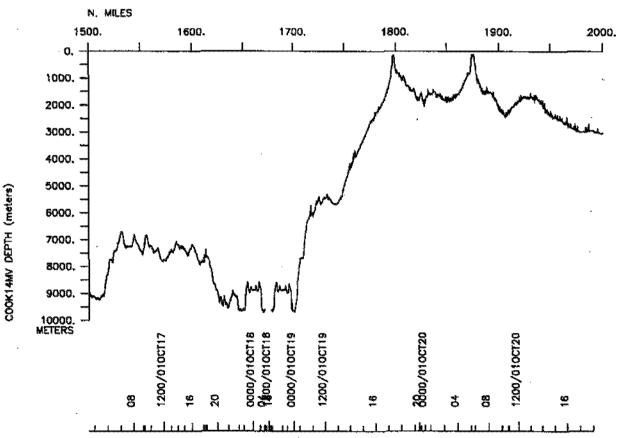
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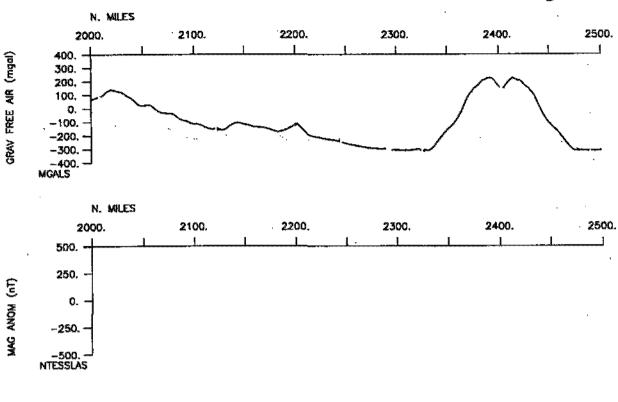
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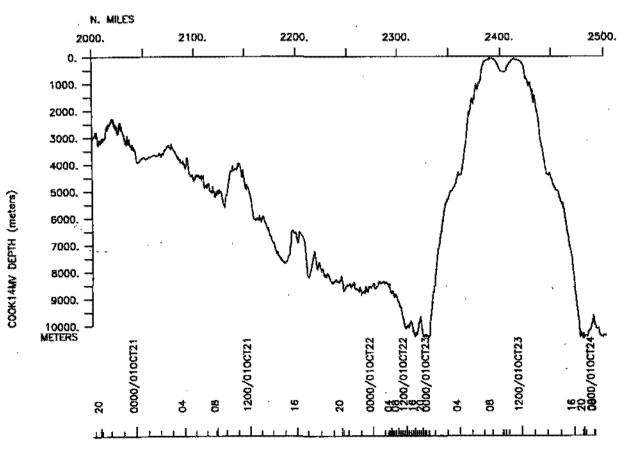


