

DAILY LOG BOOK

MISSION
NUMBER

2006-13

DATE:

From: 14 JULY

to: 21 JULY 2006

VESSEL:

JOHN P TULLY

PROJECT:

LINE P MOORINGS

INSTITUTE OF OCEAN SCIENCES
OCEAN SCIENCES AND PRODUCTIVITY DIVISION
SIDNEY, BC, CANADA

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month JULY				Year 2006			Ship JOHN P TULLY				Cruise ID 2006-13				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
14	SI03	2020	BE	ROS		1	48 35.56	123 29.98	224						
		2024	BO				48 35.55	123 30.03		215	1-11	11			NO OL sensor
		2038	EN				48 35.60	123 30.09							
15	JF1	0119	BE	LOOP	—	—	48 15.97	123 30.10	161	—	—		ALL		LOOP SAL, NUT, CHL, HPLC
15	JF2	0318		LOOP	—	—	48 17.81	123 59.77	189	—	—		JEB-C		"
15	JF3	0512		LOOP	—	—	48 26.79	124 29.66	229	—	—		JEB-C		"
15	JF4	0650		LOOP	—	—	48 32.19	124 59.26	46	—	—		PHZL		"
15	LOOP1	0900		Loop	—	—	48 33.45	125 20.81	147	—	—		PHZL		Loop NUT, CHL, HPLC
15	LOOP2	0900		Loop	—	—	48 35.21	125 39.24	64	—	—		PHZL		Loop SAL, CHL, HPLC, NUT + PHYT
15	LOOP3	1000		Loop	—	—	48 36.62	125 56.81	100	—	—		PHZL		Loop NUT, CHL, HPLC, PHYT
15	Loop4	1100		Loop	—	—	48 38 86.40	126 14 17.84	413	—	—		MD		Loop NUT, CHL, SAL, HPLC, PHYT Screen IN
15	Loop5	1200		Loop	—	—	48 40 06.01	126 31 99.7	129	—	—		MD		Loop NUT CHL HPLC Screen out
15	Loop6	1300		Loop	—	—	48 41 19.32	126 48 33.84	180	—	—		MD		SAL NUT CHL HPLC
15	Loop7	1400		Loop	—	—	48 41 91.86	127 06 06.99	230	—	—		MD		NUT CHL HPLC
15	Loop8	1500		Loop	—	—	48 42.81	127 29.68	?	—	—		MR		SAL, CHL, HPLC, NUT
15	Loop 9	1600	BE	Loop	—	—	48 44.19	127 38.00	2570	—	—		MR		NUT, HPLC, 7 CHLs
15	Loop 10	1700	BE	"	—	—	48 45.52	127 51.70	2531	—	—		MR		SAL, CHL, HPLC, NUT
15	Loop 11	1800	BE	Loop	—	—	48 46.99	128 17.13	2475	—	—		MR		CHL, HPLC, NUT, FILTER 4000
15	Loop 12	1900	BE	Loop			48 49.58	128 35.33	2503	—	—		DY		SAL, CHL, HPLC, NUT * 7

Cast type:

BOT = bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD

USW = sea water loop

MOR = mooring
NET = net haul
DRF = drifter

bottle firing method:

US = up/stop
UN = up/no stop
DN = down/no stop

Time Code

BE = beginning time of cast
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Transmissometer to be cleaned for each cast, do not use Ammonia products

Daily_log_book.doc

Leave ST03 @ 1345 local
Safety meeting @ 1430

Start TSG R/L 0002 hrx @ ~ 2355 UTC 14 JULY ~ 4822.7 123152

STOP TSG R/L 0002 hrx @ 1816 UTC
1116 LOCAL, 15 JULY TO REBOOT.

