

DAILY LOG BOOK

MISSION
NUMBER

2004-32

DATE:

From: OCT 19 to: NOV 26

VESSEL:

W. E. RICKER

PROJECT:

WELCH HI SEAS SALMON

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

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month		OCT		Year		2004		Ship		w.e. RICHER		Cruise ID		2004-32	
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	101 01	1400	BC	CTD		001	48 58 13	125 07 12	90			1	H.M	✓	T: 11.39 S: 27.94
		1402	BO				48 58 14	125 07 12		85					BOT @ 10m SAL/CAL/NUIS
		1405	GN				48 58 16	125 07 14							
		1413	BC	NET		002	48 58 03	125 07 14		80					BONGO
		1444	BC	TRAWL		003	48 57 89	125 07 14		SURFACE					
20	101 02	1536	BC	CTD		004	48 55 14	125 11 55	97			1			T: 11.42 S: 28.90
		1538	BO				48 55 12	125 11 52		90					BOT @ 10m SAL/CAL/NUIS
		1541	GN				48 55 10	125 11 47							
		1549	BC	NET		005	48 55 08	125 11 82		88					BONGO
		1705	BC	TRAWL		006	48 54 986	125 12 175		SURFACE					
20	101 03	1759	BC	CTD		007	48 51 33	125 15 46	91			1			T: 10.96 S: 29.62
		1801	BO				48 51 33	125 15 44		85					BOT @ 10m SAL/CAL/NUIS
		1804	GN				48 51 33	125 15 42							
		1810	BC	NET		008	48 51 32	125 15 40							BONGO
		1853	BC	TRAWL		009	48 50 512	125 15 634		SURFACE					

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
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Time Code

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

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* 001 - FLUROMETER HAS REASONABLE TRACE ON DOWNCAST BUT UACAST LOOKS WRONG - NO CHL MAXIMUM

004 - SAME FLUROMETER PROBLEM

007 - SAME - I THINK FLUROMETER NEEDS SERVICING

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							Latitude	Longitude										
20	V1 01	2035	BG	CTD		010	48 46 07	125 2433	98			1	H.M.		T:10.12 S: 31.29			
		2037	BO				48 46 07	125 24 36		90			↓		BOT@10m - SAL/CAL/MUTS			
		2040	GN				48 46 07	125 24 40										
		2044	BG	NET		011	48 46 08	125 24 48		86					BONGO			
		21 04	BG	TRAWL		012	48 45 58.1	125 25 68.2		SURFACE								
20	V1 02	2212	BG	CTD		013	48 40 56	125 33 81	194			1			T:10.75 S: 32.16			
		2215	BO				48 40 57	125 33 85		185					BOT@10m - SAL/CAL/MUTS			
		2219	GN				48 40 57	125 33 84										
		2224	BG	NET		014	48 40 55	125 33 82		150					BONGO			
		2246	BG	TRAWL		015	48 40 11.3	125 34 83.1		SURFACE								
20	V1 03	2358	BG	CTD		016	48 35 22	125 42 73	65			1			T:10.67 S: 32.08			
21		0000	BO				48 35 20	125 42 76		60					BOT@10m - SAL/CAL/MUTS			
		0002	GN				48 35 19	125 42 78										
		0036	BG	NET		017	48 34 69	125 43 47										
		0053	BG	TRAWL		018	48 34 15.2	125 44 39.0		SURFACE								
XX																		

Cast type: USW = sea water loop bottle firing method: Time Code:

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							Latitude	Longitude							
21	VI 04	1351	BG	CTD		019	49 06 13	125 59 82	34			1	H.M.	✓	T: 11.47 S: 31.31
		1352	BO				49 06 13	125 59 80		30			↓		BOT @ 10m - SAL/CHL/NUTS
		1353	CH				49 06 13	125 59 76							
		1400	BG	NET		020	49 06 15	125 59 81		25					BONGO
		1419	BG	TRAWL		021	49 05 52	126 00.915		SURFACE					
21	VI 05	1510	BG	CTD		022	49 02 89	126 05 52	56			1			T: 10.91 S: 31.17
		1511	BO				49 02 90	126 05 52		50					BOT @ 10m - SAL/CHL/NUTS
		1513	CH				49 02 91	126 05 50							
		1517	BG	NET		023	49 02 94	126 05 45		46					BONGO
		1602	BG	TRAWL		024	49 02 75	126 07 11		SURFACE					
21	VI 06	1704	BG	CTD		025	48 59 01	126 12 19	94			1			T: 11.17 S: 31.12
		1706	BO				48 59 03	126 12 18		88					BOT @ 10m - SAL/CHL/NUTS
		1708	CH				48 59 05	126 12 16							
		1712	BG	NET		026	48 59 12	126 12 33							BONGO
		1732	BG	TRAWL		027	48 58 68	126 13.42		SURFACE					

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							Latitude	Longitude							
21	V1 07	1829	BC	CTD		028	48 55 31	126 17 95	133			1	H.M.		T: 10.99 S: 31.71
		1832	BO				48 55 29	126 17 92		125					BOT@10m - SAL/CHL/NUTS
		1834	EN				48 55 27	126 17 91							
		1852	BC	NET		029	48 55 27	126 17 69					↓		BONGO
		1914	BC	TRAWL		030	48 54 692	126 18 664	SURFACE						
21	V1 08	2012	BC	CTD		031	48 51 87	126 24 13	169			1			T: 11.54 S: 32.11
		2015	BO				48 51 90	126 24 14		164					BOT@10m - SAL/CHL/NUTS
		2018	EN				48 51 90	126 24 11							
		2021	BC	NET		032	48 51 88	126 24 06		150					BONGO
		2113	BC	TRAWL		033	48 51 184	126 24 892	SURFACE						
21	V1 09	2137	BC	CTD		034	48 48 44	126 29 96	234			1			T: 11.18 S: 32.18
		2141	BO				48 48 45	126 29 97		225					BOT@10m - SAL/CHL/NUTS
		2146	EN				48 48 44	126 29 95							
		2149	BC	NET		035	48 48 42	126 29 96		150					BONGO
		2208	BC	TRAWL		036	48 48 045	126 30 585	SURFACE						

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							Latitude	Longitude							
21	VI 10	2308	BC	CTD		037	48 44 77	126 36 19	808			2	HM		T: 12.31 S: 32.18
		2317	BO				48 44 77	126 36 12		500	T: 5.24 S: 34.07				BOTE 10m - SAL/CHL/NUTS
		2329	CH				48 44 77	126 36 04							BOT @ 500m - SAL
		2332	BC	NET		038	48 44 77	126 36 02		150					BONGO
			BC	PAWL		039	NO TRAWL								
22	VI 04	1759	BC	CTD		040	49 51 73	126 44 58	235			1		✓	T: 11.16 S: 30.59
		1803	BO				49 51 69	126 44 61		225					BOTE 10m - SAL/CHL/NUTS
		1808	CH				49 51 67	126 44 65							
		1813	BC	NET		041	49 51 76	126 44 70		150					BONGO
		1839	BC	TRAWL		042	49 51 84	126 44 62		SURFACE					
22	VI 05	1938	BC	CTD		043	49 56 76	126 48 56	174			1			T: 11.52 S: 28.41
		1941	BO				49 56 70	126 48 52		165					BOT @ 10m - SAL/CHL/NUTS
		1944	CH				49 56 63	126 48 50							
		1947	BC	NET		044	49 56 62	126 48 46		150					BONGO
		2008	BC	TRAWL		045	49 56 15	126 48 33			SURFACE				

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* - VI 10- LOOKS LIKE TRANSMISSOMETER FAILED @ 380m ON DOWNCAST - FIXED(?) @ 310m ON UACAST
- FLUROMETER OFFSET FROM 390m TO 175m ON UACAST