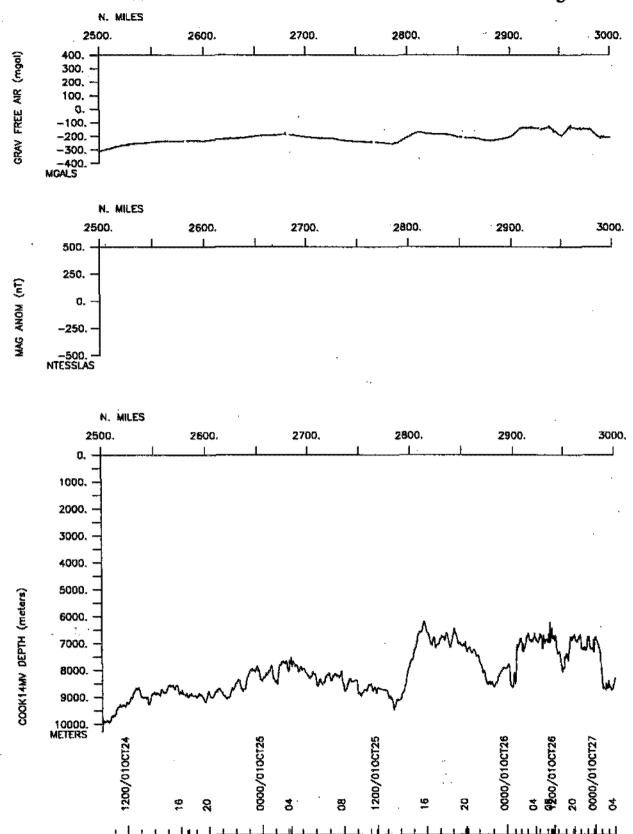


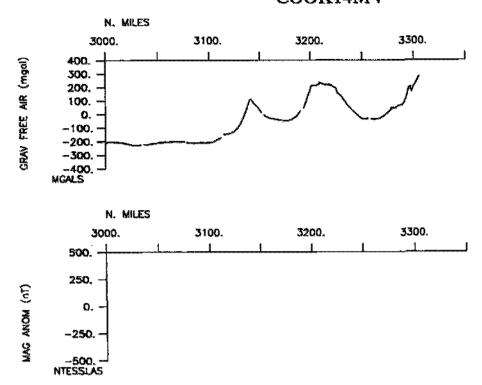


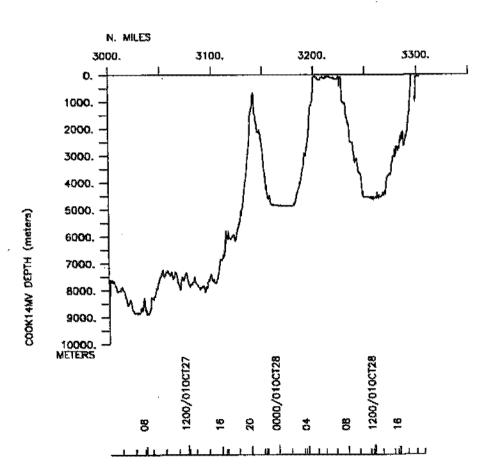
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#### S.I.O. Sample Index

**COOK Expedition** 

Leg 14

(COOK14MV)

R/V Melville

(Issued February 2002)

#### PORTS:

Suva, Fiji (6 October 2001) to Apia, Western Samoa (29 October 2001)

Chief Scientist: Art Yayanos Scripps Institution of Oceanography

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 marine technician and processed on shore by the S.I.O. Shipboard Technical Support Group 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 lines. 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 Shipboard Technical Support Group.)

GDC Cruise ID# 295

#\*\*\* Ports \*\*\*

LGPT B Suva, Fiji 18-08.00S 178-25.00W f COOK14MV LGPT E Apia, Western Samoa 13-49.00S 171-46.00W f COOK14MV 0248 061001 1915 281001

#\*\*\* Personnel \*\*\* \*\*\*\*\*\*\*\*NAME\*\*\*\*\*\* \*\*\*\*\*TITLE\*\*\*\*\* \*\*\*\*AFFILIATION\*\*\* \*\*CRID\*\* 

PECS MRD Yayanos, A. Chief Scientist Scripps Institution COOK14MV
PECS MRD Chastain, R. Technician Scripps Institution COOK14MV
PECS SIO Blankenship, L. Grad student Scripps Institution COOK14MV
PECS SIO Goetze, E. Grad student Scripps Institution COOK14MV
PECT SCG Charters, J. Computer tech Scripps Institution COOK14MV
PERT STS Baiz, T. Resident tech Scripps Institution COOK14MV

#\*\*\* NOTES \*\*\*

#An 'X' in the (B) egin/(E) nd column following the sample code indicates no #sample or data recovered. A 'C' indicates continuation of data collection #from before the beginning or after the end of a particular leg, (moored #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 DDMMYY SAMP B SAMPLE D CRUISE #TIME DATE TZ CODE E IDENTIFIER CODE LATITUDE LONGITUDE & LEG-SHIP 

#\*\*\* Underway Data Curator - Shipboard Technical Support Group ext.41899 \*\*\* \*\*\* Digital Data Curator - Geological Data Center, S.P. Miller, ext.41898 \*\*\*

#\*\*\* MultiBeam Data (vertical beam and side scan) \*\*\*

0454 061001 0 MBSR B Seabeam digital data GDC 18-08.02S 178-24.01E g COOK14MV 1832 281001 0 MBSR E Seabeam digital data GDC 13-47.45S 171-45.39W g COOK14MV

