

DAILY LOG BOOK

MISSION
NUMBER

2005-16

DATE:

From: July 18, 2005 to: July 28, 2005

VESSEL:

John P. Tully

PROJECT:

Sea-Breeze / Effingham Paleo

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

1230 July 19/05 Depart IOS. Sunny & hot (30°C). Clear skies.

1300 Fire & Boat drill.

14 CTD checked out well during SIO1 cast. Sensors agreed in non-gradient area of profile. All bottles tripped. Only 1 sal taken from bottle 1.

0900 July 20/2005

- 1/2" 3x19 wire Electroline Fitting removed & reinstalled inside of the Spooling shiv to allow use of winch for mooring recoveries. The wedge and Threaded collet were not removed, only the clevis Fitting.

MOORING ERO4N7 July 20, 2005 (1st mooring to be recovered)

ARRIVE SITE: 1328 PDT

Sent 6452 = FRI/2: On 2216 Numerous incorrect Ranges 150 - 1500m

Ship de clutches still unstable responses
Reengage engines & move to the NW

1342 - * Turn off lab sounder * BOOO = 2253 2251

1345 Window 6451 Release 6484 Received & Executed 2248

1347 BOOO = 2064 - on way up 2015 1941 1876 1855

1350 - 1329 1058 1050

1400 - 739 717 670

1403 - 505

1406 - Sighted on surface

1420 - out of water

1422 - on deck

1425 - orange on deck

Recovery of FRO4-N3 July 20, 2005

On Site 1506 Sent FRI/2 On = 6432 2202 2201

1507 Sent Window 6431 2198

Release 6434 2201

1509 Sent 9000 - 2082 2018

1512 Sent 0000 (XT6000)-1457

1516 -1276 1517 -1114 1518 1024 1521- 690 1523- 513

1528 - On Surface

1540 - lifted up

1541 - on surface deck

1545 - orange ADLP on deck

474

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>July</i>				Year <i>2005</i>			Ship			Cruise ID <i>2005-16</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		1230	PDT	Report	IOS		after waiting from this morning for a read for water-system								
19	SIØ1	1340	PDT	CTD	Test 1		48 38.89	123 30.39	190			24	DART		1 SAL only - bot 1
		1359	PDT	ROS			48 38.80	123 30.43		181					Thermosal computer died
		1402					48 38.80	123 30.43							Thermosal → LOOP1 SAL ONLY
20	LOOP1	1500	UTC				48 11.77	127 27.15		?		1	DA		LOOP1 SAL ONLY
20	LOOP2	1945	UTC				47 59.76	128 53.89				1	DA		LOOP2 SAL ONLY
20	ERØ4N2														
21	LOOP3	0520	UTC				47 56.71	129 04.30				1	DA		LOOP3 SAL ONLY
21	ERØ5Ø1	1602	UTC	CTD	TOP	2	48 05.09	129 00.92	2265						TEST AIR 4849
				ROS	BOT		48.05.16	129 00.92		2425					
		1736			Surf		48 05.08	129 00.88							
21	LOOP4	1801					48 02.81	129 02.22				1	DA		
21	ERØ5Ø2	1812	UTC	CTD	TOP	3	48 02.61	129 02.36	2300?		8-9	2			
		1857			BOT		48 02.58	129 02.34		2310					
					Surf										
21	ERØ5-03	2009	BE	ROS	OS	4	48 01.07	129 03.15	2179?			0		1	
		2048	BO				48 01.21	129 03.18		2210					
		2121	EN				48 01.45	129 03.87							

Cast type:

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

28 May 2003

Daily_log_book.doc

* The computer logging thermosalinograph data in the Tully lab has quit. It doesn't recognize the hard drive on power up. Stay tuned. DA

Thermosal computer replaced by spare laptop. This computer has only 1 com port so real time data output for the SES is not possible at this time. DA Some bubbles from intake. Froth on surface.

July 21/05

0800 PDT Arrive at CTD station ERO501 10 km @ 20° True NW from end of the axial valley. CTD is in support of JINATH's water property program. At this site also lower ^{spike} acoustic release to test for leakage and test positioning system for ROPOS, 'AR16' Oceanographic [Costa Rica release]. ROPOS transponder attached on CTD moor immediately above Rosette frame. There was a delay as it takes time to lower the "pole" (Short baseline Pos. System).

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month July				Year 2005			Ship Tully				Cruise ID 2005-12				
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							
21	ER05-04	2141	BE	ROS		5	48°00.56	129°03.39	2175						
			BO				48 00.55	129 03.38	2218	7	10-11	2	DA	✓	
		2300	EN				48 00 69	129 03 39							
21	LOOP 5	2330		LOOP		LOOP5	48 01 10	129 03 34			LOOP 5	1	DA		LOOP5 - SAL ONLY
21	ER05Y2	1813	PDT	MOORING (ADCP)			47 58.406	129 05.059	2150						LUMPY Poor Sounder Reading
21	ER05N3	1914	PDT	MOORING (ADCP)			47 57.474	129 05.310	2128						Poor Sounder Reading
22	LOOP 6	1530	UTC	USW		LOOP6	47 57.37	129 05 50			LOOP 6	1	DA		LOOP6 - SAL ONLY
22	ER05N2	1606	UTC	MOORING			47 57.528	129 05.620	2150						Correction needed
22	ER0501	2026	UTC	MOORING			47 56.523	129 05.526	2130						Correction needed
22	ER0505	2057	BE	ROS		6	47°57.99	129°05.25	2100		12-13	2			Hit Plume @ 1950m
		2135	BO				47°58.08	129°05.21		2187					
		2214	EN				47°58.13	129°05.14							
22	LOOP 7	2330		USW		LOOP7	48 00.48	128 49 65			LOOP 7	1	DA		LOOP7 - SAL ONLY
23	ER0506	0107	BE	ROS		7	48 02 29	128 29.97	2572			2	RR		Northk com tied
		0155	BO				48 02 43	128 29.71		2580	14-15				to Rosette cage
		0243	EN				48'02.27	128°29.68							
23	LOOP 8	0308		USW		LOOP8	48 02.86	128 25 57			LOOP 8				LOOP8 - SAL ONLY

