

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2018-63
C30

DATE:

5 July 2018

From:

To:

24 July 2018

VESSEL:

CCGS Sir Wilfrid Laurier

PROJECT(S):

Canada's Three Oceans / DBO

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

WaterProperties.ca

CCGS SIR WILFRID LAURIER

CREW LIST

E: roc3@dfp-mpo.gc.ca

03 July 2018

14 August 2018

DATE: 07 July 2018

E-mail: DFO.IceOpsArctic.GlaciopsArctique.MPO@dto-mpo.gc.ca
E-mail: XCA-MontrealOps@dto-mpo.gc.ca

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POSITION

1 Commanding Officer
2 Chief Officer
3 2nd Officer
4 3rd Officer
5 Boatswain
6 Winchman
7 Seaman
8 Leading Seaman
9 Leading Seaman
10 Leading Seaman
11 Seaman
12 Leading Seaman
13 Seaman
14 Chief Engineer
15 Senior Engineer
16 2nd Engineer
17 3rd Engineer
18 Electrician
19 Engine room Assistant
20 Engine room Assistant
21 Engine room Assistant
22 Logistics Officer
23 Chief Cook
24 Clerk/Storekeeper
25 Cook/Steward
26 Steward
27 Steward
Supernumeraries:
28 CCG Cadet
29 CCG Cadet
30 Health Officer
31 Electronics Technician
32 Ice Observer
33 Chief Scientist
34 Scientist
35 Scientist
36 Scientist
37 Scientist
38 Scientist

Complement = 38
Date: 07 July 2018

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S. Dockerill - Commanding Officer

NUMBER	INCUMBENT	Cabin
SWL-CO-11	Dockerill, Simon	313
SWL-OFF-7	Copping, Ian	304
SWL-OFF-4	Banfal, Thomas	307
SWL-OFF-3	Scurr, Kaitlin	311
SWL-DED-6	Westle, Kurt	535
SWL-DED-4	Danshin, Joseph	626
SWL-DED-2	Smith, Jasper	617
SWL-DED-3	Baril-Dionne, Andre-Anne	609
SWL-DED-2	Guy, Colin	628
SWL-DED-3	Weisgerber, Spencer	622
SWL-DED-2	Faville, Ian	612
SWL-DED-2	Prosser, Claire	620
SWL-DED-2	Balleen, Michael	620
SWL-CE-10	Arsenault, Jean-Luc	550
SWL-ENG-7	Nordstrom, Tavis	546
SWL-ENG-4	Mayer, Michael	541
SWL-ENG-3	Williams, Brett	537
SWL-ELEC-5	Stubbington, Nicholas	522
SWL-ENG-3	Tremeeer, Dylan	652
SWL-ERD-3	Hagedorn, Kiefer	644
SWL-ERD-3	Loucks, Joel	650
SWL-LOG-5	Taylor, Miles G.	520
SWL-STD-5	Steed, Harold	657
SWL-STD-4	Ivanisevic, Justine	532
SWL-STD-3	Lynch, Herbert	655
SWL-STD-1	Vaandering, Nathaniel	642
SWL-STD-1	Dack, Stephen	642
Mount, Emily		510
Harrison, Paige		510
Khudra, Gulshan		524
Cameron, Andrew		504
Cournoyer, Alexandra		514
Nelson, John		516
Quesnel, Sarah-Ann		508
Zimmerman, Sarah		512
Wyatt, Shea		539
Nickoloff, Gina		644
Immonen, Chloe		647

**e casts, hydro
is an invaluable
urch has been
e this logbook (and
ily basis. This
during their watch.**

awater loops or
, fish set). If two
plus a bottle).

594
2
6438
150.363.6560
363.6815
63.6544
33.6566
3868

2nd Leg Scientific Personnel: _____
Name _____ Watch Cabin _____
Chief Scientist: _____
Name _____ Watch Cabin _____

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

1st Leg Scientific Personnel: _____
Name _____ Watch Cabin _____
Chief Scientist: _____
Name _____ Watch Cabin _____

**** Chief Scientist to complete section below OR cut and tape from cruise plan ****

Captain: Simon Decker, II
Second Officer: Kaitlin
Third Officer: Tom
Chief Engineer: _____
Mission Participants / Agencies: DFG-IOZ / Uvic / UMCS / Karen Frey
Tackie Grebowicz
Lee Cooper
Baron

First Officer: Chief Mate Ian Goppig

**** 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: WABCTOS 104876

Data acquisition program: SBE Seave v7.26.6.26

CTD deck unit make: SBE 11+ model: _____ serial number: 800

Primary CTD

Make: SBE model: 9+ serial number: 941

Primary temperature serial number: 5048 ✓

Primary conductivity serial number: 3579

Secondary temperature serial number: 5073 ✓

Secondary conductivity serial number: 3581

Transmissometer: WETLABS Model: _____ s/n: 1666 ✓

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

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

Fluorometer: Model SeaPoint Cable gain: 3X s/n: 3575 P, S or NO pump? ✓

Oxygen sensor: SBE Model: SBE 43 s/n: 1117 P, S or NO pump?

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

Other sensors: Secondary Pump ~~ST 90544~~ s/n: 55248 P, S or NO pump?

Other sensors: Primary Pump ST 90544 s/n: 55043 P, S or NO pump?

Other sensors: PAR QSP 2300 s/n: 70123 P, S or NO pump? ✓

Other sensors: Altimeter Datasources s/n: 40853 P, S or NO pump?
PSA-

Secondary CTD

Surface Reference PAR s/n 20281

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): 1m to center of Niskin

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

Rosette Setup:
Number of bottles: 24
Manufacturer: OceanTest Equipment (Florida)
Volume of bottles (litres): 10

Winches:

1. Make: Haulbold + Serial #: 17029 Used for: CTD
2. Make: Model: Serial #: Used for:
3. Make: Model: Serial #: Used for:

Comments on performance during cruise (comments should also be reflected in the post-cruise report):

316 wire x 4825m March 2018 service

Salinometer:

Make: 214 Model: Serial Number:
Comments on performance during cruise (comments should also be reflected in the post-cruise report):

Oxygen Kits:

Make: see Report Model: Kit Number:
Make: Model: Kit Number:
Comments on performance during cruise (comments should also be reflected in the post-cruise report):

Thermosalinograph System (SBE21):