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							Latitude	Longitude							
22	1V1 06	2058	BC	CTD		046	49 52 96	126 48 77	215			1	HM		T: 11.31 S: 29.65
		2101	BO				49 52 96	126 48 79		210					BOT @ 10m - SAL/CAL/NUTS
		2105	CH				49 52 95	126 48 79							
		2108	BC	NET		047	49 52 93	126 48 78							BONGO
		2129	BC	TRAWL		048	49 52 428	126 49 692			SURFACE				
22	1V1 07	2243	BC	CTD		049	49 55 89	126 55 65	219			1			T: 12.73 S: 31.04
		2247	BO				49 55 90	126 55 61		210					BOT @ 10m - SAL/CAL/NUTS
		2251	CH				49 55 90	126 55 56							
		2254	BC	NET		050	49 55 90	126 55 54		150					BONGO
		23 15	BC	TRAWL		051	49 55 329	126 55 895			SURFACE				
23	1V1 08	0030	BC	CTD		052	49 50 09	126 59 79	72			1			T: 11.52 S: 30.30
		0031	BO				49 50 08	126 59 79		65					BOT @ 10m - SAL/CAL/NUTS
		0033	CH				49 50 07	126 59 81							
		0036	BC	NET		053	49 50 07	126 59 80		58					BONGO
		0054	BC	TRAWL		054	49 50 308	126 59 238			SURFACE				

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							Latitude	Longitude							
23	VI 11	1404	BE	CTD		055	49 46 45	127 03 97	46			1	H.M.	✓	T: 10.39 S: 31.19
		1405	BO				49 46 45	127 03 95		40					BOT @ 10m - SAL/CAL/NUIS
		1407	EN				49 46 45	127 03 93							
		1410	BE	NET		056	49 46 49	127 03 84		35					BONGO
		1429	BE	TRAWL		057	49 45.954	127 04.787		SURFACE					
23	VI 12	1523	BE	CTD		058	49 43 10	127 10 28	102			1			T: 10.36 S: 31.20
		1525	BO				49 43 12	127 10 29		95					BOT @ 10m - SAL/CHL/NUIS
		1528	EN				49 43 15	127 10 28							
		1532	BE	NET		059	49 43 21	127 10 31		87					BONGO
		1554	BE	TRAWL		060	49 42.930	127 11.340		SURFACE					
23	VI 13	1700	BE	CTD		061	49 39 47	127 16 48	137			1			T: 10.86 S: 31.63
		1703	BO				49 39 49	127 16 49		130					BOT @ 10m - SAL/CHL/NUIS
		1706	EN				49 39 52	127 16 49							
		1712	BE	NET		062	49 39 60	127 16 68		120					BONGO
		1738	BE	TRAWL		063	49 39.394	127 18.799		SURFACE					

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							Latitude	Longitude								
23	VI 14	1908	BE	CTD		064	49 37 70	127 26 26	575			1	H.M.		T: 10.95 S: 31.86	
		1912	BO				49 37 73	127 26 28		258			↓		BOT@10m - SAL/CAL/NUTS	
		1917	EN				49 37 75	127 26 30								
		1920	BE	NET		065	49 37 77	127 26 31		150					BONGO	
		2003	BE	TRAWL		066	49 38.605	127 27.917		SURFACE						
23	VI 15	2133	BE	CTD		067	49 46 07	127 24 66	77			1			T: 10.54 S: 31.26	
		2135	BO				49 46 09	127 24 70		70					BOT@10m - SAL/CAL/NUTS	
		2137	EN				49 46 11	127 24 73								
		2140	BE	NET		068	49 46 17	127 24 82							BONGO	
		2158	BE	TRAWL		069	49 47.059	127 26.086		SURFACE						
23	VI 16	2244	BE	CTD		070	49 49 93	127 29 64	72			1			T: 10.66 S: 31.39	
		2245	BO				49 49 97	127 29 68		65					BOT@10m - SAL/CAL/NUTS	
		2247	EN				49 50 00	127 29 71								
		2250	BE	NET		071	49 50 06	127 29 78							BONGO	
		2312	BE	TRAWL		072	49 50 552	127 28 526		SURFACE						

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							Latitude	Longitude							
24	VI 17	0107	BC	CTD		073	49 55 99	127 26 71	62			1	H.M.		T: 10.60 S: 31.62
		0109	BO				49 55 99	127 26 72		55			↓		BOT 10m - SAL/CAL/NOTS
		0110	EN				49 56 01	127 26 73					↓		
		0054	BC	NET		074	49 55 87	127 26 60		50					BONGO
		0006	BC	TRAWL		075	49 52.633	127 24.601		SURFACE					
24	VI 09	1359	BC	CTD		076	50 06 27	127 07 15	169			1	H.M.	✓	T: 12.42 S: 31.15
		1402	BO				50 06 28	127 07 13		160			↓		BOT 10m - SAL/CAL/NOTS
		1406	EN				50 06 28	127 07 11							
		1409	BC	NET		077	50 06 29	127 07 15		150					BONGO
		1432	BC	TRAWL		078	50 05.808	127 08.213		SURFACE					
24	VI 10	1540	BC	CTD		079	50 05 73	127 15 26	105			1			T: 12.72 S: 30.59
		1542	BO				50 05 73	127 15 28		100					BOT 10m - SAL/CAL/NOTS
		1545	EN				50 05 73	127 15 29							
		1547	BC	NET		080	50 05 73	127 15 32	123	113					BONGO
		1610	BC	TRAWL		081	50 05.692	127 15.112		SURFACE					

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							Latitude	Longitude							
24	VI 11	1720	BG	CTD		082	50 00 48	127 10 39	123			1	4.m.		T: 11.87 S: 30.84
		1722	BO				50 00 48	127 10 38		115					BOT@10m - SAL/CAL/NUTS
		1725	CH				50 00 47	127 10 38							
		1728	BG	NET		083	50 00 48	127 10 50		112					BONGO
		1749	BG	TRAWL		084	50.00.029	127 12.09		SURFACE					
24	VI 18	1917	BG	CTD		085	49 56 06	127 18 18	67			1			T: 10.70 S: 31.40
		1919	BO				49 56 05	127 18 16		60					BOT@10m - SAL/CAL/NUTS
		1920	CH				49 56 06	127 18 16							
		1923	BG	NET		086	49 56 05	127 18 13		55					BON GO
		1941	BG	TRAWL		087	49 56.305	127 19.736		SURFACE					
24	VI 19	2034	BG	CTD		088	49 57 08	127 26 38	57			1			T: 10.50 S: 31.57
		2035	BO				49 57 09	127 26 37		50					BOT@10m - SAL/CAL/NUTS
		2037	CH				49 57 12	127 26 37							
		2039	BG	NET		089	49 57 17	127 26 36							BONGO
		2059	BG	TRAWL		090	49 57.568	127 28.136		SURFACE					

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							Latitude	Longitude							
25	1V1 12	1359	BE	CTD		091	50 23 87	127 29 19	118			1	H.M.	✓	T: 11.33 S: 31.04
		1401	BO				50 23 91	127 29 19		110					BOT @ 10m - SAL/CAL/NOTS
		1404	EN				50 23 95	127 29 18							
		1407	BE	NET		092	50 24 03	127 29 20		105					BONGO
		1431	BE	TRAWL		093	50 24.449	127 29.620		SURFACE					
25	1V1 13	1524	BE	CTD		094	50 26 64	127 31 17	195			1			T: 10.70 S: 30.16
		1527	BO				50 26 61	127 31 17		175					BOT @ 10m - SAL/CAL/NOTS
		1531	EN				50 26 57	127 31 16							
		1535	BE	NET		095	50 26 55	127 31 14		150					BONGO
		1601	BE	TRAWL		096	50 26.667	127 31.327		SURFACE					
25	1V1 14	1710	BE	CTD		097	50 31 61	127 39 62	105			1			T: 10.30 S: 30.40
		1712	BO				50 31 63	127 39 63		100					BOT @ 10m - SAL/CAL/NOTS
		1714	EN				50 31 67	127 39 64							
		1719	BE	NET		098	50 31 67	127 39 72	118	108					BONGO
		1738	BE	TRAWL		099	50 31.154	127 40.087		SURFACE					

