DAILY SCIENCE LOG BOOK

MISSION NUMBER 2014-16

DATE: From: MAR 6/14 To: MAR 21/14

VESSEL: W.E. Ricker

PROJECT(S): TRUDGL Hi SCAS

Book 1 of 2

Water Properties Group
Fisheries and Oceans Canada
Institute of Ocean Sciences
Ocean Sciences Division
North Saanich, BC, Canada

**** The following 3 pages are VERY IMPORTANT as they document equipment and settings used on board ****

These pages are to be completed by the CTD Technician setting up the equipment, the Watch Leader on board, and the Chief Scientist MUST verify that all relevant sections are completed prior to leaving the vessel. ***Any mid-cruise changes to be noted by watch leader in the notes.***

Data logging computer: _____

Data acquisition program: _____

CTD deck unit make: _____ model: _____ serial number: _____

Primary CTD

Make: SBE 9+ model: 9+ serial number: 550

Primary temperature serial number: 2710

Primary conductivity serial number: 2128

Secondary temperature serial number: 2374

Secondary conductivity serial number: 3396

Transmissometer: ~~_____~~ Model: _____ s/n: _____

Transmissometer: ~~_____~~ Model: _____ s/n: _____

Fluorometer: Model Wetlabs FCO Cable gain: 13 s/n: 2215 P, S or (NO) pump?

Fluorometer: Model _____ Cable gain: _____ s/n: _____ P, S or NO pump?

Oxygen sensor: SBE Model: 43 s/n: 1176 (P) S or NO pump?

PAR sensor: _____ Model: _____ s/n: _____ **Surface PAR? Y / N**

Other sensors: pH s/n: 0851 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: _____

Transmissometer: _____ Model: _____ s/n: _____

Fluorometer: Model _____ Cable gain: _____ s/n: _____ P, S or NO pump?

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: _____ **Surface PAR? Y / 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?

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

This also includes the bottle location above the CTD on non-rosette casts (e.g., W.E. Ricker)

C:\DATA\2014-16\C DATA

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 1 of _____

Month MARCH **Year** 2014 **Vessel** W.E. RICKER **Cruise ID** 2014-16

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
001	JF 01	7	15:05	BE	CTD		48 ° 17 . 37	123° 36 . 58	176		-	1	H.M.	☐☐	T: 7.61 S: 31.53
			15:09	BO			48 ° 17 . 36	123 ° 36 . 65		165	-			☐☐	BOTE10m - SAL/CHL/NUTS
			15:14	EN			48 ° 17 . 38	123 ° 36 . 74			-			☐☐	
002			15:23	BE	NET		48 ° 17 . 30	123° 36 . 74			-			☐☐	BONGO
003			15:38	BE	TRAWL		48° 17 . 39	123° 38 . 42			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
004	JF 02	7	17:06	BE	CTD		48 ° 20 . 13	123° 50 . 90	136		-	1		☐☐	T: 7.56 S: 31.65
			17:09	BO			48 ° 20 . 12	123° 50 . 92		125	-			☐☐	BOTE10m - SAL/CHL/NUTS
			17:16	EN			48 ° 20 . 14	123 ° 51 . 06			-			☐☐	
005			17:24	BE	NET		48 ° 20 . 14	123° 51 . 06			-			☐☐	BONGO
006			17:41	BE	TRAWL		48 ° 20 . 71	123 ° 52 . 81			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
007	JF 03	71	18:52	BE	CTD		48 ° 23 . 23	124 ° 02 . 81	78		-	1		☐☐	T: S:
			18:54	BO			48 ° 23 . 25	124 ° 02 . 87		70	-			☐☐	BOTE10m - SAL/CHL/NUTS
			18:57	EN			48 ° 23 . 26	124 ° 02 . 94			-			☐☐	
008			19:01	BE	NET		48 ° 23 . 29	124 ° 03 . 08			-			☐☐	BONGO
009			19:20	BE	TRAWL		48 ° 23 . 56	124 ° 05 . 43			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	

Event Type:
BOT = Bottle cast (no CTD)
CTD = Standalone CTD
ROS = CTD in Rosette
SET = Fish Set
LOOP = Sea Water Loop
MOR = Mooring
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DRF = Drifter
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Bottle Firing Method:
US = Up / Stop (default)
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Time Code:
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CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

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Month MARCH | **Year** 2014 | **Vessel** W.E. RICKER | **Cruise ID** 2014-16

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0010	JF04	7	20:17	BE	CTD		48° 25.81	124° 11.49	72		-	1	H.M	☐☐	T: 7.58 S: 30.23
			20:19	BO			48° 25.83	124° 11.53		66	-			☐☐	BOT@10m SAL/CAL/NUTS
			20:22	EN			48° 25.84	124° 11.60			-			☐☐	
011			20:25	BE	NET		48° 25.87	124° 11.68			-			☐☐	BONGO
012			21:22	BE	TRAWL		48° 25.83	124° 13.53			-			☐☐	OVER TRAWL
	NOTE: DATA FOR JF01 - JF04. PROBABLY LOST - COLLECTED 2014-16.XLM CON FILE ONLY - NO .HEX FILE - REBOOT													☐☐	
013	JF05	7	22:21	BE	CTD		48° 27.96	124° 20.59	107		-	1		☐☐	T: 7.72 S: 30.86
			22:23	BO			48° 27.95	124° 20.60		95	-			☐☐	BOT@10m SAL/CAL/NUTS
			22:27	EN			48° 27.94	124° 20.62			-			☐☐	
014			22:33	BE	NET		48° 27.93	124° 20.66			-			☐☐	BONGO
015			22:45	BE	TRAWL		48° 28.32	124° 22.21			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
016	JF06	7	23:54	BE	CTD		48° 30.82	124° 29.19	110		-	1		☐☐	T: 8.95 S: 26.69
			23:56	BO			48° 30.83	124° 29.14		100	-			☐☐	BOT@10m SAL/CAL/NUTS
			00:00	EN			48° 30.84	124° 29.04			-			☐☐	
017			00:03	BE	NET		48° 30.84	124° 28.97			-			☐☐	BONGO
018			00:25	BE	TRAWL		48° 30.86	124° 29.62			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	