Program: Version:
Sampling interval (seconds):
Fluorometer sensor serial number:
Comments on performance during cruise (comments should also be reflected in the post-cruise report):

ADCP Setup:

Computer time zone: User Exits: Name: Exit points:
Sampling interval (sec): Name: Exit points:
Bin Length: (2^{nx}): Name: Exit points:
Pulse Length: Work File:
Buffer (bytes):
Gyro Offset:
Comments on performance during cruise (comments should also be reflected in the post-cruise report):

CTD Test Cast Information

Test Cast along side? Yes ☐ No ☐
Comments
Test Cast in Saanich Inlet or other location? Yes ☐ No ☐
Comments

CTD pressure reading on deck (db), before cast: after cast:
Pumps working? Yes ☐ (0011) No ☐ (0010)

Secondary Temp - Primary Temp: (Average from the mixed region)
Secondary Salinity - Primary Salinity: (Average from the mixed region)

Additional Comments:

Scientific Equipment Used During Cruise

This sheet allows you to enter all of the equipment used while on board. Please use the separate CTD sheet for entry for SBE 9/16/19/25.

Other CTD units:

RBR Serial Number: _____ Sensors: _____

Others: _____

Plankton Nets:

Bongo #1 Frame Size: _____ cm Mesh: _____ μ m Flowmeter: _____
Bongo #2 Frame Size: _____ cm Mesh: _____ μ m Flowmeter: _____
_____ Frame Size: _____ cm Mesh: _____ μ m Flowmeter: _____
_____ Frame Size: _____ cm Mesh: _____ μ m Flowmeter: _____

Multinet ☐ BIONESS ☐ Neuston ☐ Others: _____

Trawl Gear:

Midwater Trawls: SOG ☐ Highseas ☐ Pelagic ☐ Other: _____

Bottom Trawls: Atlantic Western IIA ☐ Yankee 36 Hard & Soft Bottom ☐ Other: _____

American Shrimp Trawl ☐

Notes: _____

Trawl Doors: USA Jet ☐ Tyburon ☐ _____

Sounders : Wesmar 380 ☐ Others: _____

Acoustics:

Echosounder #1 _____ Frequencies (KHz): 12 ☐ 18 ☐ 38 ☐ 70 ☐ 120 ☐ 200 ☐

Others: _____

Echosounder #2 _____ Frequencies (KHz): 12 ☐ 18 ☐ 38 ☐ 70 ☐ 120 ☐ 200 ☐

Others: _____

Software & Notes: _____

Other Gear in Operation:

1. _____
2. _____
3. _____
4. _____
5. _____

Ocean Sciences Division, Institute of Ocean Sciences

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DAILY SCIENCE LOG

Cruise ID 2018-63

Vessel Sir Wilfrid Laurier

Year 2018

Month July

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/Fl Cleaned	Comments
			:				Latitude Longitude							
	Leave Victoria		:		1915	LOCAL	6 July 2018 UTC	7 July 2018		0915				
	SCS system started		:											
	7 02:48						48 23.094 123 14.550							file at
	Set server clock to		:											
	at 0:2 49													
			:		GGIA	OK								
			:		ZDA	"								
			:		VTG	"								
			:		AVRTE	"								
			:		HDT	"								
			:		TSG		Water not running yet.							
			:		Truewind	"								
			:		SDDPT		closed + Opened GPS feed and now its good							Under Hull + usky Sound Speed 1500?
			:		Knudsen		not powered on yet - wait 'til later							
			:		RMC	"								
			:											

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

Notes:

Produced by the Water Properties Group, IOS
 WaterProperties.ca
 Version: 14 February 2013

7411 415

Ocean Sciences Division, Institute of Ocean Sciences

DAILY SCIENCE LOG

Month			July		Year		2018		Vessel		Laurier		Cruise ID		2018-63	
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	
0001	TEST	7	18:01	BE	ROS	US	49° 56.084	125° 7.266	125		1 - 24	24	SAS	□□	Test cast 0.54 Quadra Island	
			:	BO			°	°		80.0	-			□□	YAV all 23	
			18:19	EN			49° 55.932	125° 7.217	117		-			□□	bottles closed in drifter	
			:				°	°			-			□□		
		8	:				ship stopped in Port Hardy for fueling							□□		
		9	02:22				ship under way again from Port Hardy							□□		
			:				seawater loop started back up							□□		
(2)	CST-1	9	16:15	BE	UCTD		51° 52.446	131° 39.358		498				□□	UCTD 2018-63-0002 asc	
2	CST-1	9	16:15	BE	ROS	US	51° 52.446	131° 39.358	2040		25 - 48	24		□□	UCTD stranded to frame BUT	
			16:29	BO			51° 52.481	131° 39.332		499	-			□□	tape was blocking flow	
			17:01	EN			51° 52.603	131° 39.295			-			□□		
3	CST-1	9	16:12	BE	ADCP		on station							□□		
			17:01	EN			°	°			-			□□	385m spooled on UCTD 2018-63-0004	
4	-	9	21:07	BE	UCTD		52° 9.5	133° 2.5		400	-		SZ	□□	415m spooled on UCTD 2018-63-0005 asc	
5	-	10	03:33	BE	UCTD		52° 33.532	135° 07.5872		387	-		SAS	□□	UCTD-1 C3-40003 SN151053214	
6	-	10	03:35	BE	UCTD		52° 34.7020	135° 15.8485	3425	1100	151053214		SZ	□□		
7	-	10	09:00	BE	UCTD		52° 55.016	137° 11.922	3460	480	-		SZ	□□		
8	-	10	15:08	BE	UCTD		53° 14.371	139° 18.694		N/A	-		SAS	□□	UCTD 2018-63-0008 asc	
9	-	10	15:23	BE	UCTD		53° 15.121	139° 23.081	3525	400	-		SAS	□□	UCTD 2018-63-0009 asc	

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

Time Code: 1

Radio, Emission Method: 1

Event Type:
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

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

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

Notes:

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

Produced by the Water Properties Group, IOS
Version: 14 February 2013
WaterProperties.ca

Event 4: UCTD 385m wound on bobbin, ran ~ 1'55",

In water @ 224 scan
1967 scan @ 400 back at surf @ 6000 scan
so 109 seconds to go from surf to 400.

Event 5: Whales in area. ^{From to} 100-200m, Fentoe in T. Eddy? 415m wound on bobbin but max depth of 385. Allow to Fall longer?