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

DE = deployment time

MR = messenger release time
 RE = recover mooring time

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

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month OCT				Year 2004				Ship W. E. RICKER				Cruise ID 2003-32			
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	1V1 15	1903	BG	CTD		100	50 29 09	127 46 82	125			1	H.M.		T: 10.18 S: 30.16
		1906	BO				50 29 08	127 46 82		120					BOT @ 10m - SAL/CAL/NUTS
		1908	CM				50 29 05	127 46 31							
		1911	BG	NET		101	50 29 02	127 46 83		105					BONGO
		1932	BE	TRAWL		102	50 29.863	127 47.727		SURFACE					
25	1V1 16	2028	BG	CTD		103	50 28 27	127 52 53	155			1			T: 10.33 S: 29.94
		2031	BO				50 28 24	127 52 60		145					BOT @ 10m - SAL/CAL/NUTS
		2034	CM				50 28 23	127 52 65							
		2037	BG	NET		104	50 28 21	127 52 75							BONGO
		2155	BG	TRAWL		105	50 28.071	127 53.398		SURFACE					
25	1V20	2309	BG	CTD		106	50 24 17	128 02 71	77			1			T: 10.69 S: 31.36
		2310	BO				50 24 16	128 02 75		70					BOT @ 10m - SAL/CAL/NUTS
		2312	CM				50 24 15	128 02 78							
		2315	BG	NET		107	50 24 14	128 02 84		68					BONGO
		2335	BG	TRAWL		108	50 24 509	128 04.209		SURFACE					

Cast type: USW = sea water loop
 BOT = bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD

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
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DE = deployment time
 MR = messenger release time
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INSTITUTE OF OCEAN SCIENCES

Month OCT				Year 2004			Ship W. E. RICKER				Cruise ID 2004-32				
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	V1 Z1	0116	BE	CTD		109	50 26 79	128 14 98	125			1	H.M.		T: 10.90 S: 31.59
		0118	BO				50 26 78	128 15 64		120					BOT@10m - SAL/CHL/NUTS
		0121	EN				50 26 78	128 15 08							
		01	BE	NET		110	50 26	128 15		115	NO TOW				BONGO NO TOW
		0029	BE	TRAWL		111	50 26.172	128 10.100		SURFACE					
26	T 01	1351	BE	CTD		112	51 16 64	128 19 94	75			1	H.M.	✓	T: 9.69 S: 32.04
		1352	BO				51 16 66	128 19 95		70					BOT@10m - SAL/CHL/NUTS
		1354	EN				51 16 67	128 19 97							
		1356	BE	NET		113	51 16 77	128 20 02		65					BONGO
		1418	BE	TRAWL		114	51 16.34	128 20.78		SURFACE					
26	T 02	1522	BE	CTD		115	51 12 61	128 27 97	193			1			T: 10.51 S: 32.03
		1525	BO				51 12 59	128 28 03		185					BOT@10m - SAL/CHL/NUTS
		1529	EN				51 12 60	128 28 10							
		1532	BE	NET		116	51 12 63	128 28 20		150					BONGO
		1553	BE	TRAWL		117	51 12.116	128 29.520		SURFACE					

Cast type:

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 NET = net haul
 DRF = drifter

bottle firing method:

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 UN = up / no stop
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Time Code

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Month OCT				Year 2004			Ship W.E. RICKER				Cruise ID 2004-32				
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	T 03	1656	BC	CTD		118	51 08 72	128 35 77	145			1	H.M.		T: 10.62 S: 32.05
		1659	BO				51 08 69	128 35 82		135					BOT 10 m - SAL/CAL/NUTS
		1702	EN				51 08 68	128 35 85							
		1705	BC	NET		119	51 08 68	128 35 89		130					BONGO
		1728	BC	TRAWL		120	51 08.069	128 37.052		SURFACE					
26	T 04	1851	BC	CTD		121	51 04 42	128 43 65	63			1			T: 10.47 S: 32.14
		1852	BO				51 04 42	128 43 62		55					BOT 10 m - SAL/CAL/NUTS
		1853	EN				51 04 40	128 43 59							
		1856	BC	NET		122	51 04 38	128 43 58		53					BONGO
		1916	BC	TRAWL		123	51 03 618	128 44.883		SURFACE					
26	T 05	2018	BC	CTD		124	51 00 09	128 52 34	63			1			T: 10.47 S: 32.18
		2019	BO				51 00 06	128 52 41		55					BOT 10 m - SAL/CAL/NUTS
		2021	EN				51 00 04	128 52 46							
		2024	BC	NET		125	50 59 98	128 52 59		52					BONGO
		2045	BC	TRAWL		126	50 59.084	128 54.639		SURFACE					

Cast type:

BOT = bottle cast, no CTD
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Month OCT				Year 2004			Ship W. E. RICKER				Cruise ID 2004-32				
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	T 06	2139	BC	CTD		127	50 56 29	128 59 95	63			1	H.M.		T: 10.52 S: 32.26
		2141	BO				50 56 29	129 00 00		55					BOTEION - SAL/CAL/NTS
		2143	CM				50 56 26	129 00 06							
		2145	BC	NET		128	50 56 29	129 00 22		50					BONGO
		2204	BC	TRAWL		129	50 55.815	129 01.443		SURFACE					
26	T 07	2330	BC	CTD		130	50 49 38	129 13 55	100			1			T: 10.60 S: 31.84
		2332	BO				50 49 38	129 13 64		95					BOTEION - SAL/CAL/NTS
		2334	CM				50 49 37	129 13 69							
		2337	BC	NET		131	50 49 38	129 13 88		94					BONGO
		2305	BC	TRAWL		132	50 49.388	129 15.418		SURFACE					
27	T 12	1349	BC	CTD		133	50 17 96	130 19 88	2000+			2		✓	T: 12.11 S: 32.04
	13	1400	BO				50 17 88	130 19 74		500					BOTEION - SAL/CAL/NTS 2500-S
		1412	CM				50 17 82	130 19 59							T: ? S: ?
		1416	BC	NET		134	50 17 78	130 19 53		150					BONGO
															NO TRAWL

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

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

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* - TRANSMISOMETER NO GOOD AFTER 340m ON Down CAST
- LOOKS PERFECTLY GOOD ON UACAST

* NOTE - T13 CALLED T12 IN HEADER (SHIP SAILED TOO FAR WITHOUT TELLING US)

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month OCT				Year 2004				Ship W.E. RICKER				Cruise ID 2004-32			
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							
27	T X	1519	BE	CTD		135	50 22 79	130 09 91	1000+			1	H.M.		T: 12.35 S: 32.13
	12	1524	BO				50 22 78	130 09 89		250					BOT @ 10 m - SAL/CHL/HUTS
		1529	EN				50 22 77	130 09 84							NO TRAWL
		1531	BE	NET		136	50 22 73	130 09 90		150					BONGO
27	T 10	1639	BE	CTD		137	50 27 63	129 59 76	1000+			1			T: 12.42 S: 32.16
	11	1644	BO				50 27 63	129 59 78		250					BOT @ 10 m - SAL/CHL/HUTS
		1648	EN				50 27 63	129 59 76							NO TRAWL
		1651	BE	NET		138	50 27 64	129 59 79		150					BONGO
27	T 10	1757	BE	CTD		139	50 32 31	129 49 28	1000+			1			T: 11.77 S: 32.20
		1801	BO				50 32 26	129 49 23		250					BOT @ 10 m - SAL/CHL/HUTS
		1806	EN				50 32 22	129 49 19							
		1810	BE	NET		140	50 32 13	129 49 21							BONGO
						141									
						142									
						143									

