

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2019-78

DATE:

From: 2 July 2019

To:

25 July 2019

VESSEL:

Sir Wilfrid Laurier

PROJECT(S):

Canada's Three Oceans (C3O) &

Distributed Biological Observatory (DBO)

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

Book 2/2

continued from Book 1

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Latitude	Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
July															
	BOOK 2:														
	Continuation of Daily Log for SWL C30 2019-78														
	The story picks up with the night red white ship stemming its way NORTH														
	Bering St														
129	BRS-2	16	18:09	BE	ROS	US	65° 40.044	168° 24.043	53	47	354-363	10	52		
			18:16	BO			65° 40.098	168° 24.040							
			18:23	EN			65° 40.177	168° 24.025							
130	"		19:25		NET		65° 40.21	168° 23.98							
131	BRS-3		19:11	BE	ROS		65° 41.014	168° 33.949	52		364-373				
			19:16	BO			65° 41.030	168° 33.967		48.0			SAC		AD42
			19:23	EN			65° 41.041	168° 33.919							
132	"		19:28		NET		65° 41.06	168° 33.91					GN		
133	BRS-4		20:10	BE	ROS		65° 41.947	168° 42.616	52				SAC		AD4.9?
			20:16	BO			65° 41.959	168° 42.604		470	374-385				
			20:29	EN			65° 41.971	168° 42.971							
134	"		20:35		NET		65° 41.96	168° 42.50					GN		
135	WTN-1	17	3:05	BE	ADCP		66° 42.473	168° 24.025							
			4:44	EN			66° 42.625	168° 24.056					SAC		

Event Type:
 BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
 ROS = CTD in Rosette
 SET = Fish Set

Loop:
 LOOP = Sea Water Loop
 MOR = Mooring
 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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CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products
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Notes:

→ event 133: Forgot to trip nistin 1 & 2 before going up to 25m. Noticed before firing nistin 3 & 4 and so ask winchman to lower ROS back to bot-5, waited ~45m, then tripped 1 & 2.

Also seawave froze as I was firing nistin 8. Deck unit had overflow red light on. Sarah wiggled connection @ back of unit and it unfroze. "Re-fired" 7 and 8 to ensure it was OK (red light still on @ this time). It was OK so continued the cart. Sarah unplugged and re-plugged the connection after the cart. Keep an eye on next cart. Hopefully not the termination.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month		Year		Cruise ID		Vessel		Cruise ID							
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trms/FI Cleaned	Comments	
						Latitude		Longitude							
136	UTN-1	F	03:10	BE	ROS	US	66° 42.485	168° 24.016	34.7	386-395	10	SAR	<input type="checkbox"/>		
			03:15	BO			66° 42.487	168° 24.011	30.2				<input type="checkbox"/>		
			03:21	EN			66° 42.487	168° 24.016					<input type="checkbox"/>		
137	"	"	03:42		CAM		66° 42.48	168° 24.01					<input type="checkbox"/>		
138	"	"	3:43		C-OPS		66° 42.59	168° 24.08					<input type="checkbox"/>	C-OPS redone after	
139	"	"	4:03		NET		66° 42.59	168° 24.04					<input type="checkbox"/>	MURPHY @ 4:07	
140	"	"	4:14		MURPHY		66° 42.61	168° 24.07					<input type="checkbox"/>	66° 42.59 / 68° 24.04	
141	UTN-2	17	17:15	BE	ADCP		67° 2.976	168° 43.637	47				<input type="checkbox"/>		
			9:12	EN			67° 2.973	168° 43.344					<input type="checkbox"/>		
142	"	17	7:17	BE	ROS	US	67° 2.976	168° 43.637	47	396-408	13	SZ	<input type="checkbox"/>		
			7:25	BO			67° 3.005	168° 43.585		alt=315			<input type="checkbox"/>		
			7:37	EN			67° 3.023	168° 43.584					<input type="checkbox"/>		
143	"		7:43		C-OPS		67° 3.09	168° 43.59					<input type="checkbox"/>		
144	"		7:53		CAM		67° 3.02	168° 43.51					<input type="checkbox"/>		
145	"		8:10		NET		67° 3.03	168° 43.51					<input type="checkbox"/>		
146	"		8:15		MURPHY		67° 3.02	168° 43.45					<input type="checkbox"/>		
147	"		8:35		MURPHY		67° 2.99	168° 43.40					<input type="checkbox"/>		
148	UTN-3	17	11:04	BE	ADCP		67° 19.844	168° 54.354	49				<input type="checkbox"/>		
			12:41	EN			67° 19.941	168° 54.411					<input type="checkbox"/>		

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Loop Firing Method:
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Notes:

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Ocean Sciences Division, Institute of Ocean Sciences

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149	UTN-3	17	11:08	BE ROS	US	67° 19.842	168° 54.350	50	45	409-421	13	SZ			
			11:18	BO		67° 19.844	168° 54.348								
			11:26	EN		67° 19.842	168° 54.355								
150			11:33		CAN		67° 19.84	168° 54.33					LC		
151			11:49		NET		67° 19.89	168° 54.35					GJTN		
152			11:57		MURS		67° 19.90	168° 54.33					JG/LC		
153			12:22		HAPS2		67° 19.90	168° 54.39					JG/LC		
154	UTN-4	17	13:52	BE ADCP		67° 30.00	168° 54.538	50					SZ		
			15:28	EN		67° 30.00	168° 53.89								
155	"	17	13:58	BE ROS	US	67° 29.993	168° 54.511	50	46	422-445	24	SZ			
			14:02	BO		67° 29.998	168° 54.503								
			14:21	EN		67° 29.990	168° 54.325								
156			14:20		CAN		67° 29.99	168° 54.32							
157			14:36		C-OPS		67° 30.07	168° 54.14							
158			14:45		NET		67° 30.00	168° 53.99							
159			14:52		MURS		67° 30.04	168° 53.48							
160			15:12		HAPS2		67° 30.01	168° 53.96							
161	UTN-6	17	17:56	BE ADCP		67° 44.349	168° 26.454	50					SZ/SAD		
			19:17	EN		67° 44.245	168° 26.605								

Event Type: LOOP = Sea Water Loop
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 SET = Fish Set

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 UN = Up / No stop
 DN = Down / No stop

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Notes: =

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Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Latitude	Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trms/Fl Cleaned	Comments	
162	WTU-6	17	17:57	BEROS	US	67° 44.3477	168° 26.454	50	46	446-458	13	SZ				
			18:04	BO		67° 44.344	168° 26.448									
			18:13	EN		67° 44.326	168° 26.438									
163			18:13	CAN		67° 44.32	168° 26.43					LC				
164			18:30	C-OPS		67° 44.31	168° 26.93					KF				
165			18:40	NET		67° 41.21	168° 26.39					GP/SN				
166			18:45	MUDS		67° 49.28	168° 26.41					JG/LC				
167			19:06	HAPS2		67° 44.25	168° 26.52					JG/LC				
168	SEC-8 / DR031	18	5:53	BE ADCP		68° 17.963	166° 56.391					SAD				comment →
			7:02	EN		68° 18.032	166° 56.194									
169			5:56	BE ROS		68° 17.954	166° 56.418	345	312	459-468		SAD				
			6:01	BO		68° 17.954	166° 56.434									
			6:07	EN		68° 17.957	166° 56.442									
176			6:10	CAN		68° 17.95	166° 56.40					LC				
171			6:35	C-OPS		68° 18.00	166° 56.61					KF				
172			6:53	NET		68° 18.01	166° 56.77					GN				
173			6:57	MUDS		68° 18.02	166° 56.83					JG/LC				
174	SEC-7 / DR032	18	67:50	BE ADCP		68° 14.596	167° 7.188									
			09:04	EN		68° 14.605	167° 07.421	43				SZ				

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This page is for any notes or observations

169 ROS SEC-8: Jellyfish are back. Jelly on the rosette.

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Month		Year		Vessel		Cruise ID								
JUL		2019		SWL		2019-78								
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/FI Cleaned	Comments
							Latitude	Longitude						
175	SEC-1/ DB03.2	18	07:51	BE	ROS	US	68° 14.596	167° 7.188	39.5	468-479	12	SE	<input type="checkbox"/>	→
			08:00	BO			68° 14.641	167° 7.210	alt=4				<input type="checkbox"/>	
			08:06	EN			68° 14.705	167° 7.243					<input type="checkbox"/>	
176	"		08:11		CAN		68° 14.71	167° 7.26					<input type="checkbox"/>	
177	"		:		COPS		:	:					<input type="checkbox"/>	no record of station bridge log
178	"		8:37		NET		68° 14.77	167° 7.25					<input type="checkbox"/>	
179	"		8:57		MUD ^B		68° 14.59	167° 7.40					<input type="checkbox"/>	
180	SEC-6/ DB03.3		09:50	BE	ADCP		68° 11.0638	167° 18.4804					<input type="checkbox"/>	
			10:49	EN			68° 11.19	167° 18.73					<input type="checkbox"/>	
181	"	18	09:53	BE	ROS	US	68° 11.069	167° 18.496	45.5	480-491	12	SE	<input type="checkbox"/>	
			10:01	BO			68° 11.077	167° 18.526					<input type="checkbox"/>	
			10:09	EN			68° 11.086	167° 18.575					<input type="checkbox"/>	
182			10:19		CAN		68° 11.10	167° 18.60					<input type="checkbox"/>	
183			:		COPS		:	:					<input type="checkbox"/>	
184			10:34		NET		68° 11.12	167° 18.60					<input type="checkbox"/>	
185			10:40		MUD ^B		68° 11.12	167° 18.59					<input type="checkbox"/>	
186	SEC-5/ DB03.4	18	11:38	BE	ADCP		68° 07.731	167° 29.743				SE	<input type="checkbox"/>	
			12:09	EN			68° 7.788	167° 29.869					<input type="checkbox"/>	
187	"		12:10	BE	ROS		68° 8.535	167° 30.228				SE	<input type="checkbox"/>	SHUT WINCH COOLANT →
187B	(187C)		12:34	EN			68° 7.931	167° 30.620					<input type="checkbox"/>	WATER OFF

