DAILY SCIENCE LOG BOOK

MISSION NUMBER 2020-069

Book #2

DATE: From: July 15 2020 To: Aug 11 2020

VESSEL: JP Tully

PROJECT(S): Mooring

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

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month July **Year** 2020 **Vessel** Tully **Cruise ID** 2020-069

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
174	CH22	29	06:49	BE	ROS	US	54° 09.976	130° 35.064	128		581-589	9	CW	☑☐	
			06:52	BO			° 09.983	° 35.118		124	-			☐☐	
			07:02	EN			° 10.007	° 35.206			-			☐☐	
175	CH21	29	07:34	BE	ROS	US	54° 11.897	130° 39.354	122		567-580	14	CH	☑☐	
			07:38	BO			° 11.908	° 39.348		118	-			☐☐	
			07:49	EN			° .	° .			-			☐☐	
176	CH19	29	08:26	BE	ROS	US	54° 15.220	130° 35.660	85		685-696	12	CH	☑☐	
			08:30	BO			° 15.220	° 35.660		80	-			☐☐	
			08:39	EN			° 15.190	° 35.690			-			☐☐	
177	CH18	29	09:20	BE	ROS	US	54° 16.460	130° 29.210	38		697-702	6	CH	☑☐	
			:	DO			° .	° .		33	-			☐☐	
			09:25	EN			54° 16.430	130° 29.180			~~703-710~~	~~8~~	~~CW~~	☑☐	
178	CH17	29	10:14	BE	ROS	US	54° 20.430	130° 33.310	87		703-710	8	CW	☑☐	
			10:17	BO			° 20.42	° 33.340		83	-			☐☐	
			10:26	EN			° 20.40	° 33.36			-			☐☐	
179	CH12	29	10:58	BE	ROS	US	54° 23.640	130° 34.050	137		711-724	14	CH	☑☐	fired bottle
			11:03	BO			° 23.640	° 34.040		133	-			☐☐	8 after 5 sec
			11:15	EN			° 23.620	° 34.060			-			☐☐	
			:				° .	° .			-			☐☐	

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

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

This page is for any notes or observations

EVENT 179 - Td / temperature reversed in Cl profile
and in oxygen profile

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month JULY **Year** 2020 **Vessel** JP TULLY **Cruise ID** 2020-069

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
180	CH11	29	11:49	BE	ROS	US	54°26.960	130°32.936	129		725-738	14	CH	☑ ☐	
			11:53	BO			°26.956	°32.935		126	-			☐ ☐	
			12:06	EN			°26.930	°32.994			-			☐ ☐	
181	Chat2-2	29	:	RE	MOR		54°15.800	130°46.710	196		-			☐ ☐	
182	CHAT2	29	15:08	BE	ROS	US	54°15.791	130°46.792	195		739-754	16	SP	☑ ☐	
			15:11	BO			°15.793	°46.780		191	-			☐ ☐	
			15:25	EN			°15.833	°46.760			-			☐ ☐	
183	CHAT2-3	29	:	DE	MOR		° .	° .			-			☐ ☐	
184	CH16	29	17:50	BE	ROS	US	54°19.770	130°37.430	210		755-769	15	SP	☑ ☐	
			17:53	BO			°19.750	°37.480		205	-			☐ ☐	
			18:06	EN			°19.790	°37.470			-			☐ ☐	
185	CH13	29	18:53	BE	ROS	US	54°23.009	130°39.010	158		770-779	10	SP	☑ ☐	
			18:57	BO			54°22.970	130°39.980		153	-		LP	☐ ☐	
			19:09	EN			54°22.950	130°38.980			-			☐ ☐	
186	CH10	29	19:48	BE	ROS	US	54°26.710	130°39.300	82		780-786	7	SP	☑ ☐	
			19:47	BO			°26.700	°39.310		78	-			☐ ☐	
			19:55	EN			°26.700	°39.320			-			☐ ☐	
			:				° .	° .			-			☐ ☐	
			:				° .	° .			-			☐ ☐	

Event Type:
BOT = Bottle cast (no CTD)
CTD = Standalone CTD
DS = CTD in Rosette
___ = 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
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: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

EVENT 150 · whole short temperature reversal in upper 25 m

Chat 2-2 Mooring Recovery July 29, 2020

1350 - Send 1A2B 410 406
- Wait for deck crew

1402 - 447

1403 Send 1A2B + 1A55 449 452 received & executed

1404 - on surface

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month JULY **Year** 2020 **Vessel** JP TULLY **Cruise ID** 2020-069

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
187	CH07	29	20:51	BE	ROS	US	54° 31.460	130° 31.010	86		787-794	8	SP	☑☐	
			20:52	BO			°31.450	°31.030		82	-			☐☐	
			21:00	EN			°31.440	°31.030			-			☐☐	
188	CHAT3-1	29	21:17	RE	MOR		54° 31.638	130° 32.476	163		-			☐☐	
189	chat3	29	21:51	BE	ROS	US	54° 31.519	130° 32.458	158		795-809	15	SP	☑☐	
			21:53	BO			°31.517	°32.464		154	-			☐☐	
			22:04	EN			°31.498	°32.454			-			☐☐	
190	CHAT3-2	29	23:13	DR	MOR		54° 31.645	130° 32.510	163		-			☐☐	
191	CH08	29	23:34	BE	ROS	US	54° 31.171	130° 34.918	142		810-823	14	SP	☑☐	
			23:37	BO			°31.170	°34.930		138	-			☐☐	
			23:47	EN			°31.156	°34.972			-			☐☐	
192	CH09	30	00:36	BE	ROS	—	54° 30.200	130° 40.950	87		———		SP	☑☐	
			00:37	BO			°30.180	°40.950		83.5	-			☐☐	
			00:39	EN			°30.180	°40.950			-			☐☐	
193	CH04	30	01:09	BE	ROS	US	54° 32.380	130° 43.520	79		824-831	8	SP	☑☐	
			01:10	BO			°32.390	°43.510		75	-			☐☐	
			01:18	EN			°32.390	°43.520			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	

Event Type:
BOT = Bottle cast (no CTD)
CTD = Standalone CTD
DS = CTD in Rosette
FT = 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
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: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