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COMPUTER AND HOW *.HEX FILE IS CREATED. STARTING OVER @ 2014-16.0013.HEX

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019	G1 01	8	15:03	BG	CTD		48° 44.90	123° 36.27	55		-	1	H.M	☐☐	T: 7.26 S: 28.63
			15:04	BO			48° 44.90	123° 36.27		45	-			☐☐	BOTTOM SAL/CHL/NUTS
			15:06	EN			48° 44.92	123° 36.26			-			☐☐	
020			15:08	BG	NET		48° 44.88	123° 36.27			-			☐☐	BONGO
021			15:30	BG	TRAWL		48° 44.64	123° 35.80			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
022	G1 02	8	16:45	BG	TRAWL	ONLY	48° 39.09	123° 30.47	184		-			☐☐	TRAWL
023	G1 03	8	17:32	BG	TRAWL	ONLY	48° 42.31	123° 29.34	73		-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
024	G1 04	8	18:15	BG	CTD		48° 43.36	123° 25.78	81		-	1		☐☐	T: 7.37 S: 29.91
			18:16	BO			48° 43.36	123° 25.77		70	-			☐☐	BOTTOM SAL/CHL/NUTS
			18:19	EN			48° 43.38	123° 25.73			-			☐☐	
025			18:25	BG	NET		48° 43.37	123° 25.74			- *	MOIRA STA.		☐☐	BONGO - SAT CHANGE
026			18:44	BG	TRAWL		48° 43.92	123° 25.95			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
27	G1 05	8	20:17	BG	TRAWL	ONLY	48° 44.99	123° 21.15			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	

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28	G1 06	8	20:37	BE	CTD		48° 44.26	123° 17.22	162		-	1	H.M.	☐☐	T: 7.38 S: 30.43
			20:40	BO			48° 44.23	123° 17.25		150	-			☐☐	BOTTOM - SAL/CHL/NUTS
			20:45	EN			48° 44.22	123° 17.20			-			☐☐	
29	SWANSON CH		20:49	BE	NET		48° 44.21	123° 17.18			MOIRA. STATION	*		☐☐	BONGO - SWANSON CH
30			21:14	BE	TRAWL		48° 44.70	123° 17.54			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
30	G1 07	8	21:58	BE	TRAWL	ONLY	48° 46.54	123° 20.02			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
31	G1 08	8	23:01	BE	CTD		48° 41.61	123° 19.50	61		-	1		☐☐	T: 7.37 S: 30.23
			23:03	BO			48° 49.59	123° 19.52		50	-			☐☐	BOTTOM - SAL/CHL/NUTS
			23:06	EN			48° 49.56	123° 19.58			-			☐☐	
32	PGHDGR		23:10	BE	NET		48° 49.55	123° 19.64			MOIRA. STATION	*		☐☐	BONGO - PGHDGR
33			23:30	BE	TRAWL		48° 50.13	123° 20.67			-			☐☐	TRAWL -
			:				° .	° .			-			☐☐	
34	G1 09	9	00:14	BE	TRAWL	ONLY	48° 52.05	123° 23.61		43	-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-		V	☐☐	

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35	GI-10	9	14:02	BE	CTD		48° 46.53	123° 12.89	63		-	1	H.M	☐☐	T: 7.38 S: 30.00
			14:04	BO			48° 46.53	123° 12.89		55	-		1	☐☐	BOTOM- SAL/CHL/NUTS
			14:06	EN			49° 46.56	123° 12.88			-			☐☐	
36			14:10	BE	NET		48° 46.59	123° 12.88			-			☐☐	BONGO
37			14:28	BE	TRAWL		48° 46.04	123° 12.17			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
38	GS 01	9	15:51	BE	TRAWL	ONLY	48° 48.43	123° 04.12			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
39	GS 02	9	16:31	BE	CTD		48° 44.26	123° 08.74	120		-	1		☐☐	T: 7.24 S: 29.27
			16:34	BO			48° 49.25	123° 09.75		110	-			☐☐	BOT@10m- SAL/CHL/NUTS
			16:37	EN			49° 44.25	123° 08.78			-			☐☐	
40			16:40	BE	NET		48° 44.25	123° 08.79			-			☐☐	BONGO
41			17:00	BE	TRAWL		49° 49.55	123° 09.73			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
42	GS 03	9	17:48	BE	TRAWL	ONLY	48° 52.04	123° 14.11			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	

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43	GS 04	9	18:48	BE	CTD		48° 53.90	123° 18.64	132		-	1	H.M.	☐☐	T: 7.42 S: 29.64
			18:50	BO			48° 53.90	123° 18.64		122	-			☐☐	BOTTOM-SAL/CHL/NUTS
			18:55	EN			48° 53.89	123° 18.63			-			☐☐	
44			18:57	BE	NET		48° 53.90	123° 18.64			-			☐☐	BONGO
45			19:21	BE	TRAWL		48° 54.12	123° 19.12			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
46	GS 05	9	18:11	BE	TRAWL	ONLY	48° 56.01	123° 24.49			-			☐☐	TRAWL ONLY
			:				° .	° .			-			☐☐	
47	GS 06	9	20:54	BE	CTD		48° 57.39	123° 28.26	56		-	1		☐☐	T: 7.12 S: 28.95
			20:55	BO			48° 57.38	123° 28.24		45	-			☐☐	BOT@10m-SAL/CHL/NUTS
			20:58	EN			48° 57.37	123° 28.19			-			☐☐	
48			21:01	BE	NET		48° 57.37	123° 28.17			-			☐☐	BONGO
49			22:20	BE	TRAWL		48° 57.74	123° 28.70			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
50	GS 07	9	23:08	BE	TRAWL	ONLY	49° 00.79	123° 32.54			-			☐☐	TRAWL ONLY
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	