Battery still at 3.84v No need to charge.

Event 8: deployed UCTD with winch in Full position, so stopped @ and of spooled line. Retrieved, re-spooled and re-deployed (event 9).

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month			Year		Vessel		Cruise ID		2018-63					
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments	
							Latitude	Longitude	Bottom Depth					
10	-	10	21:02	DE	UCTD	-	41° 12.1855' S 27.888° W	443	-		SAQ	☐	UCTD 2018-63-0010, asc	
11	-	10	21:20	DE	XCTD	-	41° 18.1874' S 28.715° W	1000	15105323 XCTD-1		SZ	☐	2pm 1000 drop	
12	-	11	03:02	BE	UCTD	-	53° 40.773' N 15.0251° W	437	-		SAQ	☐	UCTD 2018-63-0012, 8pm drop asc	
13	-	11	08:33	DE	ARGO	-	53° 51.481' N 145° 01.026° W	-	SN 597 IMEI 30023406634	06634	SZ/JN	☐	First Argo	
14	-	11	08:36	DE	XCTD	-	53° 51.570' N 145° 01.882° W	1100	15105322 XCTD-1		SZ	☐		
15	-	11	08:46	BE	UCTD	-	53° 51.745' N 145° 04.601° W	544	-		SZ	☐	UCTD 2018-63-0015 ~1300 drop →	
16	-	11	15:45	DE	ARGO	-	54° 2.7533' N 147° 36.1761° W	-	300234066342730 SN 601	42730	SZ/SAQ	☐		
17	-	11	15:47	DE	XCTD	-	54° 2.7855' N 147° 30.4787° W	1100	15105319 XCTD-1		SZ/SAQ	☐		
18	-	11	15:55	BE	UCTD	-	54° 2.8971' N 147° 32.9060° W	430	-		SZ-57Q	☐	UCTD 2018-63-0018	
19	-	11	22:53	DE	ARGO	-	54° 11.3179' N 150° 00.3761° W	3639	300234066344420 SN 600	44420	SAQ/SZ	☐		
20	-	11	22:56	DE	XCTD	-	54° 11.3619' N 150° 01.2785° W	1100	15105320 XCTD-1		SAQ/SZ	☐		
21	-	11	23:05	BE	UCTD	-	54° 11.3093' N 150° 04.7999° W	438	-		SAQ/SZ	☐	UCTD 2018-63-0021, asc	
22	-	12	05:32	DE	ARGO	-	54° 16.2335' N 152° 28.3562° W		SN 595 IMEI 300234066348510	234066	SAQ/SZ	☐	22	
23	-	12	05:37	DE	XCTD	-	54° 16.2370' N 152° 29.339° W		15105321 C3-0008		SAQ/SZ	☐		
24	-	12	05:44	BE	UCTD	-	54° 16.429° N 152° 31.996° W	430	-		SAQ/SZ	☐	UCTD 2018-63-0024, asc	
25	-	12	12:32	DE	ARGO	-	54° 18.136° N 154° 58.626° W	1326	SN 599 IMEI 300234066340	234066	SZ	☒		
26	-	12	12:37	DE	XCTD	-	54° 18.142° N 154° 59.554° W	"	15105318	XCTD	-1 SZ	☐		
27	-	12	12:42	BE	UCTD	-	54° 18.131° N 155° 02.408° W	"	-		SZ	☐	UCTD 2018-63-0027, asc	
28	-	12	15:08	BE	UCTD	-	54° 17.416° N 155° 52.656° W	1786	-		SAQ	☐	UCTD 2018-63-0028, asc	

ship underway at
~ 4 knots

- ↓
- black
pen did not
float.
- Event 12: UCTD hit side of ship during recovery
- Event 13: ARGD lowered over starboard side. INET # on side of box in pen did not
Match what was on float.
- Event 14: XCTD file may be missing LAT + LONG
- Event 15: UCTD deployed for ~ 2'30" instead of intended 1'55". Took
quite a while to recover.

15A 2:20min
8:11 = 1042
120

16
7
23

15A 2:20min

16
7
23

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month		JUL		Year		2018		Vessel		S.W.L		Cruise ID		2018-63	
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trms/FI Cleaned	Comments
29	-	12	21:03	BE	UCTD		54° 16.885	158° 01.428	8165	435A	UCTD 2018-63-0029	ASC	SAO	☐	left for 2:19 min drop near windy time
30	-	12	21:23	DE	XCTD		54° 16.781	158° 08.335	8165	1000	15105317		SZ	☐	
31	-	13	03:04	BE	UCTD		54° 12.9225	160° 08.1275	860	435	-		SAO/SZ	☐	UCTD 2018-63-0031, lost asc
			:				.	.			-			☐	
	Into Dutch				Harbour		pick up	10 screen	hist		-			☐	
			:				.	.			-			☐	
			:		Leave		Dutch	Harbour	underway		to SLIP-1			☐	
			:				Sea	with loop	been off		at turned back			☐	underway
	Continuous Plankton Recorder				put in		for 500m tow				at Harbor			☐	
32		14	23:29	BE	CPR		54° 48.185	167° 02.215			-			☐	CONTINUOUS PLANKTON
		16	14:12	EN			61° 52.708	174° 48.386			-			☐	RECORDER
			:				.	.			-			☐	
33	SLIP-1/080	16	15:11	BE	ADCP		62° 0.538	175° 03.821	80		-			☐	
	"		17:34	EN	ROS		62° 01.188	175° 03.337			-			☐	
34	"	16	15:19	BE	ROS	VS	62° 0.548	175° 03.803	81		49-63	15(18)	SAO/SZ	☐	3 bottles tripped for water w/out sample #
	"		15:25	BO	COMB		62° 0.551	175° 03.757			-			☐	
	"		15:39	EN	ECOS		62° 0.576	175° 03.744			-			☐	
35	"		15:44		NET		62° 06.587	175° 03.727	76		-			☐	
36	"		16:05		CAM		62° 00.61	175° 03.606	75		-			☐	

Event Type:
BOT = Bottle cast (no CTD)
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SET = Fish Set

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:
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

Version: 14 February 2013

Event 29: Accidentally continued spooling out for 2' 20" instead of the usual ~~2~~ 1' 55" time.

