

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2023-054

DATE:

From: 16 September 2023 To: 29 September 2023

VESSEL:

FRANKLIN

PROJECT(S):

SALMON MARINE INTERACTIONS

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

BOOK # 1

WaterProperties.ca

Captain: Jeff Olsson First Officer: Kevin McKenzie
 Second Officer: Cory Glencross Third Officer: _____
 Fishing Master: Simon Winterburn Chief Engineer: Rick Horbas

Mission Participants / Agencies:

DFO, CCG

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

1st Leg Scientific Personnel: Chief Scientist: CHRYS NEVILLE

Name	Watch	Cabin	Name	Watch	Cabin
<u>Sarah Spencer</u>	_____	_____	_____	_____	_____
<u>Jessica Low</u>	_____	_____	_____	_____	_____
<u>Mary Kevin</u>	_____	_____	_____	_____	_____
<u>Kyle Goff</u>	_____	_____	_____	_____	_____
<u>Bryan Recalma</u>	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

2nd Leg Scientific Personnel: Chief Scientist: CHRYS NEVILLE

Name	Watch	Cabin	Name	Watch	Cabin
<u>Sarah Spencer</u>	_____	_____	_____	_____	_____
<u>Jessica Low</u>	_____	_____	_____	_____	_____
<u>Mary Kevin</u>	_____	_____	_____	_____	_____
<u>Kyle Goff</u>	_____	_____	_____	_____	_____
<u>Bryan Recalma</u>	_____	_____	_____	_____	_____
<u>Svetlana Eusenkalova</u>	_____	_____	_____	_____	_____
<u>Justin Flemming</u>	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

**** 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: ^{acer} Aspire one 722-BZ825, WP 14

Data acquisition program: sea term

CTD deck unit make: SBE model: 25 serial number: 2543784-0404

Primary CTD

Make: SBE model: 25 serial number: 0404

Primary temperature serial number: 03-5724

Primary conductivity serial number: 041763

Secondary temperature serial number: X

Secondary conductivity serial number: X

Transmissometer: X Model: _____ s/n: _____

Transmissometer: X Model: _____ s/n: _____

Fluorometer: Model ECO FLRTD GH Cable gain: _____ s/n: FLRTD-8101 P, S or NO pump?

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

Oxygen sensor: SBE Model: 43 s/n: 430047 P, S or NO pump?

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

Other sensors: pH, model: 18 (1200m) s/n: 18-1585 P, S or NO pump?

Other sensors: pressure, model: 29 (3500m) s/n: 290668 P, S or NO pump?

Other sensors: submersible pump, model: 5T (10,500m) s/n: 053445 P, S or NO pump?

Other sensors: _____ s/n: 2KLV P, S or NO pump?

Secondary CTD X did not use

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): X

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

Rosette Setup: X

Number of bottles: _____

Manufacturer: _____

Volume of bottles (litres): _____

Winches: X

1. Make: _____

Model: _____

Serial #: _____

Used for: _____

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):

Salinometer: X

Make: _____

Model: _____

Serial Number: _____

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

Oxygen Kit(s): X

Make: _____

Model: _____

Kit Number: _____

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

Thermosalinograph System (SBE21): X

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: X

Computer time zone: _____

User Exits: _____

Name: _____

Exit points: _____

Sampling interval (sec): _____

Name: _____

Exit points: _____

Bin Length: (2^x): _____

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: 253 μ m Flowmeter: S/N 10717
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 ☒ V15

Sounders: Wesmar 380 ☐ Others: Sonar FS 70

Acoustics:

Echosounder #1 EK80 Frequencies (KHz): 12 ☐ 18 ☒ 38 ☒ 70 ☒ 120 ☒ 200 ☒

Others: 330 Hz

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

Others: _____

Software & Notes: _____

Other Gear in Operation:

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

SBE25 SN 0404

temp. serial 5724

cond. serial 1763

pressure serial 0668

oxygen serial 0047

fluorometer^{serial} 8101

pH serial 1585

BONGO

- .5m/s ↓ and 1.0m/s ↑

- max depth **350 m**

CTD

- 1.0m/s ↓ and ↑ with a 2 minute soaking period at 10 m before each cast

* doing 15m > bottom. on first casts bc we had winch error last survey

* First CTD + BONGO at station "A". Not associated with one of our station #'s

* 2nd CTD + BONGO. and all others, doing 10m > bottom max depth we go to is 350 m