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28 May 2003

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FR04-Y2 Recovery July 20, 2005

1556 - Sent 6442 FRI FR2 On
A000

2351m

2201

2263

- coming on to station

1559 - On Station - Window

6441

2206

Release

6484

2201

Received E-mount

- 6442 - 2060

- A000

2031

1922

- it seems the

RT 661 must be reenabled

(FRI/2 On) after releasing

1603 - 1789

1606 - 1448

1609 - 1167

1612 - 845

1615 - 645

1617 - 518

1620 - On Surface

1627 - lifted in air

1630 - ADCP on deck (orange)

1639 - Current meter on deck

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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							
23	ER0507	0459	BE	CTD/ROS		8	48°5.612 N	127°59.86 W	2597.5						Header info may not have correct STN # Did not increment in notes *
		0546	BO				48°5.490 N	128°0.12 W		2620	16-17	2			
		0626	EN				48°5.66 N	127.59.44 W							
	LOOP 9	0525		USW		LOOP 9	48°5.57 N	128°0.02 W			LOOP 9				
23	ER0508	0840	UTC	CTD/ROS		BE 9	48°09.14	127°29.89	2618						
		0928				BO	48°09.126	127°29.993		2656					5m off bottom
		1009				EN	48°09.12	127°30.04	2620						
	Loop 10	0845	UTC	USW		Loop 10	48°09.11	127°29.91							
23	LOOP 11	1100	UTC	USW		LOOP 11	48.09.96	127.20.55			LOOP 11				LOOP 11 SAL ONLY
23	ER0509	1230	BE	ROS		10	48.12.635	127.00.14	2570				SH, RR, DA	✓	FLAT CALM
		1316	BO				48.12.67	127.00.04			18-19	2			
		1352	EN				48.12.619	126.59.927							
23	LC12	1528	BE	CTD/ROS		11	48°14.99	126°39.94	2516		20-21				Header info may not have correct station # Didn't increment in notes * SURFACE TEMP: 15.2
		1616	BO				48°14.98	126°39.97		2543					
		1657	EN				48°15.03	126°40.01							
23	LOOP 12	1602	UTC	USW		LOOP 12	48°14.99	126°39.97			LOOP 12				
23	LC11	1812	BE	CTD/ROS		12	48°18.94	126°26.67	1437.5		22-23				Header info may not have correct station # Did not increment in notes *
		1836	BO				48.18.95	126°26.723		1470.9					
		1901	EN				48.18.946	126°26.705							
Cast type: USW = sea water loop bottle firing method: Time Code															

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ER04-N1 Recovery

July 20, 2003

1803 - On station	B539 = Range = 2206	2219	2220	
1805	B540 Release = 2227		Received & Executed	
1806	B539 Range 2139	2103	2061	Rising
1811 - 1717m	1813-1551			
1819 - 1035m	1824 - 770m	1827 - 716		
1832 - On Surface				
1850 - on deck				

ER04-Y1 Recovery

1910 - On Station	Sen 6422 - FR1/2 ON	2192	2190	
	8000 2181			
1912	6421 - Window - 2188	6484 - Release 2167	Received & Executed	
1915 - 1903m	1920 - 1473	1927 - 764		
1936 - On Surface				

ER04-Y3 Recovery

2002 - Sen 6412 TR1/2 On	= 2177	2167	2166	
2003	5000	2162		
2005 -	6411 - 2162 - Window	6484 - Release - 2161	Received & Executed	
	5000 - 2130			
2007 - 1947	2012 - 1486	2020 - 831	2030 On Surface	2052 On Deck

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							Latitude	Longitude							
23	LOOP 13	1823	UT	USW		LOOP 13	48° 18.95	126° 26.69			LOOP 13				
23	LC10	1946	BE	CTD		13	48 22.386	126° 20.201	1240						Faint turbidity layer
		2006	BO				48° 22.403	126° 20.164		1247					@ 750 m
		2022	EN				48° 22.349	126° 20.196							4 m off bottom
23	LC9	2109	BE	CTD		14	48° 25.940	126 13.678	604						Sunfish spoked on surface
		2121	BO				48° 25.958	126 13.681		600					10 m off bottom
		2131	EN				942	.654							note: →
23	LC8	2222	BE	CTD		15	48° 29.45	126° 07.05	201						hard landing on deck
		2226	BO				48° 29.45	126° 07.04		190					Conductivity cells ok.
		2229	E				48° 29.43	126° 07.07							10 m off bottom
23	LOOP 14	2300		USW		LOOP 14	48 31 31	126 03 41			LOOP 14				Oxy hysteresis
23	LCØ7			CTD		16			131	125					LOOP 14 SAL ONLY
		2329	BO				48 33.004	126 0.446							Beautiful Sunny
		2332	EN				48 33.011	126 0.449							flat calm sunfish
24	LCØ6	0017	BE	CTD		17	48 36.566	125 53.825	93						day. Note: LCØ7
		0018	BO				48 36.587	125 53.798		85					was called LCØ9
		0020	EN				48 36.604	125 53.795							in seaseaves header
															file 2005-16-0016
															.dat

