DAILY LOG BOOK

MISSION NUMBER 2003-24

DATE: From: JUNE 16 to: JUNE 20

VESSEL: VECTOR

PROJECT: MASSON - Juan de Fuca
Georgia Strait

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

Captain: Andy Quaye First Officer: Dale
Second Officer: Mark Third Officer: _____

Mission Participants / Agencies: Diane Masson

Scientific Personnel: Party Chief: Sophie Johannessen

Name	Watch	Cabin	Name	Watch	Cabin
Sophie	8-12				
Sheila	12-4				
Lizette	4-8				
Christina L	4-8				
Cindy	-				
Maxime	12-4				
Sebastien	8-12				
Dave	-				

Second leg of Mission: Party Chief: _____

Name	Watch	Cabin	Name	Watch	Cabin

Data logging computer: LCD 1525V NEC (New System)
Data acquisition program: Seasoft / SeaSave
CTD deck unit make: Seabird model: 911 serial number: 0424

Primary CTD
Make: Seabird model: 911 serial number: 0443
Primary temperature serial number: 2038
Primary conductivity serial number: 2173
Secondary temperature serial number: 2968
Secondary conductivity serial number: 1729
Transmissometer: _____ Model: Chelsea s/n: 498 DR
Fluorometer: Model Seapoint Cable gain: 10X 0-15 s/n: 7228 **P, S or NO** pump?
Oxygen sensor: None Model: _____ s/n: _____ **P, S or NO** pump?
PAR sensor: None Model: _____ s/n: _____
Other sensors: _____ s/n: _____ **P, S or NO** pump?
Other sensors: _____ s/n: _____ **P, S or NO** pump?
Other sensors: _____ s/n: _____ **P, S or NO** pump?
Other sensors: _____ s/n: _____ **P, S or NO** pump?

Secondary CTD
Make: _____ model: _____ serial number: _____
Primary temperature serial number: _____
Primary conductivity serial number: _____
Secondary temperature serial number: _____
Secondary conductivity serial number: _____
Transmissometer: _____ Model: _____ s/n: _____
Fluorometer: Model _____ Cable gain: _____ s/n: _____ **P, S or NO** pump?
Oxygen sensor: _____ Model: _____ s/n: _____ **P, S or NO** pump?
PAR sensor: _____ Model: _____ s/n: _____
Other sensors: _____ s/n: _____ **P, S or NO** pump?
Other sensors: _____ s/n: _____ **P, S or NO** pump?
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CTD calibration bottle location (height above CTD in metres): _____

Rosette Setup:
Number of bottles: 24
Manufacturer: _____ (Ocean Test Equip., General Oceanics, IOS)
Volume of bottles (litres): 20

Winches:
1. Make: _____ model: _____ serial #: _____ used for: _____
2. Make: _____ model: _____ serial #: _____ used for: _____
3. Make: _____ model: _____ serial #: _____ used for: _____
4. Make: _____ model: _____ serial #: _____ used for: _____
5. Make: _____ model: _____ serial #: _____ used for: _____
6. Make: _____ model: _____ serial #: _____ used for: _____
7. Make: _____ model: _____ serial #: _____ used for: _____

Comments: _____

Salinometer: make: _____ model: _____ serial number: _____
Comments: _____

Thermosalinograph System:
Program: _____ Version: _____
Sampling interval (seconds): _____
Fluorometer sensor serial number: _____
Comments: _____

ADCP Setup:
Computer time zone: _____ User Exits: Name: _____ Exit points: _____
Sampling interval (sec): _____ Name: _____ Exit points: _____
Bin Length: (2^x): _____ Name: _____ Exit points: _____
Pulse Length: _____ Work File: _____
Buffer (bytes): _____
Gyro Offset: _____
Comments: _____

Comments:

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month June **Year** 2003 **Ship** Vector **Cruise ID** 2003-24