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51	GS 08	9	23:46	BE	CTD		49° 02.70	123° 34.79	154		-	1	H.M.	☐☐	T: 7.23 S: 27.03
			23:49	BO			49° 02.69	123° 34.80		145	-			☐☐	BOT@10m - SAL/CHL/NUTS
			23:54	EN			49° 02.69	123° 34.79			-			☐☐	
52			23:57	BE	NET		49° 02.70	123° 34.80			-			☐☐	BONGO
53			:	BE	TRAWL		49° 03.99	123° 35.44			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
~~54~~	~~GS 09~~	~~10~~	~~00:56~~		~~TRAWL~~	~~ONLY~~	~~49° 03.99~~	~~123° 35.44~~			-			☐☐	TRAWL ONLY
			:				° .	° .			-			☐☐	
54	DI 01	10	14:00	BE	CTD		50° 01.40	125° 06.46	228		-	1		☐☐	T: 7.37 S: 29.61
			14:04	BO			50° 01.40	125° 06.45		215	-			☐☐	BOT@10m - SAL/CHL/NUTS
			14:10	EN			50° 01.40	125° 06.43			-			☐☐	
55			14:17	BE	NET		50° 01.37	125° 06.43			-			☐☐	BONGO
56			14:44	BE	TRAWL		50° 01.97	125° 07.09			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
57	DI 02	10	15:29	BE	TRAWL	ONLY	50° 05.22	125° 08.29			-			☐☐	TRAWL ONLY
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	

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Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
58	DI 03	10	16:14	BE	CTD		50 °08.30	125 °05.01	283		-	1	H.M.	☐☐	T: 7.28 S: 29.71
			16:19	BO			50 °08.33	125 °04.96		250	-			☐☐	BOT @ 10m · SAL/CHL/NUTS
			16:25	EN			50 °08.31	125 °04.84			-			☐☐	
59			16:29	BE	NET		50 °08.29	124 °04.74		150	-			☐☐	BONGO
60			16:50	BE	TRAWL		50 °08.62	125 °03.79			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
61	DI 04	10	17:37	BE	CTD		50 °11.48	124 °59.90	480		-	1		☐☐	T: 7.22 S: 29.48
			17:43	BO			50 °11.54	124 °59.98		250	-			☐☐	BOT @ 10m · SAL/CHL/NUTS
			17:49	EN			50 °11.58	125 °00.02			-			☐☐	
62			17:52	BE	NET		50 °11.57	125 °00.02		150	-			☐☐	BONGO
63			18:15	BE	TRAWL		50 °12.21	125 °00.49			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
64	DI 05	10	19:09	BE	CTD		50 °15.52	125 °00.49	505		-	1		☐☐	T: 7.36 S: 29.45
			19:15	BO			50 °15.53	125 °00.52		250	-			☐☐	BOT @ 10m · SAL/CHL/NUTS
			19:21	EN			50 °15.54	125 °00.55			-			☐☐	
65			19:24	BE	NET		50 °15.53	125 °00.54		50	-			☐☐	BONGO to 50m
66			19:34	BE	NET		50 °15.54	125 °00.57		150	-			☐☐	BONGO to 150m
67			19:58	BE	TRAWL		50 °15.92	125 °00.91			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	

Event Type:
BOT = Bottle cast (no CTD)
CTD = Standalone CTD
ROS = CTD in Rosette
SET = Fish Set
LOOP = Sea Water Loop
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NET = Plankton Net Haul
DRF = Drifter
____ = _____

Bottle Firing Method:
US = Up / Stop (default)
UN = Up / No stop
DN = Down / No stop

Time Code:
BE = Beginning Time of Cast
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RE = Recover Mooring Time

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

Notes: _____

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Vessel** W.E. RICKER **Cruise ID** 2014-16

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
68	DI 06	10	20:54	BG	CTD		50° 20.24	125° 07.19	453		-	1	H.M.	☐☐	T: 7.36 S: 29.37
			20:59	BO			50° 20.28	125° 07.20		250	-			☐☐	BOT@10m SAL/CHL/NUTS
			21:05	EN			50° 20.30	125° 07.19			-			☐☐	
69			21:09	BG	NET		50° 20.31	125° 07.21		150	-			☐☐	BONGO
70			21:33	BG	TRAWL		50° 20.81	125° 06.73			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
71	DI 07	10	22:28	BG	CTD		50° 19.57	125° 06.20	345		-	1		☐☐	T: 7.45 S: 29.18
			22:34	BO			50° 19.62	125° 06.28		250	-			☐☐	BOT@10m SAL/CHL/NUTS
			22:40	EN			50° 19.62	125° 06.30			-			☐☐	
72			22:43	BG	NET		50° 19.64	125° 06.29			-			☐☐	BONGO
73			23:08	BG	TRAWL		50° 19.33	125° 05.55			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
74	DI 08	10	23:43	BG	CTD		50° 18.63	125° 02.98	343		-	1		☐☐	T: 7.31 S: 29.20
			23:48	BO			50° 18.63	125° 03.02		250	-			☐☐	BOT@10m SAL/CHL/NUTS
			23:54	EN			50° 19.63	125° 03.07			-			☐☐	
75		11	00:27	BG	NET		50° 18.52	125° 02.81			-			☐☐	BONGO
76		11	00:49	BG	TRAWL		50° 18.80	125° 02.33			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	

Event Type:
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Bottle Firing Method:
US = Up / Stop (default)
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Time Code:
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CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

Notes: _____

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Vessel** W.E. RICHER **Cruise ID** 2014-16