#\*\*\* Digital Gravity \*\*\*

0430 061001 0 GVDD B Digital Gravity GDC 18-07.94S 178-25.46E g COOK14MV 1915 281001 0 GVDD E Digital Gravity GDC 13-49.60S 171-45.72W g COOK14MV

#\*\*\* Integrated Meteorological Acquisition System \*\*\*

0430 061001 0 IMET B Weather measurements GDC 18-07.94S 178-25.46E g COOK14MV 1915 281001 0 IMET E Weather measurements GDC 13-49.60S 171-45.72W g COOK14MV

#\*\*\* Acoustic Doppler Current Profiler \*\*\*

0430 061001 0 ADCP B 300kHz current meas. GDC 18-07.94S 178-25.46E g COOK14MV 1915 281001 0 ADCP E 300kHz current meas. GDC 13-49.60S 171-45.72W g COOK14MV

#GMT DDMMYY SAMP B SAMPLE #TIME DATE TZ CODE E IDENTIFIER	DISP p CRUISE CODE LATITUDE LONGITUDE c LEG-SE	ļ ITD								
	ODE DAILTODE DOMOTIODE C DEG-SC	112								
	· · · · · · · · · · · · · · · · · · ·									
•										
**** Expendable Bathythermographs ***										
2023 061001 0 BTXP MK21 #18 Fast Deep	DC 20-07.64S 179-54.77E g COOK16	1MV								
2034 061001 0 BTXP MK21 #19 Fast Deep	DC 20-09.51S 179-56.22E g COOK1									
2351 071001 0 BTXP MK21 #20 Fast Deep	EDC 23-51.80s 177-07.58W g COOK14	1MV								
0551 091001 0 BTXP MK21 #21 Fast Deep	SDC 23-28.90s 175-41.26W g COOK14	4MV								
0556 111001 0 BTXP MK21 #22 Fast Deep	GDC 23-42.28S 174-31.26W g COOK1	4MV								
0112 131001 0 BTXP MK21 #23 Fast Deep	3DC 24-02.61S 174-46.19W g COOK1									
0121 131001 0 BTXP MK21 #24 Fast Deep	3DC 24-03.35S 174-47.39W g COOK1									
0752 141001 0 BTXP MK21 #25 Fast Deep	3DC 24-56.35S 175-15.57W g COOK1	4MV								
1925 141001 0 BTXP MX21 #26 Fast Deep	GDC 25-45.54S 175-18.58W g COOK1									
2350 151001 0 BTXP MK21 #27 Fast Deep	GDC 26-22.48S 175-29.98W g COOK1									
0435 161001 0 BTXP MK21 #28 Fast Deep	GDC 26-50.12s 175-38.47W g COOK1	4MV								
2029 161001 0 BTXP MK21 #29 Fast Deep	GDC 29-06.20S 176-10.43W g COOK1									
0355 171001 0 BTXP MK21 #30 Fast Deep	GDC 30-14.65S 176-33.79W g COOK1									
0254 181001 0 BTXP MK21 #31 Fast Deep	GDC 32-00.025 177-20.50W g COOK1									
2150 191001 0 BTXP MK21 #32 Fast Deep	GDC 30-20.19S 178-10.19W g COOK1									
1918 201001 0 BTXP MK21 #33 Fast Deep	GDC 27-46.57S 176-49.29W g COOK1									
1934 211001 0 BTXP MK21 #34 Fast Deep	GDC 24-24.08S 175-13.50W g COOK1	4MV								
1922 221001 0 BTXP MK21 #35 Fast Deep	GDC 23-14.835 174-41.51W g COOK1									
2030 241001 0 BTXP MK21 #36 Fast Deep	GDC 21-38.825 173-47.65W g COOK1									
2117 241001 0 BTXP MK21 #37 Fast Deep	GDC 21-30.03s 173-42.54W g COOK1									
2051 251001 0 BTXP MK21 #38 Fast Deep	GDC 18-01.35S 172-35.55W g COOK1									
0017 271001 0 BTXP MK21 #39 Fast Deep	GDC 17-15.29S 172-10.27W g COOK1	AMV								
0802 271001 0 BTXP MK21 #42 Fast Deep	GDC 16-40.89S 172-13.59W g COOK1	ALMV								
0828 271001 0 BTXP MR21 #43 Fast Deep	GDC 16-40.84S 172-12.95W g COOK1									
0830 271001 0 BTXP MK21 #44 Fast Deep	GDC 16-40.635 172-12.97W g COOK1									
0838 271001 0 BTXP MK21 #45 Fast Deep	GDC 16-39.31s 172-13.11W g COOK1 GDC 16-38.75s 172-13.18W g COOK1	AME V								
0841 271001 0 BTXP MK21 #46 Fast Deep										
1139 271001 0 BTXP MK21 #47 Fast Deep 2059 271001 0 BTXP MK21 #48 Fast Deep	GDC 16-02.38S 172-14.52W g COOKI GDC 14-49.29S 172-12.37W g COOKI									
2059 271001 0 BTXP MK21 #48 Fast Deep	div Ta_as.ess riv_re.s. A A coom	· #####								
#*** Net Tows ***										
0600 061001 0 ONXX begin Net Two	MRD 18-15.975 178-27.61E g COOK	L4MV								
0708 061001 0 ONXX begin Net Two	MRD 18-15,60s 178-28.81E g COOK	14MV								
1529 061001 0 ONXX B begin Net Two	MRD 19-32.07S 179-26.84E g COOK	1 4MV								
1639 061001 0 ONXX E end Plankton Tow #2	MRD 19-31.518 179-27.81E g COOK									
TOTE GOTAGE A CHANGE TO SHE ETHINGON YOU HE	AND THE STATE OF T	# ### A								
0126 071001 0 ONXX B begin Net Tow #3	MRD 20-52.46S 179-29.30W g COOK	14MV								
0302 071001 0 ONXX E end Net Tow #3	MRD 20-50.33S 179-29.67W g COOK	14MV								
	100 NO 14 150 170 NE 702 - ANDRE	4 42.00								
1154 071001 0 ONXX B begin Net Two #4	MRD 22-14.16S 178-25.79W g COOK									
1332 071001 0 ONXX E end Net Tow #4	MRD 22-11.84S 178-27.03W g COOK	TeldA								
0251 081001 0 ONXX B begin net tow	MRD 23-53.27s 177-05.89W g COOK	1 /11/17								
The second secon	MRD 23-52.32s 177-05.54W g COOK									
0334 081001 0 ONXX E end net tow	सम्बद्धाः साल समाप्तानमान कार्यः प्रियागानासम्बद्धः ह्यू केल्लिकी	, min "MI A." A								