Day	Station Name	Time (UTC)	Cast type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keeper	Trans. cleaned	Comments
16	SI	2048	ROS	BE	1	48 39 19	123 29 02	80	60			ST	✓	
		20:52		BO		48 39 19	123 28 98							
		2052		EN		48 39 18	123 28 98							
16	58	2232	CTD	BE	2	48 42 95	123 14 26	333	315			ST		
		22 39		BO		48 42 94	123 14 24							
		2244		EN		48 42 92	123 14 16							
16	59	2344	CTD	BE	3	48 37 90	123 14 68	227	206					
		2344		BO		48 38 10	123 14 65							bottle not firing
		2355		EN		48 38 15	123 14 77							
17	59	0005	ROS	BE	4	48 37 80	123 14 70	227	212	1-14	14		✓	
		00:11		BO		48 37 88	123 14 75							
		0025		EN		48 38 48	123 15 08							
17	60	1:17	CTD	BE	5	48 33 96	123 12 87	292	285					
		1:22		BO		48 34 13	123 12 93							
		1:26		EN		48 34 30	123 12 98							
17	61	2:24	CTD	BE	6	48 29 01	123 9 13	289	280					
		2:30		BO		48 29 10	123 9 17							
		2 35		EN		48 29 29	123 9 31							

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

DAILY LOG — Ocean Sciences and Productivity Division — INSTITUTE OF OCEAN SCIENCES

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17	62	0335	ROS	BE	7	48 22 73	123 255	153	141	15-25	11	S	✓	
		0341		BO		48 22 73	123 227							
		0351		EN		48 22 72	123 206							
17	101	1341	CTD	BE	8	48 25 46	124 45 16	238	225					
		1348		BO		48 2549	124 45 34							
		1352		EN		48 25 51	124 45 42							
17	102	1430	ROS	BE	9	48 3007	124 43 99	254	245	26-39	14	S		
		1436		BO		48 3005	124 44 04							
		1447		EN		48 3001	124 4407							
17	103	1513	CTD	BE	10	48 3303	124 42 96	125	108				✓	
		1516		BO		48 33 04	124 42 95							
		1518		EN		48 33.06	124 42.94							
17	76	1623	CTD	BE	11	48 31 35	124 29 96	87	83					
	75	1626		BO		48 3138	124 29 97							
		1627		EN		48 31 41	124 29 99							
17	75	1656	ROS CTD	BE	12	48 28 31	124 32 30	218	212	40-53	14			
		1701		BO		48 28 38	124 32 91							Bottle not firing
				EN										

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17	75	1708	ROS	BE	13	48 28 48	124 33 10	218	211	40-53	14	SJ		bottle not firing
		1712		BO		48 28 50	124 33 23			aborted				
				EN										
17	75	1739	ROS	BE	14	48 28 18	124 32 75	218	217	40-53	14			before we fired bottle one bottle fired. Pressed fire 3 more times, but still said 1 bottle fired
		1745		BO		48 28 22	124 32 85							
				EN						aborted				
17	74	1839	CTD	BE	15	48 25 12	124 35 71	194	180					See note →
		1843		BO		48 25 15	124 3580							
		1846		EN		48 25 17	124 35 84							
17	75	1920	ROS	BE	16	48 2813	124 32 76	222	219	40-53	14	S.T.		redo # 75 b/c bottles did not fire. Was done corrosion inside cable / on pins. (ST)
		1925		BO		48 2810	124 32 76							
		1942		EN		48 27 90	124 3259							
17	73	2159	CTD	BE	17	48°14.96	124°06.61	160				ST		
		2203		BO		48°14.96	124°06 69		153					
		2205		EN		48°14.96	124°06.70							
17	72	2249	ROS	BE	18	48°18.61	124°03.87	189	180	54-66		ST.		
		2254		BO		48°18 60	124°03.65							
		2307		EN		48 18 56	124 03 33							

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Additional comments

Problems with firing bottles
- water configuration will not maintain proper settings (24; SBE carousel) in the event of a crash.
→ bottles would not fire @ site 75 - tested 2-3x randomly firing - sometimes it tripped, sometimes not
→ system crashed if tried to shut down pumps while aquisition was on.
→ Shelly then looked @ connection and cleaned corrosion while we stayed to STN 74 → took bottle surface - all OK now.
→ will go back to 75

- Seasave keeps crashing - it sure doesn't like when you do things out of order - like putting off the Acq. system before the pump. It keeps going back to some odd default Rosette carousel setting + then messes up our bottles. S.T.