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month		SEPTEMBER		Year		2023		Vessel		SIR JOHN FRANKLIN		Cruise ID		2023-054		Page 1 of 72	
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments		
1	"A"	16	23:26	BE	CTD		48° 50.89	-127° 59.08	222	207	-			☐	*CTD didn't have weight on it first cast		
			23:30	BO			no info.	no info.			-			☐	*Calm, sunny		
			23:33	EN			no info.	no info.			-			☐	only got start coordinates for these first events.		
2			23:37	BE	NET		48° 51.06	-122° 59.08	221	206	-			☐			
			23:44	BO			no info.	no info.			-			☐			
			23:47	EN			no info.	no info.			-			☐	~45° wire angle on 1st ~ half descent		
3	1	17	14:25	BE	SET		48° 28.99	-124° 27.876	178	0	-			☐			
4	2		13:23	BE	SET		48° 26.216	-124° 21.013	207	60	-			☐			
5			17:26	BE	CTD		48° 25.452	-124° 18.459	206	196	-			☐	Sunny, water flat, no wind		
			17:29	BO			48° 25.473	-124° 18.518			-			☐			
			17:32	EN			48° 25.493	-124° 18.575			-			☐			
6			17:37	BE	NET		48° 25.530	-124° 18.661	203	193	-			☐			
			17:43	BO			48° 25.599	-124° 18.812			-			☐			
			17:47	EN			48° 25.632	-124° 18.898			-			☐			
7	3		19:05	BE	SET		48° 24.047	-124° 13.61	170	45	-			☐			
8	4		20:57	BE	SET		48° 22.11	-124° 6.71	155	15	-			☐			
9	5		22:13	BE	SET		48° 20.04	-123° 58.06	155	30	-			☐			
10			23:02	BE	CTD		48° 18.75	-123° 55.06	155	145	-			☐	cloudy, rolling swell but water calm		
			23:05	BO			48° 18.73	-123° 55.02			-			☐			
Event Type: LOOP = Sea Water Loop Bottle Firing Method: CTD Transducer and Element checked to be good.																	

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:

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Month			Year			Vessel			Cruise ID			Page			
SEPTEMBER			2023			FRANKLIN			2023-054			2 of 2			
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Positional Longitude (W)	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/FI Cleaned	Comments
10	5	17	23:07	EN	CTD		48° 18.71	-123° 54.95	155	145	-			☐	
11			23:11	BE	NET		48° 18.70	-123° 54.92	155	145	-			☐	fluorometer was rinsed w/ water and it spun when rinsed
			23:16	BO			48° 18.66	-123° 54.78			-			☐	
			23:18	EN			48° 18.65	-123° 54.75			-			☐	lots of phytoplankton in sample.
12	6	18	14:38	BE	SET		48° 48.981	-123° 06.321	153	0	-			☐	
13	7		15:38	BE	CTD		48° 50.602	-123° 06.230	212	202	-			☐	sunny, very light chop CTD came slightly out of water to the top of y-tubing.
			15:42	BO			48° 50.575	-123° 06.217			-			☐	
			15:45	EN			48° 50.548	-123° 06.199			-			☐	
14			15:50	BE	NET		48° 50.505	-123° 06.170	206	196	-			☐	
			15:57	BO			48° 50.435	-123° 06.148			-			☐	
			16:00	EN			48° 50.419	-123° 06.160			-			☐	
15	7		16:38	BE	SET		48° 51.332	-123° 07.408	152	30	-			☐	
16	8		18:07	BE	SET		48° 51.919	-123° 12.156	187	15	-			☐	
17	9		20:33	BE	SET		48° 55.178	-123° 21.569	155	45	-			☐	
18			21:37	BE	CTD		48° 56.56	-123° 24.56	155	145	-			☐	
			21:39	BO			no info recorded				-			☐	sunny ~ 15-20% chop on water. conditions decent. TD came slight out of water to top of y-tubing.
			21:42	EN			48° 56.57	-123° 24.57			-			☐	
19			21:46	BE	NET		48° 56.55	-123° 24.57	156	146	-			☐	
			21:51	BO			no info recorded				-			☐	

Event Type:

BO = 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

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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