START TSG R/L 0003 hrx @ 1133 LOCAL, 15 JULY
1833 UTC

* Note - LOOP 12 A+B have PEN on lid, PENCIL on vial

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15	Loop 13	2000	BE	Loop			48 49.93	128 52.85	2492				DY		CHL HPLC, NUT, Filter 29 4 hrs
15	Loop 14	2100	BE	Loop			48 50.93	129 10.90	2404				DY		SAL, CHL, HPLC, NUT
15	Loop 15	2200	BE	Loop			48 57.06	129 29.17					DY		CHL, HPLC, NUT, Filter 96 hrs
15	Loop 16	2300	BE	Loop			48 53.38	129 41.26	2793				2LE		CHL SAL HPLC NUT SAL
16	Loop 17	0000	BE	Loop			48 54.42	130 04.41	2797				2LE		CHL 901700 CHL HPLC NUT
16	Loop 18	0100	BE	Loop			48 56.14	130 23.80	2440				2LE		CHL SAL HPLC NUT
16	Loop 19	0200	BE	Loop			48 57.89	130 41.77	2931				2LE		CHL 901900 CHL HPLC NUT
16	Loop 20	0300	BE	Loop			48 58.96	131 00.65	1908				2LE		CHL HPLC, NUT SAL
16	Loop 21	0402	BE	Loop			48 00.67	131 21.27	3200				TEBC		CHL 702130 CHL HPLC NUT
16	Loop 22	0500	BE	Loop			49 02.25	131 39.86	3130				TEBC		CHL SAL HPLC NUT
16	Loop 23	0601	BE	Loop			49 03.39	131 58.48	3129				TEBC		CHL HPLC NUT
16	Loop 24	0700	BE	Loop			49 04.24	132 16.38	2491				PH2L		CHL HPLC NUT SAL
16	Loop 25	0800	BE	Loop			49 06.18	132 35.26	3214				PH2L		CHL HPLC NUT
16	Loop 26	0900	BE	Loop			49 07.47	132 54.06	3345				PH2L		CHL HPLC NUT SAL
16	Loop 27	1000	BE	Loop			49 09.42	133 12.86	3352				PH2L		CHL HPLC NUT
16	Loop 28	1100	BE	Loop			49 10.4865	133 31.8625	3253				MD		Plankton screen on SAL CHL HPLC NUT
16	Loop 29	1200	BE	Loop			49 11.5701	133 51.0584	3004				MD		CHL HPLC NUT
16	Loop 30	1300	BE	Loop			49 12.6732	134 10.2049	3598				MD		Plankton screen off SAL CHL HPLC NUT
16	Loop 31	1400	BE	Loop			49 13.7600	134.29 5186	3584				MD		CHL HPLC NUT

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INSTITUTE OF OCEAN SCIENCES

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							Latitude	Longitude							
16	Loop 32	1500	BE	Loop			49 15.50	134 49.46	3347				MR		SAL, CHL, NUT, HPLC
16	Loop 33	1600	BE	Loop			49 17.32	135 09.12	3383				Y/L		CHK, NUT, HPLC
16	Loop 34	1700	BE	Loop			49 19.25	135 28.70	2955				Y/L		SAL, NUT, CHL, HPLC
16	Loop 35	1800	BE	Loop			49 20.77	135 48.47	3575				Y/L		NUT, CHL, HPLC
16	Loop 36	1900	BE	Loop			49 22.11	136 08.47	3745				DY		SAL, NUT, CHL, HPLC
16	Loop 37	2000	BE	Loop			49 23.20	136 27.78	3840				DY		NUT, CHL, HPLC
16	Loop 38	2100	BE	Loop			49 24.24	136 46.84	3855				DY		SAL, NUT, CHL, HPLC
16	Loop 39	2200	BE	Loop			49 25.55	137 5.71	3921				DY		NUT, CHL, HPLC
16	Loop 40	2300	BE	Loop			49 26.71	137 24.80	3910				ZLE		NUT, CHL, SAL, HPLC
17	Loop 41	0000	BE	Loop			49 27.98	137 43.48	3957				ZLE		NUT, CHL, HPLC
17	Loop 42	0100	BE	Loop			49 29.80	138 03.90	4002				ZLE		SAL, NUT, CHL, HPLC
17	Loop 43	0200	BE	Loop			49 31.08	138 22.40	4007				ZLE		CHL, NUT, HPLC
17	Loop 44	0300	BE	Loop			49 32.54	138 42.99	3943				Y/L		NUT, CHL, SAL, HPLC
17	Loop 45	0400	BE	Loop			49 34.09	139 02.83	3919				Y/L		NUT, CHL, HPLC
17	Loop 46	0500	BE	Loop			49 35.71	139 22.78	3928				Y/L		NUT, CHL, SAL, HPLC
17	Loop 47	0600	BE	Loop			49 37.29	139 42.68	3935				Y/L		NUT, CHL, HPLC
17	Loop 48	0700	BE	Loop			49 38.18	140 02.36	3923				PHZL		NUT, CHL, SAL, HPLC
17	Loop 49	0800	BE	Loop			49 40.31	140 22.10	3940				PHZL		NUT, CHL, HPLC
17	Loop 50	0900	BE	Loop			49 41.56	140 41.65	3936				PHZL		NUT, CHL, HPLC, SAL