Cast type:

BOT = bottle cast, no CTD
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* T12 CALLED T11 & T11 CALLED T10 IN HEADER - SEE PREVIOUS NOTE ABOUT T13

DAILY LOG

Ocean Sciences and Productivity Division

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Month OCT			Year 2004				Ship W. E. RICKER				Cruise ID 2004-32				
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							
27	T 09	19 14	BE	CTD		141	50 37 24	129 39 17	850+			1	H.M.		T: 10.95 S: 32.20
		19 19	BO				50 37 26	129 39 14		250					BOT 10m - SAL/CAL/MUS
		19 24	EN				50 37 28	129 39 12							
		19 26	BE	NET		142	50 37 31	129 39 09		150					BONGO
		19 47	BE	TRAWL		143	50 38.100	129 37.483		SURFACE					
27	T 08	20 53	BE	CTD		144	50 42 07	129 28 99	850+			1			T: 10.38 S: 31.91
		20 57	BO				50 42 10	129 28 98		250					BOT 10m - SAL/CAL/MUS
		21 02	EN				50 42 07	129 29 97							
		21 04	BE	NET		145	50 42 06	129 28 99		150					BONGO
		21 47	BE	TRAWL		146	50 42.609	129 24.431		SURFACE					
27	QCSD01	23 00	BE	TRAWL		147	50 52.804	129 21.101		SURFACE					
28	H 07	13 52	BE	CTD		148	52 32 06	130 44 47	116			1	H.M.	✓	T: 10.47 S: 31.81
		13 54	BO				52 32 03	130 44 47		116					BOT 10m - SAL/CAL/MUS
		13 56	EN				52 31.99	130 44 51							
		14 00	BE	NET		149	52 31 92	130 44 63							BONGO
		14 23	BE	TRAWL		150	52 31.376	130 42.81		SURFACE					

Cast type:

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month OCT				Year 2004			Ship W-E. RICKER				Cruise ID 2004-32				
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							
28	H 06	1543	BC	CTD		151	52 28 91	130 28 90	173			1	H.M		T:10.30 S: 31.56
		1546	BO				52 28 91	130 28 88		165					BOT 10m - SAL/CHL/NTS
		1550	EN				52 28 92	130 28 87							
		1554	BC	NET		152	52 28 95	130 28 86		150					BONGO
		1615	BE	TRAWL		153	52 28.68	130 26.84		SURFACE					
28	H 05	1731	BC	CTD		154	52 25 71	130 13 15	326			1			T:10.33 S: 31.59
		1735	BO				52 25 73	130 13 08		250					BOT 10m - SAL/CHL/NTS
		1740	EN				52 25 75	130 13 01							
		1742	BC	NET		155	52 25 75	130 12 94		150					BONGO
		1804	BE	TRAWL		156	52 25.18	130 10.53		SURFACE					
28	H 04	1919	BC	CTD		157	52 22 30	129 57 56	206			1			T:9.98 S: 31.28
		1923	BO				52 22 31	129 57 54		200					BOT 10m - SAL/CHL/NTS
		1927	EN				52 22 31	129 57 52							
		1928	BC	NET		158	52 22 32	129 57 53		150					BONGO
		1949	BE	TRAWL		159	52 21 951	129 55.705		SURFACE					

Cast type:

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Month OCT				Year 2004			Ship W. E. RICKER				Cruise ID 2004-32				
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							
28	H 03	2103	BE	CTD		160	52 18 97	129 41 75	210			1	H.M		T: 10.22 S: 31.70
		2107	BO				52 18 96	129 41 70		200					BOT@10m - SAL/CHL/NUIS
		2110	EN				52 18 95	129 41 71							
		2112	BE	NET		161	52 18 93	129 41 68		150					BONGO
		2133	BE	TRAWL		162	52 18.449	129 39.208		SURFACE					
28	H 02	2244	BE	CTD		163	52 15 63	129 26 24	184			1			T: 10.19 S: 31.35
		2247	BO				52 15 62	129 26 25		175					BOT@10m - SAL/CHL/NUIS
		2250	EN				52 15 61	129 26 27							
		2251	BE	NET		164	52 15 61	129 26 31		150					BONGO
		2312	BE	TRAWL		165	52 15.048	129 24.360		SURFACE					
29	H 01	0033	BE	CTD		166	52 12 18	129 10 59	160			1			T: 10.17 S: 31.80
		0036	BO				52 12 16	129 10 64		155					BOT@10m - SAL/CHL/NUIS
		0039	EN				52 12 15	129 10 68							
		0041	BE	NET		167	52 12 13	129 10 66		150					BONGO
		0103	BE	TRAWL		168	52 11.740	129 08.828		SURFACE					

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* TRANSMISOMETER UACAST LOOKS SUSPECT - BACK TO OLD TRICKS? (H OZ)

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Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month NOV				Year 2004			Ship WE RICKER				Cruise ID 2004-32				
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							
10	GS01	1514	UTC	TRAWL		169	49 44.060	124 40.713	340		SURFACE	TOW			
10	GS02	1617	UTC	TRAWL		170	49 42.969	124 49.194	82		SURFACE	TOW			
10	GS03	1715	UTC	TRAWL		171	49 45.911	124 53.624	58		SURFACE	TOW			
10	GS04	1817	UTC	TRAWL		172	49 49.687	125 00.702	72		SURFACE	TOW			
10	GS05	1908	UTC	TRAWL		173	49 52.87	125 05.13	78		SURFACE	TOW			
10	GS06	2112	UTC	TRAWL		174	49 54.547	125 00.797	319		SURFACE	TOW			
10	GS07	2203	UTC	TRAWL		175	49 57.919	125 03.713	265		NEAR ROPE DEPTH 15m				
11	HS01	1640	BE	CTD		176	51 59 95	129 12 25	175			1	H.M.	✓	T: 10.70 S: 33.04
		1652	BO				51 59 96	129 12 18		165					BOT@ 10m - SAL/CHL/NOTS
		1655	EN				51 59 97	129 12 14							
		1700	BE	NET		177	51 59 98	129 11 92		150					BONGO
		1725	BE	TRAWL		178	52 00.761	129 12.744	170		SURFACE	TOW			
12	FI 01	1451	BE	CTD		179	54 47 32	133 03 32	116			1		✓	T: 10.20 S: 32.19
		1453	BO				54 47 37	133 03 38		100					BOT@ 10m - SAL/CHL/NOTS
		1455	EN				54 47 39	133 03 37							
		1516	BE	NET		180	54 47 68	133 03 61	140	130					BONGO
		1535	BE	TRAWL		181	54 48.011	133 04.929	183		SURFACE	TOW			

Cast type:

BOT = bottle cast, no CTD
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 ROS = Rosette plus CTD

USW = sea water loop

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bottle firing method:

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Month NOV.			Year 2004				Ship W. E. RICKER				Cruise ID 2004-32				
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							
12	F1 02	1632	BE	CTD		182	54 46 66	133 11 12	197			1	H.R.	✓	T:10.36 S:32.38
		1638	BO				54 46 30	133 11 10		185					BOT@10m - SAL/CAL/NUTS
		1642	EN				54 46 85	133 11 07							
		1645	BE	NET		183	54 46 95	133 11 08		150					BONGO
		1710	BE	TRAWL		184	54 47.192	133 12.087	198	SURFACE TOW					
12	F1 03	1807	BE	CTD		185	54 45 74	133 18 90	112						
		1810	BO				54 45 76	133 18 88		100		1			T:10.44 S:32.41
		1812	EN				54 45 77	133 18 87							BOT@10m - SAL/CAL/NUTS
		1817	BE	NET		186	54 45 82	133 18 81		90					
		1840	BE	TRAWL		187	54 45.1312	133 19.180		SURFACE TOW					BONGO
12	F1 04	2005	BE	CTD		188	54 45 11	133 26 76	147			1			T:10.34 S:32.49
		2009	BO				54 45 09	133 26 73		135					BOT@10m - SAL/CAL/NUTS
		2012	EN				54 45 10	133 26 67							
		2020	BE	NET		189	54 45 05	133 26 52		133					BONGO