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month		SEPTEMBER		Year		2023		Vessel		FRANKLIN		Cruise ID		2023 - 054		Page 3 of 10	
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments		
							Latitude (N)	Longitude (W)									
19	9	18	21:53	EN	NET		48° 56. 55	-123° 24. 61	156	146	-			☐			
20	10	1	23:17	BE	SET		48° 59.155	-123° 29. 895	149	0	-			☐			
21		1	01:51	BE	CTD *		49° 13. 13	-123° 45. 73	275	265	-			☐	Sun, water light chop		
↓			01:56	BO			49° 13. 09	-123° 45. 73			-			☐			
↓			02:00	EN	↓		49° 13. 09	-123° 45. 73	↓	↓	-			☐			
22			02:06	BE	NET *		49° 13. 07	-123° 45. 73	274	264	-			☐			
↓			02:15	BO			49° 13. 03	-123° 45. 73			-			☐			
↓			02:20	EN	↓		49° 13. 01	-123° 45. 74	↓	↓	-			☐			
23	11	19	14:31	BE	SET		49° 03.781	-123° 35.622	176	15	-			☐			
24	12	1	15:45	BE	SET		49° 06. 213	-123° 37. 529	156	30	-			☐			
25	13		17:09	BE	SET		49° 08.658	-123° 34. 426	245	0	-			☐			
26			18:11	BE	CTD		49° 05.630	-123° 31. 955	285	275	-			☐	water flat, cloudy good sampling end.		
↓			18:16	BO			49° 05.593	-123° 31. 978			-			☐			
↓			18:20	EN	↓		49° 05.569	-123° 31. 986	↓	↓	-			☐			
27			18:26	BE	NET		49° 05.542	-123° 32. 020	281	271	-			☐	cod ends came		
↓			18:35	BO			49° 05.489	-123° 32. 060			-			☐	up twisted		
↓			18:40	EN	↓		49° 05.466	-123° 32. 068	↓	↓	-			☐	around each other		
28	14		19:22	BE	SET		49° 07.067	-123° 29. 944	355	60	-			☐			
29	15		20:49	BE	SET		49° 08.262	-123° 27.389	300	30	-			☐			

Event Type: BOT

Loop = Sea Water Loop

Bottle Firing Method: 1

Time Code: CTD

Event Type: BOT = Bottle cast (no CTD) MOR = Mooring CTD = Standalone CTD NET = Plankton Net Haul ROS = CTD in Rosette SET = Fish Set

LOOP = Sea Water Loop

Bottle Firing Method: US = Up / Stop (default) BE = Beginning Time of Cast DE = Deployment Time UN = Up / No stop BO = Bottom Time of Cast MR = Messenger Release Time DN = Down / No stop EN = End Time of Cast RE = Recover Mooring Time

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

Notes:

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Month			Year			Vessel			Cruise ID						
SEPTEMBER			2023			FRANKLIN			2023-054						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude (N)	Longitude (W)							
30	16	19	22:23	BE	SET		49° 03.824	-123° 25.792	289	0	-			☐	
31			23:48	BE	CTD		49° 00.44	-123° 16.92	166	156	-			☐	overcast ~.5' chop wind ~ kn
			23:51	BO			49° 00.47	-123° 16.91			-			☐	
↓			23:54	EN	↓		49° 00.50	-123° 16.90	↓	↓	-			☐	
32			24:02	BE	NET		49° 00.58	-123° 16.90	163	153	-			☐	last ~100m wire angle ~ 50°
			24:06	BO			49° 00.63	-123° 16.90			-			☐	
↓			24:09	EN	↓		49° 00.64	-123° 16.90	↓	↓	-			☐	
33	17	20	14:27	BE	SET		49° 01.454	-123° 14.971	95	0	-			☐	
34	18		16:19	BE	SET		49° 07.735	-123° 18.806	106	15	-			☐	
35	19		17:37	BE	SET		49° 11.056	-123° 18.163	89	0	-			☐	
36	20		20:41	BE	SET		49° 11.021	-123° 25.251	281	30	-			☐	
37			21:38	BE	CTD		49° 13.013	-123° 27.412	301	291	-			☐	Sunny, 5-17 chop light wind
			21:43	BO			no info. recorded		↓	↓	-			☐	
↓			21:48	EN	↓		no info. recorded		↓	↓	-			☐	
38			21:52	BE	NET		49° 13.04	-123° 27.40	301	294	-			☐	
			22:02	BO			49° 13.02	-123° 27.42			-			☐	
↓			22:07	EN	↓		49° 13.01	-123° 27.41	↓	↓	-			☐	
39	21		:	BE	SET		49° 11.03	-123° 18.18	92	0	-			☐	
40	1		24:59	BE	CTD		49° 18.15	-123° 22.832	272	262	-			☐	Sunny, water .5' wave ~ 50 wire angle asynch