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
77	DI 09	11	14:13	BE	CTD		50 ° 15.91	124 ° 59.24	489		-	1	H.M.	☐☐	T: 7.17 S: 29.13
			14:17	BO			50 ° 15.92	124 ° 59.24		250	-			☐☐	BOT@10m. SAL/CHL/NUTS
			14:23	EN			50 ° 15.95	124 ° 59.29			-			☐☐	
78			14:27	BE	NET	*	50 ° 15.94	124 ° 59.28		50	-			☐☐	BONGO TO 50m
79			14:36	BE	NET	*	50 ° 16.03	124 ° 59.36		150	-			☐☐	BONGO TO 150m
80			14:59	BE	TRAWL		50 ° 16.66	124 ° 58.72			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
81	DI 10	11	15:39	BE	CTD		50 ° 18.81	124 ° 56.27	453		-	1		☐☐	T: 7.24 S: 29.02
			15:43	BO			50 ° 18.84	124 ° 56.24		250	-			☐☐	BOT@10m. SAL/CHL/NUTS
			15:49	EN			50 ° 18.86	124 ° 56.20			-			☐☐	
82			15:53	BE	NET		50 ° 18.86	124 ° 56.23			-			☐☐	BONGO
83			16:19	BE	TRAWL		50 ° 18.92	124 ° 55.26			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	
84	DI 11	11	17:01	BE	CTD		50 ° 17.99	124 ° 50.99	475		-	1		☐☐	T: 7.07 S: 29.73
			17:05	BO			50 ° 18.04	124 ° 51.01		250	-			☐☐	BOT@10m. SAL/CHL/NUTS
			17:12	EN			50 ° 18.13	124 ° 50.96			-			☐☐	
85			17:17	BE	NET		50 ° 18.15	124 ° 50.95		150	MOIRA STA. PRYCE CH	*		☐☐	BONGO
86			17:43	BE	TRAWL		50 ° 18.03	124 ° 50.08			-			☐☐	TRAWL
			:				° .	° .			-			☐☐	

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DN = Down / No stop

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CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

Notes: _____

DAILY SCIENCE LOG BOOK

MISSION NUMBER

2014 - 16

DATE: From: MAR 6 /14 to: MAR 21 /14

VESSEL: W.E. RICKER

PROJECT(S): TRUDGL Hi SEAS

Book 2 of 2

Water Properties Group
Fisheries and Oceans Canada
Institute of Ocean Sciences
Ocean Sciences Division
North Saanich, BC, Canada

WaterProperties.ca

Captain: AL YOUNG First Officer: IAN COPPING
Second Officer: SCOTT McCOLL Third Officer: _____
Fishing Master: _____

Mission Participants / Agencies: PBS / IOS

Scientific Personnel: Chief Scientist: JOHN MORRIS / STRAHAN TUCKER

Name	Watch	Cabin	Name	Watch	Cabin

Second leg of Mission: Chief Scientist: _____

Name	Watch	Cabin	Name	Watch	Cabin

Data logging computer: _____
Data acquisition program: _____
CTD deck unit make: _____ model: _____ serial number: _____

Primary CTD
Make: SBE model: 9+ serial number: 550
Primary temperature serial number: 2710
Primary conductivity serial number: 2128
Secondary temperature serial number: 2374
Secondary conductivity serial number: 3396
Transmissometer: _____ Model: _____ s/n: _____
Fluorometer: Model WETLABS ECO Cable gain: 13 s/n: 2215 **P, S** or **NO** pump?
Oxygen sensor: SBE Model: 43 s/n: 1176 **P, S** or **NO** pump?
PAR sensor: _____ Model: _____ s/n: _____
Other sensors: PH s/n: 0851 **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?
Other sensors: _____ s/n: _____ **P, S** or **NO** pump?
Other sensors: _____ s/n: _____ **P, S** or **NO** pump?

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

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH | **Year** 2014 | **Ship** W.G. RICKER | **Cruise ID** 2014-16

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information: Latitude	Positional Information: Longitude	Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
11	DI 12	1904	BE	CTD		87	50° 14. 84	124° 37. 76	731			1	H.M.		T: 7.22 S: 29.20
		1910	BO				50° 14. 85	124° 37. 75		250					BOTTLES - SAL/CHL/NUTS
		1917	EN				50° 14. 87	124° 37. 71							
			BE	NET		88									BONGO
		1952	BE	TRAWL		89	50°14.56	124° 37. 84			MOIRA STA HOMFERET				TRAWL
11	DI 13		BE	CTD		90	CANCELLED - WINCH PROBLEMS					1			T: S:
			BO												BOTTLES - SAL/CHL/NUTS
			EN												
		2040	BE	NET	*	91	50° 11. 50	124° 37. 83	565					*	BONGO TO 50 m
		2049	BE	NET	*	92	50° 11. 50	124° 37. 83						*	BONGO TO 150 m
		2131	BE	TRAWL		93	50° 11. 06	124° 38. 39							TRAWL
	DI 14	2200	BE	NET		94	50° 09. 29	124° 43. 56			(NO CTD - WINCH BROKEN)				BONGO
		22 23	BE	TRAWL		95	50° 08. 82	124° 44. 91							TRAW

Cast Type:
BOT = Bottle cast, no CTD
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ROS = Rosette plus CTD
SET = Fish Set
USW = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter
____ = _____

Bottle Firing Method:
US = Up / Stop
UN = Up / No stop
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Time Code:
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Transmissometer to be cleaned before each cast, do not use Ammonia products

Notes: _____

CTD TURNED OFF @ 14.7 m – HYDRAULIC LEAK on WINCH - CTD PULLED IN BY HAND

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Ship** W.E. RICHER **Cruise ID** 2014-16

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
12	GS 09	2207	BE	NET		96	48° 53.01	123° 16.47	100	90	CTD DEAD. SLIP	BCS			BONGO
		2230	BE	TRAWL		97	48° 53.36	123° 15.55							TRAWL
12	GS 10	2312	BE	NET		98	48° 53.76	123° 11.05	131	126					BONGO
		2233	BE	TRAWL		99	48° 53.19	123° 09.98							TRAWL
13	GS 11	0045	BE	NET		100	48° 50.92	123° 06.33	200	150					BONGO
		0107	BE	TRAWL		101	48° 50.31	123° 05.16							TRAWL
13	GS 12	1402	BE	NET		102	49° 00.65	123° 12.32	85	75					BONGO
		1422	BE	TRAWL		103	49° 00.87	123° 13.15							TRAWL
13	GS 13	1512	BE	TRAWL		104	49° 02.89	123° 17.00	66						TRAWL ONLY
13	GS 14	1603	BE	NET		105	49° 06.29	123° 19.35	54	45					BONGO
		1621	BE	TRAWL		106	49° 06.87	123° 19.37	86						TRAWL
13	GS 15	1718	BE	TRAWL		107	49° 11.47	123° 18.74	120						TRAWL ONLY