Chat 3-1 Mooring Recovery July 29, 2020

2114 Send OBB5 No reply switch to dunking

2116 454 45e

2117 Send OBB5 + OBS5

- On Surface

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 Latitude	Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
194	CH05	30	01:53	BE	ROS	US	54°33.650	130°37.810	143		832-845	14	SP	☒☐	
			01:56	BO			°33.630	°37.810		137.8	-			☐☐	
			02:06	EN			°33.600	°37.830			-			☐☐	
195	CH06	30	02:39	BE	ROS	US	54°34.920	130°32.080	250		846-856	11	CH	☐☐	→
			02:45	BO			°34.910	°32.060		246	-			☐☐	
			03:01	EN			°34.910	°32.020			-			☐☐	
196	CH03	30	04:45	BE	ROS	US	54°41.394	130°55.403	569		857	1	CH	☒☐	→
			04:57	BO			°41.410	°55.398	571	570	-			☐☐	trigger 2 bottle
			05:08	EN			°41.394	°55.339			-			☐☐	
197	CH02	30	06:20	BE	ROS	US	54°39.800	130°38.190	314		858-875	18	CH	☒☐	
			06:28	BO			°39.770	°38.140	334	322	-			☐☐	
			06:48	EN			°39.710	°38.070			-			☐☐	
198	PI1	30	07:48	BE	ROS	US	54°41.592	130°27.262	600		876-895	20	CH	☒☐	→
			08:01	BO			°41.582	°27.253	597	598	-			☐☐	
			08:27	EN			°41.557	°27.253			-			☐☐	
199	PI2	30	:	BE	ROS	/	54°43.800	130°24.490	546		-	/	CH	☒☐	→
			09:11	BO			°43.780	°24.526	545	540	-			☐☐	about 7 mab
			09:21	EN			°43.740	°24.560			-			☐☐	
200	5200	30	09:26		LOOP		54°43.858	130°24.383	—	—	-			☐☐	LOOP

Event Type:
BOT = Bottle cast (no CTD)
CTD = Standalone CTD
DS = CTD in Rosette
ET = 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
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: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

EVENT 195 - very shallow very steep fresh layer <5m

EVENT 196 - closing low surface salinity. Start at 0.3-0.5m
near surface salinity 18.1
18.1 at 0.4m
26 at 2m
28 at 4m
Big subsurface chla max

EVENT 198 should do oxygen calibration sample at the station PI1

EVENT 199 Great profile for comparing T1 & T2 and Sal & S2 S2 is 0.005 S/m higher than S1.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month | **Year** | **Vessel** | **Cruise ID** | Page 5 of _____

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
201	PI 3	30	10 :03	BE	ROS	/	54 ° 46.680	130 ° 19.730	488		-	/	CH	☒☐	
			10 :12	BO			° 46.660	° 19.780		488	-			☐☐	
			10 :21	EN			° 46.670	° 19.780			-			☐☐	
202	PI 4	30	11 :01	BE	ROS	US	54 °49.580	130 ° 14.950	445		896-914	19	CH	☒☐	
			11 :10	BO			°49.560	° 14.960	445	444	-			☐☐	5 mab
			11 :33	EN			° 49.540	° 14.950			-			☐☐	
203	PI 5	30	12 :29	BE	ROS	/	54° 52.830	130 ° 11 .090	421		-	/	CH	☒☐	
			12 :38	BO			° 52.810	° 11 .110	422	420	-			☐☐	5 mab
			12 :45	EN			°52.790	° 11 . 120			-			☐☐	
204	KH2	30	15 :28	BE	ROS	—	54 ° 39.070	130 ° 3 . 850	168		-			☐☐	
			15 :33	BO			° 39. 080	° 3 . 820		164	-			☐☐	4
			15 :36	EN			° 39. 090	° 3 . 810			-			☐☐	
205	KH3	30	16 :24	BE	ROS	US	54 °36.020	129° 56.690	61		928-937	10	SP	☒☐	
			16:25	BO			°36.020	° 56.690		57	-			☐☐	
			16:31	EN			°36.020	° 56.700			-			☐☐	
206	KH1		17:43	BE	ROS	VS	54° 42.700	130° 9.290	121		915-927	13	SP	☒☐	
			17:45	BO			°42.710	° 9.290		115	-			☐☐	
			17:54	EN			°42.730	° 9 .280			-			☐☐	
			:				° .	° .			-			☐☐	

Event Type:
BOT = Bottle cast (no CTD)
CTD = Standalone CTD
RS = 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
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: _____

RS = CTD in Rosette
SET = Fish Set
____ = _____
Notes: _____

Produced by the Water Properties Group, IOS
WaterProperties.ca
Version: 20 April 2016

This page is for any notes or observations

Sig signal

EVENT 201 Something fluorescent at 80m.

EVENT 202 fresher layer 5m deep
fluorescence spike at ~80m
not as big as previous

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 Latitude	Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
207	PI6	30	19:40	BE	ROS	US	54°55.982	130° 7.043	342		938-939	2	SP	☑ ☐	
			19:46	BO			°55.960	° 7.042		339	-			☐ ☐	
			19:54	EN			°55.956	° 7.051			-			☐ ☐	
208	PI7	30	20:34	BE	ROS	US	54°59.182	130° 3.024	227		940-941	2	SP	☑ ☐	
			20:36	BO			°59.174	° 3.074		225	-			☐ ☐	
			20:44	EN			°59.149	° 3.104			-			☐ ☐	
209	PORT2	30	21:10	BE	ROS	US	54°59.260	129°59.951	152		952-953	2	SP	☑ ☐	
			21:13	BO			°59.261	°59.962		163.5	-			☐ ☐	
			21:17	EN			°59.270	°59.970			-			☐ ☐	
210	PORT1	30	21:44	BE	ROS	US	54°58.616	129°58.115	90		942-951	10	SP	☑ ☐	
			21:46	BO			°58.627	°58.147		92	-			☐ ☐	
			21:52	EN			°58.633	°58.212			-			☐ ☐	
211	Ob1	30	22:39	BE	ROS	—	55° 2.910	130° 0.370	42		—	—	LP	☑ ☐	LP we drifted to deeper water!
			22:40	BO			° 2.890	° 0.360		50	-			☐ ☐	
			22:42	EN			° 2.890	° 0.370			-			☐ ☐	
212	OE2	30	23:23	BE	ROS	US	55° 6.613	129° 57.530	422		954-972	19	SP	☑ ☐	
			23:30	BO			° 6.613	° 57.530		420	-			☐ ☐	
			23:51	EN			° 6.560	° 57.523			-			☐ ☐	
			:				° .	° .			-			☐ ☐	

Event Type:
BOT = Bottle cast (no CTD)
= Standalone CTD
= CTD in Rosette
= 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
DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Notes: _____

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

book#2

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month JULY **Year** 2020 **Vessel** JP TULLY **Cruise ID** 2020-069

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
213	OB3	31	00:33	BE	ROS	—	55° 10.006	129° 53.167	470		-	—	LP	☒ ☐	
			00:42	BO			° 9.991	° 53.141		471	-			☐ ☐	
			00:50	EN			° 9.992	° 53.120			-			☐ ☐	
214	OB4	31	01:24	BE	ROS	/	55° 13.850	129° 51.280	527		-		LP	☒ ☐	
			01:34	BO			° 13.850	° 51.290		525	-			☐ ☐	
			01:43	EN			° 13.850	° 51.220			-			☐ ☐	
215	OB5	31	02:20	BE	ROS	VS	55° 17.530	129° 48.020	542		993-991	19	CH	☒ ☐	
			02:31	BO			° 17.520	° 47.950	541	541	-			☐ ☐	5 mab
			02:56	EN			° 17.520	° 47.970			-			☐ ☐	
216	OB6	31	03:36	BE	ROS	/	55° 21.312	129° 46.018	196		/	/	CH	☒ ☐	
			03:41	BO			° 21.317	° 46.032	179	185	-			☐ ☐	5 mab
			03:45	EN			° 21.326	° 46.037			-			☐ ☐	
217	HA1	31	04:19	BE	ROS	/	55° 24.890	129° 43.086			/	/	CH	☒ ☐	→
			:	BO			° .	° .	165	164	-			☐ ☐	5 mab
			04:29	EN			° 24.812	° 43.055			-			☐ ☐	
218	HA2	31	05:00	BE	ROS	VS	55° 28.250	129° 44.540	303		992-1008		CH	☒ ☐	
			05:08	BO			° 28.290	° 44.510	302	299	-			☐ ☐	5 mab
			05:29	EN			° 28.260	° 44.480			-			☐ ☐	
			:				° .	° .			-			☐ ☐	