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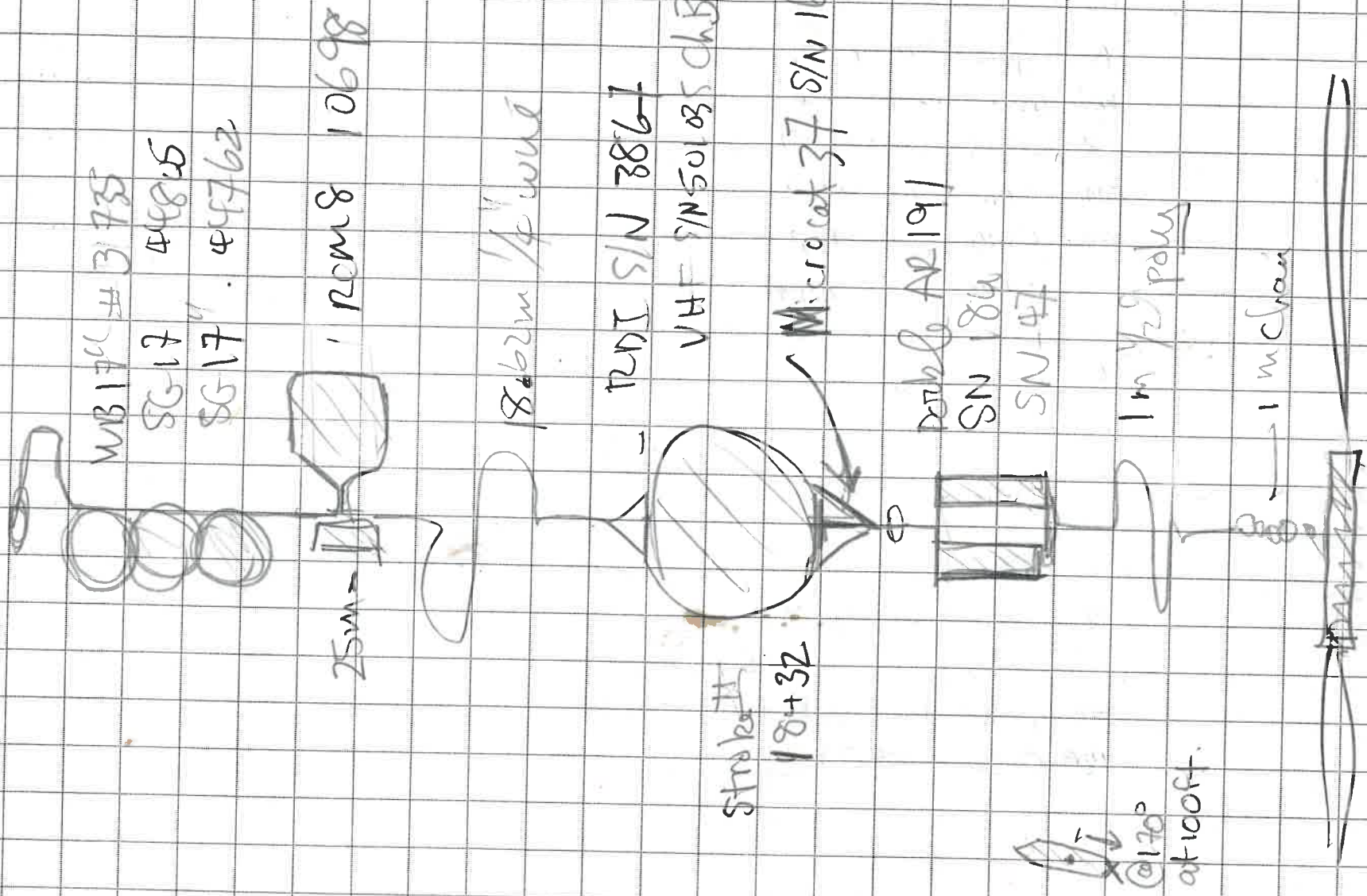
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28 May 2003
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MOORING EROS 1/2
 July 21/05 @ 1800 PDT



100ft A @ 170° T
 Reduce latitude
 CAPTAIN MOORED TO LOCATION
 OF A-FRAME. GPS POSITION
 IS THAT OF THE BRIDGE
 Correction: Actual location
 is 100ft to South along
 170° True

In water: 1810 PDT
 Anchor Away: 1813 PDT
 LAT: 47° 58.406
 LONG: 129° 05.059
 Sounding Depth: 2150 m

Corrected 47° 58.839
 129° 05.055
 RUS

DAILY LOG

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Month <u>July</u>			Year <u>2005</u>				Ship <u>Tully</u>				Cruise ID <u>2005-16</u>				
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							
24	LC05	0104	BE	CTD		18	48° 39.949	125° 47.264	66						Sunny calm
		0107	BO				48° 39.949	125° 47.250							Spring salmon
		0109	EN				48° 39.953	125° 47.243							caught on port 1/4
24	LC04	0153	BE	ROS		19	48° 43.417	125° 40.766	167		24	1	RR	✓	
		0158	BO				48° 43.457	125° 40.741		160					
		0201	EN				48° 43.466	125° 40.708							
24	LC03	0251	BE	CTD		20	48° 46.921	125° 34.187	138						
			BO				48° 46.936	125° 34.174		135					
			EN				48° 46.957	125° 34.159							
24	LC02	0327	BE	CTD		21	48° 48.63	125° 30.97	107						
		0331	BO				48° 48.63	125° 30.93							
		0332	EN				48° 48.63	125° 30.97		110+					Estimated max depth
24	LOOP 15		USW	USW		LOOP 15	48° 47.23	125° 33.61							LOOP 15 SAL ONLY
24	LOOP 16	0333	UTL	USW		LOOP 16	48° 48.63	125° 30.97N							
24	LC01	0408	BE	CTD		22	48° 50.38	125° 27.61W	92						
		0411	EN				48° 50.37	125° 27.71W		90.9					
24	LOOP 17	0414				LOOP 17	48° 50.36	125° 27.71							