7/15-18

GTD does not seem to be pumping - to check ~~the~~ internal bilge pump.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month			JUL		Year		2018		Vessel		SWL		Cruise ID		2018-63	
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/FI Cleaned	Comments
37	SLIP 1/DBD 1.16	16	16:30	BE	COPS			62°05.737	175°03.521	75		PER FORMED	AFTER	ALL		didn't happen
38	"	16	16:31		MUDx5			62°05.737	175°03.521	75						
39	"	16	17:05		HAPSx2			62°01.039	175°03.342	76						Multiple Tries
40	SLIP 2/DBD 1.2	16	18:07	BE	ADCP			62°02.895	175°12.360	81		File: ADCP040	00000			read record from bridge.
			20:31	EN				62°08.418	175°11.741							
41	"	11	18:13	BE	ROS			62°2.905	175°12.230	81		File: 2018-63-0041				
			18:21	BO				° 2.950	° 12.253		75	64-80				
			18:31	EN				° 3.013	° 12.172							
42	"	11	18:33		NET			62°03.040	175°12.168							
43	"	11	19:20		CAM			62°03.323	175°11.808							
44	"	11	19:02		COPS			62°03.269	175°11.931							
45	"	11	19:38		MUDx5			62°03.283	175°11.89							
46	"	11	20:16		HAPSx2			62°03.283	175°11.968							
47	SLIP 26/DBD 1.3	16	22:22	BE	CTD			62°13.139	174°52.625	76		File: 2018-63-0047				roomy/foggy 16 Bottles
			22:28	BO				° .156	° .500		71					
			22:30	EN				° .122	° .460							
48	SLIP 3/DBD 1.4	16	23:55	BE	ADCP			62°23.448	174°34.121	72						
		17	2:05	EN				° .453	° 33.637							Verify EN Log with Bagg log & MER Bed.
			:					°	°							

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month			JUL		Year		2018		Vessel		SWL		Cruise ID		2018-63	
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments	
49	SLIP3/DB01.4	17	00:01	BE	ROS		62° 23.429	174° 34.141	72		81-96	15	SAS		BAT2, C2, FLR	
		"	00:09	BO			° .444	° .126		65.8	-					
		"	00:19	EN			° .455	° .168			-					
50		"	00:29		NET		62° 23.460	174° 34.044	73		-					
51		"	00:42		COPS		62° 23.416	174° 33.965	74		-					
52		"	00:55		CAM		62° 23.383	174° 33.961	74		-					
53		"	01:18		MODIS		62° 23.385	174° 33.976	72		-					
54		"	02:02		HAPSAT		62° 23.451	174° 33.760	72		-					
55	SLIP36/DB01.5	17	03:32	BE	CTD		62° 23.956	174° 5.114	70		-				no bottles	
		17	03:34	BO			° .964	° .098		63.8	-					
		17	03:37	EN			° .972	° .088			-					
56	SLIP5/DB01.6	17	05:11	BE	ADCP		62° 33.461	173° 33.497			-					
		"	07:21	EN			° 33.935	° 32.918			-				SOFTWARE CANCELED 0733	
57		17	5:17	BE	ROS		67° 33.514	173° 33.478	66		96-109					
			5:23	BO			° .529	° .520		59.5	-					
			5:35	EN			° .577	° .473			-					
58		17	5:46	BE	NET		62° 33.653	173° 33.424	67		-					
59		17	5:56	BE	CAM		° .660	° .377	67		-					
*		17	.		COPS		° .	° .			-				No COPS	

Event Type:
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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

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:

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Event 49: Secondary system (T, C, FLR) look like they have no flow - mismatch w/ primary, and no fluorescence signal. On upcast looks like the block was freed and @ bottom for T, C and FLR looks good @ 35^m.

↑
T, C, FLR

Event 55: ~~Free~~ Jelly Fish on rosette. Removed after cast.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month			JUL		Year		2018		Vessel		SWL		Cruise ID			2018-63	
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Latitude	Positional Information	Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments	
60	SLIP 5 / DBD 1.6	17	:		MUD x 5		°		°			-			□		
61		17	:		HAPS x 2		°		°			-			□		
62	SLIP 5b / DBD 1.7	17	08:41	BE	CTD	-	62° 47' 17.2	173° 29' 71.3	70			-	-	SZ	✓		
			08:46	BO			°	°	°		65	-			□		
			08:49	EN			°	°	°			-			□		
63	SLIP 4 / DBD 1.8	17	10:14	BE	ADCP		63° 01' 8.02	173° 27' 38.3	72			-		SAO 52	□		
			12:26	EN			°	°	°			-			□		
64	"	17	10:20	BE	ROS		63° 1' 88.6	173° 27' 28.3	72			-		SAO 53	□		
			10:26	BO			°	°	°		66.1	110 - 131	22		□		
			10:44	EN			°	°	°			-			□		
65	"	17	10:48	I	NET		°	°	°	73		-			□		
66	"	17	11:04		CAM		°	°	°			-			□		
67	"		:		COPS		°	°	°			-			□	No C-OPS	
68	"	17	11:16		MUD x 5		°	°	°	73		-			□		
69	"	17	11:50		HAPS x 2		°	°	°			-			□		
70	SLIP 4b / DBD 1.9	17	14:10	BE	CTD		63° 16' 38.6	173° 4' 37.2	69.5	64		-		SAO	□	2:08	
			14:16	BO			°	°	°		62.4	-			□		
			14:18	EN			°	°	°			-			□		
			:				°	°	°			-			□		

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 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
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 RE = Recover Mooring Time