Event Type:
ROT = Bottle cast (no CTD)
= Standalone CTD
= CTD in Rosette
= 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
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: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

HDI - surface salinity ~ 5 psu range 5-6 , DO ~ 8 ml/l

BOOK #2

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month JULY **Year** 2020 **Vessel** JP TULLY **Cruise ID** 2020-069

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
219	HA3	31	:	BE	ROS	/	° .	° .	287		/	/	CH	☑ ☐	-7
			06 :10	BO			55° 32.450	129 °47 .060	287	284	-			☐ ☐	
			06 :17	EN			°32.460	°47 .070			-			☐ ☐	
220	HA4	31	06 :50	BE	ROS	US	55° 36 .460	129°47 .780	171		1009-1023	15	CH	☒ ☐	
			06 :55	BO			°36 .470	°47 .790	171	169	-			☐ ☐	5 mab
			07:09	EN			°36 .460	°47 .800			-			☐ ☐	
221	HECS7	31	16 :38	BE	ROS	US	54° 13 .745	131° 2 .021	121		1024-1037	14	SP	☑ ☐	Name on file
			16:40	BO			°13 .710	° 2 .021		117	-			☐ ☐	221 might be HECS4??
			16:49	EN			°13 .604	° 1 .956			-			☐ ☐	
222	HECS6	31	17:36	BE	ROS		54° 7 . 610	131° 2 . 630	111		-		LP	☐ ☐	No clean ?
			17:40	BO			° 7 . 640	° 2 . 630		106	-			☐ ☐	
			17:41	EN			° 7 . 630	° 2 . 600			-			☐ ☐	
223	HECS5	31	19 :09	BE	ROS		53° 56 .290	131° 0 .400	88		-		LP	☑ ☐	
			19 :13	BO			° 56 . 300	° 0 .370		84	-			☐ ☐	
			19 :15	EN			° 56 . 300	° 0 . 370			-			☐ ☐	
224	HECS4		20 :28	BE	NET		53 °48 .351	130 49.431	101		-		SP	☐ ☐	
			20:31	BO			°48 .346	° 49 . 418		91	-			☐ ☐	
			20 :33	EN			°48 .340	° 49 . 414			-			☐ ☐	
			:				° .	° .			-			☐ ☐	

Event Type:
- Bottle cast (no CTD)
- Standalone CTD
- = CTD in Rosette
- = 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
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: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

HDS3 - surface salinity 2.7 psu ; DO max at ~30 m
T reversal started at 50 m. Down to 100 m
Below 90 m, DO increasing with depth
90-180 m
loaf glacial silt.

HDS4 - head of Hoisting Arm. Ocean almost seems white with cool glacial flower.

→ corrected header file from HECS4 to HECS7 (SP)

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month JULY / AUG **Year** 2020 **Vessel** JP TULLY **Cruise ID** 2020-069

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
225	HECS 4	31	20:42	BE	ROS	US	53° 48.340	130° 49.400	103		1038-1060	13	GP	☑☐	
			20:46	BO			° 48.340	° 49.390		97	-			☐☐	
			20:54	EN			° 48.330	° 49.380			-			☐☐	
226	HECS 3	31	21:54		GRAB		53° 41.914	130° 43.078	140		-		CW	☐☐	
227	HECS 3	31	22:05	BE	ROS	—	53° 41.940	130 43.080	138		—	—	SP	☑☐	→
			22:08	BO			°41.920	°43.080		134	-			☐☐	
			22:12	EN			°41.890	°43.070			-			☐☐	
228	HECS 2	31	23:27	BE	ROS	—	53°31.920	130° 43.070	186		—	—	SP	☑☐	
			23:30	BO			°31.910	°43.100		183	-			☐☐	
			23:33	EN			°31.890	°43.110			-			☐☐	
229	HECS 101		00:38	BE	ROS	—	53°23.630	130° 45.470	186		—	—	SP	☑☐	
			00:41	BO			°23.640	°45.430		184	-			☐☐	
			:	EN			°23.	°45.			-			☐☐	
230	OGCH 43	01	04:28	BE	ROS	/	53°54.194	130°15.857	352		/	/	CH	☑☐	→
			04:36	BO			°54.160	°15.782	328	338	-			☐☐	
			:	EN			°54.170	°15.880			-			☐☐	
231	OGCH 46	01	05:15	DE	ROS	US	53°55.511	130°13.102	151		1051-1064	14	CH	☑☐	
			05:19	BO			°55.513	°13.088	151	147	-			☐☐	
			:	EN			° .	° .			-			☐☐	

Event Type:
BOT = Bottle cast (no CTD)
CTD = Standalone CTD
SS = CTD in Rosette
= 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
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: _____

- UP cast stopped at 16m due to large mass of kelp tangled on the wire. LARS jibbed in, & kelp set itself free!

OGCH443 - 5~32 at depth - low salinity. High DO at depth > 3.5 ml/l

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month August **Year** 2020 **Vessel** Tully **Cruise ID** 2020-069 Page 10 of ____

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
232	OGCH 50	01	08:11	BE	ROS	US	53°59.360	130°12.570	131		1065-1075	11	CH	☒ ☐	→
			:	BO			°59.360	°12.570	131	128	-			☐ ☐	5 mab
			:	EN			°59.390	°12.540			-			☐ ☐	
233	GrC41	01	07:42	BE	ROS	/	53°53.340	130°05.060	142		/	/	CH	☒ ☐	
			07:46	BO			°53.340	°05.050	142	138	-			☐ ☐	
			07:49	EN			°53.340	°05.060			-			☐ ☐	
234	GrC36	01	08:39	BE	ROS	/	53°49.182	129°59.232	183		1076-	1	CH	☒ ☐	→
			08:46	BO			°49.180	°59.215	183	179	-			☐ ☐	
			08:51	EN			°49.184	°59.212			-			☐ ☐	
235	GrC32		09:30	BE	ROS	/	53°46.400	129°54.990	188		/	/	CH	☒ ☐	
			09:36	BO			°46.400	°54.990	188	183	-			☐ ☐	6 mab
			09:41	EN			°46.400	°55.000			-			☐ ☐	
236	GrC27	01	10:28	BE	ROS	/	53°43.240	129°49.130	233		/	/	CW	☒ ☐	
			:32	BO			°43.24	°49.120		228.5	-			☐ ☐	
			:37	EN			°43.24	°49.140			-			☐ ☐	
237	GrC23	01	11:21	BE	ROS	/	53°39.47	129°45.370	119		/	/	CW	☒ ☐	0.3 db deck pressure.
			:24	BO			°39.41	°45.270		114.	-			☐ ☐	
			:26	EN			°39.35	°45.210			-			☐ ☐	
			:				° .	° .			-			☐ ☐	

Event Type:
BOT = Bottle cast (no CTD)
CTD = Standalone CTD
ROS = CTD in Rosette
ET = 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
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: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

GG CH 50- wind missed 100 m went back down

EVENT 234 surface wait, down to 40 wait, back to surface, th down
strong surface currents
still get increasing subsurface activity fr 50-100 m
similar to EVENT 233.