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Daily_log_book.doc

- Stop TSG @ 1231 Local to start ASCII output (1931 UTC)
- Re-Start TSG @ 1234 " (1934 UTC)

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments	
17	Loop 51	1000	DE	LOOP			49 42.72	141 01.07	3956				PIAZZ		NUT, CHL, HPLC	
17	Loop 52	1100	BE	Loop			49 44 1103	141 20 6684	3988				MD		NUT, sal, Hplc, chl Plankton Screen on	
17	Loop 53	1200	BE	Loop			49 45 6200	141 41 0901	4029				MD		NUT Hplc chl	
17	Loop 54	1300	BE	Loop			49 47 0101	142 01 0682	4013				MD		Plankton Screen off SAL NUT Hplc chl	
17	Loop 55	1400	BE	Loop			49 48 7260	142 21 1075	4000				MD		NUT Hplc chl	
17	Loop 56	1500	BE	Loop			49 50.52	142 41.31	3962				MR		NUT - HPLC - CHL - SAL	
17	Loop 57	1600	BE	Loop			49 52.35	143 01.01	4032				MR		NUT - HPLC - CHL	
17	Loop 58	1700	BE	Loop			49 54.19	143 20.60	4075				MR		SAL - NUT - HPLC - CHL	
17	Loop 59	1800	BE	Loop			49 56.15	143 40.34	4124				MR		NUT - CHL - HPLC	
17	Loop 60	1900	BE	LOOP			49 57.47	143 59.64	4113				DY		sal, nut, chl, HPLC	
17	Loop 61	2000	BE	Loop			49 59.07	144 19.09	4123				DY		NUT, chl, HPLC	
17	Loop 62	2100	BE	Loop			50 01.61	144 38.13	4149				DY		sal NUT CHL HPLC	
18	P26	0609	Bo	NET		2	50 00.26	145 03.03	4223	250			DY/DT		Bongo to 250m	
		0613	EN	"		"	50 00.23	145 02.92								
18	P26	0631	BE	ROS		3	50 00.09	145 02.71	4223				MR/PB	✓	Filtered 02	
		0723	Bo				49 59.82	145 02 65		4312	12-35	24				
		0834	EN				49 59.82	145 02.58								
18	P26	0850		DRF		4	50 00.134	145 02.536							Deploy float 2684	
18	Loop 63	1000		Loop			49 59 9400	144 43 4115					MD		NUT/CHL/HPLC	

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2245 17 JULY LOCAL TIME SED. TRAPS MOORING ALL ABOARD

FLOAT 2684 STARTED 2340 17 JULY Local
0640 18 JULY UTZ

July 17 2006

1530 local time - Released Solas Mooring 50° 01 781 N
- All on deck 1915 144° 56 112 W