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Notes:

175 ROS SEC-7 only a little jelly on the rosette but can see them swimming in the water - Red, ~6" diameter, 6' long

Frozen software - @ 10m soak
Stopped and restarted [187C]

Event 187 ROS SEC 5 - add profile so brought back on deck to look for jelly in TC duct. Yrs, jelly blob in Secondary TC ducting. Removed on deck and redeployed as cast 187B



DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
Year	Year	Year	Year	Year	Year	Year	Vessel	Cruise ID	Cruise ID	Cruise ID	Cruise ID	Cruise ID	Cruise ID	Cruise ID
188	SEC-5 DB03.4	18	12:48		CAT		68° 7.79 167° 30.08							
189					COPS		C-O.P.S							no records of it on bridge log
190			13:18		NET		68° 7.77 167° 29.90							
191			13:23		MUDS		68° 7.79 167° 29.90							
192	SEC-4/ DB03.5	18	14:50	BE	ADCP		68° 00.720 167° 51.554							
			15:53	EN			68° 01.02 167° 51.50							
193	"	18	14:52	BE	ROS	US	68° 00.725 167° 51.572	53	49.6	516-527	12	SZ		
			14:59	BO			68° 0.743 167° 51.608			alt = 3				
			15:10	EN			68° 0.792 167° 51.605							
194			15:07		CAT		68° 0.78 167° 51.61							
195			15:23		COPS		68° 00.89 167° 51.67							
196			15:33		NET		68° 00.94 167° 51.62							
197			15:40		MUDS		68° 0.98 167° 51.65							
198	SEC-3/ DB03.6		17:10	BE	ADCP		67° 53.76 168° 14.62							
			18:32	EN			67° 53.992 168° 13.697							
199	"	18	17:14	BE	ROS	US	67° 53.771 168° 13.990	59	54.5	528-543	16	SZ		
							67° 53.789 168° 13.934							alt = 4
			17:34	EN			67° 53.850 168° 13.934							
200			17:20		CAT		67° 53.78 168° 13.95							

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

Bottle Firing Method: US = Up / Stop (default), 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

Time Code: DE = Deployment Time, MR = Messenger Release Time, RE = Recover Mooring Time

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

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DAILY SCIENCE LOG

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Month	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/FI Cleaned	Comments
Year	Vessel		Cruise ID											
July	2019		SWL											
201	SEC-1/DB03.6	18	17:35		C-OPS		67° 53.85 168° 13.93							
202			17:45		NET		67° 53.87 168° 13.87							
203			17:52		MUDS		67° 53.89 168° 13.82							
204			18:16		HARD		67° 53.95 168° 13.69							
205	SEC-2/DB03.7	18	20:37	BE	ADCP		67° 46.948 168° 35.983					SAC		
			22:03	EN			67° 46.843 168° 36.134							
206			20:40	BE	ROS		67° 46.943 168° 35.971	51	46.5	544-556	13	SAC		
			20:45	BO			67° 46.946 168° 35.972							
			20:54	EN			67° 46.938 168° 35.962							
207			20:53		CAM		67° 46.94 168° 35.96							
208			21:11		C-OPS		67° 46.91 168° 35.97							
209			21:27		NET		67° 46.87 168° 35.98							
210			21:33		MUDS		67° 46.87 168° 35.99							
211			21:53		HARD		67° 46.85 168° 36.14							
212	SEC-1/DB03.8	18	23:21	BE	ADCP		67° 40.398 168° 55.762							
			1:37	EN			67° 40.168 168° 55.449							
213		19	23:22	BE	ROS		67° 40.377 168° 55.651	51.5	46.6	557-569	13	SAC		
			23:24	BO			67° 40.377 168° 55.651							
213B			23:27	BO			67° 40.377 168° 55.753							
			0:38	EN			67° 40.230 168° 55.631							

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Notes:

-> event 212: ADCP power left on after last cast... ups

-> event 213: did complete cast w/ nistin closures. Noticed once on dock, many were leaking

as some spigots were opened (probably from coating nistin by myself). Emptied nistin, re-coated, then waited for C-OPS and CAM to be finished to re-deploy ROV as 0213B.hex

A few minutes of "in air" as bridge took a while to re-position...