EVENT 235 repeated 234

Event 236 - did a 10m soak and back to surface as a test of water drop

for most of Grenville there has been light to heavy rain

book#2

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month AUGUST **Year** 2020 **Vessel** JP TULLY **Cruise ID** 2020-069

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
238	GrC19	01	12:01	BE	ROS	US	53° 36.542	129° 42.448	99		1077 - 1078	2	CH	☒ ☐	→
			12:05	BO			° 36.464	°42.362	97	93	-			☐ ☐	
			12:08	EN			°36.416	°42.280			-			☐ ☐	
239	GrC16	01	12:42	BE	Ros	/	53° 33.826	129° 38.794	100		-	/	CH	☒ ☐	raining
			12:45	BO			° 33.755	°38.623	99	96	-			☐ ☐	
			12:49	EN			° 33.670	°38.436			-			☐ ☐	
240	GrC12	01	13:27	BE	Ros	/	53° 31.105	129° 34.177	133		-	/	CH	☒ ☐	raining
			13:31	BO			°31.076	°34.140	132	129	-			☐ ☐	5 mab
			13:34	EN			°31.055	°34.092			-			☐ ☐	
241	GRC1-4	01	14:13	RE	MOR		53° 22.92	129° 37.25	98		-	—	DS	☐ ☐	
242	GRC1	01	14:35	BE	ROS	US	53° 32.980	129° 37.340	99		1080-1080	1	SP	☒ ☐	
			14:36	BO			°33.000	°37.360		95	-			☐ ☐	
			14:39	EN			°33.010	°37.400			-			☐ ☐	
243	GRC9	01	15:26	BE	ROS	—	53° 29.170	129° 31.100	270		—	—	SP	☒ ☐	
			15:31	BO			°29.100	°31.102		268	-			☐ ☐	
			15:35	EN			°29.180	°31.130			-			☐ ☐	
244	GRC6	01	16:08	BE	ROS	—	53° 26.650	129° 26.600	363		—	—	SP	☒ ☐	
			16:13	BO			°26.650	°26.590		363	-			☐ ☐	
			16:19	EN			°26.670	°26.600			-			☐ ☐	

Event Type:
- = Bottle cast (no CTD)
-) = Standalone CTD
- ; = CTD in Rosette
- = 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
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: _____

GrC19- salinity reversals at 1015 m Also reversal- T & DO

GRC1-1 Mooring Recovery

1358 Approaching station
- Send 089E 257 144 132 147 188
1406 - turn around 377
1413 - Send 089E + 0855 420 421 Received & Executed
- on Surface

book #2

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 12 of _____

Month AUGUST **Year** 2020 **Vessel** JP TULLY **Cruise ID** 2020-069

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
245	GRC3	01	16:49	BE	ROS	—	53°24.479	129°23.597	305		—	—	SP	☒☐	→
			16:54	BO			°24.450	°23.578		303	-			☐☐	
			17:00	EN			°24.450	°23.586			-			☐☐	
246	GRC0	01	17:26	BE	ROS	US	53°22.542	129°20.254	228		1081-1082	2	SP	☒☐	
			17:30	BO			°22.529	°20.201		224	-			☐☐	
			17:36	EN			°22.504	°20.104			-			☐☐	
247	SQL1	01	18:02	BE	ROS	—	53°20.800	129°17.860	518		—	—	SP	☒☐	
			18:11	BO			°20.830	°17.840		517	-			☐☐	
			18:20	EN			°20.870	°17.850			-			☐☐	
248	SQL1	01	18:23	DE	DRF		53°20.870	129°17.850	518		—	—	SP	☐☐	→
249	MKY1		19:08		DRF		53°18.113	129°06.401			-		DS	☐☐	1125 SCT #Code
250	PRC1-1	01	20:00	RE	MOR		53°17.490	128°53.077			-		DS	☐☐	
251	PRC1	01	20:35	BE	ROS	—	53°17.490	128°53.077	449		—	—	SP	☒☐	
			20:42	BO			°17.440	°53.060		454	-			☐☐	
			20:50	EN			°17.390	°53.050			-			☐☐	
252	PRC1	01	20:54	DE	DRF		53°17.296	128°53.084			-		SP	☐☐	SCT #1126
253	VP43	01	22:44	BE	ROS	—	53°24.865	129°6.850	325		—	—	DS	☐☐	
			22:53	BO			53°24.871	129°6.799		326	-			☐☐	
			22:59	EN			53°24.878	129°6.782			-			☐☐	

Event Type:
OT = Bottle cast (no CTD)
D = Standalone CTD
= CTD in Rosette
= 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
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: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

upcast paused at 238m to correct large aft lead

event #248
SCT #1132 CODE/DAVIS IMEI# 300534060060860
↳ event 249 SCT #1125 Code/Davis #300534060065690

PRC-1 Mooring Recovery Aug 1
1952 Send 2B8C = 1352.1062 - Approaching station
1956 - 796 784
2000 Send 2B8C + 2B55
- on surface

book #2

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month August **Year** 2020 **Vessel** Tully **Cruise ID** 2020-069

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
254	DOUG45	01	23:46		GRAB	—	53° 22.242	129° 11.67	463		N/A		CW	☐☐	→
255	DOUG45	02	00:05	BE	ROS	US	53° 22.260	129° 11.700	459		1083-1088	6	SP	☒☐	
			00:13	BO			° 22.260	° 11.750		457	-			☐☐	
			00:23	EN			° 22.250	° 11.760			-			☐☐	
256	DOUG45	02	00:32		NET		53° 22.239	129° 11.763		250	-			☐☐	
257	DOUG45	02	00:50	DE	DRF		53° 22.188	129° 11.756			-			☐☐	→
258	DOUG40	02	01:26	BE	ROS	US	53° 26.750	129° 12.480	394		1089-1089	1	SP	☑☐	
			01:33	BO			° 26.760	° 12.470		390	-			☐☐	
			01:40	EN			° 26.770	° 12.460			-			☐☐	
259	KSK1	02	02:03	BE	ROS	—	53° 28.790	129° 12.580	373		—	—	CH	☑☐	
			02:12	BO			° 28.830	° 12.610	373	369	-			☐☐	
			02:19	EN			° 28.860	° 12.610			-			☐☐	
260	DOUG36	02	02:44	BE	ROS	/	53° 31.078	129° 12.428	352		/	/	CH	☒☐	
			02:52	BO			° 31.074	° 12.448		348	-			☐☐	
			03:00	EN			° 31.076	° 12.478			-			☐☐	
261	DOUG32	02	03:41	BE	ROS	/	53° 35.512	129° 12.721	250		/	/	CH	☒☐	
			03:48	BO			° 35.496	° 12.730	251	247	-			☐☐	
			03:53	EN			° 35.489	° 12.736			-			☐☐	
			:				° .	° .			-			☐☐	