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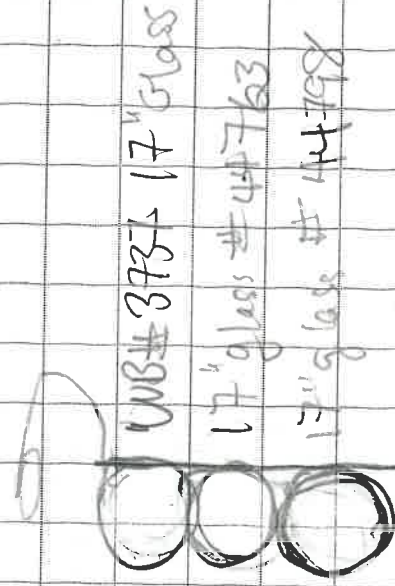
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28 May 2003
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Moreno EROS N3
July 21/08 @ 1900 PDT



25m — Lens # 8730
Vane # 505

NAVTECH
VHE
SNS01-037
160.78500

Light

6.0m

RDI (R SIN) # 38'8

In water: 1905 PDT
Anchor Array: 1914 PDT

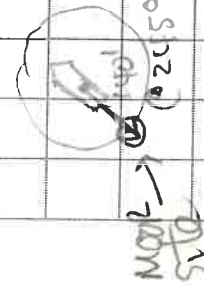
LAT 47 57.474

LONG 129 05.310

Sounder: 2128 m

1 mi "poly" VERY NOISY.

140 @ 2450



Correction: Actual location is under A-Frame
which was 140 feet along 245° true.

Corrected 47 57.464 129° 05.342 Russ
MCDoff

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							Latitude	Longitude								
24	EF16	0510	BE	CTD		23	48°47.62	125°15.94	105							
24	EF16	0518	EN				48°47.71	125°15.86		105.9						
24	LOOP18	0520		LOOP18		LOOP19	48°47.7	125°15.80								
24	EF15	0600	BE			24	48°51.34	125°15.01	97		25-31					
		0618	EN				48°51.42	125°14.96		89.7						
24	EF14	0705	BE	CTD		25	48°54.03	125°13.03	108						10 off bottom	
		0708	EN				48°54.03	125°13.06		98						
24	EF13	0737	BE	CTD		26	48°56.521	125°10.682	106							
		0741	BO				48°56.542	125°10.682		103					3m off	
		0743	EN				556	685								
24	EFF12	0802	BE	ROS		27	48°57.990	125°10.513	94						2m off bottom	
		0805	BO							92	32-38					
		0812	EN				48°58.068	125°10.510								
24	EFF11	0849	BE	ROS		28	48°59.112	125°11.113	89		39-45					
		0852								86					2m off bottom	
		0857	EN				48°59.129	125°11.156								
24	EFF10	0916	BE	ROS		29	48°59.845	125°11.221	99		46-52					
		0919	BO				858	197		97					3m	
		0924	EN				48°59.869	125°11.197								
Cast type: USW = sea water loop bottle firing method: Time Code																