↳ meaning started file and took 17 minutes before CTD put in water.

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Month	Station Name	Day	Time (UTC)	Year	Event Type	Firing Method	Positional Information	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
				Year			Vessel	Cruise ID						
214	SEC-I/ DB03.8	19	00:00	2019	CAN		67° 46.25 168° 55.91			-			<input type="checkbox"/>	
215			00:47		C-OPS		67° 46.22 168° 55.60			-			<input type="checkbox"/>	
216			:36		NET		67° 46.22 168° 55.51			-			<input type="checkbox"/>	
217			1:02		PLUMBS		67° 40.20 168° 55.51			-			<input type="checkbox"/>	
218			1:21		HAFS2		67° 40.18 168° 55.46			-			<input type="checkbox"/>	
219	UTN-7		4:12		BE ACP		68° 0.073 168° 55.687			-			<input type="checkbox"/>	
			5:51		EN		68° 0.012 168° 54.742			-			<input type="checkbox"/>	
220			4:16		BE ROS		68° 0.079 168° 55.683	585		570-584			<input type="checkbox"/>	
			4:28		BO		68° 0.062 168° 55.576		536	-			<input type="checkbox"/>	
			4:31		EN		68° 0.029 168° 55.515			-			<input type="checkbox"/>	
221			4:23		CAN		68° 0.03 168° 55.41			-			<input type="checkbox"/>	
222			4:49		C-OPS		68° 0.08 168° 55.17			-			<input type="checkbox"/>	
223			5:10		NET		68° 0.10 168° 54.82			-			<input type="checkbox"/>	
224			5:19		PLUMBS		68° 0.09 168° 54.81			-			<input type="checkbox"/>	
225			5:38		HAFS2		68° 0.03 168° 54.75			-			<input type="checkbox"/>	
226	CPR2		6:07		BE CPR		68° 01.34 168° 53.07			-			<input type="checkbox"/>	
			10:20		EN		70° 30.88 169° 09.55	@	DB0416n	-			<input type="checkbox"/>	
			:				steering to DB04			-			<input type="checkbox"/>	
			:				Arctic circle crossing ceremony			-			<input type="checkbox"/>	

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Notes:

This page is for any notes or observations

WTB-7: Surrounded by breaching whales (humpbacks ~50-70).

ADM 1187

10:17

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Month		Year		Vessel				Cruise ID						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude						
227	DBO4.6n	20	10:28	BE	ADCP		71° 50.91	162° 09.510				SZ	<input type="checkbox"/>	
			11:54	EN			71° 50.759	162° 09.288			forgot to power on	SZ	<input checked="" type="checkbox"/>	1047
228	"	20	10:31	BEROS		US	71° 50.918	162° 9.546	39	583-595	13	SZ	<input type="checkbox"/>	
			10:38	BO			71° 50.909	162° 9.517		alt 2.6			<input type="checkbox"/>	
			10:53	EN			71° 50.900	162° 9.474					<input type="checkbox"/>	
229	"		10:59	BE	CAT		71° 50.91	162° 9.416					<input type="checkbox"/>	
230	"		11:11	BE	NET		71° 50.93	162° 9.50					<input type="checkbox"/>	
231	"		11:16	BE	MUDS		71° 50.88	162° 9.49					<input type="checkbox"/>	
232	"		11:40	BE	HABS*2		71° 50.76	162° 9.27		Bridge Log says MUD #6 but I think its a HAPS			<input type="checkbox"/>	
233	DBO4.5n	20	12:58	BE	CTD		71° 47.112	161° 58.062	39.2			SZ	<input type="checkbox"/>	
			13:04	BO			71° 47.110	161° 58.055		alt 3.0			<input type="checkbox"/>	
			13:09	EN			71° 47.090	161° 58.027		1 min wait - at bottom and			<input type="checkbox"/>	
234	DBO4.5n	20	13:53	BE	ADCP		71° 43.1894	161° 46.336	45				<input type="checkbox"/>	
			15:26	EN			71° 43.1237	161° 46.665					<input type="checkbox"/>	
235	"	20	13:56	BE	ROS	US	71° 43.183	161° 46.351	40	596-609	13	SZ	<input type="checkbox"/>	
			14:04	BO			71° 43.192	161° 46.375		alt = 30			<input type="checkbox"/>	
			14:14	EN									<input type="checkbox"/>	
236	"		14:14		CAT		71° 43.19	161° 46.42					<input type="checkbox"/>	
237	"		14:29		COPS		71° 43.20	161° 46.44					<input type="checkbox"/>	

