

CRUISE
NUMBER

9815

DAILY LOG
INSTITUTE OF OCEAN SCIENCES
OCEAN PHYSICS

DATE

3 - 26 June 1998

VESSEL

JOHN P. TULLY

PROJECT

LINE P

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP			CRUISE							PAGE	OF
1998		JUNE		JOHN P. TULLY			9815							1	
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS	
03	S3	ROS		BE	001	48 35.601	123 30.145		226		1-15 1-11	15 11		NO SAMPLES #16-19 EXIST GPS INFO NOT IN	
03	S3	ROS		BO	001/002									HEADER FILE. PROBLEM	
03	S3	ROS		EN	002	48 35.66	123 30.27							WITH NMEA - RESOLVED	
03	JF1	LOOP	9:05			48 15.990	123 30.016							LOOPS TAKEN	
03	JF2	LOOP	10:02			48 18.020	123 39.866								
03	JF3	LOOP	12:00			48° 26.97	124° 29.98							Air in lab seawater pump	
03	JF4	LOOP	13:54			48 32.34	124 59.92								
03	PLC2	CTD		BE	3	48 27.56	125 07.3		164.						
03	PAC2	CTD		BO	03	(From ship's log)									
03	PLC2	CTD	14:15	EN	03.										
03			15:15											SWITCHING LOOP PUMPS TO TRY TO REMOVE AIR	
03	PCL3	CTD	1728	BE	04	48°45.0 N	125 20.8	122	122						
03	PCL3	CTD	1728 ³¹	BO	04	(From Ship's Log)									
03	PCL3	CTD	1736	EN	04										
03	P1	CTD	21:00	BE	05	48 34.53	125 30.02		115						
03	P1	CTD	21:02	BO	05	48 34.47	125 29.99								
03	P1	CTD	21:04	EN	05	48 34.43	125 29.97								
03	P1	LOOPS	21:12			48 34.41	125 30.66							LOOPS TAKEN	

CAST TYPE - BOT - bottle cast
CTD - ctd
MOR - mooring

ROS - rosette
NET - net haul
DRF - drifter

USW - sea water loop

TIME CODE - BE - beginning time of cast
BO - bottom time of cast
EN - end of cast

DE - deployment time
MR - messenger release
RE - recover mooring

POSITION CODE - RAD - RADAR
GPS - GLOBAL
LOR - LORAN

June 3, 04:24 PDT: Air in the loop water was affecting the fluorometer readings.
Phoned engine room to swap the seawater pump - no one there.

1-82

CTD

DAILY LOG

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03	P2	CTD	2317	BE	06	48 35.95	125 59.98		112	102	20			Bottle 1 was triggered for
03	P2	CTD		BO	06									Phillipe Tortell
03	P2	CTD		EN	06									
03	P2	Loops	2330											
04	P3	CTD	0103	BE	07	48 37.57	126 19.8		803	787				Very close to the
04	P3	CTD		BO	07	48 37.52	126 19.23							bottom from pinger trace.
04	P3	CTD	0137	EN	07									
04	P3	Loops	0140											
04	P4	ROS	0330	BE	08						20-34			
04	P4	ROS	0352	BO	08									
04	P4	ROS	0425	EN	08	48 39.07	126 40.17		1333	1318				
04	P4	NET							150					BONGO NETS TAKEN.
04	P4	ROS	1347	BE	09	48 39.03	126 39.82							Loops 0400
04	P4	GO-FLO	1400	BE										Shallow CTD for PAR
04	P4	GO-FLO	1630	EN										Primary Productivity
04	P4		1656	BE		48 38.64	126 35.85							GO-FLO Bottles
			17	EN										LAPIS Mooring Release

CAST TYPE -

BOT - bottle cast

ROS - rosette

USW - sea water loop

TIME CODE -

BE - beginning time of cast

DE - depth of net

CONSEC - consecutive

CAST TYPE -

BOT -
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MOR -

bottle cast
ctd
mooring

ROS -
NET -
DRF -

rosette
net haul
drifter

USW -

sea water loop

TIME CODE -

BE -
BO -
EN -

beginning time of cast
bottom time of cast
end of cast

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RE -

deployment time
messenger release
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LOR -