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DAILY SCIENCE LOG

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Month			JUL		Year		2018		Vessel		SWL		Cruise ID			2018-63	
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	Tms/Fl Cleaned	Comments	
71	SLP4C/DORO	17	16:35	BE	CTD		63° 36.325	172° 35.401	54		48.7	-		SAC	☐	15-6m winds BE = still of rock	
			16:40	BO			° .353	° .460				-			☐		
			16:42	EN			° .354	° .489				-			☐		
72	BCL-6a	17	18:53	BE	ROS	US	63° 55.116	172° 6.034	54			132 - 142	11	SAC/SZ	☐	Core Analyt. Water - staining	
			18:58	BO			63° 55.162	° 5.929		48.9		-			☐		
			19:13	EN			° .303	° 5.742				-			☐		
73	BCL-6b	17	21:40	BE	CTD	-	64° 17.520	171° 29.813	48			-	-	SZ	☒	water column completely mixed top to bottom	
			21:46	BO			° .582	° .838		43		-			☐		
			21:49	EN			° .653	° .776				-			☐		
74	BCL-6C/DORO	18	00:43	BE	ADCP		64° 40.348	170° 38.557	48			-			☐		
			02:18	EN			° .554	° 37.614			OUT OF WATER	-			☐	SOFTWARE CLOSED 0249	
75	"	18	00:45	BE	ROS	US	64° 40.349	170° 38.560	48			143 - 154	12	SZ	☐		
			00:54	BO			° .356	° .602		43		-			☐		
			01:06	EN			° .342	° .623				-			☐		
76	"		01:12		NET		64° 40.369	170° 38.578				-			☐		
77	"		01:22		CAM		° 40.298	° 38.408				-			☐		
78	"		01:26		GOPS		° 40.396	° 38.439				-			☐		
79	"		01:35		1100*5		° 40.549	° 38.300				-			☐		
			:				° .	° .				-			☐		

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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
 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
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Month			Year		Vessel			Cruise ID			2018-63			
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/Fl Cleaned	Comments
80	DB02.0a	18	03:16	BE	CTD	—	64° 40.243 170° 15.811	49		—	—	SZ	☒	Bottom T: 3102 S: 32,937
			03:20	BO			° .243 ° .758		44	-			☐	
			03:22	EN			° .247 ° .748			-			☐	
81	UTBS-5/DB02.1	18	04:16	BE	ADCP		64° 40.337 169° 55.637	47		—	—		☐	got card from Bridge
82			04:21	BE	ROS		64° 40.379 169° 55.600	47		—	—		☐	
			04:26	BO			° .458 ° .516		41.6	55-165	11	SZ	☐	
			04:37	EN			° .530 ° .368			-			☐	
83			04:45		NET		° .362 ° .283			-			☐	
84			05:01		CAM		° .467 ° .000			-			☐	
85			05:50		C-OPS		° .364 ° .216			-			☐	
86			05:18		MUDXS		° .622 ° .841			-			☐	
87	DB02.1a	18	05:58	EN	ADCP		64° 40.802 169° 53.421			—	—		☐	Stopped after steamed away
			07:09	BE	CTD		64° 40.634 169° 28.207	46		—	—	SAQ	☒	hang 7:06-start 7:08 in H2O
			07:14	BO			° .669 ° .164		40.4	-			☐	went down to 1.2m off bottom. Asked to take it up to 3m, began upcast.
			07:15	EN			° .681 ° .144			-			☐	
88	UTBS-2/DB02.2		08:13	BE	ADCP		64° 40.863 169° 06.029	45.5		—	—	SAQ	☐	
			09:23	EN			° .929 ° 05.386			-			☐	
			:				° . ° .			-			☐	
			:				° . ° .			-			☐	

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Ocean Sciences Division, Institute of Ocean Sciences

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Month			JUL		Year		2018		Vessel		SWL		Cruise ID		2018-63	
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Latitude	Positional Information	Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
89	UTBS-24/DBO2.2	18	8:19	BE	ROS		64° 40.859	169° 6.020	45.5			-		SKA	□□	
			8:27	BO			° 861	° 5.959			40.1	166-176	11		□□	
			8:32	EN			° 852	° 5.965				-			□□	
90			8:38		NET		° 834	° 5.959				-		JN/GM	□□	
91			8:43		CAM		° 894	° 9.00				-		LC	□□	
92			9:00		MUDx5		° 957	° 6.051				-		JB/LC	□□	
93	DBO2.2.4	18	10:41	BE	CTD	-	64° 40.658	168° 36.000	44			-	-	SKA	□□	lots of jelly strands on CTD rosette.
			10:46	BO			° 664	° 35.972			37.9	-			□□	cleaned after cast
			10:48	EN			° 667	° 35.941				-			□□	
94	UTBS-24/DBO2.3		11:50	BE	ADCP		64° 40.326	168° 14.125	38			-			□□	STOPPED SOFTWARE CLOSED 13:22
			13:03	EN			° 341	° 13.114				-			□□	
95	"	18	11:52	BE	ROS	US	64° 40.326	168° 14.125	38			177-185	9	SKA	✓□	
			11:55	BO			° 355	° 0.059			33	-			□□	
			12:02	EN			° 369	° 0.024				-			□□	
96	"		12:11		NET		° 328	° 13.712				-			□□	
97	"		12:17		CAM		° 770	° 4.92				-			□□	
98	"		:		COPS		° 770	° 4.92				-			□□	cancelled
99	"		12:57		MUDx5		° 437	° 5.17				-			□□	
			:				° 437	° 5.17				-			□□	

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 DN = Down / No stop
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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month			Year		Vessel			Cruise ID				2018-63		
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/Fl Cleaned	Comments
100	DBO 2.7	18	15:00	BE	ADCP		64° 59' 947	168° 13' 217	40	-			☐	
			16:06				65° 0' 229	.600		-			☐	
101	"	18	15:00	BE	ROS	US	65° 0' 005	168° 13' 265	46	-			☐	
			15:07	BO			° 0' 013	° 0' 361	41	186-196	11	SE	☒	
			15:15	EN			° 0' 026	° 0' 320		-			☐	
102	"	18	15:10		NET		° 00' 034	° 0' 387		-			☐	
103	"	18	15:20		CAM		° 00' 022	° 13' 35		-			☐	
104	"	18			C-OPS		° 0' 0' 0'			-			☐	CANCELLED
105	"	18	15:30		MUDRS		° 00' 111	° 13' 556		-			☐	
106	DBO 2.6	18	17:21	BE	CTD		65° 0' 016	168° 39' 163	48	-			☐	
			17:25	BO			° 0' 024	° 0' 226	43	-	-	SE	☐	
			17:27	EN			° 0' 036	° 0' 242		-			☐	T = 3.596 S = 32.666
107	UTBG-1/ DBO 2.5	18	18:55	BE	ADCP		64° 59' 486	169° 08' 380	49	-			☐	
			20:08	EN			° 0' 702	° 0' 600		-			☐	
108	"	18	18:58	BE	ROS	US	64° 59' 506	169° 08' 400	49	-			☐	
			19:10	BO			° 0' 572	° 0' 450	44	197-216	20	SAQ	☐	
			19:22	EN			° 0' 600	° 0' 580		-			☐	
109	"	18	19:31		NET		° 0' 540	° 0' 566		-			☐	
110	"	18	21:04		CAM		° 0' 579	° 0' 606		-			☐	