1955 local time - Released P-26 mooring 49° 58 020 N
145° 01 810 W

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							Latitude	Longitude							
64	Loop 64	1100	DE	Loop	-	-	49 58.9500	144 24 4916	4070				MDL		Phyto Screen on NUT, CHL, HPLC, SAL
18	Loop 65	1212	BE	Loop	-	-	49 57.826	144 00.1688	4107				MD		NUT, CHL, HPLC
18	Loop 66	1300	BE	Loop	-	-	49 57.4341	143 48.7916	4135				MD		Phyto Screen on NUT, SAL, HPLC, CHL
18	Loop 67	1400	BE	Loop	-	-	49 56.8699	143 30.1206	4103				MD		NUT, CHL, SAL, HPLC
18	Loop 68	1500	BE	Loop	-	-	49 56.22	143 11.93	4080				MR		CHL, SAL, NUT, HPLC
18	Loop 69	1600	BE	Loop	-	-	49 55.36	142 54.06	4003				YL		2 CHLs, NUT, HPLC
18	Loop 70	1700	BE	Loop	-	-	49 54.82	142 35.70	4031				YL		CHL, SAL, NUT, HPLC
18	Loop 71	1800	BE	Loop	-	-	49 54.45	142 17.26	4003				YL		CHL, 2 NUTs, HPLC
18	Loop 72	1900	DE	Loop			49 53.71	141 58.70	4000				DY		SAL, NUT, CHL, HPLC
18	Loop 73	2000	BE	Loop			49 52.86	141 41.14	4019				DY		NUT, CHL, HPLC
18	Loop 74	2100	DE	Loop			49 52.27	141 23.39	4031				DY		SAL, NUT, CHL, HPLC
18	Loop 75	2200	BE	Loop			49 51.67	141 05.6	4418				DY		NUT, CHL, HPLC
18	Loop 76	2300	BE	Loop			49 51.22	140 49.10	2262				2LE		SAL, NUT, CHL, HPLC
18	Loop 77	0000	BE	Loop			49 50.53	140 30.35	3080				2LE		NUT, NUT, CHL, HPLC
19	Loop 78	0059	BE	Loop			49 49.82	140 11.32	3880				2LE		SAL, NUT, CHL, HPLC
19	Loop 79	0200	BE	Loop			49 49.12	139 53.53	3924				2LE		NUT, NUT, CHL, HPLC
19	Loop 80	0300	BE	Loop			49 48.32	139 34.84	3924				YL		NUT, SAL, CHL, HPLC
19	Loop 81	0400	BE	Loop			49 47.61	139 17.00	3910				YL		2 NUTs, CHL, HPLC
19	Loop 82	0500	BE	Loop			49 46.87	138 59.09	3900				YL		NUT, SAL, CHL, HPLC

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Daily_log_book.doc

July 18 2006

1600 - Filtered P26 HPLC Samples #32, #33, #34 from fridge from July 17

1700 - Filtered CHL Loop Sample 69 335ml 8hr test

2000 - Filtered CHL Loop Sample 69 335ml (11hrs whoops) test!

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>July</i>				Year <i>2006</i>				Ship <i>J. P. Tully</i>				Cruise ID <i>2006-13</i>			
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
19	Loop 83	6:00		Loop			49.45.91	138.40.75	3920				YL		2NUTs, CHL, HPLC
19	Loop 84	7:00		Loop			49.45.02	138.22.92	3430				PHL		1NUTs, CHL, HPLC, SAL
19	Loop 85	8:00		Loop			49.44.40	138.04.36	3924				PHL		2NUT, CHL, HPLC
19	Anyo	0804					49.44.460	138.03.854	3922				MR		Deploy Float 2685
19	Loop 86	9:00		Loop			49.43.72	137.47.53	3843				PHL		NUT, CHL, HPLC, SAL
19	Loop 87	10:00		Loop			49.43.28	137.28.25	3838				PHL		2NUT, CHL, HPLC
19	Loop 88	1100	BE	Loop			49.42.7604	137.08.6664	3875				MD		SAL, CHL, HPLC, NUT ^{Phyto} screen
19	Loop 89	1200	BE	Loop			49.42.0404	136.50.0121	3842				MD		CHL, ² NUT, HPLC
19	Loop 90	1300	BE	Loop			49.41.5126	136.30.1404	3738				MD		SAL, CHL, HPLC, NUT, ^{Phyto} screen
19	Loop 91	1400	BE	Loop			49.40.6904	136.11.0447	3715				MD		CHL, HPLC, NUT XZ
19	Loop 92	1500	BE	Loop			49.39.76	135.51.22	3601				MR		SAL, CHL, NUT HPLC
19	Loop 93	1600	BE	"			49.38.80	135.31.58	3234				MR		CHL, HPLC, 2 NUT
19	Loop 94	1700	BE	Loop			49.37.78	135.12.27	3582				MR		SAL, CHL, NUT HPLC
19	Loop 95	1800	BE	"			49.37.35	134.53.25	3572				MR		CHL, HPLC, 2 NUT
19	Loop 96	1900	BE	Loop			49.37.17	134.34.54	3466				DY		NUT CHL HPLC
19	Loop 97	2001	BE	"			49.36.46	134.15.45	3481				DY		CHL HPLC 2 NUTs
19	Loop 98	2100	BE	Loop			49.35.31	133.57.98	3440				DY		NUT CHL HPLC
19	Loop 99	2200	BE	Loop			49.34.72	133.38.84	3303				DY		CHL HPLC 2 NUTs
19	Loop 100	2300	BE	Loop			49.34.25	133.19.41	3301				2LE		