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month NOV.				Year 2004			Ship W.E. RICHER				Cruise ID 2004-32				
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							
13	DE 06	1456	BE	CTD		190	54 14 43	132 55 49	140			1	H.M.	✓	T: 11.33 S: 33.13
		1459	BO				54 14 41	132 55 51		130					BOT@10m - SAL/CHL/NUTS
		1501	EN				54 14 39	132 55 55							
		1506	BE			191	54 14 35	132 55 59							BONGO
		1534	BE			192	54 13 32.7	132 54.651	120	SURFACE TOW					
13	DE 05	1637	BE	.		193	54 10 69	132 45 36	60			1			T: 10.36 S: 32.89
		1638	BO				54 10 68	132 45 28		56					BOT@10m - SAL/CHL/NUTS
		1639	EN				54 10 67	132 45 21							
		1643	BE			194	54 10 64	132 45 11		47					BONGO
		1702	BE			195	54 10 65.8	132 43 24.9	59	SURFACE TOW					
13	DE 04	1813	BE			196	54 08 08	132 28 32	58			1			T: 10.18 S: 32.99
		1814	BO				54 08 07	132 28 23		50					BOT@10m - SAL/CHL/NUTS
		1815	EN				54 08 07	132 28 17							
		1820	BE			197	54 08 06	132 27 8.9							BONGO
		1838	BE			198	54 08 8.3	132 25 9.49	62	SURFACE TOW					

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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							
13	DE03	2001	BE	CTD		199	54 08 33	132 11 65	48			1	H.M.	✓	T: 10.19 S: 32.84
		2002	BO				54 08 33	132 11 60		40					BOT 10 m - SAL/CHL/NUTS
		2004	EN				54 08 32	132 11 54							
		2007	BE	NET		200	54 08 33	132 11 45							BONGO
		2023	BE	TRAWL		201	54 08.811	132 10.123	48		SURFACE	Tow			
13	DE02	2133	BE	CTD		202	54 08 57	131 58 06	50			1			T: 10.15 S: 32.46
		2134	BO				54 08 55	131 58 04		40					BOT 10 m - SAL/CHL/NUTS
		2136	EN				54 08 51	131 58 01							
		2139	BE	NET		203	54 08 45	131 57 97		37					BONGO
		2155	BE	TRAWL		204	54 08.454	131 56 703	49		SURFACE	Tow			
14	DE01	0010	BE	CTD		205	54 16 41	131 38 31	132			1			T: 10.37 S: 32.57
		0013	BO				54 16 41	131 38 24		120					BOT 10 m - SAL/CHL/NUTS
		0016	EN				54 16 40	131 38 27							
	*	00	BE	NET		206	54 16	131 38			CANCELLED				BONGO
		2319	BE	TRAWL		207	54 13 973	131 42 203	116		SURFACE	Tow			

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* - BONGO CAST CANCELLED DUE TO WEATHER

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							Latitude	Longitude							
14	IBC 01	1521	BG	CTD		208	55 01 26	130 01 29	184			1	H.M.	✓	T: 8.83 S: 30.27
		1524	BO				55 01 22	130 01 24		170			↓		BOT@10m - SAL/CAL/NUTS
		1527	EN				55 01 20	130 01 21							
		1530	BG	NET		209	55 01 10	130 01 18		150					BONGO
		1555	BE	TRAWL		210	54 59 744	130 02 378	197	SURFACE TOW					
14	IBC 02	1702	BE	CTD		211	54 52 65	130 10 96	414			1			T: 9.44 S: 31.06
		1707	BO				54 52 65	130 10 97		250					BOT@10m - SAL/CAL/NUTS
		1711	EN				54 52 64	130 10 94							
		1713	BE	NET		212	54 52 62	130 10 98		150					BONGO
		1738	BE	TRAWL		213	54 51 721	130 12 095	356	SURFACE TOW					
14	IBC 03	1836	BE	CTD		214	54 47 64	130 17 17	435			1			T: 9.60 S: 30.90
		1841	BO				54 47 73	130 17 14		250					BOT@10m - SAL/CAL/NUTS
		1845	EN				54 47 79	130 17 13							
		1847	BE	NET		215	54 47 86	130 17 11		150					BONGO
		1909	BE	TRAWL		216	54 47 740	130 17 796	456	SURFACE TOW					

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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							
14	IBC 04	20 14	BE	CTD		217	54 44 13	130 24 99	520			1	H.M.	✓	T: 10.05 S: 30.64
		20 19	BO				54 44 28	130 24 85		250			↓		BOTE 10m - SAL/CHL/NUIS
		20 24	EN				54 44 35	130 24 82							
		20 27	BE	NET		218	54 44 44	130 24 78		150					BONGO
		20 49	BE	TRAWL		219	54 44 081	130 25 077	500		SURFACE TOW				
14	IBC 05	22 07	BE	.		220	54 40 59	130 35 02	201			1			T: 10.21 S: 31.13
		22 11	BO				54 40 60	130 35 05		190					BOTE 10m - SAL/CHL/NUIS
		22 15	EN				54 40 63	130 35 07							
		22 20	BE			221	54 40 68	130 35 09		150					BONGO
		22 39	BE			222	54 40 864	130 36 569	216		SURFACE TOW				
14	IBC 06	23 35	BE			223	54 40 98	130 45 35	280			1			T: 10.01 S: 31.26
		23 40	BO				54 40 99	130 45 47		250					BOTE 10m - SAL/CHL/NUIS
		23 45	EN				54 41 02	130 45 61							
		23 50	BE			224	54 41 02	130 45 81		150					BONGO
15		00 12	BE			225	54 40 916	130 47 522	323		SURFACE TOW				

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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							
15	1BC 07	0151	BE	CTD		226	54 42 07	131 03 17	190			1	H.M.	✓	T: 9.95 S: 30.95
	2 ND	0155	BO				54 42 05	131 03 17		180					BOT@10m - SAL/CHL/NUTS
		0158	EN				54 42 04	131 03 20							
	3 RD	0201	BE	NET		227	54 42 03	131 03 20		150					BONGO
	1 ST	0102	BE	TRAWL		228	54 41 192	130 56 44	450	SURFACE TOW					
15	1SCA 01	1454	BE	CTD		229	56 27 70	132 28 36	164			1		✓	T: 9.35 S: 29.60
		1457	BO				56 27 70	132 28 45		155					BOT@10m - SAL/CHL/NUTS
		1506	EN				56 27 69	132 28 49							
		1503	BE	NET		230	56 27 68	132 28 57		150				✓	BONGO
		1529	BE	TRAWL		231	56 27.343	132 28.047	182	SURFACE TOW					
15	1SCA 02	1654	BE	CTD		232	56 31 29	132 38 99	62			1			T: 9.09 S: 29.13
		1655	BO				56 31 29	132 39 01		55					BOT@10m - SAL/CHL/NUTS
		1656	EN				56 31 29	132 39 04							
		1700	BE	NET		233	56 31 34	132 39 22		46					BONGO
		1717	BE	TRAWL		234	56 30.798	132 40.516	82	SURFACE TOW					