RADAR
GLOBAL
LORAN

June 5 / 98

- 0400 - P8 CTD/Rosette 2500m
- 0500 - Primary Conductivity jumped
- 0630 - Rosette covered in red jelly
 - Washed down bottles etc
 - Flushed both Cond. cells w/Triton & Di
 - Re greased both Cond. power connections
- 0900 - P9 CTD cast-cond. looks OK

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4	P4	ROS	1814	BE	10	48 38.98	126 40.14							
4	P4			BO	10	48 38.96	126 40.11				35-52	18		DMS CAST TO 400m
4	P4			EN	10	48 39.00	126 39.97							PAR was reading to 55m
4	P4		MOORING DEPLOYMENT											
4	P5	CTD	2357	BE	11	48 41.54	127 10.14		2100	2110				deployed $\approx$ 2pm
5	P5	CTD	0024	BO	11	48 41.57	127 10.33							New winch cable
5	P5	CTD		EN	11	48 41.52	127 10.85							
5	P5	LOOPS	0029											
5	P6	CTD	0303	BE	12	48 44.74	127 40.01		2553					LOOPS TAKEN
5	P6	CTD	0339	BO	12	48 45.16	127 40.27			2565				LOOPS TAKEN
5	P6	CTD	0411	EN	12	48 45.56	127 40.46							
5	P7	CTD	0707	BE	13	48 46.55	128 10.18		2514					
5	P7	CTD	0744	BO	13	48 46.41	128 10.27			2530				LOOPS TAKEN @ 17:15
5	P7	CTD	0813	EN	13	48 46.35	128 09.82							
5	P8	ROS	1033	BE	14	48 48.98	128 39.86		2524		53-71	19		Loops taken @ 10:37
5	P8	ROS	11:14	BO	14	48 48.85	128 40.9							Cond. looks bad on
5	P8	ROS	11:39	EN	14	48 48.85	128 40.9							up-cast ~ 800m

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CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

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BE -
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EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

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DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS	
5	P9	CTD	1450	BE	15	48 51.32	129 09.97		2347					LOOPS TAKEN.	
5	P9	CTD	1525	BO	15	48 51.29	129 10.02			2389.					
5	P9	CTD	1555	EN	15	48 51.18	129 09.99								
5	P10	CTD	1820	BE	16	48 53.66	129 39.91		2660					LOOPS TAKEN. ¹⁸²⁵	
5	P10	CTD	1855	BO	16	48 53.46	129 39.94			2675					
5	P10	CTD	1922	EW	16	48 53.56	129 40.07								
5	P11	CTD	2245	BE	17	48 56.1	130 10.1		2760						
5	P11	CTD	2325	BO	17	48 56.14	130 09.89							Came very close to bottom.	
5	P11	CTD	2400	EN	17	48 56.14	130 09.89								
5	P11	LOOP	2247			48 56.1	130 10.02								
6	P12	CTD	0221	BE	18	48 58.27	130 39.97							Bottle @ 25 m PAR Cast. to 150 m	
6	P12	ROS	02:39	BE	19	48 58.33	130 39.74		3429	3277	72-93			LOOPS TAKEN 0250	
6	P12	ROS	0325	BO	19	48 58.38	130 39.36			3277.					
6	P12	ROS	0419	EN	19	48 58.74	130 39.31								
6	P12	ROS	1719	BE	20	48 58.30	130 39.87				94-106				
6	P12	ROS	1725	BO	20	48 58.31	130 39.84				107-111	18			
6	P12	ROS	1746	EW	20	48 58.36	130 39.72								
6	P12		1912			48 57.67	130 34.74							MOORING RELEASED	

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0100 UTC June 6 - AIR IN LOOP!