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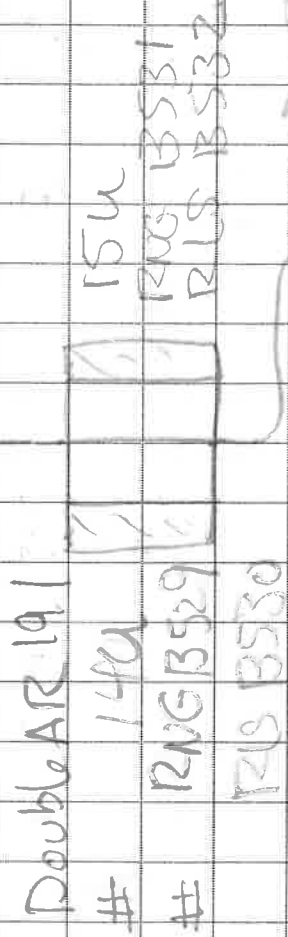
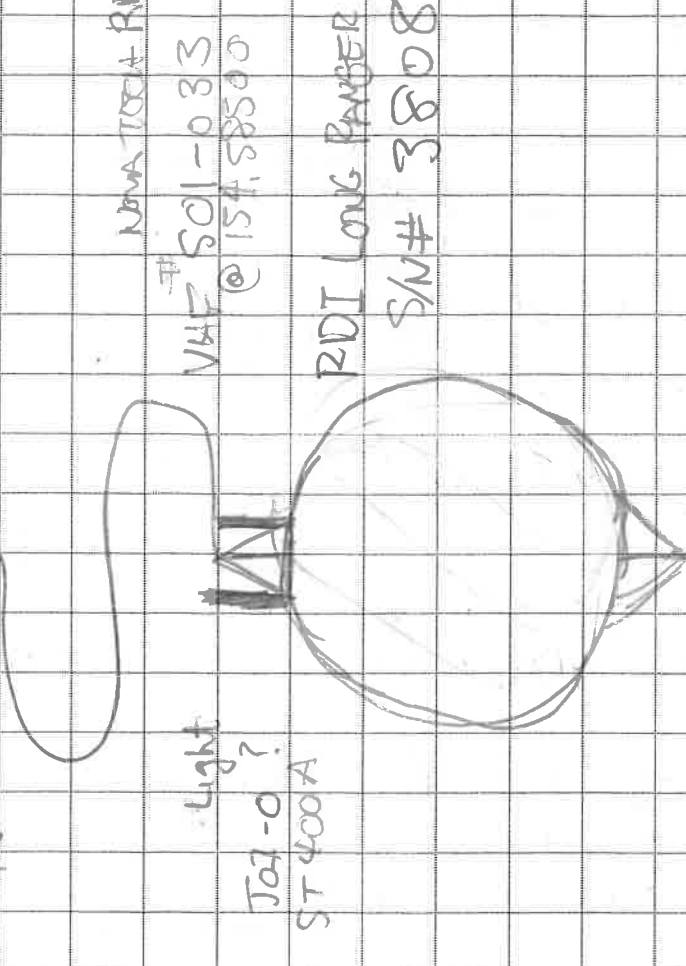
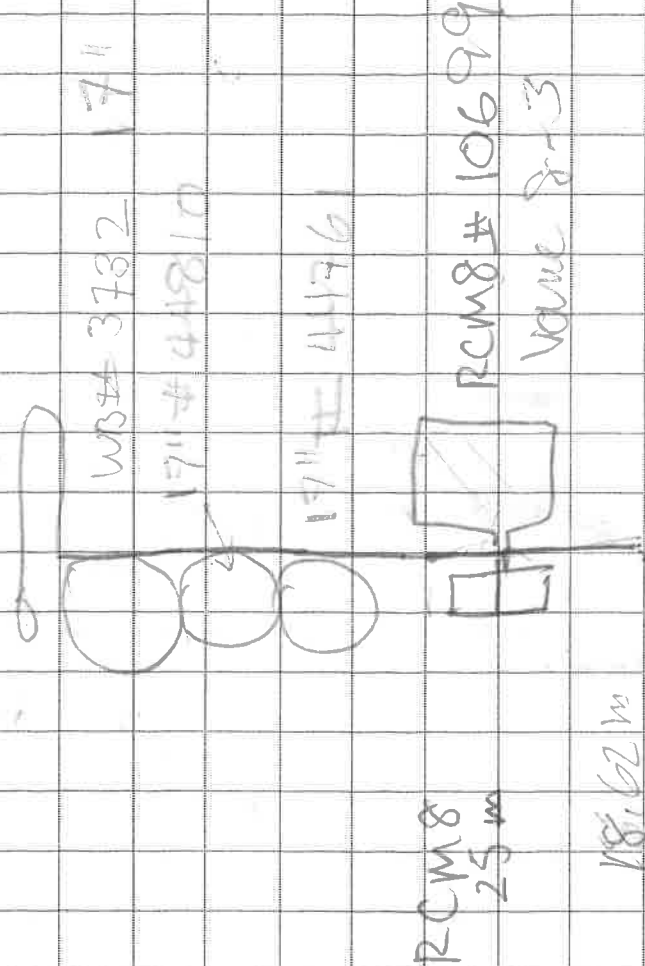
Transmissometer to be cleaned for each cast, do not use Ammonia products

28 May 2003
Daily_log_book.doc

Mooring E R05 N2

July 22/05

PDT



110194
110° True
Correction

IN WATER: 0900 PDT
Anchor Arry: 0906 PDT
LAT 47 57.528
Long: 129 05.620
Soudon 2150m

Need to correct for Bridge - Stern difference.



Corrected
47 57.522
129 05.594

Russ McDuff

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>July</u>				Year <u>2005</u>			Ship <u>Valley</u>				Cruise ID				
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							
24	EFF09	0938	BE	ROS		30	49 00.116	125° 10.876	61		53-58	6			
		0944	EN				49 0.122	125° 10.811		53					2 m off
24	EFF08	1002	BE	ROS		31	49 06.74	125° 10.248	88		59-65	7			
		1004	BO				690	240	0	83					5 m off bottom
		1011	EN				49° 0.724	125° 10.254							
24	EFF07A	1034	BE	ROS		32	49° 0.898	125° 9.784	141		66-74	9			4 m
		1038	BO				49° 0.890	125° 9.825		137					
			EN				49 0.907	125° 9.846							
24	EFF07	1059	BE	ROS		33	49 1.274	125° 9.364	119		75-82				6 m
		1103	BO				49 01.291	125° 09.350		115					pumps not on
		1111	EN				49 01.339	125° 09.334							back to the surface
24	EFF06	1128	BE	ROS		34	49 1.806	125 9.179	152	156	83-91	8			3 m off bottom
		1133	BO				49 1.816	125 9.134			Niskin N02	at	125 m		pumps not on
		1144	EN				49 1.816	125 9.077			Niskin N03	at	100 m		back to the surface
24	EFF05	1206	BE	ROS		35	49° 2.560	125° 9.163	202		92-101				2 m off
		1211	BO				49° 2.560	125° 09.166		200	H ₂ S smell on Niskin				bottom
		1222	EN				49° 2.558	125° 09.197							

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EROSG-1
July 22/2005

VHF ch71
156.575

5m pdu
WB 17" 7362
SG17" 44795
SG17" 45100
1m 5/16" wire

50m Rem 5 SN 3558
Vand #501

SG-17 45135
SG-17 44792
SG-17 33003
1m 5/16" wire

30m SL SN# 31522492
[SL Recovered & Serviced this cruise]

44704 TX 8KHz / Rx 15kHz
#44172
#44788
#44754

July 22/05
Julian 2025 UTC
Anchor AWAY: 2029 UTC
LAT 47° 56' 52.3
LONG 129° 05' 52.6