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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							
15	15EA 03	1809	BE	CTD		235	56 28 77	132 45 41	137			1	H.M.		T: 9.05 S: 29.25
		1812	BO				56 28 74	132 45 40		130			↓		BOT 10 m - SAL/CYL/NUIS
		1815	EM				56 28 71	132 45 37					↓		
		1818	BE	NET		236	56 28 66	132 45 35		124					BONGO
		1839	BE	TRAWL		237	56 28 553	132 46.859	121		SURFACE TOW				
15	15EA 04	2001	BE	CTD		238	56 29 73	132 53 61	149			1			T: 9.22 S: 30.46
		2004	BO				56 29 74	132 53 63		140					BOT 10 m - SAL/CYL/NUIS
		2006	EM				56 29 75	132 53 54							
		2008	BE	NET		239	56 29 77	132 53 43		137					BONGO
		2030	BE	TRAWL		240	56 29.438	132 54.118	121		SURFACE TOW				
15	15EA 05	2220	BE	CTD		241	56 22 11	133 16 21	257			1			T: 8.99 S: 32.21
		2225	BO				56 22 11	133 16 18		240					BOT 10 m - SAL/CYL/NUIS
		2229	EM				56 22 12	133 16 14							
		2232	BE	NET		242	56 22 13	133 16 10		150					BONGO
		2234	BE	TRAWL		243	56 22.248	133 17 231			SURFACE TOW				

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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							
15	1SEA 06	23 40	BE	CTD		244	56 22 25	133 23 98	362			1	H.M.		T: 8.97 S: 32.34
		23 44	BO				56 22 28	133 24 07		250					BOT 10m - SAL/CAL/NUTS
		23 49	EN				56 22 27	133 24 10							
		23 52	BE	NET		245	56 22 28	133 24 19		150					BONGO
15		00 15	BE	TRAWL		246	56 22 43	133 25 90	253		SURFACE TOW				
16	1SEA 07	01 55	BE	CTD		247	56 24 74	133 43 71	202			1			T: 8.97 S: 32.26
	2ND	01 57	BO				56 24 76	133 43 91	120	105					BOT 10m - SAL/CAL/NUTS
		01 59	EN				56 24 74	133 44 02							
	3RD	02 03	BE	NET		248	56 24 69	133 43 42		150					BONGO
	1ST	01 08	BE	TRAWL		249	56 23 26	133 35 12	413		SURFACE TOW				
16	1SEA 08	14 48	BE	CTD		250	56 58 71	134 17 12	330			1		✓	T: 9.12 S: 32.06
		14 53	BO				56 58 67	134 17 14		250					BOT 10m - SAL/CAL/NUTS
		14 56	EN				56 58 63	134 17 21							
		15 02	BE	NET		251	56 58 57	134 17 33		150					BONGO
		15 25	BE	TRAWL		252	56 59 14	134 16 28	324		SURFACE TOW				

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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							
16	ISCA 09	1637	BE	CTD		253	57 04 70	134 05 78	360			1	H.M.	✓	T: 8.15 S: 31.65
		1641	BO				57 04 69	134 05 79		250					BOT@10m - SAL/CHL/NUTS
		1645	EN				57 04 66	134 05 80							
		1648	BE	NET		254	57 04 61	134 05 77		150					BONGO
		1709	BE	TRAWL		255	57 05 404	134 05 093	351		SURFACE	Tow			
16	ISCA 10	1821	BE	CTD		256	57 09 55	133 52 98	147			1			T: 8.21 S: 31.75
		1824	BO				57 09 52	133 52 94	136	125					BOT@10m - SAL/CHL/NUTS
		1827	EN				57 09 53	133 52 81							
		1829	BE	NET		257	57 09 51	133 52 57							BONGO
		1851	BE	TRAWL		258	57 09 592	133 50 400	200		SURFACE	Tow			
16	ISCA 11	2010	BE	CTD		259	57 08 92	133 34 82	190			1			T: 8.39 S: 31.93
		2013	BO				57 08 92	133 34 75		175					BOT@10m - SAL/CHL/NUTS
		2017	EN				57 08 91	133 34 67							
		2019	BE	NET		260	57 08 91	133 34 56		150					BONGO
		2021	BE	TRAWL		261	57 08 634	133 32 820	148		SURFACE	Tow			

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							Latitude	Longitude							
16	ISEA 12	21 56	BE	CTD		262	57 05 42	133 20 26	177			1	H.M.		T: 8.53 S: 31.76
		21 59	BO				57 05 40	133 20 25		160					BOT @ 10m - SAL/CAL/HUTS
		22 02	EN				57 05 39	133 20 24							
		22 04	BE	NET		263	57 05 37	133 20 26		150					BONGO
		22 25	BE	TRAWL		264	57 05 05.4	133 18 82.4	147		SURFACE	Trawl.			
16	ISEA 13	23 34	BE	CTD		265	57 03 02	133 05 88	165			1			T: 8.42 S: 31.56
		23 37	BO				57 03 05	133 05 88		150					BOT @ 10m - SAL/CAL/HUTS
		23 40	EN				57 03 08	133 05 89							
		23 42	BE	NET		266	57 03 12	133 05 89		138					BONGO
17		00 05	BE	TRAWL		267	57 02 08.1	133 04 87.9	148		SURFACE	Trawl.			
17	ISEA 14	01 46	BE	CTD		268	56 51 45	132 52 83	188			1			T: 8.07 S: 31.31
		01 49	BO				56 51 43	132 52 91		175					BOT @ 10m - SAL/CAL/HUTS
		01 53	EN				56 51 43	132 52 93							
		01 55	BE	NET		269	56 51 44	132 52 96							BONGO
		02 19	BE	TRAWL		270	56 50 48.4	132 52 53.9	190		SURFACE	Trawl.			

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							Latitude	Longitude							
17	ISCA 15	1447	BE	CTD		271	57 03 95	134 41 73	655			1	H M	✓	T: 9.10 S: 32.20
		1451	BO				57 03 90	134 41 66		250			↓		BOTE 10m - SAL/CHL/NUTS
		1455	EN				57 03 90	134 41 61							
		1458	BE	NET		272	57 03 90	134 41 58		150					BONGO
		1523	BE	TRAWL		273	57 04 995	134 41 754	633		SURFACE	Tow.			
17	ISCA 16	1658	BE	CTD		274	57 17 11	134 45 27	667			2			T: 8.37 S: 31.41
		1707	BO				57 17 16	134 45 14		500					BOTE 10m - SAL/CHL/NUTS
		1718	EN				57 17 19	134 45 12			T: 6.74		S: 34.81		BOTE 500m - SAL
		1722	BE	NET		275	57 17 19	134 45 10		150					BONGO
		1746	BE	TRAWL		276	57 18 677	134 44 654	738		SURFACE	Tow.			
17	ISCA 17	1905	BE	CTD		277	57 28 11	134 45 28	295			1			T: 8.29 S: 31.50
		1910	BO				57 28 12	134 45 27		250					BOTE 10m - SAL/CHL/NUTS
		1913	EN				57 28 14	134 45 24							
		1916	BE	NET		278	57 28 20	134 45 21		150					BONGO
		2010	BE	TRAWL		279	57 28 958	134 45 844	306		SURFACE	Tow.			

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0724-150
-200

1705

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month NOV				Year 2004			Ship W.E. RICKER				Cruise ID 2004-32					
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								
17	15CA 18	2116	BE	CTD		280	57 36 26	134 48 08	324			1	H.M.		T: 8.09 S: 31.12	
		2121	BO				57 36 29	134 48 04		256					BOT@10m - SAL/CHL/NUIS	
		2126	CH				57 36 37	134 47 94								
		2128	BE	NET		281	57 36 37	134 47 83		156					BONGO	
		2148	BE	TRAWL		282	57 38 673	134 47 961	561		SURFACE		Trawl.			
17	15CA 19	2251	BE	CTD		283	57 44 91	134 50 62	536			1			T: 7.84 S: 30.70	
		2256	BO				57.44 97	134 50 56		256					BOT@10m - SAL/CHL/NUIS	
		2300	CH				57 45 00	134 50 52								
		2303	BE	NET		284	57 45 02	134 50 48		156					BONGO	
		2324	BE	TRAWL		285	57 46 001	134 50 849	519		SURFACE		Trawl.			
18	15CA 20	0032	BE	CTD		286	57 54 15	134 52 92	380			1			T: 7.89 S: 30.80	
		0037	BO				57 54 16	134 52 82		250					BOT@10m - SAL/CHL/NUIS	
		0042	CH				57 54 19	134 52 75								
		0044	BE	NET		297	57 54 23	134 52 68							BONGO	
		0105	BE	TRAWL		298	57 55 307	134 52 041	446		SURFACE		Trawl.			