HTIME	DDMMYY DATE	TZ	CODE	E		DISP CODE	LATITUDE	LONGITUDE	p c	CRUISE LEG-SHIP
	081001 081001				begin Net Tow #6 end Net Tow #6	MRD MRD	23-51.88S 23-50.64S	177-04.78W 177-02.73W	ā	COOK14MV COOK14MV
	091001 091001				begin net #8 end Net Tow #8	MRD MRD	23-13.43s 23-11.40s	174-43.65W 174-44.67W	g	COOK14MV COOK14MV
	091001 101001				begin Net Tow #9 end Net Tow #9	MRD MRD	23-13.56s 23-11.87s	174-43.36W 174-43.42W	g	COOK14MV COOK14MV
	101001 101001	0	ONXX	B E	begin Net Tow #10 Net Tow #10 end	MRD MRD	22-45.71s 22-44.25s	174-32.53W 174-31.50W	g	COOK14MV COOK14MV
	111001 111001				begin Net Tow #11 end Net Tow #11	MRD MRD	23-49.64S 23-46.91S	174-24.56W 174-23.50W	g	COOK14MV COOK14MV
	121001 121001				begin Net Tow #12 end Net Tow #12	MRD MRD	23-50.27s 23-51.76s	174-13.03W 174-10.91W	g	COOK14MV COOK14MV
	131001 131001	0	ONXX	B	Net Tow #13 Net Tow #13	MRD MRD	24-11.38s 24-12.98s	174-59.95W 174-59.98W	g	COOK14MV COOK14MV
	131001 131001				begin Net Tow #14 Net Tow #14	MRD MRD	24-11.27s 24-11.28s	175-01.66W 174-58.33W	g	COOK14MV COOK14MV
1512	131001	. 0	ONXX	В	Net Tow #15	MRD	23-51.858	175-02.63W	g	COOK14MV
	141001 141001				begin Net Tow # 16 end Net Tow #16	MRD MRD	24-57.36S 24-57.40S	175-15.14W 175-12.81W	ig ig	COOK14MV COOK14MV
	151001 151001				begin Net Tow #17 NET Tow #17	MRD MRD	25-47.69S 25-45.65S	174-51.79W 174-49.71W	g Ig	COOK14MV COOK14MV
1522	151001	. 0	ONXX	В	Net Tow #18	MRD	25-44.36s	175-18.080	l g	COOK14MV
	161001 161001	. 0	ONXX	B	begin Net Tow #19 Net Tow #19	MRD MRD	26-52.72s 26-50.35s	175-39.08V 175-38.28V	ł g	COOK14MV COOK14MV
	161001 161001				begin Net Tow #20 Net Tow #20	MRD MRD	27-55.75s 27-54.09s	175-58.049 175-57.050	T g	COOK14MV
1827 2008	161001 161001	. C	ONXX ONXX	E	NET TOW #21 end Net Tow #21	MRD MRD	29-05.21s 29-03.80s	176-09.020 176-10.480	V g	COOK14MV COOK14MV
	171001 171001				B begin net tow #22 B Net Tow #22	MRD MRD	30-13.345 30-14.565	3 176-35.42 3 176-33.74	N Ç	COOK14MV
	171001 7 171001				begin Net Tow #23 end Net Tow #23	MRD MRD	31-04.988 31-03.968	3 177-05.36 3 177-07.82	N ç	COOK14MV
	17100: 17100:				Net Tow #24 end Net Tow #24	MRD MRD		3 177-25.78 3 177-28.33		
	18100: 3 18100:				3 begin Net Tow #25 3 Net Tow #25	MRD MRD	31-59.73: 31-58.51:	3 177-20.77 3 177-22.55	W ç	COOK14MV

