

DAILY LOG BOOK

MISSION
NUMBER

2004-04

DATE:

From: March 1 to: March

VESSEL:

J-P. Tully

PROJECT:

La Perouse

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

Captain: GLEN ORNSTON First Officer: MICHAEL CHECKBULG
Second Officer: _____ Third Officer: _____

Mission Participants / Agencies:

Scientific Personnel: Party Chief: ANGELICA PERNA

Name	Watch	Cabin	Name	Watch	Cabin
Melanie Quenneville	8:00-12:00	H			
Sheila Toews	12:00-4:00	D			
Valerie Forslund	12:00-4:00	C			
Tammya Peterson	4:00-8:00	G			
Maira Galbraith	8:00-12:00	B			
Karen Butler	4:00-8:00	G			
Darren Tule	8:00-12:00	E			
Petteri Saarinen	12:00-4:00	F			
Doug Moore	4:00-8:00	F			

Second leg of Mission: Name	Party Chief;	Watch	Cabin	Name	Watch	Cabin

Data logging computer:

Data acquisition program: 0585
 CTD deck unit make: Seabird model: 0424 serial number: 0424

Primary CTD

Make: Sea Bird model: 911 serial number: _____

Primary temperature serial number:	2710
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Primary conductivity serial number: 1763

Secondary temperature serial number: 2095

Secondary conductivity serial number: 1764

Transmissometer: 333 Model:

Fluorometer: Model Seapoint Cable g

Oxygen sensor: 5BE Model: 5BE

PAR sensor: _____ Model: _____

Other sensors: Reference PAR

Other sensors: Altimeter DSA -

Other sensors: _____

Other sensors:

ary CTD

Make: _____ model: _____ serial number: _____

Primary temperature serial number: _____ serial number: _____

Primary conductivity serial number:

Secondary temperature serial number: _____

Secondary conductivity serial number:

Transmissometer: _____ Model: _____

Fluorometer: Model _____ Cable gain: _____
model: _____

Oxygen sensor: _____
Cable gain: _____
Model: _____

PAR sensor: _____ Model: _____
PAR sensor: _____ Model: _____

Other sensors: _____

Product: _____

Other sensors: _____

Other sensors: _____

Other sensors:

CTD calibration bottle location (height above CTD in metres):

$$54\frac{1}{2} + 14''$$

Mar 1/04

= 1.7m top of Rosette to sensors.

- measured for pressure sensor calibration, to be done at SI 03, ST.

MAR 1/04

1600 PST.

TEST CAST ROSETTE TO SURFACE to check bottle firing etc.

- All went well.

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month MARCH				Year 2004				Ship TULLY				Cruise ID 2004-04			
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							
2	SI03	0140	BE	DART		01	48 35.6	123 28.9					AP/DT		LIGHT SENSOR
2	SI03	0212	BE	CTD/ROS	US	02	48 35.6	123 29.96	225				ST/DFM		
		0217	BO				48 35.54	123 29.95		222					
		0233	EN				48 35.45	123 29.85			1-8	8			
2	BI01			MOR		03									
2	NEAR BI01	start 22:00		DART		04	48° 31.93	126 11.908		40	—	—	VF/MG/AP/		4 CASTS (took ~ 1/2 h)
2	BI01	2257	BE	ROS	US	05	48° 31.89	126 12.45	498		9-27	19	ST		small all O rings on spigots changed, on all 24 bottles (S.T)
		2305	BO				48 31.83	126 12.52							
		2329	EN				48 31.79	126 12.58							
3	LC8			DART		06				40	—	—	VF/AP		3 casts
3	LC8	0101	BE	ROS		07	48° 29.48	126° 7.13	198		28-41		TP/DM		
		0104	BO				48° 29.48	126° 7.12							
		0124	EN				48° 29.51	126° 7.05							

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

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

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1ST CAST WITH DART LIGHT SENSOR - NOT ENOUGH WEIGHT.

ADD WEIGHT TO NOSE OF DART.

REPEAT CAST.

- pressure reading = 1.30

light dart - It took a while to have the sensor ready. Not enough weight to sink at desired velocity (0.5-0.7 cm/s)

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							Latitude	Longitude							
3	LC07	02:29	BE	ROS		08	48'32.98	126'0.47	128	118	42-52	11	TP/DM		ROS TOUCHED Bottom
		02:40	BO				48'33.01	126'0.41							
		02:58	EN				48'33.11	126'0.31							
3	LC06	04:15		NET		09	48 36.516	125 54.670	94.8	90					Bongo
		04:19	EN												
3	LC06	0448	BE	ROS		010	48 36.515	125 54.088	93	83	53-62	10		✓	
		0452	BO				48 36.530	125 54.128							
		0509	EN				48 36.623	125 54.215							
03	LC05	0609	BO	NET		011	48 39.993	125 47.390	65	60					Bongo
		0615	EN				48 39.918	125 47.413							
03	LC05	0637	BE	ROS		012	48 39.998	125 47.310	65	55	63-71	9	MG/MQ/AP		
		0639	BO				48 40.062	125 47.278							
		0655	EN				48'40.26	125 47 16	65	55					
03	LC04	0805	BE	ROS		013	48 43.43	125 46 78			72-84	13			Winch readout
		0809	BO				48 43.93	125 46 78	168	163			55/1 ✓	✓	+ lab readout
		0824	EN				48 43 45	125 46 79							are 4m out!
															-re-zeroed?
															at end of cast.