Cast type:

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month				Year				Ship				Cruise ID			
NOV				2004				W.E. RICKER				2004-32			
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							
18	15EA 21	14 47	BE	CTD		289	58 12 90	135 29 89	93			1	H.M.	✓	T: 7.73 S: 31.58
		14 49	BO				58 12 89	135 29 88		85					BOT 10m - SAL/CAL/NUTS
		14 51	EN				58 12 89	135 29 87							
		14 55	BE	NET		290	58 12 84	135 29 81		78					BONGO
		15 18	BE	TRAWL		291	58 13 318	135 31 510	102		SURFACE		Tow		
18	15EA 22	16 25	BE	CTD		292	58 16 08	135 43 92	125			1			T: 7.75 S: 31.50
		16 27	BO				58 16 08	135 43 92		115					BOT 10m - SAL/CAL/NUTS
		16 29	EN				58 16 09	135 43 94							
		16 32	BE	NET		293	58 16 13	135 44 00		117					BONGO
		16 52	BE	TRAWL		294	58 17 279	135 44 083	134		SURFACE		Tow		
18	15EA 23	17 44	BE	CTD		295	58 22 37	135 45 61	40			1			T: 7.48 S: 30.96
		17 45	BO				58 22 36	135 45 62		35					BOT 10m - SAL/CAL/NUTS
		17 46	EN				58 22 36	135 45 63							
		17 49	BE	NET		296	58 22 36	135 45 74		29					BONGO
		18 43	BE	TRAWL		297	58 21 917	135 47 706	54		SURFACE		Tow		
Cast type: USW = sea water loop bottle firing method:															

Cast type:

BOT = bottle cast, no CTD
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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month Nov				Year 2004			Ship W.E. RICKER				Cruise ID 2004-32				
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							
18	ISEA 24	1915	BE	CTD		298	58 16 46	135 52 38	74			1	H.M.		T: 7.79 S: 31.70
		1916	BO				58 16 43	135 52 39		65					BOT@10m - SAL/CAL/NUIS
		1918	EN				58 16 42	135 52 39							
		1920	BE	NET		299	58 16 38	135 52 45		62					BONGO
		2002	BE	TRAWL		300	58 16 077	135 54 377	69		SURFACE	Tow.			
18	ISEA 25	2047	BE	CTD		301	58 14 48	136 01 02	81			1			T: 7.80 S: 31.63
		2049	BO				58 14 48	136 01 05		75					BOT@10m - SAL/CAL/NUIS
		2050	EN				58 14 48	136 01 06							
		2052	BE	NET		302	58 14 47	136 01 08		70					BONGO
		2110	BE	TRAWL		303	58 14 107	136 02 246			SURFACE	Tow.			
18	ISEA 26	2231	BE			304	58 18 12	136 19 46	256			1			T: 7.85 S: 31.57
		2236	BO				58 18 13	136 19 61		240					BOT@10m - SAL/CAL/NUIS
		2240	EN				58 18 15	136 19 60							
		2242	BE			305	58 18 15	136 19 54		150					BONGO
		2303	BE			306	58 18.419	136 18.748		246	SURFACE	Tow			

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month Nov				Year 2004			Ship W. E. RICKER			Cruise ID 2004-32					
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							
18	SEA 27	2357	BC	CTD		307	58 19 18	136 09 21	150			1	H.M		T: 8.01 S: 31.83
19		0000	BO				58 19 16	136 09 19		140					BOT 10m - SAL/CHL/NUTS
		0003	EN				58 19 15	136 09 16							
		0005	BE	NET		308	58 19 16	136 09 07		130					BONGO
		0024	BE	TRAWL		309	58 19.713	136 08.32		148	SURFACE Trawl				
19	SEA 28	0152	BC	CTD		310	58 18 12	135 48 32	103			1			T: 7.75 S: 31.45
		0154	BO				58 18 13	135 48 35		90					BOT 10m - SAL/CHL/NUTS
		0155	EN				58 18 14	135 48 37							
		0157	BE	NET		311	58 18 16	135 48 40		90					BONGO
		0214	BE	TRAWL		312	58 18 037	135 47.474	104		SURFACE Trawl				
19	SEA 29	1448	BC	CTD		313	56 58 43	134 29 84	137			1		✓	T: 9.34 S: 32.25
		1451	BO				56 58 47	134 29 74		125					BOT 10m - SAL/CHL/NUTS
		1453	EN				56 58 47	134 29 71							
		1456	BE	NET		314	56 58 54	134 29 67		126					BONGO
		1514	BE	TRAWL		315	56 57 800	134 29 646		158	SURFACE Trawl				

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month NOV				Year 2004				Ship W.E. RICKER				Cruise ID 2004-32			
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	ISCA 30	1649	BE	CTD		316	56 56 66	134 37 38	694			2	H.M.		T: 9.33 S: 32.23
		1658	BO				56 50 70	134 37 35		506	T: 6.91				BOT @ 10m - SAL/CHL/NUTS
		1709	EN				56 50 74	134 37 30			S: 34.82				BOT @ 500m - SAL
		1712	BE	NET		317	56 56 70	134 37 23		150					BONGO
		1734	BE	TRAWL		318	56 49 244	134 36.138	647		SURFACE TOW				
19	ISCA 31	1838	BE	CTD		319	56 46 52	134 27 58	420			1			T: 9.36 S: 32.21
		1848	BO				56 46 49	134 27 58		256					BOT @ 10m - SAL/CHL/NUTS
		1846	EN				56 46 47	134 27 58							
		1849	BE	NET		320	56 46 46	134 27 60		150					BONGO
		1914	BE	TRAWL		321	56 45.553	134 28 504	609		SURFACE TOW				
19	ISCA 32	2013	BE	CTD		322	56 41 13	134 34 55	678			1			T: 9.15 S: 32.27
		2018	BO				56 41 10	134 34 46		250					BOT @ 10m - SAL/CHL/NUTS
		2022	EN				56 41 06	134 34 38							
		2032	BE	NET		323	56 40 94	134 34 26		150					BONGO
		2045	BE	TRAWL		324	56 40 553	134 32 861	656		SURFACE TOW				

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16:56:40
4:10

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month NOV				Year 2004			Ship W.G. RICKER				Cruise ID 2004-32				
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	ISCA 33	2154	BC	CTD		325	56 37 42	134 24 47	450			1	H.M.		T: 9.31 S: 32.16
		2159	BO				56 37 42	134 24 40		250					BOTOM - SAL/CHL/NUIS
		2202	CH				56 37 43	134 24 37							
		2205	BE	NET		326	56 37 43	134 24 29		150					BONGO
		2222	BE	TRAWL		327	56 36 843	134 25 516	493		SURFACE	TOW			
19	ISCA 34	2330	BC	CTD		328	56 33 10	134 34 24	521			1			T: 9.45 S: 32.30
		2335	BO				56 33 16	134 34 19		250					BOTOM - SAL/CHL/NUIS
		2339	CH				56 33 24	134 34 13							
		2341	BE	NET		329	56 33 27	134 34 09		150					BONGO
20		0005	BE	TRAWL		330	56 32 425	134 33 919	506		SURFACE	TOW.			
20	ISCA 35	0132	BE	CTD		331	56 22 57	134 33 53	633			1			T: 9.45 S: 32.25
		0137	BO				56 22 63	134 33 60		250					BOTOM - SAL/CHL/NUIS
		0141	CH				56 22 67	134 33 60							
		0143	BE	NET		332	56 22 73	134 33 60		150					BONGO
		0205	BE	TRAWL		333	56 22 410	134 32 997	663		SURFACE	TOW.			