#TIME	DDMMYY DATE	TZ 			SAMPLE IDENTIFIER	DISP CODE		LONGITUDE	p c -	CRUISE LEG-SHIP
	191001 191001				begin Net Tow #26 end Net Tow #26	MRD MRD		178-12.24W 178-12.93W		
	201001 201001				begin Net Tow #27 Net Tow # 27	MRD MRD		177-36.35W 177-37.67W		
	201001 201001				begin Net Tow #28 end Net Tow #28			176-48.90W 176-48.48W		
	211001 211001				begin Net Tow #29 end Net Tow #29	MRD MRD		175-43.52W 175-43.42W		
	211001 211001				begin Net Tow #30 end Net Tow #30	MRD MRD		175-13.34W 175-12.27W		
	221001 221001				begin Net Tow #31 end Net Tow #31	MRD MRD		174-43.65W 174-44.01W		
	231001 231001				begin Net Tow #32 end Net Tow #32	MRD MRD		175-57.99W 175-58.94W		
	241001 241001				Net Tow #33 Net Tow# 33	MRD MRD		173-59.49¥ 173-59.96¥		
	251001 251001				begin Net Tow #34 end Net Tow #34	MRD MRD		173-12.039 173-13.389		
	251001 251001				begin Net Tow #35 end Net Tow #35	MRD MRD		172-53.64V 172-53.40V		
	251001 251001				begin Net Tow #36 end Net Tow #36	MRD MRD		3 172-35.58 3 172-35.54		
	261001 261001				begin Net Tow #37 end Net Tow #37	MRD MRD		172-06.95 172-05.82		
	271001 271001				begin Net Tow #38 end Net Tow #38	MRD MRD		5 172-15.14 5 172-13.18		
	271003 271003				begin Net Two #39 end Net Two #39			3 172-14.48 5 172-13.60		
					Net Two #40 end Net Tow #40	MRD MRD		S 172-13.81 S 172-11.72		
	27100 27100				3 begin Net Tow #41 E Net Tow #41	MRD MRD		S 172-12.00 S 172-10.53		
0209	28100	1	O ONXX	ζ ]	3 begin Net Tow #42	MRD	14-10.78	s 172-13.39	W	g COOK14MV
	3 28100 3 28100				B begin Net Tow #43 E end Net Tow #43	MRD MRD		S 171-43.34 S 171-43.29		
					B begin Net Tow #44 E Net Two #44	MRD MRD				g COOK14MV g COOK14MV