Event Type:
 BOT = Bottle cast (no CTD)
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 ROS = CTD in Rosette
 SET = Fish Set
Loop = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter
Time Code:
 BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
Bottle Firing Method:
 US = Up / Stop (default)
 UN = Up / No stop
 DN = Down / No stop
Time Code:
 BE = Beginning Time
 DE = Deployment Time
 MR = Messenger Release Time
 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			Year			Vessel						Cruise ID			
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Positional Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/Fl Cleaned	Comments
238	DBO4.5h		14:39		NET		71° 43.21	161° 46.53			-			<input type="checkbox"/>	
239	"		14:46		MUDS		71° 43.19	161° 46.54			-			<input type="checkbox"/>	
240	"		15:13		HAPS2		71° 43.15	161° 46.64			-			<input type="checkbox"/>	
241	DBO4.Ana	20	16:12	BE	CTD	-	71° 39.290	161° 35.591	46	42.5	-	-	SE	<input type="checkbox"/>	Huge chl perkal 32m
			16:17	BO			71° 39.288	161° 35.598		alt	= 3.5			<input type="checkbox"/>	
			16:22	EN			71° 39.281	161° 35.605			-			<input type="checkbox"/>	(~36 mp/m/s)
242	DBO4.AN	20	17:10	BE	ADCP		71° 35.287	161° 24.397	47		-			<input type="checkbox"/>	
			18:53	EN			71° 35.16	161° 23.55	48		-			<input type="checkbox"/>	
243	"	20	17:13	BE	ROS	US	71° 35.278	161° 24.386	47	43.5	609-632	24	SE	<input type="checkbox"/>	
			17:21	BO			71° 35.261	161° 24.379		alt	@ 3.4			<input type="checkbox"/>	
			:	EN							-			<input type="checkbox"/>	
244	"	20	17:44	BO	CAM		71° 35.18	161° 24.22			-			<input type="checkbox"/>	
245	"	20	17:58	BE	C-OPS		71° 35.21	161° 24.17			-			<input type="checkbox"/>	
246	"	20	18:09	BE	NET		71° 35.19	161° 24.01			-			<input type="checkbox"/>	
247	"	20	18:19	BE	MUDS		71° 35.19	161° 23.95			-			<input type="checkbox"/>	
248	"	20	18:42	BE	HAPS2		71° 35.16	161° 23.65			-			<input type="checkbox"/>	
249	DBO4.3na	20	19:43	BE	CTD		71° 31.202	161° 13.565	48.5		-	-	SAO	<input type="checkbox"/>	15 knot winds/calm overcast 1 min stop bottom + surface up/down @ 0.5m/s
			19:48	BO			71° 31.201	161° 13.520		44.6	alt	3.4		<input type="checkbox"/>	
			19:52	EN			71° 31.205	161° 13.519			-			<input type="checkbox"/>	

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Loop Firing Method:
 LOOP = Sea Water Loop
 MOR = Mooring
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 DRF = Drifter

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

Time Code:
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

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Notes:

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month		Year		Vessel				Cruise ID						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude						
250	080420	20	20:37	BE	ADCP		71° 27.269	161° 2.256		-		SAG	<input type="checkbox"/>	
			22:13	EN			71° 27.262	161° 1.571		-			<input type="checkbox"/>	
251	1	20	20:39	BE	ROS	US	71° 27.268	161° 2.245	43.1	633-645	13	SAG	<input type="checkbox"/>	
			20:44	BO			71° 27.271	161° 2.220		-			<input type="checkbox"/>	
			20:53	EN			71° 27.265	161° 2.190		-			<input type="checkbox"/>	
252	"	20	20:54	BO	CAN		71° 27.26	161° 2.18		-			<input type="checkbox"/>	
253	"	20	21:09	BE	CORS		71° 27.26	161° 2.02		-			<input type="checkbox"/>	
254	"	20	21:22	BE	NET		71° 27.25	161° 1.92		-			<input type="checkbox"/>	
255	"	20	21:29	BE	FUDS		71° 27.26	161° 1.84		-			<input type="checkbox"/>	
256	"	20	21:54	BE	HABS		71° 27.27	161° 1.72		(w/ 2x redo)		SAG	<input type="checkbox"/>	1min stop top @ bottom
257	080420	20	23:00	BE	CTD		71° 22.886	160° 50.437	48.5	-			<input type="checkbox"/>	up & down cast @
			23:06	BO			71° 22.884	160° 50.410	43.2	-			<input type="checkbox"/>	0.5m @ 0.15 tint
			23:10	EN			71° 22.884	160° 50.396		-			<input type="checkbox"/>	winds over cast
258	080420	20	23:51	BE	ADCP		71° 19.367	160° 39.366		-		SAG	<input type="checkbox"/>	calm
		21	01:09	EN			71° 19.326	160° 38.876		-			<input type="checkbox"/>	
259	"	20	23:53	BE	ROS		71° 19.364	160° 39.350	49	646-658	13	SAG	<input type="checkbox"/>	
		20	23:58	BO			71° 19.366	160° 39.335	45.3	-			<input type="checkbox"/>	
		21	00:07	EN			71° 19.362	160° 39.307		-			<input type="checkbox"/>	
260	"	21	00:07	BO	CAN		71° 19.36	160° 39.324		-			<input type="checkbox"/>	