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Notes: _____

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Ship** W.E. RICHER **Cruise ID** 2014-16

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
13	GS 16	1812	BC	NET		108	49° 16.48	123° 17.60	40	30			H.M.		BONGO
		1829	BE	TRAWL		109	49° 16.92	123° 19.49	92						TRAWL
13	GS 17	1931	BC	TRAWL		110	49° 15.08	123° 23.02	246						TRAWL ONLY
13	GS 18	2018	BC	NET		111	49° 10.94	123° 25.54	296	150					BONGO
		2040	BE	TRAWL		112	49° 10.59	123° 25.94	246						TRAWL
13	GS 19	2128	BC	TRAWL		113	49° 07.43	123° 28.54	335						TRAWL ONLY
13	GS 20	2212	BE	NET		114	49° 04.07	123° 29.70	291	150					BONGO
		2236	BE	TRAWL		115	49° 03.32	123° 29.89	329						TRAWL
13	GS 21	2319	BC	TRAWL		116	49° 02.64	123° 31.08	285						TRAWL ONLY TOW AT 4 KM
14	GS 22	1404	BE	CTD		117	49° 29.51	124° 02.29	61			1			T: 7.47 S: 29.38
		1405	BO				49° 29.51	124° 02.28		50					BOTTOM - SAL/CHL/NUTS
		1408	EN				49° 29.50	124° 02.28							
		1411	BC	NET		118	49° 29.49	124° 02.26							BONGO
			BC	TRAWL		119	49 29.185	124° 03.24							TRAWL SURFACE TOW

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Ship** W.E. RICKER **Cruise ID** 2014-16

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information: Latitude	Positional Information: Longitude	Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
14	GS 23	15:12	BE	TRAWL		120	49 32.24	124 5.27					H.M		TRAWL ONLY 15M TOW
14	GS 24	1600	BE	CTD		121	49°35.36	124°05.35	264			1			T: 7.64 S: 28.93
		1605	BO				49° 35.37	124° 05 37		250					BOT@10m: SAL/CHL/NUTS
		16 10	EN				49° 35 39	124° 05. 40							
*	GEO ST	16 13	BE	NET		122	49° 35.42	124° 05.45		150	MOIRA STA	*			BONGO *
		16:40	BE	TRAWL		123	49 35.62	124 6.72							TRAWL 30M TOW
14	GS 25	17:35	BE	TRAWL		124	49 36.47	124 13.51							TRAWL ONLY 15m Tow
14	GS 26	1829	BE	CTD		125	49° 40.07	124° 16.19	348						T: 7.77 S: 28.93
		1833	BO				49° 40.06	124° 16.17		250					~~BOTE~~ 10m - SAL/CHL/NUTS
		1838	EN				49° 40.05	124° 16.15							
*	PC 22	1841	BE	NET		126	49° 40.04	124° 16.16		150	MOIRA STA.	*			BONGO *
		19:04	BE	TRAWL		127	49 40.54	124 16 49.			TOW @	40m			TRAWL 45M TOW
14	GS 27	1956	BE	TRAWL		128 ✓	49 44.05	124 18.44			TOW @	60m			TRAWL ONLY

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Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Ship** W. E. RICKER **Cruise ID** 2014-16

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
14	GS 28	2030	BE	CTD		129	49° 45. 24	124° 22. 21	112			1	N.M.		T: 7.85 S: 28.32
		2041	BO				49° 45. 25	124° 22. 21		100					BOTTOM - SAL/CHL/NUTS
		2045	EN				49° 45. 26	124° 22. 22							
		2048	BE	NET		130	49° 45. 27	124° 22. 24		100					BONGO
		21:07	BE	TRAWL		131	49 45. 16	124 23. 41							TRAWL SURFACE
14	GS 29	21:52	BE	TRAWL		132	49 44. 64	124 28. 82			TOW AT	30m			TRAWL ONLY
14	GS 30	2231	BE	CTD		133	49° 45. 90	124° 31. 39	267			1			T: 7.77 S: 29.55
		2237	BO				49° 45. 93	124° 31. 39		250					BOTTOM - SAL/CHL/NUTS
		2243	EN				49° 45 94	124° 31. 37							
		2245	BE	NET		134	49° 45 96	124° 31. 40		150					BONGO
		23:07	BE	TRAWL		135	49 46. 74	124 31. 85			TOW AT	15m			TRAWL
14	GS 31	23:55	BE	TRAWL		136	49 49. 55	124 32. 67			TOW AT	0m			TRAWL ONLY

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Ship** W.E RICKER **Cruise ID** 2014-16

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
15	GS 32	0100	BE	CTD		137	49° 51.56	124° 34.06	80			1	N.M		T: 7.76 S: 28.96
		0101	BO				49° 51.56	124° 34.06		70					BOTTOM SAL/CAL/NUTS
		0104	EN				49° 51.56	124° 34.06							
		0108	BE	NET		138	49° 51.55	124° 34.05		70					BONGO
		0127	BE	TRAWL		139	49 51.92	124 35.14			TOW AT 1.5m				TRAWL
15	JS 01	1403	BE	CTD	3RD	140	50° 31.32	126° 38.29				1			T: 7.08 S: 30.94
		1408	BO				50° 31.30	126° 38.24							BOTTOM 10m SAL/CAL/NUTS
		1414	EN				50° 31.28	126° 38.16							
			BE	NET	1ST	141	} CANCELLED - HI WINDS & TIDES								
			BE	NET	2ND	142	}							*	BONGO TO 50m
														*	BONGO TO 150m
		1417	BE	TRAWL	4TH	143	50 30.99	126 36.57			TOW AT 1.5m				TRAWL
16	JS 02	1429	BE	CTD		144	50° 30.99	126° 36.68	430			1			T: 6.99 S: 30.51
		1434	BO				50° 30.98	126° 36.65							BOTTOM SAL/CAL/NUTS
		1439	EN				50° 30.98	126° 36.66							
		1502	BE	NET	*	145	50° 30.87	126° 35.69		50				*	BONGO TO 50m
		1510	BE	NET	*	146	50° 30.85	126° 35.55		150				*	BONGO TO 150m
		1452	BE	TRAWL		147	50° 30.82	126 35,92			TOW AT SURFACE				TRAWL