#GMT #TIME	DDMMYY DATE	TZ	SAMP CODE	B E	SAMPLE IDENTIFIER		DISP CODE	LATITUDE	LONGITUDE	P C	CRUISE LEG-SHIP
1*											
#*** Free Vehicles **											
	081001 081001		onfv onfv	B	Free Vehicle Free Vehicle		MRD MRD	23-53.35s 23-53.38s	177-05.92W 177-05.92W	g	COOK14MV COOK14MV
	091001 101001				Free Vehicle # Free Vehicle #		MRD MRD	23-13.60s 23-13.66s	174-43.54W 174-43.45W	g	COOK14MV
	101001 111001				F/V #3 F/V #3		MRD MRD		174-49.96W 174-49.67W		
	121001 121001	-			Free Vehicle # F/V #4	4	MRD MRD	23-49.90s 23-49.53s	174-24.86W 174-24.50W	g	COOK14MV COOK14MV
	131001 131001				F/V #5 Free Vehicle #		MRD MRD		174-59.97W 175-00.66W		
	131001 141001				F/V #6 F/V #6		MRD MRD	24-10.91S 24-10.91S	175-02.47W 175-02.96W	g	COOK14MV COOK14MV
	141001 151001				Free Vehicle		MRD MRD	24-10.77s 25-44.63s	175-02.61W 175-18.34W	g	COOK14MV COOK14MV
	171001 181001				Free Vehicle		MRD MRD		177-20.99W 177-20.67W		
	181001 181001				F/V # 9 Free Vehicle	#9	MRD MRD	32~10.02s 32~09.87s	177-15.95W 177-15.35W	g I g	COOK14MV COOK14MV
	221001 231001				F/V #10 Free Vehicle	#10	MRD MRD		174-43.56V 174-43.48V		
	231001 231001				F/V #11 Free Vehicle	#11	MRD MRD	23-13.669 23-13.019	: 174-43.55V : 174-43.51V	V g	COOK14MV
	261001 7 271001	L (	ONE	J E J E	B F/V #12 E F/V #13		MRD MRD		3 172-16.31 3 172-09.71		
	3 261001 3 271001	l (	ONF	/ E	3 F/V #13 5 F/V·#12		MRD MRD	17-14.908 17-20.178	5 172-09.15 5 172-16.66		
	3 261001 0 261001				3 F/V #14 5 Free Vehicle		MRD MRD		\$ 172-06.10 \$ 172-06.15		

#GMT DDMMYY SAMP B #TIME DATE TZ CODE E #				LONGITUDE	p c	CRUISE LEG-SHIP			
#*** Midwater Trawl ***									
0158 221001 0 TMXX B 1915 221001 0 TMXX E				175-04.85W 174-41.61W					
#*** Cores ***									
2118 111001 0 COXX B 0246 121001 0 COXX E	Multi-Core 1 Multi-Core 1	MRD MRD		174-25.00W 174-25.00W					
0200 181001 0 COGV B 0840 181001 0 COGV E	Grav Core 1 Grav Core 1	MRD MRD		177-20.50W 177-20.50W					
2347 231001 0 COXX B 0846 241001 0 COXX E	Multi-Core 2 Multi-Core 2	MRD MRD		174-48.85W 174-48.85W					
#*** Rock Dredge ***									
2235 191001 0 DRRO B 0119 201001 0 DRRO E	Rock Dredge 1 Rock Dredge 1	MRD MRD	30-20.16s 30-19.76s	: 178-10.20W : 178-10.37W	g g	COOK14MV			
#*** SOLO Floats ***									
1015 161001 0 CMXX 1605 211001 0 CMXX 1830 241001 0 CMXX 2103 251001 0 CMXX		MRD	24-59.64s 21-59.89s	175-58.93V 174-59.69V 173-59.78V 172-35.65V	v g v g	COOK14MV COOK14MV			
***	End Sample Index					COOK14MV			

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