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 DN = Down / No stop

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Notes:

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 WaterProperties.ca
 Version: 14 February 2013

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month		Year			Vessel				Cruise ID						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Latitude	Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
261	DPO42n	21	00:21	BE	C-OPS		71° 19.40	160° 39.10					KF		
262	"	21	00:32	BE	NET		71° 19.38	160° 38.93					JN/AN		
263	"	21	00:37	BO	MUDS		71° 19.35	160° 38.86					JG/LC		
264	"	21	00:59	BE	HAPS		71° 19.33	160° 38.85					JG/LC		
265	DPO41n	21	02:01	BE	CTD		71° 15.355	160° 27.757	51.7				SAD		up/down cast @ 0.5m/s. 1min stop @ bottom + surface
			02:06	BO			71° 15.352	160° 27.742		46.5					no bot winds, calm.
			02:09	EN			71° 15.350	160° 27.739							
266	DPO41n	21	03:10	BE	ADCP		71° 11.443	160° 16.239					SAD		
			4:24	EN			71° 11.400	160° 15.683							
267	"	21	03:13	BE	ROS		71° 11.441	160° 16.226	57.1		659 671 13		SAD		
			3:18	BO			71° 11.222	160° 16.441		52.4	3.704				
			3:26	EN			71° 11.440	160° 16.217							
268	"	21	3:31	BO	CAN		71° 11.44	160° 16.20							
269	"	21	3:47		C-OPS		71° 11.44	160° 15.92							
270	"	21	4:01		NET		71° 11.41	160° 15.66							
271	"	21	4:08		MUDS		71° 11.41	160° 15.64							
272	"	21	:		HAPS		NO HAPS; TOO ROCKY								
			:												
			:												

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month		Year				Vessel						Cruise ID			
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Latitude	Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trms/FI Cleaned	Comments
273	BARC-10	21	13:56		ADCP		71° 37.194	157° 55.309			-		SAC/SZ	<input type="checkbox"/>	
	DB05.10		15:04				71° 37.058	157° 54.354			-			<input type="checkbox"/>	
274	"		13:57		ROS		71° 37.196	157° 55.256			-		SAC/SZ	<input type="checkbox"/>	
			14:02				71° 37.202	157° 55.128	684	58.4	672-684	13		<input type="checkbox"/>	
			14:13				71° 37.189	157° 55.972			-			<input type="checkbox"/>	
275	"		14:16		CAM		71° 37.18	157° 54.93			-			<input type="checkbox"/>	
276	"		14:37		GOPS		71° 37.15	157° 54.69			-			<input type="checkbox"/>	
277	"		14:54		NET		71° 37.09	157° 54.47			-			<input type="checkbox"/>	
278	"		14:59		MUDx2		71° 37.07	157° 54.41			-			<input type="checkbox"/>	
279	BARC-9		15:44	BE	ADCP		71° 34.616	157° 50.669			-		SAC/SZ	<input type="checkbox"/>	
	DB05.9		16:43	EN			71° 34.41	157° 50.66			-			<input type="checkbox"/>	
280	"		15:47	BE	ROS		71° 34.610	157° 50.665	66	60.4	685-699	15	SAC/SZ	<input type="checkbox"/>	
			15:53	BO			71° 34.589	157° 50.617			-			<input type="checkbox"/>	
			16:05	EN			71° 34.530	157° 50.633			-			<input type="checkbox"/>	
281	"		16:03		CAM		71° 34.57	157° 50.62			-			<input type="checkbox"/>	
282	"		16:23		C-OPS		71° 34.51	157° 50.62			-			<input type="checkbox"/>	
283	"		16:35		MUDx2		71° 34.46	157° 50.67			-			<input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/>	
			:				.	.			-			<input type="checkbox"/>	