Rem 11 #39

Sounder: 2130 m
1m 5/16" wire

110ft @ 150° T
corrected
Oceano AR191
SN 190

47 56.507
129 05.512
RASS MODULE

DAILY LOG

Ocean Sciences and Productivity Division

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Month <i>July</i>				Year <i>2005</i>			Ship <i>Tully</i>				Cruise ID <i>CR2005-16</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							
24	EF05B	1248	BE	ROS		36	49 2.551	125 9.173	205						#2 small Nisk 1+2 weak smell on 3
		1249	BO				49 2.550	125 9.179			1020-1060	5			Cast added after more labels made
		1301	EN				49 2.538	125 9.220							* See note right
24	EF05A	1316	BE			37	49 2.803	125 9.144	196	194	102-112	11			3m off bottom
		1321	BO				49 2.808	125 9.151							
		1334	EN				49 2.826	125 9.140							* See note at right
24	EF09A	1358	BE	.		38	49 3.026	125 8.777	101	98	113-123	11			2m off bottom
		1401	BO				49 3.038	125 8.779							
		✓	EN			39	—	—	—						
24	EF09L	1412	BE			39	49 3.118	125 8.598	70		124-129				1 m off bottom
			BO				—	—	55						
		1442	EN				49 3.116	125 8.597							
25	EF3A	15.07	BE			40	49 3.815	125 9.095	95		130-137				2 m off bottom
24		1509	BO				49 3.821	125 9.095		90					
		1521	EN				49 3.863	125 9.101							
25	EF03	1538	BE			41	49 4.254	125 9.427	118	116	138-147				
24		1541	BO				49 4.252	125 9.427		115					3m off bottom
		1556	EN				49 4.26	125 9.443							

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24 JULY - MORNING

EFF 06 — H_2S smell on Niskin 1 bottom 156 m
barely perceptible H_2S on Niskin 2 125 m second deepest

EFF 05 — H_2S smell on Niskin 1 bottom - zero m
This cast was retaken in same location to

EF03A — 70 m — large scattering layer — "front layer." (transmissometer)

EF03 — 60 m — large scattering layer

All samples (deep samples in the inner and outer basin) are anoxic — with H_2S gas smell — pungent

EF04A — Rosette placed into bottom mud — both trans + conductivity show substrate contact. Conductivity cell cleaned/flushed HQ + Triton at surface. No noticeable problems after.

EF05B — Additional cast at EF05 position to improve O_2 resolution.

DAILY LOG

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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							
25	EFO2A	16:10	BE			42	48° 47.70	125° 9.76	93		148-155				
24		16:13	BO				49 46.8	125 9.77		95					
		16:26	EN				49.4.51	125 9.79							
25	EFO2	16:41	BE			43	49° 49.9	125 10.33	68						
24		16:44	BO				49 5.00	125° 10.34		64	156-162				4 m from bottom
		16:52	EN				49 5.06	125 10.34							
25	EFO1	17:28	BE			44	49 5.55	125° 11.66	35		163-167				5 m from bottom
24		17:30	BO				49 5.57	125-11.66							
		17:31	TW				49° 5.56	125-11.67		30					
25	C-1	18:04	UTC			45	49° 5.20	125° 10.74	54		C-1(1), C-1(2)				Lower fill 40 + Run 15 m
24							True bearing	168° (check)							
25	C-3	18:36	UTC			46	49° 3.55	125° 8.95	45		C-3(1), C-3(2)				GRAB SAMPLE POSITIONS
24							True bearing	168° (check)							NEED TO BE
25	C-4	18:56	UTC			47	49° 3.22	125° 8.58	43		C-4(1), C-4(2)				CORRECTED FOR
24							True bearing	168.0° T							BRIDGE (GPS) - AFRAME
25	C-9	19:25	UTC			48	49° 3.05	125° 8.79	102		C-9(1), C-9(2)				OFFSET
24							True bearing	139.0° T							
25	C-6	19:49	UTC			49	49° 2.50	125° 8.78	165		C-6(1), C-6(2)				

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EF02A - Sampled the scattering layer

EF02 - Bottle #1 was anoxic

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							Latitude	Longitude							
24							True bearing	145°T							FAILED TO TRIP
25	C-6	2009	UTC			50	49° 2.51	125° 8.81	172		C-6(1) C-6(2)				FAILED TO TRIP - SAMPLE
24							True bearing	175°T							TAKEN FROM SUBSTRATE ON FRAME.
25	C-2	2031	UTC			51	49° 2.43	125° 8.74	145		C-2(1) C-2(2)				FAILED TO TRIP -
24							True bearing	211°T							VERY SOFT SUBSTRATE
25	C-5	2117	UTC			52	49° 0.91	125° 09.95	31		C-5(1) C-5(2)				Shell - sand-mud
24							True bearing	237°T							
25	C-11	2135	UTC			53	49° 0.75	125° 10.01	95		C-11(1) C-11(2)				MUD / GRAVEL
24							True bearing	244°T							
25	C-8	2154	UTC			54	49° 0.60	125° 10.57	56		C-8(1) C-8(2)				SAND/SILT
24							True bearing	251°T							
25	C-10	2208	UTC			55	49° 0.41	125° 10.68	86		C-10(1) C-10(2)				FINE SAND/SILT
24							True bearing	161°T							
25	C-12	2227	UTC			56	48° 59.98	125° 11.05	66		C-12(1) C-12(2)				ROCKS / MUD
24							True bearing	219°T							
25	C-7	2241	UTC			57	48° 59.89	125° 11.30	79						
24							True bearing	212°T							
25	C-14	2307				58	48° 59.073	125° 11.074	85						Success with Mud
24							ships head	055°T							