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7	P13	CTD	1:20	BE	21	49 02.59	131 39.88		3029	3055					CTD/LOOPS
7	P13	CTD	2:00	BO	21	49 02.71	131 40.31								Stn. 21 entered by mistake
7	P13	CTD	2:30	EN	21	49 02.71	131 40.31								Corrected to Stn. 13 on data file
7	P14	CTD	7:02	BE	22	49 07.25	132 40.14		3328						
7	P14	CTD	7:43	BO	22	49 07.36	132 40.23								LOOPS TAKEN 17:11
7	P14	CTD	8:15	EN	22	49 07.41	132 40.00								
7	P15	CTD	12:43	BE	23	49 12.00	133 40.03		3285	3287					Loops taken
7	P15	CTD	13:30	BO	23	49 12.06	133 40.1								CTD
7	P15	CTD	13:58	EN	23	49 12.06	133 40.1								
7	P15	LOOP	13:00												
7	P16	ROS	1853	BE	24	49 17.01	134 40.11				112-129				
7	P16	ROS	1859	BO	24	49 17.02	134 40.20								
7	P16	ROS	19 19	EN	24	49 16.98	134 40.14								
7	P16	MOR	20:10	/	/										MOORING PC3 RELEASED
8	P16	ROS	0607	BE	25	49 17.04	134 40.05		3640	400	130-150				
8	P16	ROS	0705	BO	25/26	49 17.15	134 40.41								New File started on upcast by mistake.
8	P16	ROS	0809	EN	26	49 17.09	134 40.63								
8	P16	NET	0930												Bongo 150-0

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8	P16	BOT	1330			49°16.988	134°39.990			150m	150-?!			0630 local time
8	P16	VNH	1520			49°17.047	134°39.776			60m	UBC			UBC Biology Cast Phyto Tows 2x 60m
8	P17	CTD	20:04	BE	27	49 20.91	134 40.19		3380					
8	P17	CTD	20:38	BO	27	49 20.06	134 40.27			2500*				LOOPS TAKEN @ 19:49 49 20.942 135 40.333
8	P17	CTD	21:06	EN	27	49 20.07	134 39.85							* Cast terminated at 2500m due to heave compensator malfunction
9	P18	CTD	01:25	BE	28	49°26.01	136°40.04		2302					Sounder showing wrong #5
9	P18	CTD		BO	28	49°25.82	136°39.98			2999				Loops @ 1830
9	P18	CTD	02:45	EN	28	49 25.62	136 40.08							Transmissometer spike @ 1700m upcast CTD to 2999 m
9	P19	CTD	7:21	BE	29	49 30.08	137 39.99		3150					Loops TAKEN
9	P19	CTD	8:01	BO	29	49 30.03	137 39.95							Sounder mal functioning.
9	P19	CTD	8:31	EN	29	49 30.02	137 40.01							
9	P20	NET	13:15			49 34.06	138 40.06							Bongo/Loops
9	P20	CTD	14:34	BE	30	49 33.99	138°40.04		3974	150				PAR Cast for
9	P20	CTD		BO	30									Primary Productivity
9	P20	CTD	14:34	EN	30	49 33.99	138 40.04							Problem with .CON file.
9	P20	MOR	16:51			49 35.02	138 46.72							Mooring Released: PB2
9	P20	ROS	19:18	BE	31	49 33.98	138 39.96		3975	400	151-168			
9	P20	ROS	19:25	BO	31	49 34.03	138 39.99							

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POSITION CODE - RAD - RADAR
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June 9, 1998

Cast 30 — no transmission!

- discovered that the transmissometer was coming out on Channel 6 A
- edited C:\SEASOFT\9815NEW.CON, D:\DATA\9815\98150030.CON and F:\98150030.CON to reflect this.
 - ↑
 - ↳ SEASAVE.EXE uses this .CON file.
- reprocessed this cast —> all O.K.