Event Type:

BOF = 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:

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Month		SEPTEMBER		Year		2023		Vessel		FRANKLIN		Cruise ID		2023 - 054			
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments		
							Latitude (N)	Longitude (W)									
40	21	20	01:04	BO	CTD		no info recorded		272	262	-			☐			
↓	↓	↓	01:08	EN	↓		no info recorded		↓	↓	-			☐			
41			01:13	BE	NET		49° 18.12	123° 23.04	274	264	-			☐	good conditions		
↓	↓	↓	01:21	BO			no info recorded		↓	↓	-			☐			
↓	↓	↓	01:26	EN	↓		no info recorded		↓	↓	-			☐			
42	22	21	14:26	BE	SET		49° 19.118	123° 18.555	135	0	-			☐			
43	23	1	16:06	BE	SET		49° 18.318	123° 23.809	247	30	-			☐			
44	24		17:35	BE	SET		49° 16.466	123° 28.885	210	15	-			☐			
45			18:33	BE	CTD		49° 14.453	123° 25.487	261	251	-			☐	Sunny, 1m swell, 5' chop conditions ~ 2/3		
↓	↓	↓	18:37	BO	↓		49° 14.433	123° 25.496	↓	↓	-			☐	~ 0-10° wide angle on descent, ~ 0° ascent		
↓	↓	↓	18:42	EN	↓		49° 14.428	123° 25.503	↓	↓	-			☐			
46			18:49	BE	NET		49° 14.354	123° 25.471	265	255	-			☐	~ 5° angle 110-20m		
↓	↓	↓	18:57	BO			49° 14.32	123° 25.50	↓	↓	-			☐			
↓	↓	↓	19:02	EN	↓		49° 14.29	123° 25.53	↓	↓	-			☐			
47	25		19:57	BE	SET		49° 13.349	123° 30.826	337	60	-			☐			
48	26		21:36	BE	SET		49° 12.950	123° 35.651	373	0	-			☐			
49	27		23:15	BE	SET		49° 11.389	123° 39.722	318	15	-			☐			
50	28	22	14:30	BE	SET		49° 10.869	123° 43.088	153	60	-			☐			
51	29	1	16:23	BE	SET		49° 19.945	123° 52.667	254	0	-			☐			

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

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

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Month			SEPTEMBER			Year		2023		Vessel			FRANKLIN			Cruise ID			2023-054		
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments						
							Latitude (N)	Longitude (W)													
52	30	22	17:36	BE	SET		49° 16.853	-123° 56.925	401	45	-			☐							
53	31		18:35	BE	CTD		49° 18.047	-123° 43.565	314	304	-			☐	sun, 0.5m swell good cond.						
			18:40	BO			49° 18.039	-123° 43.573			-			☐							
			18:46	EN	↓		49° 18.040	-123° 43.668	↓	↓	-			☐							
54			18:52	BE	NET		49° 18.04	-123° 43.65	316	306	-			☐							
			19:01	BO			49° 18.04	-123° 43.68			-			☐							
			19:06	EN	↓		49° 18.04	-123° 43.70	↓	↓	-			☐							
55	31		19:53	BE	SET		49° 19.231	-123° 39.021	257	15	-			☐							
56	32		21:13	BE	SET		49° 22.985	-123° 35.519	162	30	-			☐							
57	33		22:41	BE	SET		49° 22.941	-123° 38.289	177	0	-			☐							
58	34		23:54	BE	SET		49° 23.473	-123° 45.005	133	15	-			☐							
59	35	23	14:21	BE	SET		49° 45.940	-124° 50.861	139	0	-			☐							
60	36		15:26	BE	SET		49° 49.061	-124° 54.442	190	30	-			☐							
61	37		16:55	BE	SET		49° 50.984	-125° 00.118	161	15	-			☐							
62	38		18:14	BE	SET		49° 52.403	-124° 56.618	300	45	-			☐							
63			19:15	BE	CTD		49° 55.38	-124° 57.28	180	170	-			☐	stormy, 32 knot wind, 1.5m swell						
			19:18	BO			no info recorded				-			☐	CTD 1 to 10m for 2m						
			19:21	EN	↓		49° 55.43	-124° 57.31	↓	↓	-			☐	↑ to 5m before 170m NET event cancelled						
64	39		20:47	BE	SET		50° 01.763	-124° 52.646	235	0-15	-			☐	~35° wire angle ascent						