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Event 107: After camera work, ADCP brought in to adjust vane & work on how its secured, when deployed. Easier to do while we are on station ; Put ADCP back in the water again and called Cast "907"

Month			Year		Vessel		Cruise ID		2018-63					
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						
111			19:40		C-OPS		64° 59.540	169° 08.566		-			☐	
112			21:21		MUDx5		° 548	° -766		-			☐	
113	DB02.4a	18	22:42	BE	CTD		64° 58.517	169° 29.778	49.7	-		SAS	☐	no bottle sold
			22:47	BO			° 510	° 25A	44.9	-			☐	
			22:49	EN			° 51A	° 260		-			☐	
114	UTBS-41/ DB02.4	18	23:56	BE	ADCP		64° 57.612	169° 53.391	50	-			☐	
		19	01:29	EN			° 715	° 52.825		-			☐	
115	"	19	00:01	BE	ROS		64° 57.624	169° 53.411	50	-			☐	
			00:07	BO			° 634	° 436	45	217-227	11	SAS	☐	
			00:13	EN			° 655	° 436		-			☐	
116	"		00:25		NET		° 636	° 310		-			☐	
117	"		00:46		CAM		° 676	° 908		-			☐	
118	"		00:34		C-OPS		° 633	° 197		-			☐	
119	"		01:03		MUDx5		° 734	° 911		-			☐	
120	BRS-2	19	06:38	BE	ROS	US	65° 40.093	168° 24.053	53	-			☐	
			:	BO			° -	° -	48	228-238	11	SZ	☐	
			06:54	EN			° 234	° 071		-			☐	
121	"		07:03		NET		° 40.130	° 095		-			☐	
			:				° -	° -		-			☐	

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month			Year			Vessel		Cruise ID						
JUL			2018			SWL		2018-63						
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/Fl Cleaned	Comments
122	BRS-3	19	08:09	BE	ROS	US	65° 40.987 168° 34.068	53		239-249	11	SZ	☒	
			:				° 34.068		48				☐	lowered @ 0.6 m/s
			08:18				° 34.068						☐	
123	"		07:59		NET		° 40.965 168° 34.068						☐	
124	BRS-4	19	08:59	BE	ROS	US	65° 41.896 168° 42.720	52					☐	
			09:04	BO			° 41.896 168° 42.720		47	250-260	11	SZ	☐	lowered @ 0.5 m/s
			09:11	EN			° 41.896 168° 42.720						☐	
125	"		08:48		NET		° 42.92 168° 42.720						☐	
126	UTN-1		11:37		ADCP		66° 42.444 168° 23.918						☐	
			15:55				° 42.444 168° 23.918						☐	
127	"	19	14:44	BE	ROS		66° 42.505 168° 23.876	35					☐	
			14:49	BO			° 42.505 168° 23.876		31	261-270	10	SZ	☒	lowered @ 0.5 m/s
			14:55	EN			° 42.505 168° 23.876						☐	
128			15:02		NET		66° 42.493 168° 23.754						☐	
129			15:08		CAM		66° 42.512 168° 23.774						☐	
130			:		COPS		° 42.512 168° 23.774						☐	
131			:		MUD*5		° 42.512 168° 23.774						☐	
132			:		HAB*2		° 42.512 168° 23.774						☐	
			:				° 42.512 168° 23.774						☐	

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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

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Notes:

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Event 122: Bottles vents + Valves were open. Cast Redone.

First cast returned to 9122

BE 0741	65	40.982	168	33.995
30	48	40.976		34.127
EN	54	40.974		34.156

No samples taken

Second cast done @ 0809 w/ good bottles
sample # 239-249

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month			Year		Vessel			Cruise ID			SWL			
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/Fl Cleaned	Comments
133	UTN-2	19	17:55		ADCP		67° 3.014 168° 43.692			-		SAO SZ	□□	
			:				° °			-			□□	
134	"	19	17:55	BE	ROS		67° 3.023 168° 43.694			-			□□	
			18:04	RO			° °			271-282	12	SAO SZ	□□	
			18:13	EU			° °			-			□□	
135			:20		NET		67° 3.067 168° 43.678	41		-			□□	
136			:37		CAM		° °	711		-			□□	
137			:30		C-OPS		° °	708		-			□□	
138			:58		MUDx5		° °	687		-			□□	
139			19:31		HAPSx2		° °	450		-			□□	
140	UTN-3	19	21:35		ADCP		67° 19.823 168° 54.271			-			□□	
			:				° °	854		-			□□	Started file a bit early
141		19	21:44		ROS		67° 19.888 168° 54.310	51		-			□□	34 min
			21:49				° °	246	46	283-294	13	SAO SZ	□□	bottle 13 to 6 for malin
			21:58				° °	079		-			□□	no samples
142			22:08		NET		° °	182		-			□□	
143			1:24		CAM		° °	53.928		-			□□	
144			1:15		C-OPS		° °	54.092		-			□□	
145			↓:46		MUDx5		° °	53.811		-			□□	

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

Version: 14 February 2013

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month	Station Name	Day	Time (UTC)	Year	2018	Vessel	SWL	Cruise ID	2018-63	Event Number	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/Fl Cleaned	Comments
146			:									HAPSx2		°	°							
147	UTN-4	20	00:40									ADP		67° 30.020	168° 54.546							
			02:35											° 29.914	° .977							
148	"		00:45	BE	ROS									67° 30.000	168° 54.491	51						
			00:50	BO										° 29.992	° .472		46	295-315	21			
			01:00	EU										° .978	° .583							
149			1:16		NET									° .956	° .533							
150			1:35		CAM									° .882	° .702							
151			1:25		C-OPS									° .886	° .696							
152			1:53		MUDx5									° .902	° .880							
153			2:23		HAPSx2 x1									° .909	° .941							Only 1 HAPS
154	SEC-8/	20	14:08		ADP									68° 17.992	166° 56.408							
	DBO 3.1		14:57											° 18.417	° 57.720							
155	"	20	14:08		ROS									68° 17.992	166° 56.408	35						
			14:13											° 18.022	° 56.486		30	316-324	9			
			14:20											° 18.084	° 56.606							
156			14:30		NET									° .153	° .796							
157			14:35		CAM									° .214	° .969							
158			:		C-OPS									°	°							