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9	P20	ROS	19:42	EN	31	49 34.01	138 40.03								
10	P20	ROS	0411	BE	32	49 33.99	138 40.02		3975		169-190				
10	P20	ROS	0511	BO	32	49 34.39	138 40.56			4021					
10	P20	ROS	0620	EW	32	49 34.63	138 41.30								
10	P21	CTD	10:53	BE	33	49° 38.04	139° 39.92			3968				Loops Taken / CTD	
10	P21	CTD	11:37	BO	33	49° 38.03	139° 39.99								
10	P21	CTD	12:14	EN	33	49° 38.05	139° 39.28							on deck 0520	
10	P22	CTD	1709	BE	34	49 42.04	140 39.95		3962					LOOPS TAKEN	
10	P22	CTD	1751	BO	34	49 42.02	140 39.72			3000					
10	P22	CTD	1823	EN	34	49 41.60	140 40.03								
11	P23	CTD	02:40	BE	35	49° 46.04	141° 40.01		4058.8					9.93° surf. Loops taken @ 19:45 local	
11	P23	CTD	0321	BO	35	49 46.00	141 40.13							CTD only	
11	P23	CTD	0355	EN	35	49 46.09	141 40.18								
11	P24	CTD	0816	BE	36	49 50.02	142 39.88		3997					LOOPS TAKEN 8:39 49 49.941 142 40.240	
11	P24	CTD	08:57	BO	36	49 49.99	142 40.06			3000					
11	P24	CTD	09:35	EN	36	49 50.01	142 40.23								
11	P25	CTD	13:36	BE	37	49° 59.97	143° 36.32		4157					9.2582 surf. temp.	
11	P25	CTD	14:22	BO	37	50° 0.17	143° 36.35			3001				Loops taken @ 0640 local	

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MR - messenger release
RE - recover mooring

POSITION CODE - RAD - RADAR
GPS - GLOBAL
LOR - LORAN

1145 - Sent 2770

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11	P25	CTD	1457	EN	37	50 01.22	143 36.20							
11	P35	CTD	1815	BE	38	50 00.03	144 18.22		4158					
11	P35	CTD	1859	BO	38	49 59.96	144 18.44			3000				LOGS TAKEN
11	P35	CTD	1936	EW	38	49 59.90	144 18.46							
11	P26	DRF	2317	DE		50°08.15	144 47.178							FD STAR
12	P26	MOR	0139	DE		50 04.298	144 55.810		4245.0					MOORING PA27A 1 TRAP
12	P26	CTD		BE	39									PAR CAST FOR M.L.
12	P26	CTD		BO	39									
12	P26	CTD	0227	EN	39	50 00.16	145 00.01							
12	P26	ROS	0247	BE	40	50 00.22	144 59.92		4250	4319	191-214 215-232			MISKIN 2 DID NOT CLOSE PYLON RELEASE DID NOT ACTIVATE
12	P26	ROS	0342	BO	40	50 00.49	144 59.54							
12	P26	ROS	0500	EN	40	50 00.32	144 59.31							
12	P26	ROS		BE	41	50 00.05	145 00.02		4071		215-232			
12	P26	ROS		BO	41									
12	P26	ROS	1308	EN	41	50 00.05	145 00.02							
12	P26	ROS	2239	BE	42				4250	400	233-250			DMS
12	P26	ROS	2245	BO	42									
12		ROS	2301	EN	42	49 59.79	145 00.22							