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							Latitude	Longitude							
24	C13	2330		SM-MAC		59	48° 57.784	125° 9.993	95						Success with haul
							ships hood	109° T							
25	LE01	0428	BE	CTD/ROS		60	49° 6.97	126° 0.93	44		—				
		0430	BO				49° 6.96	126° 0.95		38					
		0432	EN				49° 6.94	126° 0.98							
25	LE02	0502	BE			61	49° 04.27	126° 4.49	52		—				
		0505	BO				49° 4.29	126° 4.43		49					
		0507	EN				49° 4.29	126° 4.41							
25	LE03	0553	BE			62	49° 0.49	126° 10.57	79		—				
		0556	BO				49° 0.48	126° 10.52		75					
		0557	EN				49° 0.479	126° 10.48							
25	LE04	0649	BE			63	48° 56.50	126° 15.02	121						
		0652	BO				48° 56.50	126° 14.956		109	—				
		0654	EN				48° 56.53	126° 14.94							
25	LE05	0743	BE			64	48° 52.75	126° 20.31	158						
		0746	BO				48° 52.75	126° 20.32		150	—				8m off bottom
		0749	EN				48° 52.75	126° 20.33							
25	LE06	0839	BE			65	48° 48.52	126° 26.24	213						
		0843	BO				48° 48.50	126° 26.22		204					

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							Latitude	Longitude							
		0848	EN				48°48.49	126°26.23							
25	LE07	0942	BE	CTD		66	48°44.20	126°32.06	525 m						
		0951	BO				48°44.21	126°32.07		519					9 off bottom
		0959	EN				48°44.21	126°32.12			168 salt	1			
25	LE07	1104		Loop 19											
25	LE08	1047	BE	CTD		67	48°40.31	126°37.99	1304		169 salt	1			Lumpy swell
		1110	BO				48°40.298	126°38.060		1300					
		1133	EN				48°40.294	126°37.988							
25	LE09	1225	BE			68	48°35.999	126°44.039	1490						Big ol' lumpy
		1251	BO				48°36.005	126°44.010		1480	170	1			swell
		1316	EN				48°36.000	126°44.002							20 knot wind
25	LOOP 20	1500		LOOP	20		48°22.42	126°28.24				1			LOOP 20 - SAL ONLY
25	LB 15	1716	BE	CTD		69	48°04.41	126°08.47	1540		171, 172				"
		1740	BO				48°4.45	126°8.39		1550					"
		1804	EN				48°04.47	126°08.44							A Bit lumpy NW
25	LOOP 21	1742		Loop 21			48°04.46	126°08.41							wind 25+ knots.

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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							
25	LB14	1902	BE	CTD/ROS		70	48°08.47	125°59.94	1173		173				
		1923	BO				48°08.62	125°59.82		1170					10 m off
		1943	EN				48°08.74	125°59.77							
25	Loop														
25	LB13	2014		CTD		71	48°10.601	125°56.054	914						
		2030					48°10.596	125°56.967		909					8 m off bottom
		2045					48°10.774	125°55.772							
25	LB12	2116		CTD		72	48°12.898	125°51.811	509						surface Freshet, not
		2126					48°12.888	125°51.858		505					mixed down post ~ 20m
		2132					48°12.913	125°51.868							
25	LB11	2211	BE	ROS		73	48°15.179	125°47.689	208		174-175	2			small sunfish on
		2216	BO				—————	—————		—					surface
		2221	EN				48°15.152	125°47.747							
25	LB10	2304	BE	ROS		74	48°18.538	125°41.328	156		176	1	RR		big sunfish on
		2308	BO				48°18.565	125°41.351		150					surface
		2312	EN				48°18.589	125°41.320							
26	LB09	0000	BE	ROS		75	48°21.815	125°34.698	153						
		0003	BO				48°21.936	125°34.621		146	177	1		✓	
		0007	EN				48°21.965	125°34.604							

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							Latitude	Longitude							
25	LOOP22	2330		USW		LOOP22	48 19.82	125 38.39	1						
26	LB08	0049	BE	ROS		76	48 25.298	125 28.522	139	130	LOOP 22	1	DA		LOOP22 SAL ONLY
		0052	BO				48 25.306	125 28.498					DA/RE/SH		5m off bottom
		0055	EN				48 25.319	125 28.423			178	1	SH	✓	Nisk vent left open. Sal may be compromised
26	LB07	0138	BE	ROS		77	48 28.663	125 22.033	157						
		0142	BO				48 28.721	125 21.991					SH/RE/DA		3m off bottom
		0145	EN				48 28.728	125 21.972			179	1		✓	Puffin
26	LB06	0233	BE			78	48 32.178	125 15.421	112	112					1 Bottle / Sal only
		0235	BO				48 32.171	125 15.398					6 yeah!		Sunny, flat.
		0237	EN				48 32.154	125 15.391					DA/RE/SH		3m off bottom
26	LB05	0308	BE			79	48° 33.97	125° 12.05	102						Puffin sighting
		0312	BO				48° 33.94	125° 12.09		95		0			
		0314	EN				48° 33.93	125° 12.12							
26	LB04	0348	BE			80	48° 35.66	125° 8.79	109			0			
		0351	BO				48° 35.64	125° 8.85		105					Crew caught 2X
		0353	EN				48° 35.61	125° 8.88							who saw 1st 1 spring
26	LB03	0431	BE			81	48° 37.24	125° 5.61	91			0			
		0434	BO				48° 37.21	125° 5.65		90					
		0436	EN				48° 37.18	125° 5.67							