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Day	Station Name	Time (UTC)	Cast type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keeper	Trans. cleaned	Comments
						Latitude	Longitude							
18	71	00:07	CTD	BE	19	48 22 20	123 59 36	108	100					
		00:09		BO		48 22 20	123 59 26							
		00:11		EN		48 22 19	123 59 17							
18	70	1:12	CTD	BE	20	48 19 16	123 43 17	151	145					
		1:16		BO		48 19 11	123 43 08							
		1:18		EN		48 19 06	123 43 04							
18	69	1:42	ROS	BE	21	48 15 55	123 43 19	177	166	#67-68	12	JH		
		1:47		BO		48 1548	123 4304	1						
		1:58		EN		48 1525	123 4267							
18	68	2:20	CTD	BE	22	48 12 25	123 4297	140	131				✓	
		2:25		BO		48 1223	123 4292							
		2:26		EN		48 1221	123 4289							
18	105	3:51	CTD	BE	23	48 1109	123 1904	86	80			JH	✓	
		3:54		BO		48 11 11	123 1901							
		3:55		EN		48 11 12	123 1902							
18	ADCP	4:25	ROS	BE	24	48 1395	123 1790	120	107	79-88	10		✓	2m deep
		4:28		BO		48 1394	123 1785							
		4:39		EN		48 1385	123 1789							

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18	104	0525	CTD	BE	25	48 20.01	123 17.97	85	80			S	✓	
		0527		BO		48 20.01	123 17.94							
		0528		EN		48 20.01	123 17.93							
18	67	0602	CTD	RE	26	48 22.85	123 18.00	104	93			S	✓	
		0603		BO		48 22.87	123 18.05							
		0606		EN		48 22.88	123 18.09							
18	66	0700	CTD	BE	27	48'19.25	123'14.16	105				ST		
		0702		BO		48'19.24	123'14.19		100					
		0703		EN		48'19.24	123'14.20							
18	65	0739	ROS	BE	28	48'16.05	123'09.80	128				ST		
		0742		BO		48'16.09	123'09.85		120					
		0749		EN		48'16.07	123'09.96							
18	64	0855	CTD	BE	29	48'12.80	123'05.74	110				ST	✓	
		0857		BO		48'12.81	123'05.76		100					
		0859		EN		48'12.82	123'05.78							
19	63	0942	CTD	BE	30	48'14.61	122'58.58	157				ST	✓	(Leave) computer crashed for no reason.
		0945		BO		48'14.64	122'58.60		150					
		0946		EN		48'14.65	122'58.63							

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18	54	1201	CTD	BE	31	48 26 58	122. 44 25	75	70					1
		1203		BO		48 26 58	122 44 23							
		1204		EN		48 26 55	122 44 23							
18	53	1252	CTD	BE	32	48 33 17	12 2 4504	61	59					
		12 54		BO		48 33 17	122 4505							
		12 55		EN		48 33 16	122 45 05							
18	52	1339	CTD	BE	33	48 38 89	122 43 27	82	75					
		13 41		BO		48 38 90	122 43 27							
		1343		EN		48 38 91	122 43 26							
18	51	1455	CTD	BE	34	48 46 67	122 51 60	159	150					computer crashed
		14 59		BO		48 46 66	122 51 62							
		15 01		EN		48 46 67	122 51 61							
18	47	1626	CTD	BE	35	48 49 32	123 6 18	188	180					
		1630		BO		48 49 32	123 6 12							
		1633		EN		48 49 30	123 6 12							
18	56	1711	ROS	BE	36	48 46 41	123 167	206	203	99-112	14			sample #05 BOT 7 broke in freezer
		1716		BO		48 46 38	123 165							
		1729		EN		48 46 37	123 169							

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18	57	18:00	CTD	BE	37	484405	123 8 15	156	153					
		18:04		BO		484408	123 8 22							
		18:06		EN		4844.10	123 8.30							
18	48	1940	CTD	BE	38	48'51.72	123'03.23	226				ST	✓	cleaned + regreased carousel cable (ST)
		1944		BO		48'51.70	123'03.26		221					
		1947		EN		48'51.70	123'03.26							
18	49	2016	CTD	BE	39	48'55.01	122'59.65	132				ST		
		2020		BO		48°55.00	122°59.67		128					
		2022		EN		48'54.99	122'59.67							
18	50	2048	CTD	BE	40	48'57.68	122'56.05	27						
		2049		BO		48'57.68	122'56.04		20			ST		
		2049		EN		48'57.68	122'56.04							
18	44	2135	CTD	BE	41	48'56.80	123'06.02	120				ST		
		2138		BO		48'56.80	123'05.99		110					
		2139		EN		48'56.80	123'05.98							no sounder readings
	45	2208	CTD	BE	42	48'53.92	123'08.44	128				ST		
		2211		BO		48'53.93	123'08.39		120					
		2213		EN		48'53.93	123'08.37							