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13	P26	ROS	04:42	BE	43	50 00.00	144 59.94				251-270	14.		DMC (EVENING), POC
13	P26	ROS	05:01	BO	43									
13	P26	ROS	05:35	EN	43	49 59.88	144 59.35							
13	P26	BOT	12:00	BE		49 59.99	144 59.97							Primary Prod. Sampling
13	P26	DRF	14:56			50 00.95	145 01.59							Lamnor Prod. Drifter
13	P26	ROS	16:04	BE	44									Phillips Enzyme Cast
13	P26		16:06	BO	44									For incubation traps. No sampling
13	P26			EN	44	49 59.79	144 59.69							15 bottles @ 25m
13	PA26	MOR	2319	DE		49 59.403	145 06.093							PA26 Mooring away
14		DRF	0106	RE		50 01.635	144 59.708							Productivity Drifter
14		DRF	0304	RE		50 12.681	144 42.016							FDX RELEASE MESSENGER.
14	P41	CTD	19:51	BE	45	50 27 09	144 59.86		4263					
14	P41	CTD	20:12	BO	45	50 27 11	144 59.93			1500				Loops Taken @ 19:53
14	P41	CTD	20:33	EN	45	50 27.09	144 59.93							
15	P32	CTD	01:42	BE	46	50 53.92	144 59.79			1500				Loops Taken 03:00
15	P32	CTD		BO										
15	P32	CTD		EN		50 53.92	144 59.79							
15		DRF	03:27	DE		50 59.59	145 02.35							MET BUOY #29756

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15	Z01	CTD	0628	BE	47	51 21.03	144 59.97									
15	Z01	CTD	0657	BO	47	51 20.99	144 00.17							LOOPS TAKEN.		
15	Z01	CTD	0714	EN	47	51 21.02	145 00.19									
15	Z02	CTD	10:06	BE	48	51 48.02	145 00.03		3895							
15	Z02	CTD	10:49	BO	48	51 48.09	145 00.05			1500				Loops taken		
15	Z02	CTD	11:09	EN	48	51 48.08	144 59.99									
15	Z03	CTD	13:46	BE	49	52 11.95	145 00.06		4074	1500						
15	Z03	CTD	14:05	BO	49	52 11.79	144 59.92							Loops taken 13:50		
15	Z03	CTD	14:23	EN	49	52 11.78	144 59.93									
15	Z04	ROS	1834	BE	50	52 38.95	144 59.75		4071		271-288					
15	Z04	ROS	1843	BO	50	52 38.85	144 59.64			1500						
15	Z04	ROS	1900	EN	50	52 38.65	144 59.23							52 39.226 19:17 144 59.215 LOOPS		
16	Z04	ROS	0104	BE	51	52 39.01	145 00.01		4010		289-312					
16	Z04	ROS	0205	BO	51	52 39.06	145 00.46			4133						
16	Z04	ROS	0322	EN	51	52 38.83	144 59.95									
16	Z04	BOT	1200													
16	Z05	CTD	1601	BE	52	53 06.06	145 00.07		4089					UBC GOFLO CASTS for 1 hour		
16	Z05	CTD	1622	BO	52	53 05.93	145 00.33			1501				LOOPS TAKEN		