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:

WaterProperties.ca Version: 14 February 2013

Month		JUL		Year		2018		Vessel		SUL		Cruise ID		2018-63	
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							
159			14:51		MUDX	X2	68° 18.430	166° 57.424						☐	2 Mud grabs
160	SEC-7/ DBO3.2		15:37	BE	ADCP		68° 14.599	167° 7.297	43					☐	
			16:55	EN			° .941	° .751						☐	
161			15:51	BE	ROS		68° 14.642	167° 7.314	43					☐	
			55	130			° .603	° .316		38	325-335	11	SE	☐	
			16:04				° .624	° .315						☐	
162			16:11		NET		° .669	° .328						☐	
163			16:17		CAM		° .702	° .289						☐	
164			16:30		C-OPS		° .806	° .245						☐	
165			16:48		MUDX2		° .894	° .223						☐	2 mud grabs
166	SEC-6/ DBO3.3		17:40	BE	ADCP		68° 11.172	167° 18.536	49					☐	0
			18:40	EN			° .	° .						☐	
167			17:42	BE	ROS		68° 11.172	167° 18.536	48					☐	
			:	BD			° .	° .		44	336-346	11	SE	☐	
			17:54	EN			° .189	° .592						☐	
168			17:58		NET		° .169	° .592						☐	
169			18:05		CAM		° .178	° .585						☐	
170			18:18		C-OPS		° .244	° .450						☐	
171			18:32		MUDX2		° .234	° 19.162						☐	2 Mud grabs

Even + 161°

15:39 → First time in w/ noodles on.
Brought back to surface + restarted + overwrote first file

15:55

On upcast of good file looks like we had a jelly fish-plug in the T2, C2 plumbing. Fluorometer in particular was bad but seemed to settle-down at bottle stops

Jelly strands on rosette on recovery. Plumbing was well flushed at end of sampling but no particulates observed.

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/Fl Cleaned	Comments
172	SEC-5	20	19:20	BE	ADCP		68° 7' 6.70 167° 29' 6.32	51		-			☐	
	DBO 3.4		20:45	EN			° .808			-			☒	
173	"		19:21	BE	ROS		68° 7' 6.75 167° 29' 6.50	51		-			☐	
			:	BO			° .		46	347-366	20	SZ	☐	
			19:48	EN			° .861			-			☐	
174			:58		NET		° .			-			☐	
175			20:08		CAM		° .			-			☐	
176			:21		C-OPS		° .			-			☐	
177			:34		MUDx2		° .			-			☐	2 Muds rbs
178	SEC-4		21:54		ADCP		68° 0' 8.30 167° 51' 9.46	54		-			☐	
	DBO 3.5		23:08				° 1' 10.4 ° 52' 14.7			-			☐	getting coord. from bridge
179		20	21:56	BE	ROS	US	68° 0' 8.30 167° 51' 9.46	54		-			☐	
			:	BO			° .		49	367-378	12	SZ	☐	
			:	EN			° .			-			☐	
180			22:07		NET		68° 00' 9.77 167° 51' 9.71			-			☐	
181			:42		CAM		68° 01' 0.54 167° 51' 8.97			-			☐	
182			22:08		C-OPS		68° 01' 0.24 167° 51' 9.59			-			☐	
183			:59		MUDx2		68° 01' 0.51 167° 51' 9.87			-			☐	2 Muds rbs
184			:		HAPSx2		° .			-			☐	No HAPS planned

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month	Station Name	Day	Time (UTC)	Year	Vessel	Cruise ID	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
185	SEC-3/20	21	00:18	2018	SWL	2018-63		-				
	DB03.6	21	01:33					-				
186		21	00:23					-				
		21	01:53				56	391-392	14	SAD/SZ		get time & coord. from bridge
			00:40					-				
187			:46					-				
188			18:07					-				
189			17:55					-				
190			18:21					-				
191			:					-				HAPS not on plan
192	UTN-6	21	03:01					-		SAD		
		21	04:53					-				
193		21	03:06					-		SAD		get time & coord from bridge
			:				45	393-404	12			
			03:20					-				
194			:27					-				
195			:45					-				
196			:35					-				
197			4:06					-				

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
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 RE = Recover Mooring Time

Notes:

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Event 193: Bottle 6 was sitting low when csette came back onboard. Re-positioned and retightened the clamps.

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Month			JUL		Year		2018		Vessel		SWL		Cruise ID			2018-63	
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	
198			4:36		HAPS2		67° 44.474	168° 26.700				-			□□		
199	SEC-2	21	05:26	BE	ADCP		67° 47.017	168° 36.133				-		SHO	□□		
	DBO317		07:04	EN			° 49.6	° 545				-			□□		
200		21	05:31	BE	ROS		67° 47.012	168° 36.070	50.5			-		SHO	□□		
			05:36	BO			° 036	° 060		45		405-416	12		□□		
			05:45	EN			° 088	° 100				-			□□		
201			05:53		NET		° 056	° 158				-			□□		
202			6:12		CAM		° 164	° 179				-			□□		
203			6:01		C-DPS		° 083	° 165				-			□□		
204			6:29		MUDK5		° 294	° 363				-			□□		
205			:		HAPS2		° .	° .				-			□□	No HAPs	
206	SEC-1	21	08:12	BE	ADCP		67° 40.313	168° 55.776				-			□□	old UTA-5	
	DBO318		09:35	EN			° 40.591	° 694				-			□□		
207		21	08:12	BE	ROS		67° 40.313	168° 55.776	50.5			-		52	□□		
			08:29	BO			° 313	° .		46		417-428	12		□□		
			08:29	EN			° 313	° 754				-			□□		
208			8:33		NET		° 291	° 686				-			□□		
209			8:43		CAM		° 321	° 674				-			□□		
210			:		COPS		° .	° .				-			□□		

Event Type: LOOP = Sea Water Loop 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