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							Latitude	Longitude							
26	LB02	0506	BE			82	48°38.95	125°2.37	52			0			
		0509	BO				48°38.94	125°2.36		50.3					
		0510	EN				48°38.93	125°2.37							
26	LB01	0539	BE			83	48°40.36	124°59.23	30			0			In the Fog!
		0540	BO				48°40.36	124°59.53		25					
		0541	EN				48°40.36	124°59.53							
26	LA01	0744	BE	CTD		84	48°29.237	124°43.709	264						altimeter read to 80m
		0752	BO				48°29.243	124°43.699		260					lab radio volume
		0753	EN				48°29.249	124°43.699							turned down ...
26	JFI-1	0937	BE	CTD		85	48°30.025	124°24.961	96						4 m off bottom
		0941	BO				48°30.034	124°24.936		91					strong turbid layer at
		0943	EN				48°30.035	124°24.928							bottom
26	JFI-2	1005	BE	CTD		86	48°28.506	124°25.907	174						3.0 m off bottom
		1010	BO				48°28.520	124°25.889		172					mixed layers top
		1013	EN				48°28.522	124°25.907							& bottom
26	JFI-3	1032	BE	CTD		87	48°26.995	124°26.724	198						still Fogg + but calm
		1037	BO				48°26.987	124°26.738		193					
		1041					48°26.974	124°26.750							

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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							
26	JF1-4	1107	BE	ROS		88	48 25.482	124 27.556	230				DA/ER/SM		2.5 m OFF BOTTOM
		1115	BO				48 25.459	124 27.521			180	1			NO HEAVE COMP
		1120	EN				48 25.484	124 27.517							
26	JF1-5	1147	BE			89	48 24.028	124 28.334	214						LEAVE COMPENSED
		1151	BO				48 23.996	124 28.321		210					(is there such a
		1154	EN				48 23.984	124 28.345							word?)
26	JF1-6	1215	BE	.		90	48 22.535	124 29.178	121						10m off bottom
		1219	BO				48 22.547	124 29.206		110					avoiding submarine
		1221	EN				48 22.565	124 29.189							cable.
26	JF1-7	1247	BE			91	48 21.001	124 28.994	48-50						Sta. JF1-7 same
		1251	BO				48 21.016	124 28.952		43					position as JF1-7
		1252	EN				48 21.017	124 28.952							7 cables east of
26	JF2-7	1354	BE			92	48 16.770	124 17.394	70						station - 7 m off
		1356	BO				48 16.716	124 17.368		65					3m off bottom
		1358	EN				48 16.691	124 17.357							
26	JF2-6	1423	BE			93	48 18.250	124 16.612	170						
		1426	BO				48 18.236	124 16.654		169				✓	2m off bottom
		1431	EN				48 18.233	124 16.666						✓	

Cast type:

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USW = sea water loop
MOR = mooring
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DRF = drifter

bottle firing method:

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Time Code

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

28 May 2003
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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>July</i>				Year <i>2005</i>				Ship <i>Wally</i>				Cruise ID <i>2005-16</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							
26	JF2-5		BE	ROS		94									Had to skip station due to deep-sea traffic
			BO												
			EN												
26	JFE4	1540	BE	CTD		94	48°21.246'N	124°14.929'W	224			0			
	same spot	1543	BO				48°21.216'N	124°14.929'W		221					
	JF2-4	1547	EN				48°21.194'N	124°14.947'W							
26	JF2-3	1609	BE	CTD		95	48°22.782'N	124°14.162'W	184			0			
		1612	BO				48°22.762'N	124°14.155'W		180					
		1615	EN				48°22.738'N	124°14.166'W							
26	JF2-2	1637	BE	CTD		96	48°24.229'N	124°13.415'W	169			0			
		1640	BO				48°24.182'N	124°13.410'W		164					
		1643	EN				48°24.131'N	124°13.370'W							
26	JF2-1	1704	BE	CTD		97	48°25.770'N	124°12.563'W	95			0			
		1706	BO				48°25.776'N	124°12.556'W		90					
		1709	EN				48°25.793'N	124°12.530'W							
26	JF3-1	1847	BE	CTD		98	48°22.454'N	123°57.127'W	88			0			
		1849	BO				48°22.480'N	123°57.115'W		80					
		1851	EN				48°22.519'N	123°57.118'W							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <u>July</u>				Year <u>2005</u>				Ship <u>Tully</u>				Cruise ID <u>2005-16</u>			
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							
26	JF3-2	1916	BE			99	48°20.79	123°58.39	122						
		1919	BO				48°20.81	123°58.41		126					10m off
		1921	EN				48°20.82	123°58.44							
26	JF3-3	1943	BE			100	48°19.194	123°59.270	173						
		1948	BO				48°19.250	123°59.320		170					3.5m off bottom
		1950	EN				48°19.273	123°59.345							
26	JFD-4	2010	BE	.		101	48°17.796	124°0.006	187						
	JF3-4	2017	EN				48°17.798	124°0.164		182					3m off bottom
27	JF3-5	2040	BE			102	48°16.292	124°0.955	181						
		2044	BO				48°16.319	124°0.985		175					6m
		2046					48°16.339	124°0.995							
27	JF3-6	2118	BE			103	48°14.335	124°1.676	141						6m
		2122	BO				48°14.376	124°1.657		136					
		2124					14.399	1.646							
27	JF3-7	2152	BE			104	48°12.223	124°2.513	82						
		2155	BO				48°12.230	124°2.478		78					
		2156	EN				48°12.247	124°2.453							
27	LOOP23	2320				Loop23	48 12 96	123 42 00							LOOP23 - SAL ONLY
															SHUTTING DOWN TSG

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