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18	46	2235	ROS	BE	43	48'51.39	123'10.85	181		113-124	12	ST		
		2238		BO		48'51.41	123'10.87		175					
		2249		EN		48'51.51	123'10,80							
18	GVRD6	0350	BOXCORE		44	4856 191	123 18792	183	183					
19	43	1:00	CTD	BE	45	49 021	123 30 26	190	180					
		1:03		BO		49 021	123 30 34							
		1:06		EN		49020	123 3042							A few jellyfish tentacles
19	42	1:32	ROS	BE	46	49 178	123 26 22	320	315	125-140			✓	
		1:37		BO		49 179	123 26 25							
		1:52		EN		49 186	123 26 31							
19	41	2 21	CTD	BE	47	49 328	123 2232	243	239				✓	More jellyfish
		2 25		BO		49 327	123 2232							
		2 28		EN		49 327	123 2234							
19	40	3:31	CTD	BE	48	49 867	123 36 81	140	137				✓	Even more jellyfish.
		3:33		BO		49 871	123 3680							
		3:35		EN		49 875	123 3679							

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						Latitude	Longitude							
19	39	0357	ROS	BE	49	49° 9.85	123° 32.88	378	367	141–157		SS	✓	No jellyfish!
		0405		BO		49° 9.90	123° 32.75							
		0423		EN		49° 10.09	123° 32.21							
19	38	0455	CTD	BE	50	49° 12.00	123° 26.31	309	305			S	✓	
		0500		BO		49° 12.02	123° 26.23							
		0504		EN		49° 12.09	123° 26.10							
19	37	0532	CTD	BE	51	49° 13.60	123° 20.65	215	210					
		0535		BO		49 13 60	123 20 61							
		0538		EN		49 1359	123 20 59							
19	GVRD2		BOXCORE		52	49 19887	123 18509	76	76					
	26	0841	CTD	BE	53	49° 14.27	123° 50.78	256				ST.		hit bottom - oops!
		0847		BO		49° 14.19	123° 50.74		250					bit of mud on chain only. ST
		0849		EN		49° 14.19	123° 50.80							
	27	0930	ROS	BE	54	49° 19.07	123° 48.09	360				ST		
		0937		BO		49° 18.99	123° 48.15		355					
		0952		EN		49° 18.88	123° 48.26							
	28	1033	CTD	BE	55	49° 24.11	123° 45.31	138				ST		touched down again.
		1036		BO		49° 24.11	123° 45.33		132					
		1038		EN		49° 24.11	123° 45.34							

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19	24	1213	CTD	BE	56	49 30 29	124 6 02	426	410					
		1221		BO		49 3018	124 605							
		1226		EN		49 3010	124 6 01							
19	25	1248	CTD	BE	57	49 2771	124 7 56	291	284					
		1255		BO		49 2771	124 7 55							
		1258		EN		49 2769	124 7 52							
19	2	1326	ROS	BE	58	49 24 10	124 9 36	277	274	174-188	15	NN		
		13		BO		49 24	124 9							
		1344		EN		49 24 02	124 9 84							
19	1	1416	CTD	BE	59	49 20 30	124 12 17	245	234					
		1421		BO		49 2031	124 12 22							
		1424		EN		49 20 34	124 12 26							
19	4	1514	CTD	BE	60	49 24 59	124 22 17	350	346					
		1520		BO		49 24.61	124 22.20							
		1524		EN		49 24 60	124 22 19							
19	3	1547	ROS	BE	61	49 26 61	124 20 16	325	306	189-204				
		1607		BO		49 26.67	124 20.24							
				EN		49 26.83	124 20.44							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month | **Year** | **Ship** | **Cruise ID**