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 SET = Fish Set

Loop:
 LOOP = Sea Water Loop
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 DRF = Drifter

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

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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 RE = Recover Mooring Time

Notes:

Ocean Sciences Division, Institute of Ocean Sciences

DAILY SCIENCE LOG

Cruise ID

Month			Year			Vessel			Cruise ID						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Latitude	Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/Fi Cleaned	Comments
284	BARC-8	21	17:20	BE	ADCP		71° 32.17	157° 45.12					SZ/SAG	<input type="checkbox"/>	
	DB05.8		18:13	EN			71° 32.00	157° 45.725						<input type="checkbox"/>	
285		21	17:23	BE	ROS	US	71° 32.16	157° 45.13	74	67.4	700-7115	15	SZ/SAG	<input type="checkbox"/>	
			17:29	BO			71° 32.142	157° 45.198						<input type="checkbox"/>	
			17:41	EN			71° 32.124	157° 45.361						<input type="checkbox"/>	
286			17:30		CAM		71° 32.14	157° 45.20						<input type="checkbox"/>	
287			17:47		C-OPS		71° 32.11	157° 45.43						<input type="checkbox"/>	
288			18:01		MUDx2		71° 32.08	157° 45.68						<input type="checkbox"/>	
289	BARC-7	21	18:53	BE	ADCP		71° 30.0275	157° 40.2512	85					<input type="checkbox"/>	
	DB05.7		19:50	EN			71° 30.071	157° 40.080						<input type="checkbox"/>	
290	"	21	18:55	BE	ROS	US	71° 30.029	157° 40.235	85	78	715-729	15	SZ/SAG	<input type="checkbox"/>	
			19:05	BO			71° 30.030	157° 40.206						<input type="checkbox"/>	
			19:12	EN			71° 30.025	157° 40.187						<input type="checkbox"/>	
291	"	21	19:11		CAM		71° 30.02	157° 40.19						<input type="checkbox"/>	
292	"	21	19:21		C-OPS		71° 30.16	157° 40.11						<input type="checkbox"/>	
293	"	21	19:41		NET		71° 30.08	157° 40.09						<input type="checkbox"/>	
294	"	21	19:48		MUDx2		71° 30.00	157° 40.08						<input type="checkbox"/>	
			:				°	°						<input type="checkbox"/>	
			:				°	°						<input type="checkbox"/>	

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

Event Type:
 BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
 ROS = CTD in Rosette
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Looping:
 LOOP = Sea Water Loop
 MOR = Mooring
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 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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CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

Notes:

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Month		Year				Vessel				Cruise ID					
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Latitude	Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/FI Cleaned	Comments
295	BARC-6		20:42	BE	ADCP		71° 27.329	157° 34.962					SNO/SZ	□□	
	DBO 5.6		20:47	EN			71° 27.381	157° 34.628						□□	
296			20:45	BE	ROS		71° 27.338	157° 34.938	113		730-746	17	SNO/SZ	□□	
			20:51	BO			71° 27.334	157° 34.901		107.1				□□	
			21:03	EN			71° 27.331	157° 34.870						□□	
297			21:04		CAM		71° 27.32	157° 34.85						□□	
298			21:23		C-OPS		71° 27.35	157° 34.77						□□	
299			21:46		MUDx2		71° 27.39	157° 34.67						□□	
			:				°	°						□□	
300	BARC-6		22:31	BE	ADCP		71° 24.68	157° 29.230					SNO/SZ	□□	
	DBO 5.5		:	EN			°	°						□□	
301			22:33	BE	ROS		71° 24.614	157° 29.238	128.5				SNO/SZ	□□	
			22:40	BO			71° 24.632	157° 29.047		170.8		24		□□	
			23:04	EN			71° 24.641	157° 29.020						□□	
302			23:03		CAM		71° 24.63	157° 29.08						□□	
303			23:22		C-OPS?		71° 24.72	157° 28.63						□□	
304			23:56		MUDx2		71° 24.78	157° 28.22						□□	
			:				°	°						□□	
			:				°	°						□□	

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Notes:

→ Discrepancy between ship's sounder reading and bottom water pressure @ altimeter reading.
So went to 0.8m off bottom before ALL STOP. Then lifted rosette ± 4 m for 1min soak @ bottom
before triggering net in 1 and 2.

@ 123.0 db → alt. = 2.3

@ 120.0 db → alt. = 4.3

Ship's reading was 128.5m (23.5m below teed).