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winch
→ operator using
wrong readout
All is O.K.

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							Latitude	Longitude							
3	LCB3	0953	BE	ROS	US	014	48°34.46	125°29.99	131		85-95	11	ST/VF		
		0957	BO				48°34.45	125°29.99		125					
		1007	EN				48°34.47	125°29.94							
	LCB3	1020	BO	NET		015	48°34.52	125°29.95	120	110					Bongo To 110 m
	LCB4	1120	BO	NET		016	48°31.95	125°35.39	80	70					Bongo To 70 m
	LCB4	1131	BE	ROS	US	017	48°31.99	125°35.51	80		896-104	9			
		1134	BO				48°31.99	125°35.51		75					
		1143	EN				48°31.96	125°35.51							
3	B101	1509	BE	ROS		018	48°31.802	126°12.412	5208	533	105-121	23	DM/TP/KL		
		1512	BO												
			EN												
3	B101			DART		19					3 casts			*	Surf. ref. not working
3	LC8	1830	BE	CTD		20	48°29.411	126°07.118	202						
		1833	BO				48°29.432	126°07.060		195		1			Sal. Calibration 2195m
	LC8	1834	EN				48°29.429	126°07.050							
	LC8	1850	BE	NET		21			202						
		1859	BO				48°29.461	126°06.940		195					
		1908	EN												

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							Latitude	Longitude							
3	LC9			DART		22									
3	LC9	2049	BE	ROS	US	23	48°25.92	126°13.62	601		128-146	19	ST	✓	
		2100	BO				48°25.99	126°13.58		596					
			EN				48°26.22	126°13.17							
3	LC9	2200	BO	NET		24	48°26.45	126°12.54							BONGO TO 250m
4	LB12	0015		DART		25									
															communication cable caught indoor / windy
4	LB12	0100	BE	ROS		26	48°12.860	125°51.78	506	500	147-164	18	TP/DW/KB		* dact file station called LC9
		0112	BO				48°12.887	125°51.806							2004-04 00027.dct
			EN				48°13.00	125°51.76							
4	LB11	0315	BE	ROS		27	48°15.25	125°47.73	205	198	165-179	15	TP/DW/KB		
		0320	BO				48°15.32	125°47.81							
		0351	EN				48°15.258	125°47.44							
4	LB10	0	BE	ROS		28	48°	125°	150	140	180-191	12	HG/MR		
		0	BO				48°	125°							
		0	EN				48°	125°							

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							Latitude	Longitude							
04	LB09	0810	BE	ROS	US	29	48°21.98	125°34.76	152		192-203	12	ST	✓	
		0815	BO				48°22.02	125°34.75		145					
		0827	EN				48°21.96	125°34.80							
4	LB08	0938	BE	ROS	US	30	48°25.29	125°28.59	141		204-215	12	ST		Rosette hit ship
		0942	BO				48°25.28	125°28.57		131					as it was being
		0954	EN				48°25.31	125°28.63							brought aboard
															Bottle 1 has Tully
															paint on it, but
4	LB07		BE	ROS	US	31									looks OK.
			BO												aborted sampling
			EN												due to weather
4	LAB1	1044	BE	RAD10M		32	48°40.920	124°59.352					NR		
							48°40.399	124°59.370							
							48°40.386	124°59.349							instrument back at
4	LAB1	1046	BE	RAD10M		33	48°40.358	124°59.424	39				NR		surface, redeployed
		1048	BO				48°40.377	124°59.441							using crane
04	LAB1	1055	BE	ROS		34	48°40.334	124°59.480	38		222-229				Samples 216-221
			BO				48°40.347	124°59.462							not done
		1112	EN				48°40.369	124°59.481							CTD clock was 191700

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FYI.

→ ~~#~~ Garbage was being burned during sampling. (LB08) could smell it on the deck.