CAST TYPE -

BOT -

bottle cast

ROS -

rosette

USW -

sea water loop

TIME CODE -

BE -

beginning time of

BO -

bottom of

EN -

end of

CONSEC -

consecutive

INIT -

initial

COMMENTS -

comments

16

CAST TYPE -

BOT -

CTD -

MOR -

bottle cast

ctd

mooring

ROS -

NET -

DRF -

rosette

net haul

drifter

USW -

sea water loop

TIME CODE -

BE -

BO -

EN -

beginning time of cast

bottom time of cast

end of cast

DE -

MR -

RE -

deployment time

messenger release

recover mooring

POSITION CODE -

RAD -

GPS -

LOR -

RADAR

GLOBAL

LORAN

DRF

15:12

DE

53 00.00

145 00.00

DRIFTING WET BUDY 29757

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR			MONTH			SHIP			CRUISE			PAGE		OF	
1998			June			Tully			9815						
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS	
16	Z05	CTD	1641	EN	52	53 05.96	145 00.56								
16	Z06	CTD	1941	BE	53	53 32.73	145 00.09		4059						
16	Z06	CTD	2002	BO	53	53 32.79	145 00.11			1500				LOOPS TAKEN @ 19:43	
16	Z06	CTD	20:22	EN	53	53 32.76	145 00.05								
16	Z07	CTD	23:18	BE	54	54 00.09	145 00.08							Strong Internal Waves	
16	Z07	CTD	23:39	BO	54	54 00.16	145 00.28			1500				Cord cells cleaned w/ triton. / hr.	
17	Z07	CTD	00:00	EN	54	54 00.20	145 00.40								
17	Z08	CTD	02:51	BE	55	54 26.66	144 59.96			100				PAR cast for Michael L.	
17	Z08	CTD		BO	55									Loops 02:54	
17	Z08	CTD	02:55	EN	55	54 26.67	144 59.96								
17	Z08	CTD	03:04	BE	56	54 26.56	144 59.80			1500					
17	Z08	CTD	03:24	BO	56	54 26.56	144 59.86								
17	Z08	CTD	03:47	EN	56	54 26.58	144 59.98								
17	Z09	ROS	0731	BE	57	55 00:04	145 00.12			4048	313-336			LOOPS TAKEN ERROR LIGHT,	
17	Z09	ROS	0838	BO	57	55 00.00	145 00.01		4106					CTD FAILED CAST	
17	Z09	ROS	0853	EN	57	55 00.00	145 00.01							TERMINATED AT APPROX. 4000	
17	Z09	NET	11:00	ZOO	TOW: FORMALIN SPILL									FORMALIN SPILL IN WET LAB ABSORBANT APPLIED, DOOR CLOSED CLEANED UP	

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW - sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

STN 57 - RE CTD FAILURE.

SLIPPING CABLE DAMAGED FROM BECOMING ENTANGLED IN SHIP RINGS.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		1998		MONTH		06		SHIP		TULLY		CRUISE		9815		PAGE		OF	
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE		LONGITUDE		POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS			
17	Z09	ROS	14:45	BE	58	54	59.94	145	00.1		4100		313-336			Back UP	Second day cast		
17	Z09	ROS	15:47	BO	58	54	59.63	145	00.92	4085									
17	Z09	ROS	17:06	EN	58	55	00.18	145	02.11						✓				
17	Z09	ROS	20:01	BE	59	54	59.95	145	01.08		4046								
17	Z09	ROS		BO	59					400			337-354	18			#7 not tripped - Operator fumbled in setting up table.		
17	Z09	ROS	20:29	EN	59	54	59.98	145	01.19						✓				
17	Z09	DRF	22:58	DE		54	59.7	144	59.97						21610		Left Station Met Buoy 29766		
18	Z10	CTD	02:40	BE	60	55	29.96	145	00.11		4007	1500					Loops @ 02:47		
18	Z10	CTD	03:00	BO	60	55	30.00	145	00.60										
18	Z10	CTD	03:16	EN	60	55	30.11	145	00.72										
18	Z11	CTD	06:32	BE	61	56	00.04	145	00.07		3902						Loops @ 06:35		
18	Z11	CTD	06:42	BO	61	56	00.08	145	00.18			1500							
18	Z11	CTD	07:10	EN	61	56	00.07	145	00.43										
18	Z12	CTD	10:22	BE	62	56	30.09	144	59.93		3859						Loops taken		
18	Z12	CTD	10:41	BO	62	56	30.20	144	59.91			1500							
18	Z12	CTD	10:56	EN	62	56	30.23	144	59.69										
18	Z13	CTD	14:01	BE	63	56	59.99	145	00.06		3839						Loops taken		
18	Z13	CTD	14:21	BO	63	57	00.17	144	59.89			1500							

CAST TYPE - BOT - bottle cast
CTD - ctd
MOR - mooring

ROS - rosette
NET - net haul
DRF - drifter

USW - sea water loop

TIME CODE - BE - beginning time of cast
BO - bottom time of cast
EN - end of cast