Event Type:
OT = Bottle cast (no CTD)
= Standalone CTD
= CTD in Rosette
= 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
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: _____

-> gravel & stones in grab. No sample taken

SCTs # 1127 & 1129. CODE/DAVIS # 30053406026023O

EVENT 261 - ~~May~~ ~~Lat~~ Definately misnamed in hex fch. Should be Day 32

-> cast 261 originally labelled station = Day31, changed in hdr file to Day 32

book #2

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month August **Year** 2020 **Vessel** Tully **Cruise ID** 2020-069

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
262	Doug 31	02	04:15	BE	ROS	US	53°36.610	129° 12.710	292		1090-1092	3	CH	☒ ☐	
			04:23	BO			°36.630	°12.700	295	298	-			☐ ☐	5 rnab
			04:32	EN			°36.640	°12.770			-			☐ ☐	
263	Doug 29	02	05:00	BE	ROS	/	53°38.200	129°11.560	374		1093	0	CH	☒ ☐	
			05:08	BO			°38.210	°11.540	376	376	-			☐ ☐	5 rnab
			05:16	EN			°38.210	°11.560			-			☐ ☐	
264	Doug 26	02	05:53	BE	ROS	US	53°40.370	129°07.370	394		1093	1	CH	☒ ☐	→
			06:02	BO			°40.360	°07.363	384	390	-			☐ ☐	
			06:10	EN			°40.360	°07.370			-			☐ ☐	
265	Doug 16	02	07:26	BE	ROS	US	53°46.76	128°54.715	386		1094 1098	5	CW	☒ ☐	
			07:34	BO			°46.789	°54.818		384	-			☐ ☐	
			07:43	EN			°46.813	°54.830			-			☐ ☐	
266	Doug 12E	02	08:17	BE	ROS	/	53°47.659	128°48.884	327		/	/	CH	☒ ☐	→
			08:25	BO			°47.665	°48.874	326	323	-			☐ ☐	
			:	EN			° .	° .			-			☐ ☐	
267	Doug 12D	02	08:48	BE	ROS	/	53°47.950	128°49.610	360		/	/	CH	☐ ☐	
			08:55	BO			°47.980	°49.650	360	356	-			☐ ☐	
			09:02	EN			°48.000	°49.680			-			☐ ☐	
			:				° .	° .			-			☐ ☐	

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
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: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

- originally saved as 2020-069-02634
  ↳ changed to 264

EVENT 264 - error in naming fish. Need to check

Day 12 E - Foghorn Leghorn DO prefish seen in prefish first day Day Channel

Book #2

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month AUGUST **Year** 2020 **Vessel** JP TULLY **Cruise ID** 2020-069

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
268	DOUG12A	02	09:25	BF	ROS	/	53° 48.660	128° 51.730	329		/	/	CH	☐☐	→
			09:35	BO			°48.690	°51.720	326	325	-			☐☐	
			09:41	EN			°48.692	°51.722			-			☐☐	
269	DOUG12B	02	09:56	BE	ROS	/	53° 48.510	128° 51.210	346		/	/	CH	☐☐	started raising
			10:04	BO			°48.500	°51.180	346	342	-			☐☐	level somewhere
			10:11	EN			°48.490	°51.170			-			☐☐	
270	DOUG12	02	10:25	BE	ROS	US	53° 48.250	128° 50.460	352		1109-1109	6/	CH	☐☐	See Comment →
			10:33	BO			°48.250	°50.460		349	-			☐☐	
			10:42	EN			° .	° .			-			☐☐	
271	DOUG12		10:53		DRF		53° 47.595	128° 49.025	352	—	-			☐☐	→
272	DOUG8A	02	11:35	BE	ROS	/	53° 52.504	128° 47.078	241		/	/	CH	☐☐	
			11:41	BO			°52.514	°47.048	244	247	-			☐☐	
			11:46	EN			°52.516	°47.041			-			☐☐	
273	DOUG8B	02	11:59	BE	ROS	/	53° 52.435	128° 46.836	280		/	/	CH	☐☐	raining
			12:06	BO			°52.445	°46.781	281	277	-			☐☐	
			12:12	EN			°52.440	°46.751			-			☐☐	
274	DOUG8	02	:	BE	ROS	US	53° 52.248	128° 46.466	296		1110-	1		☒☐	
			12:31	BO			°52.237	°46.454	296	292	-			☐☐	
			12:37	EN			53° 52.228	°46.484			-			☐☐	

Event Type:
T = Bottle cast (no CTD)
= Standalone CTD
= CTD in Rosette
= 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
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: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

EVENT 268 · S1 + S2 very different Down to 10m to seawall field.
Realized pump off. Back to surface to start profile

(*) Event 270 - surface bottles were not tripped.
Use this cast as CTD down only - ignore bottle trips
This station will be repeated on next trip down
the inlet

EVENT 271
SCT 1135, 1137
CAST Davis JJCS1F

Code Davis 3005340602602 30

book#2

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month AUGUST | **Year** 2020 | **Vessel** JP TULLY | **Cruise ID** 2020-069

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
275	~~DOUG8B~~	2	12:53	BE	ROS	/	53°52.090	128°46.100	298		/	/	CH	☒☐	☆ →
	DOUG8D		13:00	BO			°52.080	°46.130	298	295	-			☐☐	
			13:05	EN			°52.050	°46.166			-			☐☐	
276	DOUG8E	2	13:51	BE	ROS	/	53°51.950	128°45.701	296		/	/	CH	☐☐	-watch handover
			:57	BO			°51.937	°45.696		292	-			☐☐	SP
			14:03	EN			°51.925	°45.694			-			☐☐	
277	DOUG8F	02	14:21	BE	ROS	—	53°51.800	128°45.389	194		—	—	SP	☐☒	
			14:25	BO			°51.808	°45.391		192	-			☐☐	
			14:28	EN			°51.809	°45.384			-			☐☐	
278	DOUG6	02	14:58	BE	ROS	US	53°54.020	128°44.130	257		1111-1117	7	SP	☑☐	
			15:03	BO			°54.060	°44.170		253	-			☐☐	
			15:11	EN			°54.060	°44.190			-			☐☐	
279			:		MOR		° .	° .			-			☐☐	
280	KITI	02	15:59	BE	ROS	US	53°56.380	128°41.190	203		1118-1131	14	SP	☒☐	
			16:04	BO			°56.400	°41.130		199	-			☐☐	
			16:10	EN			°56.430	°41.170			-			☐☐	
281	KITI		16:23		DRF		53°56.430	128°41.170			-		CC	☐☐	SCT 1/42
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	