LB07 March 4 Wind 40+ run into beach

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							Latitude	Longitude							
<i>04</i>	<i>LB02</i>			<i>DART/RADION</i>		<i>35</i>									<i>Crane wind 40+</i>
															<i>LB2A-LB2D</i>
<i>04</i>	<i>LB02</i>	<i>2032</i>	<i>BE</i>	<i>POS</i>	<i>US</i>	<i>36</i>	<i>48°38.96</i>	<i>125°02.37</i>	<i>61</i>				<i>ST.</i>		
		<i>2034</i>	<i>BO</i>				<i>48°38.95</i>	<i>125°02.367</i>		<i>50</i>	<i>230-237</i>	<i>8</i>	<i>↓</i>		
		<i>2042</i>	<i>EN</i>				<i>48°38.92</i>	<i>125°02.36</i>					<i>↓</i>		
	<i>LB03</i>			<i>DART</i>		<i>37</i>	<i>48°36.91</i>	<i>125°05.616</i>							<i>Crane wind 40+</i>
		<i>2157</i>	<i>BE</i>	<i>POS</i>		<i>38</i>	<i>48°37.29</i>	<i>125°05.58</i>	<i>986</i>		<i>238-247</i>	<i>10</i>			<i>LAB2E LB2E-LB2G</i>
		<i>2200</i>	<i>BO</i>				<i>48°37.26</i>	<i>125°05.55</i>		<i>910</i>					
		<i>2207</i>	<i>EN</i>				<i>48°37.26</i>	<i>125°05.53</i>							
<i>04</i>	<i>LB04</i>			<i>DART</i>		<i>39</i>									<i>Crane wind/swells</i>
		<i>2322</i>	<i>BE</i>	<i>POS</i>	<i>US</i>	<i>40</i>	<i>48°35.67</i>	<i>125°08.69</i>	<i>111</i>		<i>248-257</i>	<i>10</i>			
		<i>2327</i>	<i>BO</i>				<i>48°35.66</i>	<i>125°08.65</i>		<i>106</i>					
		<i>2336</i>	<i>EN</i>				<i>48°35.67</i>	<i>125°08.62</i>							
<i>05</i>	<i>LB05</i>			<i>DART</i>		<i>41</i>	<i>48°34.01</i>	<i>125°11.91</i>							<i>Crane wind/swells</i>
<i>05</i>	<i>LB05</i>	<i>0102</i>	<i>BE</i>	<i>Gofio</i>		<i>42</i>	<i>48°34.03</i>	<i>125°11.93</i>	<i>100.6</i>	<i>10m</i>		<i>1</i>			<i>Chains</i>
		<i>0104</i>	<i>EN</i>												
<i>05</i>	<i>LB05</i>	<i>0108</i>	<i>BE</i>	<i>Gofio</i>		<i>43</i>	<i>48°34.00</i>	<i>125°11.93</i>	<i>100.4</i>	<i>10m</i>		<i>1</i>			<i>Chains</i>

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28 May 2003

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LBOS ROSE cancelled due to weather; sampled 0m and 10 m using 60 Flos off the chains

Event 42: Nut, chl, CDOM

Event 43: Nut, chl, CDOM

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Month				Year			Ship			Cruise ID					
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							Latitude	Longitude							
05	LB05	0109	EN	Goflo		43	48° 34.00	125° 11.95	100.4	10m					chains - turn South
5	JFC2	1604	BE	ROS		44	48° 18.528	123° 45.049	173		258-270	13			Flat calm, rain, mist
		1608	BO				48° 18.516	123° 45.031		165					
		1625	EN				48° 18.518	123° 44.981							
5	JFC2	1640		DART		45	48° 18.792	123° 44.727							
5	JFD3	1808	BE	ROS		46	48° 19.744	123° 00.007	165						bad wire 2 start
			BO				48° 19.816	123° 59.966		155	271-285	15			
			EN				48° 19.788	124° 01.108							
5	JFD3			DART		47	48° 19.415	123° 59.852							windy & wavy, no good
	JFCD2	2319	BO	Goflo		48	48° 19.32	123° 53.95		0					Angle at 10m
		2322	BO	Goflo		49	48° 19.21	123° 53.99		10	286-297	12		51	
	JFCD2			DART		50									
6	BI02	1626	BE	ROS		51	49° 0.414	123° 23.116	274	263	286-302	17			

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JFCD2: Event 48: Nut, chl, cdom, SF > 20 (1 only), SF > 5 (2), HPLC (2).
Event 49, HPLC (1), SF > 20 (1), S-F > 5 (2), nut, chl, cdom, NH₄.
Not enough sample for NH₄ event 48, water was taken from the loop.

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							Latitude	Longitude							
6	B102	1633	BO	CTD	US	51	49°0.419	123°23.143	274	262			TP		
		1704	EN				49°0.424	123°23.183							
		1802	BO	DART		52	49°00.477	123°23.13	270						
6	B102	1113	Deploy	Mooring		53	49°00.408	128°23.124	277						Deploy B102
		<i>Local time</i>													
	46	2036	BE	ROS	AS	54	48°51.39	123°10.76	179				ST.		
		2041	BO				48°51.35	123°10.74		175	303-315	13	↓		
		2057	EN				48°51.39	123°10.61							
6	46	2105	BO	DART		55	48°51.49	123°10.55	168						
6	47	2154	BO	DART		56	48°49.30	123°06.170	186						
		22084	BE	ROS		57	48°49.24	123°06.18	184		316-329	14			altimeter has
		2208	BO				48°49.17	123°06.21		180					been working
		2223	EN				48°49.02	123°06.40							well all casts!
	57	2338	BO	DART		58	48°44.61	123°07.50	131						
		2347	BE	ROS		59	48°44.59	123°07.43	131	125			ST.		
		2352	BO				48°44.54	123°07.45							
7		0400	EN				48°44.54	123°07.55							

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