Day	Station Name	Time (UTC)	Cast type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keeper	Trans. cleaned	Comments
						Latitude	Longitude							
19	5	1652	CTD	BE	62	492740	124 30 87	305	300					
		1657		BO		49 27.43	124 30.93							
		1701		EN		49 27.46	124 30.98							
20	6	1:31	ROS	BE	63	49 30 58	124 27 85	193	185					
		1 35		BO		49 3053	124 2787			205-217	13	TD.		
		1 46		EN		49 3063	124 2791							
20	7	218	CTD	BE	64	49 3443	124 2422	352	340					
		224		BO		49 3449	124 2427							
		228		EN		49 3454	124 2433							
20	8	318	CTD	BE	65	49 3933	124 3308	338	329			SJ	✓	
		324		BO		49 3935	124 33 16							
		328		EN		49 3936	124 3321							
20	9	404	ROS	BE	66	49 3547	124 3828	169	166			SJ	✓	
		0408		BO		4935.45	124 38.35							
		0419		EN		4935.52	124 38.46			218-229	12			
20	GUADIL	0500	ROXCORC	BE	67	49 35.50	124 38.27	169	169					
20	10	0629	CTD	BE	68	4940 71	124 47 37	95	83			SJ.	✓	Accidentally saved as event 67.
		0631		BO		4940 70	124 47 35							
		0632		EN		49 40 71	124 47 32							

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DAILY LOG

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Month JUNE **Year** 2003 **Ship** Vector **Cruise ID** 2003-24

Day	Station Name	Time (UTC)	Cast type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keeper	Trans. cleaned	Comments
20	11	0659	CTD	BE	69	49°42.36	124°43.41	302				ST	✓	It's too cold to be
		0704		BO		49°42.33	124°43.45		290					June! Brrrr
		0709		EN		49°42.32	124°43.52							
	12	0728	ROS	BE	70	49°43.59	124°40.83							
		0734		BO		49°43.58	124°40.90	356		230-246	17	ST		
		0749		EN		49°43.55	124°41.02		350					
	13	0922	CTD	BE	71	49°55.28	124°55.20	237						
		0927		BO		49°55.26	124°55.22		238			ST		
		0929		EN		49°55.26	124°55.27							
20	14	0954	ROS	BE	72	49°52.99	124°59.61	319		247-261		ST		
		0956		BO		49°52.98	124°59.60		308					
		1014		EN		49°53.01	124°59.60							
20	15	1038	CTD	BE	73	49°51.57	125°01.62	128	118			ST		
		1041		BO		49°51.55	125°01.66							
		1042		EN		49°51.56	125°01.68							
20	21	1213	CTD	BE	74	50 02 00	125 13 62	78	70					
		1214		BO		50 02 00	125 13 62							
		1216		EN		50 02 00	125 13 62							

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INSTITUTE OF OCEAN SCIENCES

Month June **Year** 2003 **Ship** Vector **Cruise ID** 2003-24

Day	Station Name	Time (UTC)	Cast type	Firing Method	Event Number	Position Latitude	Position Longitude	Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keeper	Trans. cleaned	Comments
20	16	1304	BE	BOS	75	49 57 66	125 8 79	155	145	262-272	11	JP		
		13 07	BO			49 57 61	125 8 82							
		13:16	EN			49 57 64	125 8 86							
20	17	1342	BE	CTD	76	49 58 79	125 4 37	267	256			JJ		
		1346	BO			49 5880	125 4 39							
		1350	EN			49 5883	125 4 41							
20	18	1417	BE	CTD	77	49 59 21	124 58 93	147	140			JJ		
		1420	BO			49 59 19	124 58 95							
		1422	EN			49 59 18	124 58 95							
20	19	1457	BE	CTD	78	50 1 13	124 52 82	269	260					
		1502	BO			50 1 04	124 5268							
		1506	EN			50 0 99	124 5260							
20	20	1654	BE	CTD	79	49 47 17	124 32 27	313	303					
		1659	BO			49 47 16	124 32 28							
		1703	EN			49 47 18	124 32 28							
20	22	1817	BE	CTD	80	49 40 14	124 16 28	354	342					
		1823	BO			49 40 14	124 16 28							
		1828	EN			49 40 15	124 16 29							

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						Latitude	Longitude							
	39	2210	ROS	BE	81	49°09.80	123°32.98	379		273-289	17	ST		
		2216		BO		49°09.76	123°32.92		370					
		2234		EN		49°09.67	123°32.72							

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