Cast Type:
BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set
USW = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter
____ = _____

Bottle Firing Method:
US = Up / Stop
UN = Up / No stop
DN = Down / No stop

Time Code:
BE = Beginning Time of Cast
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Notes: _____

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

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Ship** W.E RICKER **Cruise ID** 2014-16

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information Latitude	Positional Information Longitude	Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
16	JS03	1535	BE	CTD		148	50° 30.46	126° 31.66	383			1	H.M.		T: 6.95 S: 30.44
		1540	BO				50° 30.49	126° 31.67		250					BOTE 10m SAL/CHL/NUTS
		1546	EN				50° 30.49	126° 31.68							
		1549	BE	NET		149	50° 30.54	126° 31.77		150					BONGO
		1613	BE	TRAWL		150	50 30.47	126 31.36			TOW AT	30M			TRAWL
16	JS04	1657	BE	CTD		151	50° 30.17	126° 27.33	383			1			T: 7.04 S: 30.79
		1701	BO				50° 30.14	126° 27.34		250					BOTE 10m SAL/CHL/NUTS
		1707	EN				50° 30.12	126° 27.34							
		1709	BE	NET		152	50° 31.00	126° 27.37		150					BONGO
		1732	BE	TRAWL		153	50 29.88	126 26.80			TOW AT	15M			TRAWL
16	JS05	1844	BE	CTD		154	50° 29.50	126° 22.34	374			1			T: 7.06 S: 31.04
		1849	BO				50° 29.51	126° 22.35		250					BOTE 10m SAL/CHL/NUTS
		1855	EN				50° 29.51	126° 22.36							
		1859	BE	NET		155	50° 29.52	126° 22.39		150					BONGO
		1919	BE	TRAWL		156	50 29.26	126 21.32			TOW AT	45M			TRAWL

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information: Latitude	Positional Information: Longitude	Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
16	JS06	2007	BC	CTD		158	50°29.92	126°16.32	275			1	H.M.		T: 7.15 S: 30.87
		2011	BO				50° 29.91	126° 16.32		240					BOTE 10m SAL/CHL/NUTS
		2017	EN				50° 29.89	126° 16.33							
		2020	BC	NET		159	50° 29.88	126° 16.31							BONGO TO 50m
		2026	BC	NET		160	50° 29.89	126° 16.31							BONGO TO 150m
		20:47	BC	TRAWL		161	50 29.74	126 15.22		TOW AT 5m					TRAWL
16	JS07	2133	BC	CTD		162	50°28.82	126°09.72	318			1			T: 7.13 S: 30.81
		2139	BO				50°28.95	126°09.75		250					BOTE 10m SAL/CHL/NUTS
		2145	EN				50°28.89	126°09.71							
		2148	BC	NET		163	50°29.90	126° 09 67							BONGO
		22:07	BC	TRAWL		164	50° 28.67	126 08.57			TOW AT 60m				TRAWL
16	JS 08	2252	BC	CTD		165	50°27.54	126°03.97	257			1			T: 7.18 S: 30.87
		2257	BO				50° 27.56	126° 03.99		245					BOTE 10m SAL/CHL/NUTS
		2303	EN				50° 27.56	126° 04.00							
		2306	BC	NET		166	50° 27.59	126° 03.98							BONGO
		23 28	BC	TRAWL		167	50 27.14	126 02.94			TOW AT SURFACE				TRAWL

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Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Ship** W.E. RICHER **Cruise ID** 2014-16

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information: Latitude	Positional Information: Longitude	Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
17	DI 15	1401	BE	CTD		168	50° 31.74	125° 22.12	42			1	U.M.		T: 7.51 S: 29.20
		1402	BO				50° 31.75	125° 22.12		35					BOT@10m · SAL/CHL/NUTS
		1409	EN				50° 31.76	125° 22.11							
		1407	BE	NET		169	50° 31.79	125° 22.09							BONGO
		14:22	BE	TRAWL		170	50 31.00	125 21.93			TOW AT	SURFACE			TRAWL
17	DI 16	1515	BE	CTD		171	50° 28.45	125° 21.70	120			1			T: 7.34 S: 29.81
		1517	BO				50° 28.47	125° 21.72		110					BOT@10m · SAL/CHL/NUTS
		1520	EN				50° 28.49	125° 21.74							
		1528	BE	NET		172	50° 28.53	125° 21.87							BONGO
		1545	BE	TRAWL		173	50 28.24	125 21.00			TOW AT	15m			TRAWL
17	DI 17	1645	BE	CTD		174	50° 29.52	125° 15.36	68			1			T: 7.63 S: 29.64
		1647	BO				50° 29.49	125° 15.38		60					BOT@10m · SAL/CHL/NUTS
		1649	EN				50° 29.47	125° 15.40							
		1651	BE	NET		175	50° 29.45	125° 15.41							BONGO
		17:09	BE	TRAWL		176	50 28.77	125 15.95			TOW AT	SURFACE			TRAWL

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Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Ship** W.E. RICKER **Cruise ID** 2014-16