DE - deployment time
MR - messenger release
RE - recover mooring

POSITION CODE - RAD - RADAR
GPS - GLOBAL
LOR - LORAN

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH			SHIP			CRUISE					PAGE		OF	
1998		06			TULLY			9815								
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS		
18	Z13	CTD	1438	EN	63	57 00.24	144 59.78									
18	Z13	DRF	1440	DE	63	57 00.34	144 59.72								0745 29759	
18	Z14	ROS	1738	BE	64	57 30.04	144 59.91		3962		355-372				DMS 400m	
18	Z14	ROS	1744	BO	64	57 30.09	144 59.84			400						
18	Z14	ROS	1806	EW	64	57 30.06	144 59.70									
18	Z14		22130												Hydraulic fluid spill on Rosette Bottles 7-17 fouled. Cleaned with Enigmate II and flushed to 100 m and back	
19	Z14	ROS	02119	BE	65	57 30.07	145 00.03		3950		373-395					
19	Z14	ROS	0326	BO	65	57 29.99	144 59.26			4057					Unusual nepheloid layer was sampled with a salinity bottle and POC 5 live bottle. Nothing obvious in salinity bottle.	
19	Z14	ROS	0437	EN	65	57 29.88	144 59.04									
19	Z14N	ROS	1420	BE	66	57 31.13	144 59.01		3910							
19	Z14N	ROS	1524	BO	66	57 31.69	145 00.39			3850					Bottle trigger within 10 m of the bottom	
19	Z14N	ROS	1620	EN	66	57 31.07	145 00.49								Bottle @ 3850 (middle of Tx) Bottle @ 3750 (top of Tx)	
19	Z15	ROS	1938	BE	67	58 00.13	145 00.25		3874						Loops	
19	Z15	ROS	1953	BO	67	58 00.15	145 00.22			1500						
19	Z15	ROS	2012	EH	67	58 00.23	145 00.07									
19	Z16	CTD	2330	BE	68	58 30.00	145 00.01		3989						Loops 23:36	
19	Z16	CTD	2354	BO	68	58 30.13	145 00.06			1500					UPCAST TRUNCATED	
20	Z16	CTD	0013	EN	68										BY "DISK FULL" ERROR BAD CON File 98150068.con	

CAST TYPE -

BOT -
CTD -
MOR -bottle cast
ctd
mooringROS -
NET -
DRF -rosette
net haul
drifter

USW -

sea water loop

TIME CODE -

BE -
BO -
EN -beginning time of cast
bottom time of cast
end of castDE -
MR -
RE -deployment time
messenger release
recover mooring

POSITION CODE -

RAD -
GPS -
LOR -RADAR
GLOBAL
LORAN

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR		MONTH		SHIP		CRUISE					PAGE		OF	
98		June		Tully		9815								
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
20	Z17	CTD	02:24		69	58 50.00	145 00.00		3984	100	396-409			PAR CAST
20	Z17	CTD	02:37	BE	70	58 50.01	144 59.99		3905					LOOPS TAKEN.
20	Z17	CTD	02:55	BO	70	58 49.94	145 00.12			1500				
20	Z17	CTD	03:12	EN	70	58 49.89	145 00.24							
20	Z18	CTD	05:33	BE	71	59 09.99	145 00.06		4071					LOOPS TAKEN
20	Z19	CTD	05:52	BO	71	59 09.91	145 00.28			1500				
20	Z19	CTD	06:10	EN	71	59 09.89	145 00.51							
20	Z19	ROS	08:16	BE	72	59 26.30	144 59.95		1010		396-409	14		LOOPS TAKEN
20	Z19	ROS	8:27	BO	72	59 26.28	145 00.10			1012				
20	Z19	ROS	8:49	EN	72	59 26.32	145 00.04							
20	Z19	ROS	17:49	BE	73	59 26.31	145 00.12		1014					DHS CAST 400m
20	Z19	ROS	17:54	BO	73	59 26.31	145 00.27			400	410-427			
20	Z19	ROS	18:10	EN	73	59 26.23	145 00.61							
20	Z20	CTD	19:53	BE	74	59 41.32	145 00.11		140					MISSED LOOP
20	Z20	CTD	19:56	BO	74	59 41.28	145 00.13			130				SAMPLES ☹️
20	Z20	CTD	19:59	EN	74	59 41.27	145 00.15							
20	Z21	CTD	21:38	BE	75	59 56.98	144 59.97		172					
20	Z21	CTD	21:43	BO	75	59 56.95	144 59.97			150				