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Month		Year			Vessel				Cruise ID						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Positional Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
305	BARC-4	22	00:42	BE	ADCP		71° 22.325	157° 24.532			-			<input type="checkbox"/>	
	DBO 5.4		01:56	EN			71° 23.049	157° 20.831			-			<input type="checkbox"/>	
306	"	22	00:43	BE	ROS	US	71° 22.333	157° 24.510	115	109	771-787	19	SZ/SAQ	<input type="checkbox"/>	
			00:51	BO			71° 22.408	157° 24.164			alt = 5.8			<input type="checkbox"/>	
			01:06	EN			71° 22.549	157° 23.544			-			<input type="checkbox"/>	
307			1:07		CAM		71° 22.56	157° 23.46			-			<input type="checkbox"/>	
308			1:24		C-OPS		71° 22.73	157° 22.53			-			<input type="checkbox"/>	
309			1:46		NET		71° 22.98	157° 21.22			-			<input type="checkbox"/>	
310			12:29		MUDx2		71° 22.34	157° 24.79			-			<input type="checkbox"/>	
311	BARC-3		3:30	BE	ADCP		71° 19.856	157° 20.059	93		-		SAQ/SZ	<input type="checkbox"/>	
	DBO 5.3		4:30	EN			71° 20.496	157° 16.977			-			<input type="checkbox"/>	
312			3:33	BE	ROS		71° 19.949	157° 19.980	93		788-804		SAQ/SZ	<input type="checkbox"/>	
			3:39	BO			71° 20.050	157° 19.651		87.2	-			<input type="checkbox"/>	
			3:49	EN			71° 20.044	157° 18.983			-			<input type="checkbox"/>	
313			3:59		CAM		71° 20.08	157° 18.59			-			<input type="checkbox"/>	
314			4:15		C-OPS		71° 20.29	157° 17.68			-			<input type="checkbox"/>	
315			4:58		MUDx2		71° 19.81	157° 19.81			-			<input type="checkbox"/>	
			:				°	°			-			<input type="checkbox"/>	
			:				°	°			-			<input type="checkbox"/>	

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→ Event #305: ADCP deployment and ^{recovery} ~~short~~ due to problems with station keeping. Had to recover it so

Ship could reposition (1.5 nm off).

↳ not re-deployed once back on station

↳ strong currents ~2 knts

→ ADCP pull out of water "early" as had to reposition ~~ship~~ ship to station due to strong current.

→ strong current ~2 knts
drifted ~1.3-1.6 knts

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Month		Year			Vessel				Cruise ID						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Latitude	Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trms/FI Cleaned	Comments
316	BARC-2		5:52	BE	ADCP		71° 17.162	157° 15.834						<input type="checkbox"/>	
316	DR305.2		6:46	EN			71° 17.694	157° 13.417						<input type="checkbox"/>	
317			5:56	BE	ROS		71° 17.192	157° 15.696	57	52.6	803-817	15	SAD	<input type="checkbox"/>	
			6:01	BO			71° 17.247	157° 15.512						<input type="checkbox"/>	
			6:09	EN			71° 17.305	157° 15.198						<input type="checkbox"/>	
318			6:13		CAM		71° 17.33	157° 15.01						<input type="checkbox"/>	
319			6:29		C-OPS		71° 17.48	157° 14.14						<input type="checkbox"/>	
320			6:59		MUDx2		71° 17.38	157° 14.29						<input type="checkbox"/>	
321	BARC-1		7:49	BE	ADCP		71° 14.764	157° 10.174					SAD	<input type="checkbox"/>	
	DR305.1		8:49	EN			71° 15.329	157° 8.220						<input type="checkbox"/>	
322			7:55	BE	ROS		71° 14.818	157° 9.940	47		818-829		SAD	<input type="checkbox"/>	
			8:00	BO			71° 14.870	157° 9.727		42.7				<input type="checkbox"/>	
			8:08	EN			71° 14.947	157° 9.946						<input type="checkbox"/>	
323			8:12		CAM		71° 14.98	157° 9.31						<input type="checkbox"/>	
324			:		C-OPS		°	°						<input type="checkbox"/>	not recorded on Bridge log
325			8:47		NET		71° 15.33	157° 8.30						<input type="checkbox"/>	
326			9:03		MUDx2		71° 14.93	157° 9.13						<input type="checkbox"/>	
			:				°	°						<input type="checkbox"/>	
			:				°	°						<input type="checkbox"/>	

Event Type:
 BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
 ROS = CTD in Rosette
 SET = Fish Set
 LOOP = Sea Water Loop
 MOR = Mooring
 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
 BO = Bottom Time of Cast
 EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Notes:

Produced by the Water Properties Group, IOS
 WaterProperties.ca
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→ ADCP pulled early as ship needed to reposition for TUD grabs.

→ ADCP pulled early as ship needed to reposition for MUD grabs.