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

Produced by the Water Properties Group, IQS

WaterProperties.ca

Version: 14 February 2013

Month			Year		Vessel		Cruise ID								
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
211			9:01		MUDx5		67° 40.377	168° 56.033			-			□□	
212			9:28		HAPS12		67° 40.323	168° 55.962			-			□□	
213	UTN-7	21	11:26	BE	ADCP		67° 39.978	168° 55.782	58		-			□□	
			:	EN			68° 00.109	168° 55.603			-			□□	
214	"	21	11:29	BE	ROS	US	67° 59.972	168° 55.762	58		-			□□	
			:36	BO			° . 974	° . 744		53	429-442	14	SZ	□□	
			:47	EN			° . 988	° . 724			-			□□	
215	"		:53		NET		° . 994	° . 775			-			□□	
216	"		:59	-	CAM		° . 993	° . 724			-			□□	
217	"		:		C-OPS		° .	° .			-			□□	
218	"		18:14		MUDx5		68° 00.020	168° 55.602			-			□□	
219	"		:		HAPS12		° .	° . CPR	IN	AND OUT	EVENT 2	20+22		□□	sepage
220	"		:	BE	CPR		° .	° .			-			□□	
			:		Visit from King Walrus		° .	° .			-			□□	
221			:	EN	CPR		° .	° .			-			□□	
222	DBO 4.6m	22	14:28	BE	ADCP		71° 51.104	162° 9.452			-		SADKZ	□□	
			16:14	EN			71° 50.909	° 68.434			-			□□	
223		22	14:34	BE	ROS	US	71° 51.104	162° 9.452			-		SADKZ	□□	
225			14:39	BO			° . 101	° . 379			443-453	512		□□	

Ocean Sciences Division, Institute of Ocean Sciences

DAILY SCIENCE LOG

Cruise ID 2018-63

Vessel SWL

Year 2018

Month			Year		Vessel		Cruise ID		Sample Serial Numbers		# of Bottles		Watch Keepers		Trms/FI Cleaned		Comments	
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			
224			14:50	EN			71° 51' 107	162° 9' 325										
225			14:57		NET		71° 51' 120	° 09' 233										
226			14:59		C-OPS		° 50' 915	° 08' 832										
227			14:44		CAM		° 47' 607	161° 46' 296										
228			15:29		MUD		71° 43' 139	° 45' 875										
229					HAPS			° 53' 702										
230			17:07		ADCP		71° 47' 670	161° 46' 229	44									
231			17:10	BE	ROS		° 47' 620	161° 46' 228	44									
232			17:14	BO			° 46' 808	° 214										
233			17:28	EO			° 47' 599	° 46' 337										
234					NET		° 47' 543	° 46' 338										
235					C-OPS		° 47' 604	° 46' 296										
236					CAM		71° 43' 169	161° 45' 789	45									
237					MUD		° 47' 604	° 46' 296										
238					HAPS		71° 38' 893	161° 34' 192	47									
239			21:29	BE	CTD		° 402	° 139										
240			21:35	BO			° 408	° 134										
241			21:37	EN														

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

Notes:

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Version: 14 February 2013

Produced by the Water Properties Group, IOS

Events 229 to 231 were at the incorrect DBD 4.5m position

Events 232 to 235 were at corrected DBD 4.5m position

DAILY SCIENCE LOG

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Month			JUL		Year		2018		Vessel			SWL		Cruise ID				2018-63	
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/Fl Cleaned	Comments					
237	DB04.4W	22	22:15	BE	ADCP		71° 35.310 ° 24.092			-			☐						
		23	00:21	EN						-			☐						
238		22	22:20	BE	ROS		71° 35.302 ° 24.038	48		-			☐						
			22:26	BO			° 23.977			-			☐						
			22:45	EN			° 514			-			☐						
239			54		NET		° 248			-			☐						
240			23:03		C-DPS		° 306			-			☐						
241			14		CAM		° 313			-			☐						
242			32		MUD		° 418			-			☐						
243			24:03		HAPS		° 367			-			☐						
244	DB04.3W	23	00:55	BE	CTD		71° 31.250 ° 13.651	49		-	0	SZ	☒						
			01:01	BO			° 279		45	-			☐	T = -1.678 S = 32.688					
			61:04	EN			° 314			-			☐						
245	DB04.3W	23	01:45	BE	ADCP		71° 27.216 ° 02.184			-			☐						
			03:46	EN			° 437			-			☐						
246	DB04.3W	23	01:52	BE	ROS		71° 27.287 ° 2.093	49		-			☐						
			01:59	BO			° 366		44	487-498	12	SABZ	☐						
			02:08	EN			° 348			-			☐						
247			:		NET		° 290			-			☐						

Event Type: LOOP = Sea Water Loop
 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
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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DAILY SCIENCE LOG

OCEAN SCIENCES DIVISION, INDIAN OCEAN EXPLORATION VESSEL														
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	Tms/FI Cleaned	Comments
248			:		C-DPS		71° 27.386 161° 01.800			-			☐	
249			:		CAM		° 340 ° 01.418			-			☐	
250			:		MUD		° 493 ° 277			-			☐	
251			:		HAPS		° 480 ° 252			-			☐	
252	DB04.2na	23	04:24	BE	CTD	—	71° 23.155 160° 50.255	5149		-			☒	
			04:31	BO			° 158 ° 182		44	—	—	SE	☐	
			04:34	EN			° 171 ° 120			-			☐	
253	DB04.2na	23	05:10		ADCP		71° 19.387 160° 39.341			-		SHOKE	☐	
			:				° °			-			☐	
254	DB04.2na	23	05:16	BE	ROS		71° 19.384 160° 39.328	49		499-510	12	SHOKE	☐	
			05:22	BO			° 392 ° 203			-			☐	
			05:31	EN			° 392 ° 118			-			☐	
256			:		NET		° °			-			☐	
257			:		C-DPS		° °			-			☐	
258			:		CAM		° °			-			☐	
259			:		MUD		° °			-			☐	
260			:		HAPS		° °			-			☐	
			:				° °			-			☐	
			:				° °			-			☐	

2018-63

SWL

2018

2018-63

do not use Ammonia products

Event Type:
 BOT = Bottle cast (no CTD)
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 ROS = CTD in Rosette
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Produced by the Water Properties Group, IOS

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Version: 14 February 2013

Event 252: Top 20m ~~very~~ lots of "intrusive" Fentres in T, S, O_{xy}. Seen
in both ~~these~~ temperature & conductivity sensors. Could ^{also} be due to
swell (wind) lowering @ 30 m/min?

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not use Ammonia products