CAST TYPE -

BOT -

bottle cast

CTD -

ctd

MOR -

mooring

ROS -

rosette

NET -

net haul

DRF -

drifter

USW -

sea water loop

TIME CODE -

BE -

beginning time of cast

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bottom time of cast

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end of cast

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deployment time

MR -

messenger release

RE -

recover mooring

POSITION CODE -

RAD -

RADAR

GPS -

GLOBAL

LOR -

LORAN

June 19 - It looks as if cast 65 came down on a vent field. Temperature rise near the bottom and there is a large transmissivity signal with a mixed layer 120 m thick. A salinity and a 5 litre POC bottle were taken from the bottom bottle.
Dist. from bottom: 10 m.



Cast 66 was done 1 mile North of 214.

Some topography was measured as the ship moved with the depth changing to 3890 then back down to 3910.

Hydraulic Blow out - bottles clamed with ENVIROMATE II by Drew Ameroid Marine

Fig. TEMP INVERSION ANT TRANSMISOMETER BURST @ 110 - 120 M. STOPPED ON THE UPCAST & TRIGGERED BOTTLE #1 @ 120M & #2 @ 115M FOR MICHAEL LIPSON.

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

YEAR 1998			MONTH June			SHIP Tully			CRUISE 9815				PAGE OF	
DAY (UTC)	STATION ID	CAST TYPE	TIME (UTC)	TIME CODE	STD/HYDRO CONSEC #	LATITUDE	LONGITUDE	POSITION CODE	BOTTOM DEPTH (m)	MAX SAMPLING DEPTH (m)	CONSEC SAMPLE #	# OF BOTTLES	INIT	COMMENTS
20	Z21	CTD	2145	EN	75	59 56.94	144 59.93							HEADIN' SOUTH!
23	Q19	CTD	0511	BE	76	53 57.89	133 29.70		221					
23	Q19	CTD	0516	BO	76	53 57.86	133 29.63			208				BONGO TO 150
23	Q19	CTD	0519	EN	76	53 57.85	133 29.59							
23	Q19	NET		VNH										Bongo
23	BOWIE	ROS	1708	BE	77	53 16.97	135 39.87		500m		428-445			wrong .con file loaded
23	BOWIE	ROS	1715	BO	77	53 17.00	135 39.89			468				
23	BOWIE	ROS	1737	EN	77	53 16.99	135 39.85							BONGO TO 150
24	G102	CTD		BE	78									
24	G102	CTD	2059	BO	78	51 30.23	129 37.49							
24	G102	CTD	2103	EN	78	51 30.22	129 37.50		150					BONGO'S TO 50m + 130m
25	ODAS	CTD	0140	BE	79	50 51.42	129 54.97		2123					CTD
25	ODAS	CTD	0225	BO	79	50 51.42	129 55.08			2175				
25	O	CTD	0252	EN										
25	ODAS	NET	0315	BE		50 51.367	129 55.240			250 + 50				COBRA NET HAULS
25	J122	CTD	0622	BE	80?	50 39.88	129 17.68		1433					
25	J122	CTD	0632	BO	80	50 39.94	129 17.57			500				
25	J122	CTD	0639	EN	80	50 39.96	129 17.52							BONGO'S TO 50m + 250m

CAST TYPE -

BOT -

bottle cast

CTD -

ctd

MOR -

mooring

ROS -

rosette

NET -

net haul

DRF -

drifter

USW -

sea water loop

TIME CODE -

BE -

beginning time of cast

BO -

bottom time of cast

EN -

end of cast

DE -

deployment time

MR -

messenger release

RE -

recover mooring

POSITION CODE -

RAD -

RADAR

GPS -

GLOBAL

LOR -

LORAN

Found Bowie Seamount Peak @ $53^{\circ} 18.00' N$, $135^{\circ} 39.05 W$

DAILY LOG

OCEAN PHYSICS

INSTITUTE OF OCEAN SCIENCES

[illegible]