Event Type:
= Bottle cast (no CTD)
= Standalone CTD
= CTD in Rosette
= 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
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: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

EVENT 275 USED WRONG STATION NAME IN HEX FILE.
SHOULD BE DOUG8D

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 Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
282	Doug2-A	02	16:54	BE	ROS		53° 57.860	128° 41.780	163		-		LP	☑ ☐	
			16:58	BO			° 57.870	° 41.790		159	-			☐ ☐	
			17:01	EN			° 57.880	° 41.790			-			☐ ☐	
283	Doug2-B	02	17:13	BE	ROS		53° 57.985	128° 41.339	173		-		LP	☑ ☐	
			17:17	BO			° 57.882	° 41.346		169	-			☐ ☐	
			17:20	EN			° 57.881	° 41.356			-			☐ ☐	
284	Doug2	02	17:31	BE	ROS		53° 57.800	128° 40.960	176		-		LP	☑ ☐	bottles @2
			17:35	BO			° 57.800	° 40.940		173	-			☐ ☐	
			17:40	EN			° 57.810	° 40.960			-			☐ ☐	
285	Doug2-D	02	18:02	BE	ROS		53° 57.750	128° 40.480	176		-		LP	☑ ☐	
			18:06	BO			° 57.750	° 40.490		173	-			☐ ☐	
			18:09	EN			° 57.760	° 40.500			-			☐ ☐	
286	Doug2-E		18:20	BE	ROS		53° 57.720	128° 40.00	176		-		LM+	☑ ☐	
			18:25	BO			° 57.720	° 40.00		172	-		LP	☐ ☐	
			18:29	EN			° 57.720	° 40.00	176		-			☐ ☐	
287	Doug2-F	02	18:43	BE	ROS		53° 57.660	128° 39.590	119		-		LP	☑ ☐	
			18:46	BO			° 57.660	° 39.590		123	-			☐ ☐	
			18:49	EN			° 57.670	° 39.590			-			☐ ☐	
			:				° .	° .			-			☐ ☐	

Event Type:
= Bottle cast (no CTD)
= Standalone CTD
= CTD in Rosette
= 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
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 Information Latitude	Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
288	DOUG4E	02	19:21	BE	ROS	—	53°55.450	128°41.350	215		—	—		☑☐	ship "DougSK"
			19:27	BO			53°55.460	128°41.360		211	-			☐☐	
			19:31	EN			53°55.480	128°41.360	216		-			☐☐	
289	DOUG4D	02	19:39	BE	ROS	—	53°55.490	128°41.710	219		—	—		☑☐	
			19:45	BO			53°55.510	128°41.720		213	—	—		☐☐	
			19:49	EN			53°55.530	128°41.720	218		-			☐☐	
291	DOUG4B	02	20:28	BE	ROS	—	53°55.710	128°42.560	211		-			☑☐	ship
			20:34	BO			53°55.720	128°42.570		205	—	—		☐☐	
			20:37	EN			53°55.730	128°42.580	210		-			☐☐	
292	Doug4A	02	20:52	BE	ROS	—	53°55.860	128°42.950	35		—	—		☑☐	
			20:55	BO			53°55.860	128°42.960		33	-			☐☐	
			20:56	EN			53°55.870	128°42.970			-			☐☐	
290	Doug4	02	20:00	BE	ROS	US	53°55.620	128°42.140	220		1118 - 1123	6	L,M	☑☐	filled sample log
			20:05	BO			53°55.630	128°42.150		216	-			☐☐	not this sheet
			20:11	EN			53°55.640	128°42.140			-			☐☐	
293	Doug11	02	21:49	BE	ROS	US	53°49.850	128°49.250	327		1124-1130		L,M	☑☐	
			21:57	BO			°49.850	°49.280		322	-			☐☐	
			22:05	EN			°49.840	°49.260			-			☐☐	
294	FOCI-4	02	23:23	DE	MOR	—	53°44.099	129°01.434	369		—	—		☐☐	

Type:
T = Bottle cast (no CTD)
= Standalone CTD
= CTD in Rosette
= 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
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 Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
295	FOC1	02	23:24	DE	DRF	—	53°44.099	129°01.434			—	—		☐☐	SCT 1139
296	FOC1A	02	23:38	BE	ROS	—	53°44.580	129°02.370	264		—	—	L.M	☑☐	
			23:45	BO			°44.540	°02.410		267	-			☐☐	
			23:49	EN			°44.520	°02.440			-			☐☐	
297	FOC1B	03	00:06	BE	ROS	—	53°44.335	129°2.300	356		—	—	LP	☑☐	
			00:13	BO			°44.352	°2.410		354	-			☐☐	
			00:	EN			°44.	°2.			-			☐☐	
298	FOC1	03	00:36	BE	ROS	US	53°44.012	129°01.901	360		1131-1135		L.M	☑☐	South of moorings by 2 cables.
			00:44	BO			°43.982	°01.920		355	-			☐☐	
			00:52	EN			°43.943	°01.928			-			☐☐	
299	FOC1D	03	01:07	BE	ROS	—	53°43.883	129°01.471	370		—	—	L.M	☑☐	
			01:15	BO			°43.871	°01.475		367	-			☐☐	
			01:22	EN			°43.866	°01.487			-			☐☐	
300	FOC1E	03	01:35	BE	ROS		53°43.760	129°01.230	241		-		L.M	☑☐	
			01:42	BO			53°43.760	129°01.230		248	-			☐☐	
			01:45	EN			°43.760	°01.220			-			☐☐	
301	DEC15	03	03:11	BE	ROS		53°42.829	128°48.635	314		1136-	1	CM	☑☐	
			03:18	BO			°42.838	°48.630	313	309	-			☐☐	
			03:26	EN			°42.836	°48.635			-			☐☐	

Event Type:
BOT = Bottle cast (no CTD)
TD = Standalone CTD
= CTD in Rosette
= 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
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 Information Latitude	Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
302	DEC19	03	04:06	BE	ROS	US	53°39.310	128°52.340	26.4		1137	1	CH	☒ ☐	
			04:13	BO			°39.310	°52.320	204	261	-			☐ ☐	
			04:19	EN			°39.330	°52.300			-			☐ ☐	
303	DEC19	03	04:24	BE	DRF	—	53°39.219	128°52.214	256		—		CH	☐ ☐	SET 1141
5304	LOOP	03	04:46		LOOP	—	53°35.981	128°50.586	—	—	5304	3		☐ ☐	2xCTD 1xSal.
305	~~DEC25~~	03	05:10	BE	ROS	US	53°34.200	128°51.038	163		1138-1140	3	CH	☐ ☐	
~~306~~	DEC26		05:15	BO			53°34.195	128°51.044	163	160	-			☐ ☐	5 mab
			05:20	EN			°34.192	°51.050			-			☐ ☐	
307	Dec 26	03	05:25	BE	DRF	—	53°34.200	128°51.057	163		-			☐ ☐	SQX2 →
308	Dec 26	03	05:26	BE	DRF	—	53°34.229	128°50.963	163		-			☐ ☐	Davis drift/ 3005340600608b0
309	GC28	03	06:05	BE	ROS		53°32.190	128°46.148	199		1141-1145	5	CH	☒ ☐	→
			06:10	BO			°32.186	°46.139	179	195	-			☐ ☐	
			06:16	EN			°32.183	°46.146			-			☐ ☐	
310	GC28	03	06:22	BE	DRF	—	53°32.145	128°46.152	199		—	—	CH	☐ ☐	NOTES →
311	GC31	03	06:48	BE	ROS		53°31.556	128°43.571	210		-		CH	☒ ☐	
			06:53	BO			°31.542	°43.572		205	9114	1	CH	☒ ☐	Note →
			06:59	EN			°31.529	°43.561			-			☐ ☐	
			:				° .	° .			-			☒ ☐	
			:				° .	° .			-			☐ ☐	