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

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Version: 20 April 2016

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month			Year			Vessel			Cruise ID					
SEPTEMBER			2023			FRANKLIN			2023-054					
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude (N) Longitude (W)	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/Fl Cleaned	Comments
65	40	23	22:16	BE	SET		49° 58.609 124° 51.928	240	15	-			☐ ☐	
66			23:06	BE	CTD		50° 01.24 124° 52.49	288	278	-			☐ ☐	1' chop, overcast
			23:11	BO			50° 01.26 124° 52.49			-			☐ ☐	
			23:15	EN			50° 01.29 124° 52.50			-			☐ ☐	
67			23:22	BE	NET		50° 01.32 124° 52.51	250	240	-			☐ ☐	45-15° wire angle for 3 min
			23:30	BO			50° 01.37 124° 52.50			-			☐ ☐	
			23:34	EN			50° 01.39 124° 52.50			-			☐ ☐	
68	41	24	14:43	BE	SET		50° 17.341 125° 21.261	120	0	-			☐ ☐	
69	42		15:45	BE	SET		50° 17.433 125° 24.708	221	15	-			☐ ☐	
70	43		18:08	BE	SET		50° 21.199 125° 24.091	319	0	-			☐ ☐	
71	44		19:29	BE	SET		50° 23.465 125° 20.444	183	0	-			☐ ☐	
72	45		20:33	BE	SET		50° 21.868 125° 22.125	240	15	-			☐ ☐	
73	46		22:40	BE	SET		50° 17.335 125° 21.145	121	0	-			☐ ☐	
74			23:27	BE	CTD		50° 17.82 125° 25.35	219	209	-			☐ ☐	overcast, water tripped
			23:31	BO			50° 17.88 125° 25.32			-			☐ ☐	
			23:34	EN			50° 17.91 125° 25.37			-			☐ ☐	
75			23:38	BE	NET		50° 17.96 125° 25.36	219	209	-			☐ ☐	last 3 minute up was 3450 wire angle
			23:46	BO			50° 18.15 125° 25.48			-			☐ ☐	
			23:	EN			50° 18.20 125° 25.47			-			☐ ☐	no frozen sample net twisted.

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

DE = Deployment Time
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Notes:

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month			SEPTEMBER			Year			2023			Vessel			FRANKLIN			Cruise ID			2023-054		
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/FI Cleaned	Comments								
							Latitude (N)	Longitude (W)															
76	45	24	24:37	BE	CTD		50° 21.96	125° 22.33	230	220	-			☐	overcast; water rippled stayed at 10m for 2 min 30 sec.								
↓			24:40	BO	↓		50° 21.95	125° 22.35	↓	↓	-			☐									
			24:44	EN			50° 21.96	125° 22.36			-			☐									
77			24:48	BE	NET		50° 21.94	125° 22.37	236	226	-			☐									
↓			24:56	BO	↓		50° 21.92	125° 22.41	↓	↓	-			☐									
↓			01:00	EN	↓		50° 21.92	125° 22.43	↓	↓	-			☐									
78	47	25	14:48	BE	SET		50° 05.79	125° 07.65	174	0	-			☐	overcast, 5' chop								
79	48		17:27	BE	CTD		50° 08.605	125° 03.931	238	228	-			☐									
↓			17:31	BO	↓		50° 08.633	125° 03.927	↓	↓	-			☐									
↓			17:35	EN	↓		50° 08.625	125° 03.897	↓	↓	-			☐									
80			17:39	BE	NET		50° 08.718	125° 03.866	254	244	-			☐	~30 kn wind. spun fluorometer while in air; reading may not be accurate								
↓			17:47	BO	↓		50° 08.723	125° 03.853	↓	↓	-			☐									
↓			17:51	EN	↓		50° 08.737	125° 03.855	↓	↓	-			☐	see notes page.								
81			18:17	BE	SET		50° 09.455	125° 01.983	222	15	-			☐									
82	49		19:30	BE	SET		50° 12.322	125° 00.453	499	0	-			☐									
83	50		20:32	BE	SET		50° 16.319	125° 01.518	443	0	-			☐									
84	51		22:01	BE	SET		50° 16.454	124° 58.845	506	30	-			☐									
85	52		23:11	BE	SET		50° 18.891	124° 54.731	519	0	-			☐									
86			24:03	BE	CTD		50° 18.515	124° 52.791	500	350	-			☐	Overcast < .5' chop								