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information Latitude	Positional Information Longitude	Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
17	Di 18		BE	TRAWL		177	50 29.05	125 15.80		TOW AT	30m	1	H.M.		TRAWL ONLY
	Di 19		BE	TRAWL		178	50 28.82	125 16.05		TOW AT	45m				TRAWL ONLY
17	Di 20	2003	BE	CTD		179	50° 27.11	125° 17.80	306			1			T: 7.76 S: 30.10
		2008	BO				50° 27.13	125° 17.79		250					BOTE10m - SAL/CHL/NUTS
		2014	EN				50° 27.14	125° 17.77							
		2016	BE	NET		180	50° 27.15	125° 17.73							BONGO
		2036	BE	TRAWL		181	50 26.49	125 18.06		TOW AT	SURFACE				TRAWL
17	Di 21	2112	BE	CTD		182	50° 24.80	125° 19.30	286			1			T: 7.74 S: 29.99
		2117	BO				50° 24.80	125° 19.30		250					BOTE10m - SAL/CHL/NUTS
		2122	EN				50° 24.80	125° 19.28							
		2124	BE	NET		183	50° 24.81	125° 19.25							BONGO
		2144	BE	TRAWL		184	50 24.32	125 19.73		TOW AT	15m				TRAWL
17	Di 22	2219	BE	CTD		185	50° 22.75	125° 20.95	227			1			T: 7.65 S: 29.83
		2223	BO				50° 22.76	125° 20.94		215					BOTE10m - SAL/CHL/NUTS
		2228	EN				50° 22.77	125° 20.93							
		2230	BE	NET		186	50° 22.77	125° 20.90							BONGO
		2249	BE	TRAWL		187	50 22.18	125 21.47		TOW	AT 30m				TRAWL

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Ship** W.E. RICKER **Cruise ID** 2014-16

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information Latitude	Positional Information Longitude	Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
17	Di 23	23:31	BE	TRAWL		188	50 21.74	125 22.73	263		TOW AT 60m				
18	GS 33	1359	BG	CTD		189	49° 58.72	125° 05.49	204			1	H.M.		T: 7.91 S: 30.18
		1404	BO				49° 58.64	125° 05.44		195					BOTT & 10m SAL/OXY/NUTS
		1409	EN				49° 58 64	125° 05.39							
		14 12	BG	NET		190	49° 58.63	125° 05.37							BONGO
		14:32	BE	TRAWL		191	49° 58.74	125° 04.19			TOW AT	SURFACE			TRAWL
18	GS 34	1549	BG	TRAWL		192	49 58.09	124 58.52			TOW AT	30m			TRAWL ONLY
18	GS 35	1601	BG	CTD		193	49° 55.24	124° 58.38	146			1			T: 7.61 S: 29.77
		1604	BO				49° 55.22	124° 58.37		135					BOTTOM: SAL/OXY/NUTS
		1608	GN				49° 55 19	124° 58 33							
		1610	BG	NET		194	49° 55.20	124° 58.31							BONGO
		1628	BG	TRAWL		195	49 55.46	124 59.04			TOW AT	45m			TRAWL
18	GS 36	1709	BG	TRAWL		196	49 55.56	125 01.9			TOW AT	15m			TRAWL ONLY

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Bottle Firing Method:
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Time Code:
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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Ship** W.E. RICKER **Cruise ID** 2014-16

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
18	GS 37	1747	BG	CTD		197	49° 53. 81	125° 03. 03	175			1	H.M		T: 7.61 S: 29.85
		1750	BO				49° 53. 86	125° 02. 97		165					BOTTOM - SAL/CHL/NUTS
		1755	EN				49° 53. 76	125° 02. 94							
*	MUDGE	1757	BG	NET	*	198	49° 53. 79	125° 02. 95			MOIRA	*			BONGO
		18:15	BG	TRAWL		199	49 53. 17	125 02. 97			TOW AT 35M				TRAWL
18	GS 38	1912	BG	TRAWL		200	49 49.39	125 00. 15		TOW AT	15M	1			TRAWL ONLY
18	GS 39	1954	BG	CTD		201	49° 47. 68	124° 56. 72	66			1			T: 7.70 S: 29.86
		1955	BO				49° 47. 67	124° 56. 68		55					BOTTOM - SAL/CHL/NUTS
		1958	EN				49° 47. 67	124° 56. 65							
		2000	BG	NET		202	49° 47. 69	124° 56 66							BONGO
		2015	BG	TRAWL		203	49 48, 17	124 55, 82		TOW AT	45 M				TRAWL
18	GS 40	2113	BG	TRAWL		204	49 51.04	124 48. 34		TOW AT	45 M				TRAWL ONLY

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Ship** W.E. RICKER **Cruise ID** 2014-16 Page 23 of _____

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information: Latitude	Positional Information: Longitude	Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
18	GS 41	2200	BE	CTD		205	49° 50.72	124° 43.22	148			1	H.M.		T: 7.66 S: 29.47
		2203	BO				49° 50.70	124° 43.23		140					BOT@ 10m-SAL/CHL/NUTS
		2206	EN				49° 50.69	124° 43.23							
		2208	BE	NET		206	49° 50.70	124° 43.23							BONGO
		2214	BE	TRAWL		207	49 50.15	124 42.63			TOW AT	15M			TRAWL
	GS 42	2310	BE	TRAWL		208	49 47.77	124 41.77			TOW AT	SURFACE			TRAWL OHLT
19	GS 43	0033	BE	CTD		209	49° 44.10	124° 48.30	197			1			T: 7.74 S: 29.91
		0038	BO				49° 44.06	124° 48.28		185					BOT@10m-SAL/CHL/NUTS
		0043	EN				49° 44.03	124° 48.28							
		0045	BE	NET		210	49° 44.05	124° 48.28							BONGO
		0104	BE	TRAWL		211	49 43.51	124 48.22			TOW AT	15M			TRAWL
19	GS 44	1400	BE	CTD		212	49° 41.01	124° 48.49	54			1			T: 7.60 S: 29.70
		1401	BO				49° 41.01	124° 48.48		45					BOT@10m-SAL/CHL/NUTS
		1404	EN				49° 41.00	124° 48.45							
		1406	BE	NET		213	49° 41.00	124° 48.40							BONGO
		1442	BE	TRAWL		214	49 40.23	124 47.78			TOW AT	SURFACE			TRAWL

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Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Ship** W.E. RICKER **Cruise ID** 2014-16