Event Type:
BOT = Bottle cast (no CTD)
CTD = Standalone CTD
= CTD in Rosette
= 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
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: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

This page is for any notes or observations

EVENT 305 - station name might be DEC25 in hex file. Should be DEC26

EVENT 306 - no event

★ EVENT 309 ★ Rosetta hex file named 310.hex
Rosetta sheet says Event 309.
sorry. 309 is correct.

EVENT 307
SCT 1143, 1136

IRIDIUM SATELLITE LLC
SBDN9602D
SN: J1CQQ4
IMEI: 300534060060860

EVENT 310 CODE Davis Drifter

IRIDIUM SATELLITE LLC
SBDN9602D
SN: J1CS1K
IMEI: 300534060166740

EVENT 310 SCT 1124, 1131

EVENT 311 - correcting sample # for repeat value
Should have been 1146

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 Latitude	Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
312	GC38	03	07:51	BE	ROS	US	53°27.000	128°36.030	244		1147-1148	2	CH	☒ ☐	
			07:56	BO			°26.990	°36.000	243	240	-			☐ ☐	
			08:03	EN			°26.990	°35.990			-			☐ ☐	
313	GC44	03	09:00	DE	GRAB	/	53°25.915	128°~~26~~.972	394	420	- /	/	CW	☐ ☐	
314	GC44	03	09:16	BE	ROS	US	53°25.890	128°26.980	392		1149-1154		CH	☒ ☐	
			09:25	BO			°25.880	°26.940	391	391	-			☐ ☐	6 mab
			09:35	EN			°25.900	°26.900			-			☐ ☐	
315	GC51	03	10:30	BE	ROS	US	53°28.350	128°18.930	481		1155-1156	2	CH	☐ ☐	→
			10:39	BO			°28.348	°18.950	489	493	-			☐ ☐	5 mab
			10:50	EN			°28.350	°18.940			-			☐ ☐	
316	GC60	03	11:56	BE	ROS	US	53°25.700	128°05.420	263		1157-1163	7	CH	☒ ☐	→
			12:02	BO			°25.700	°05.420	263	261	-			☐ ☐	5 mab
			12:11	EN			°25.690	°05.390			-			☐ ☐	
317	GC68	03	13:05	BE	ROS	US	53°20.660	128°59.680	222		1164-1165	2	CH	☒ ☐	
			13:11	BO			°20.660	°59.670	222	219	-			☐ ☐	5 mab
			:	EN			°20.660	°59.680			-			☐ ☐	
318	GC74	03	14:10	BE	ROS	US	53°15.820	127°55.480	135		1166-1172	7	SP	☒ ☐	→
			14:12	BO			°15.810	°57.470		130	-			☐ ☐	
			14:24	EN			°15.790	°55.500			-			☐ ☐	

...ttle cast (no CTD)
...dalone CTD
...n Rosette
...Fish

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
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: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

Event
315 - surface salinity < 1 psu
DO profile very wiggly between 40 - 300 m

Event 316 surface salinity < 1 psu
Error message about line length or scan length exceeded. occured at 6th bottle
Hit ok + allowed me to fire bottles
It said data aquisition was continuing

EVENT 317 surface salinity ~0.35 psu
6 m thick fresh layer

human error: missed tripping bottom bottles on b-5. went up to 65m then back to b-5 (130m) to trip bot 1 & 2. Then back to 65m to trip bot 3.

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 Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
319	KITLOPE	03	15:06		SAM		53° 14.778	127° 56.610			1173-1175	3	SP	☐☐	→
320	VP46	03	20:11	BE	ROS		53° 32.840	128° 53.150	207		—	—	LM	☑☐	
			20:16	BO			° 32.860	° 53.160		203	-			☐☐	
			20:20	EN			° 32.860	° 53.140			-			☐☐	
321	VP39	03	21:20	BE	ROS		53° 30.490	129° 3.800	120		—	—	LP	☑☐	
			21:23	BO			° 30.490	° 3.790		114	-			☐☐	
			21:25	EN			° 30.480	° 3.790			-			☐☐	
322	UC31	03	21:51	BE	ROS	US	53° 32.190	128° 59.920	39		1176-1176		LM	☑☐	
			21:53	BO			°32.170	°59.930		34	-			☐☐	
			21:54	EN			°32.180	°59.920			-			☐☐	
323	UC31	03	21:55	DE	DRF		53°32.180	128°59.920	40		—	—	L.M	☐☐	3 drifters →
324	UC43	03	22:22	BE	ROS		53° 29.060	128° 58.750	112		—	—	L.M	☑☐	
			22:26	BO			°29.030	°58.750		108	-			☐☐	
			22:28	EN			°29.010	°58.740			-			☐☐	
325	UC45	03	22:59	BE	ROS		53° 26.090	128° 55.480	399		-		LP	☑☐	
			23:08	BO			° 26.080	° 55.420		400	-			☐☐	
			23:14	EN			° 26.070	° 55.430			-			☐☐	
326	UC50	03	23:57	BE	ROS		53° 21.160	128° 54.380	468		-		DS	☑☐	
		04	00:08	BO			° 21.160	° 54.390		465	-			☐☐	

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

LOOP = Sea Water Loop
MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter
SAM = SAM

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
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:

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

event 319
→ S. Page & L. Perfault boat trip to mouth of Kitlope R for DOC samples for Cindy and Skeena Fisheries Commission
- Ora dipped for surface sample from workboat. Very high flows

300234066924870

1120,
1130, and →

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month August **Year** 2020 **Vessel** Tully **Cruise ID** 2020-069