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month NOV				Year 2004				Ship W.E. RICKER				Cruise ID 2004-32			
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	ISCA 36	1447	BE	CTD		334	56 03 66	134 02 39	65			1	H.M.	✓	T: 9.01 S: 31.95
		1448	BO				56 03 64	134 02 36		56					BOT@10m - SAL/CHL/NUTS
		1450	EN				56 03 63	134 02 34							
		1453	BE	NET		335	56 03 63	134 02 25		45					BONGO
		1511	BE	TRAWL		336	56 03 036	134 00 952	72		SURFACE Trawl				
20	ISCA 37	1621	BE	CTD		337	56 05 98	133 51 59	228			1			T: 8.87 S: 32.18
		1624	BO				56 05 98	133 51 58		215					BOT@10m - SAL/CHL/NUTS
		1627	EN				56 05 99	133 51 57							
		1630	BE	NET		338	56 05 97	133 51 53		150					BONGO
		1654	BE	TRAWL		339	56 06 532	133 49 801	208		SURFACE Trawl				
20	ISCA 38	1755	BE	CTD		340	56 09 20	133 43 78	303			1			T: 9.17 S: 32.14
		1800	BO				56 09 22	133 43 71		250					BOT@10m - SAL/CHL/NUTS
		1803	EN				56 09 24	133 43 66							
		1806	BE	NET		341	56 09 30	133 43 60		156					BONGO
		1829	BE	TRAWL		342	56 10 268	133 43 741	300		SURFACE Trawl				

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5-15
25-35

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month				Year			Ship				Cruise ID				
NOV				2004			W.E. RICKER				2004-32				
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	ISEA 39	1919	BC	CTD		343	56 13 77	133 45 99	372			1	H.M.		T: 8.91 S: 32.09
		1923	BO				56 13 77	133 46 14		250			1		BOT@10m - SAL/CHL/NUTS
		1927	EN				56 13 72	133 46 17					1		
		1929	BE	NET		344	56 13 68	133 46 22		150					BONGO
		2015	BE	TRAWL		345	56 14 34S	133 46 770	283		SURFACE TOWEL				
20	ISEA 40	2104	BC	CTD		346	56 16 47	133 49 20	238			1			T: 8.96 S: 31.71
		2108	BO				56 16 43	133 49 17		225					BOT@10m - SAL/CHL/NUTS
		2112	EN				56 16 38	133 49 16							
		2114	BE	NET		347	56 16 33	133 49 18		150					BONGO
		2130	BE	TRAWL		348	56 17 08S	133 48 739	276		SURFACE TOWEL				
20	ISEA 41	2254	BC	CTD		349	56 17 37	133 43 24	196			1			T: 8.93 S: 32.13
		2257	BO				56 17 38	133 43 20		180					BOT@10m - SAL/CHL/NUTS
		2300	EN				56 17 39	133 43 16							
		2302	BE	NET		350	56 17 44	133 43 13		150					BONGO
		2324	BE	TRAWL		351	56 18 119	133 42 603	214		SURFACE TOWEL				

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Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month Nov				Year 2004				Ship W.E. RICKER				Cruise ID 2004-32			
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	15EA 42	0030	BE	CTD		352	56 22 65	133 36 97	215			1	14.m.		T: 9.09 S: 31.58
		0034	BO				56 22 67	133 36 94		200			↓		BOT@10m - SAL/CHL/NUTS
		0037	EN				56 22 69	133 36 91					↓		
		0039	BE	NET		353	56 22 72	133 36 86		150					BONGO
			BE	TRAWL		354	CANCELLED (WEATHER)								
21	15EA 43	1458	BE	CTD	*	354	56 20 85	132 34 83	328			1		✓	T: 9.79 S: 30.59
		1503	BO				56 20 86	132 34 84		250					BOT@10m - SAL/CHL/NUTS
		1506	EN				56 20 85	132 34 84							
		1508	BE	NET		355	56 20 87	132 34 87		150					BONGO
		1532	BE	TRAWL		356	56 20 38	132 35 412	279		SURFACE	Tow.			
21	15EA 44	1627	BE	CTD		357	56 16 03	132 38 18	315			1			T: 9.72 S: 30.44
		1632	BO				56 16 02	132 38 07		250					BOT@10m - SAL/CHL/NUTS
		1635	EN				56 16 01	132 38 00							
		1637	BE	NET		358	56 16 01	132 37 88							BONGO
		1659	BE	TRAWL		359	56 15 680	132 38 553	311		SURFACE	Tow.			

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Additional comments

* - CAST 354 CALLED # 355 in FILE

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INSTITUTE OF OCEAN SCIENCES

Month NOV				Year 2004			Ship W.E. RICKER				Cruise ID 2004-32				
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	ISEA 45	1801	BE	CTD		360	56 13 26	132 47 34	144			1	H.m.		T: 9.84 S: 30.66
		1804	BO				56 13 25	132 47 33		135					BOT@ 10m - SAL/CAL/NUTS
		1806	EN				56 13 26	132 47 33							
		1808	BE	NET		361	56 13 30	132 47 32							BONGO
		1829	BE	TRAWL		362	56 12 54.8	132 44 8.4	201		SURFACE TOW.				
21	ISEA 46	1917	BE	CTD		363	56 09 40	132 45 37	318			1			T: 9.75 S: 30.45
		1922	BO				56 09 41	132 45 41		250					BOT@ 10m - SAL/CAL/NUTS
		1925	EN				56 09 43	132 45 44							
		1955	BE	NET		364	56 09 49	132 45 22		150					BONGO
		2015	BE	TRAWL		365	56 08 56.3	132 44 8.4	201		SURFACE TOW.				
21	ISEA 47	2116	BE	CTD		366	56 04 21	132 47 71	331			1			T: 9.67 S: 30.38
		2121	BO				56 04 24	132 47 74		250					BOT@ 10m - SAL/CAL/NUTS
		2124	EN				56 04 24	132 47 84							
		2126	BE	NET		367	56 04 25	132 47 94		150					BONGO
		2149	BE	TRAWL		368	56 03 72.4	132 47 35.6	328		SURFACE TOW.				

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Month NOV				Year 2004				Ship W.E. RICKER				Cruise ID 2004-32				
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	ISEA 48	2255	BE	CTD		369	55 59 56	132 38 23	158			1	H.M.		T: 9.66 S: 30.29	
		2258	BO				55 59 55	132 38 28		145					BOT@10m - SAL/CHL/NUTS	
		2300	EN				55 59 54	132 38 31								
		2302	BE	NET		370	55 59 52	132 38 40							BONGO	
		2322	BE	TRAWL		371	55 58 46	132 37 51.5	429		SURFACE	Tow.				
22	ISEA 49	0007	BE	CTD		372	55 56 77	132 33 13	417			1			T: 9.63 S: 30.28	
		0012	BO				55 56 80	132 33 21		250					BOT@10m - SAL/CHL/NUTS	
		0015	EN				55 56 82	132 33 24								
		0017	BE	NET		373	55 56 84	132 33 32		150					BONGO	
		0038	BE	TRAWL		374	55 56 030	132 33 217	391		SURFACE	Tow.				
22	ISEA 50	0147	BE	CTD		375	55 49 35	132 27 70	409			1			T: 9.67 S: 30.47	
		0152	BO				55 49 28	132 27 69		250					BOT@10m - SAL/CHL/NUTS	
		0156	EN				55 49 27	132 27 69								
		0158	BE	NET		376	55 49 27	132 27 64		150					BONGO	
		0221	BE	TRAWL		377	55 48 667	132 26 735	474		SURFACE	Tow.				
							END OF 2004-32									

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

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

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

28 May 2003
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