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
19	GS 45	1508	BE	TRAWL		215	49 37.19	124 44.45		TOW	AT 30 m.		H.M.		TRAWL ONLY
19	GS 46	1547	BE	CTD		216	49° 37.09	124° 41.63	144			1			T: 7.57 S: 29.75
		1556	BO				49° 37.10	124° 41.62		135					BOTTOM - SAL/CHL/NUTS
		1554	EN				49° 37.09	124° 41.66							
		1600	BE	NET		217	49° 37.10	124° 41.69							BONGO
		1618	BE	TRAWL		218	49 37.26	124 41.175			TOW AT	15m			TRAWL
19	GS 47	1701	BE	TRAWL		219	49 40.36	124 39.71			TOW AT	30m			TRAWL ONLY
19	GS 48	1748	BE	CTD		220	49° 43.04	124° 38.02	298			1			T: 7.58 S: 29.85
		1753	BO				49° 43.06	124° 38.11		250					BOTTOM - SAL/CHL/NUTS
		1758	EN				49° 43.11	124° 38.15							
		1800	BE	NET		221	49° 43.12	124° 38 15	284						BONGO
		1819	BE	TRAWL		222	49 42.93	124 37.35	238		TOW AT	30m			TRAWL 30 MINUTES
19	GS 49	1911	BE	TRAWL		223	49 40.93	124 32.84			TOW AT	SURFACE			TRAWL ONLY

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
19	GS 50	1952	BE	CTD		224	49° 38.38	124° 29.78	324			1	H.M.		T: 7.56 S: 29.29
		1958	BO				49° 38.36	124° 29.81		250					BOT@10m · SAL/CHL/NUTS
		2004	EN				49° 38.37	124° 29.87							
		2006	BE	NET		225	49° 38.37	124° 29.88							BONGO
		2025	BE	TRAWL		226	49 37.89	124 29.4			TOW AT	30m			TRAWL
19	GS 51	2107	BE	TRAWL		227	49 35.2	124 26.2			TOW AT	15m			TRAWL ONLY
19	GS 52	2200	BE	CTD		228	49° 30.18	124° 26.13	178			1			T: 7.62 S: 29.70
		2204	BO				49° 30.20	124° 26.15		170					BOT@10m · SAL/CHL/NUTS
		2208	EN				49° 30.21	124° 26.17							
*	SISTERS	2210	BE	NET		229	49° 30.22	124° 26.16			MORA STA. *				BONGO *
		2230	BE	TRAWL		230	49 30.13	124 27.22			TOW AT	30m			TRAWL
19	GS 53	2314	BE	TRAWL		231	49 29.9	124 32.18			TOW AT	15m			TRAWL ONLY

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information: Latitude	Positional Information: Longitude	Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
20	GS 54	0031	BE	CTD		232	49°27.70	124° 39.24	70			1	H.M.		T: 7.68 S: 29.58
		0033	BO				49° 27.70	124° 39.24		60					BOTTOM - SAL/CHL/NUTS
		0035	EN				49° 27.76	124° 39.24							
		0037	BE	NET		233	49° 27.72	124° 39.25							BONGO
		0052	BE	TRAWL		234	49 27.73	124 38.68			TOW AT SURFACE				TRAWL
20	GS 55	1400	BE	CTD		235	49° 25.37	124° 35.86	63			1			T: 7.45 S: 29.62
		1402	BO				49° 25.36	124° 35.87		55					BOTTOM - SAL/CHL/NUTS
		1404	EN				49° 25.35	124° 35.87							
		1406	BE	NET		236	49° 25.35	124° 35.87							BONGO
		14:21	BE	TRAWL		237	49 24.86	124 35.13			TOW AT SURFACE				TRAWL
20	GS 56	15:09	BE	TRAWL		238	49 22.79	124 29.79			TOW AT	15m			
20	GS 57	1549	BE	CTD		239	49° 22.33	124° 26.09	88			1			T: 7.45 S: 29.49
	GS 57	1551	BO				49° 22.33	124° 26.07		80					BOTTOM - SAL/CHL/NUTS
		1554	EN				49° 22.33	124° 26.04							
		1559	BE	NET		240	49° 22.34	124° 25.97							BONGO
		16:15	BE	TRAWL		241	49 22.41	124 24.70			TOW AT	15m			TRAWL

Cast Type:
BOT = Bottle cast, no CTD
CTD = CTD without Rosette
ROS = Rosette plus CTD
SET = Fish Set
USW = Sea Water Loop
MOR = Mooring
NET = Plankton 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

Notes: _____

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

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month MARCH **Year** 2014 **Ship** W.E. RICKER **Cruise ID** 2014-16

Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information Latitude	Positional Information Longitude	Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
20	GS 58		BE	TRAWL		242	49 22.11	124 20.48	TOW AT SURFACE				N.T.		TRAWL ONLY
20	GS 59	1741	BE	CTD		243	49° 20.60	124° 16.15	156			1			T: 7.45 S: 29.45
		1744	BO				49° 20.66	124° 16.10		146					BOTTOM - SAL/CHL/NUTS
		1748	EN				49° 20.61	124° 16.06							
		1750	BE	NET		244	49° 20.62	124° 16 01							BONGO
		18:09	BE	TRAWL		245	49 20.5	124 14.83		TOW	AT 30m				TRAWL
20	GS 60	1932	BE	TRAWL		246	49 19.56	124 9.79		TOW	AT SURFACE				TRAWL ONLY
20	GS 61	2010	BE	CTD		247	49° 18.33	124° 06.06	219			1			T: 7.54 S: 29.58
		2015	BO				49° 18.33	124° 06.07		210					BOTTOM - SAL/CHL/NUTS
		2020	EN				49° 18.34	124° 06.05							
		2022	BE	NET		248	49° 18.41	124° 06 19							BONGO
		20 40	BE	TRAWL		249	49 18.07	124 05.04		TOW AT 15m					TRAWL
20	GS 62	21:23	BE	TRAWL		250	49 16.02	124 00.76		TOW AT SURFACE					
	GS 63	22:04	BE	TRAWL		251	49 15.20	123 56.48		TOW AT 15m					
							— END OF SURVEY —								

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Produced by the Water Properties Group, IOS

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