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
326	UC50	04	00:16	EN	ROS		53° 21.150	128° 54.410			-			☐☐	
327	MKY 1	04	01:26	BE	ROS		53° 17.870	129° 06.770	506		—	—	L.M	☑☐	
			01:38	BO			°17.900	°06.720		508	-			☐☐	
	MKY 1		01:48	EN	ROS		53° 17.940	129° 06.800			—	—	L,M	☑☐	
328	SC58	04	03:52	BE	ROS	/	53°16.535	129° 25.375	525		/	/	CH	☒☐	
			04:03	BO			°16.513	°25.327	526	524	-			☐☐	5 mab
			04:17	EN			°16.499	°25.241			-			☐☐	
329	SC61	04	04:49	BE	ROS	US	53°12.674	129° 25.136	499		1177-1195	19	CH	☒☐	
			05:00	BO			°12.688	°25.150		496	-			☐☐	
			05:23	EN			°12.720	°25.110			-			☐☐	
330	SC61	04	05:29	BE	DRF	—	53°12.618	129° 25.028	499	—	—	—	CH	☐☐	2x SCT + 1 Davis drifters →
331	SC69	04	06:31	BE	ROS	US	53°04.900	129° 19.540	684		1196-1214	19	CH	☒☐	
			06:45	BO			°04.890	°19.590	684	687	-			☐☐	5 mab
			07:13	EN			°05.010	°19.880			-			☐☐	
332	CMP1	04	08:01	BE	ROS	/	53° 0.452	129° 15.539	368		/	/	CH	☒☐	
			08:08	BO			° 0.450	°15.550	368	367	-			☐☐	5-6 mab
			08:16	EN			° 0.470	°15.590			-			☐☐	
332	CMP1	04	08:21	BE	DRF		53° 00.437	129° 15.527	368		-	—	CH	☐☐	2x SCT + 1 Davis drifter
			:				° .	° .			-			☐☐	

Event Type:
BOT = Bottle cast (no CTD)
CTD = Standalone CTD
CTD in Rosette
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
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: _____

Aug 4, 2020 0200 Tully 1 dispatched to rescue 2 Code Davis drifters -D & SUCCESS!
PAR Sensor removed before event 328

→ SCT 1133 + 1134 Davis 300234066036160

→ SCT 1138+1140, Davis 300234066033170

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month August **Year** 2020 **Vessel** Tully **Cruise ID** 2020-069 Page 24 of _____

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Positional Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
333	CAM2	04	09:02	BE	ROS	/	52 °55.00	129 °15.570	240		-	Ø	CW	☑ ☐	
			09:07	BO			°55.00	°15.550		236	-			☐ ☐	
			09:12	EN			°55.00	°15.520			-			☐ ☐	
334	CAM1	04	10:37	BE	ROS	/	52 °46.910	129 °30.050	429		/	/	CH	☑ ☐	
			10:46	BO			°46.870	°30.030	429	427	-			☐ ☐	
			10:55	EN			°46.860	°29.980			-			☐ ☐	5 mab
335	CAM1	04	11:14	DE	GRAB	-	52 °46.838	129 °29.955	429	435	-		CW	☐ ☐	
			:				° .	° .			-			☐ ☐	
336	HEC1	04	12:50		NET		52 °49.235	129 °50.952	169 171		-			☐ ☐	
			12:56				52 °49.135	129 °51.104		160 155	-		CW KH	☐ ☐	bonjo
			12:59				52 °49.093	129 °51.204			-			☐ ☐	
337	Hec 1	04	13:52	BE	ROS		52 °49.228	129 °50.846	150		1215-1228		LP	☑ ☐	oxygen sampling cancelled
			13:57	BO			°49.229	°50.840		156	-			☐ ☐	
			14:08	EN			°49.226	°50.807			-			☐ ☐	
338	GN02	04	:	BE	Net		° .	° .			-			☐ ☐	
			:	BO			° .	° .			-			☐ ☐	
			:	EN			° .	° .			-			☐ ☐	
339	GN02	04	18:42	BE	ROS		52 °10.190	129 °37.450	218		-			☐ ☐	
			18:47	BO			°10.220	°37.420		215	-		LP	☐ ☐	

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

Notes: _____

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

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

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: Latitude	Positional Information: Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
339	GNO2	04	18:50	EN	ROS		52° 10.230	129° 37.400	218	215	-		LP	☑ ☐	
340	TN-1	04	23:42	BO			52° 25.834	128° 33.336	116	120	-			☐ ☐	Mud grab
341	TN-2	04	23:55	BE	ROS	US	52° 25.780	128° 33.340	195		1229-1229	1	L.M	☑ ☐	
			23:59	BO			°25.780	°33.310		195	-			☐ ☐	
			00:03	EN			°25.780	°33.340			-			☐ ☐	
342	TN-2		00:13	BO	Grab		°25.782	°33.381	180	190	/			☐ ☐	190m wire out
343	TN-3		00:30	BO	Grab		52° 25.769	128° 33.358	192	193.	/			☐ ☐	
344	TN-4		00:50	BO	Grab		52° 25.776	128° 33.268	226	23	/			☐ ☐	
345	QCSDOC 6	05	04:09	BE	ROS	/	51° 55.340	128° 47.170	137		/	/	CH	☒ ☐	
			04:13	BO			°55.340	°47.170	134	130	/	/		☐ ☐	5 rods
			04:16	EN			°55.350	°47.160			-			☐ ☐	
346	QCSDOC 5		04:42	BE	ROS	/	51° 55.122	128° 44.090	143		/	/	CH	☒ ☐	
			04:46	BO			°55.128	°44.116	143	140	-			☐ ☐	5 rods
			04:49	EN			°55.134	°44.094			-			☐ ☐	
347	QCS DOC 5		05:15	BE	ROS	/	51° 54.950	128° 41.160	148		/	/	CH	☐ ☐	
			05:22	BO			°54.950	°41.140	148	145	-			☐ ☐	5 rods
			05:25	EN			°54.950	°41.170			-			☐ ☐	
			:				° .	° .			-			☐ ☐	
			:				° .	° .			-			☐ ☐	

cast (no CTD)
e CTD
te

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
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: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

Set

sandy rubble of shell debris and dead sponges

→ wrong location on TN1 = did not retain grab

· E-DNA with TN-2

EVENT 345 surface salinity ~ 31.3
345-347 ~~Sam~~ broad subsurface chl-a max Peak ~ 3 Set ~ 20 m thick

LBA-2 Mooring Recovery Part II August 6, 2020

1425 - Send 16EE 955 864 755
Send 16EE+1655 Received & Executed twice

1429 - 472 468 466 467 465 464 465 463 462 462 461 461 461 462 462 463

Turn to cross path at 90° to previous path

1440 - 501 492 481 476 472 470 467 466 464 463 462 462 462 Mooring is still roughly at 50° 55.040'N 127° 40.363'W

1452 - Set up for drag

- Send 16EE + 1649 → 5039 - release is upright

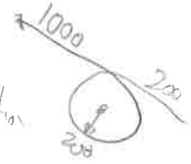
1500 - Start paying out dragging gear For counter clockwise drag

1645 - Unsuccessful drag

1730 - Set up for Second Drag

1830 - two loops, 2445 m out attach gifford kellet weight & start heaving in

- at 1 cable



1930 unsuccessfull

Drag #3 - Start 200 bar behind position & 200 m to the right - steam in 200 m circle around position

2200 2475 m Time out

2245 - Steam 2 km away From position

2215 - Haul In

2300 - heavy load at times