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FLOAT 2605 STARTED @ 2127 18 JULY LOCAL
0427 19 JULY UTC

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	#of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
20	Loop 101	00:00	BE	Loop			49.33.64	133.00.09	3280				YL		2 NUTs, CHL, HPLC
20	UNION	0100		MOOR			49 32 73	132 42 30	320				ZLE		mooring recovery
	NO LOOP	102													
20	Loop 103	2:00	BE	Loop			49.31.65	132.32.94	2761				YL		2 NUTs, CHL, HPLC
20	Loop 104	3:00	BE	Loop			49.28.46	132.13.30	3072				YL		NUT, SAL, CHL, HPLC
20	Loop 105	4:00	BE	Loop			49.25.62	131.53.67	3055				YL		2 NUTs, CHL, HPLC
20	Loop 106	5:00	BE	Loop			49.22.81	131.34.22	3135				YL		NUT, SAL, CHL, HPLC
20	Loop 107	6:00	BE	Loop			49.19.62	131.15.21	2485				YL		2 NUTs, CHL, HPLC
20	Loop 108	7:00	BE	Loop			49 17 00	130 55.30	2191				PH2L		NUT, SAL, CHL, HPLC
20	Loop 109	8:00	BE	Loop			49 14.24	130 25.82	2191				PH2L		2 NUT, CHL, HPLC
20	Loop 110	9:00	BE	Loop			49 11.67	130 10.73	2211				PH2L		NUT, SAL, CHL, HPLC
20	Loop 111	10:00	BE	Loop			49 08.84	129 57.05	2435				PH2L		2 NUT, CHL, HPLC
20	Loop 112	11:00	BE	Loop			49 06 09.04	129 38 19.18	2470				MD		PH2L on, NUT, SAL, CHL, HPLC
20	Loop 113	12:00	BE	Loop			49 03 33.21	129 19 89.99	2447				MD		2 NUT, HPLC, CHL
20	Loop 114	13:00	BE	Loop			49 00 62.22	129 01 52.01	2416				MD		SAL, NUT, HPLC, CHL, ^{Screen} off
20	Loop 115	14:00	BE	Loop			48 57 83.11	128 42 91.01	2556				MD		NUT X2, HPLC, CHL
20	Loop 116	15:00	BE	Loop			48 54.83	128 24.27	2497				MR		SAL, CHL, NUT, HPLC
20	Loop 117	16:00	BE	Loop			48 51.80	128 05.24	2504				MR		2 NUT, CHL, HPLC
20	Loop 118	17:00	BE	Loop			48 49.11	127 46.68	2546				MR		SAL, NUT, CHL, HPLC

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July 19 2004

1800 local time - AT Union Sea mount
1806 - Sent release code
1807 - On surface
1830 - All on board

DAILY LOG

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[illegible]

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bottle firing method.
US = up/stop
UN = up/no stop
DN = down/no stop

Time Code

BE = beginning time of cast
BO = bottom time of cast
EN = end time of cast

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

Transmissometer to be cleaned for each cast, do not use Ammonia products

USC $\Rightarrow$ Local - 7

Phyto Sample Collected from Loop through $100\mu\text{m}$ mesh (from Zorp. kit)

July 20/06 1815-1900 Local Time $100\mu\text{m} \approx$ Loop 124

July 20/06 1900-2030 Local Time $100\mu\text{m} \approx$ Loop 125