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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EVENT 79

(UTC) bottom maxcast

CTD 238 228 overcast 0.5 chnp

17:27 BE

17:31 BO

17:35 EN

NET 254 244

17:39 BE

17:47 BO

17:51 EN

EVENT 80

- flowmeter was spinning while bongo was in air before it entered water because it was hanging at 45° angle with 30 kn wind pushing it.
- NOT great sampling conditions although NET did ↓ and ↑ w/ ~0° wire angle.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month				Year		Vessel		Cruise ID							
SEPTEMBER				2023		FRANKLIN		2023-054							
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude (N)	Information Longitude (W)	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
86	52	25	24:08	Bo	CTD		50°18.521	-124°52.792	500	350	-			☐	
↓			24:14	EN	↓		50°18.517	-124°52.816	↓	↓	-			☐	
87			24:20	BE	NET		50°18.503	-124°52.825	500	350	-			☐	good condition
↓			24:32	Bo	↓		50°18.493	-124°52.794	↓	↓	-			☐	
↓		↓	24:38	EN	↓		50°18.517	-124°52.780	↓	↓	-			☐	
88	53	26	14:16	BE	CTD		50°53.159	-124°50.631	260	250	-			☐	Chrys + Siphonia
↓			14:21	Bq	↓		50°53.153	-124°50.604	↓	↓	-			☐	Butter spotted
↓			14:25	EN	↓		50°53.148	-124°50.570	↓	↓	-			☐	
89			14:29	BE	NET		50°53.146	-124°50.549	230	220	-			☐	overcast no wind
↓			14:36	Bo	↓		50°53.104	-124°50.841	↓	↓	-			☐	
↓			14:40	EN	↓		50°53.077	-124°50.466	↓	↓	-			☐	
90	53		17:19	BE	SET		50°53.172	-124°50.910	243	0	-			☐	
91	54		19:08	BE	SET		50°46.558	-124°55.072	450	0	-			☐	
92	55		20:20	BE	SET		50°42.577	-124°52.694	529	0	-			☐	
93	56		21:33	BE	SET		50°42.195	-124°52.826	539	15	-			☐	
94			22:20	BE	CTD		50°40.339	-124°53.191	578	350	-			☐	overcast, water calm, good cond.
↓			22:27	Bo	↓		50°40.373	-124°53.214	↓	↓	-			☐	
↓			22:32	EN	↓		50°40.399	-124°53.234	↓	↓	-			☐	
95			22:37	BE	NET		50°40.419	-124°53.243	572	350	-			☐	

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Month			Year			Vessel			Cruise ID						
SEPTEMBER			2023			FRANKLIN			2023-054						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
95	56	26	22:48	Bo	NET		50°40.470	124°53.307	500	350	-			☐	
↓	↓	↓	22:54	EN	↓		50°40.494	124°53.342	↓	↓	-			☐	
96	57	↓	24:15	BE	SET		50°31.206	124°59.409	653	0	-			☐	
97	58	27	14:39	BE	SET		50°13.508	124°38.192	732	0	-			☐	
98	↓	↓	15:27	BE	CTD		50°11.321	124°38.511	721	350	-			☐	Rain water flat no wind
↓	↓	↓	15:33	BO	↓		50°11.311	124°38.532	↓	↓	-			☐	
↓	↓	↓	15:39	EN	↓		50°11.308	124°38.544	↓	↓	-			☐	
99	↓	↓	15:43	BE	NET		50°11.320	124°38.565	721	350	-			☐	
↓	↓	↓	15:55	BO	↓		50°11.328	124°38.611	↓	↓	-			☐	
↓	↓	↓	16:01	EN	↓		50°11.325	124°38.637	↓	↓	-			☐	
100	59	↓	16:30	BE	SET		50°10.439	124°39.599	677	15	-			☐	
101	60	↓	17:57	BE	SET		50°11.158	124°44.769	403	0	-			☐	
102	61	↓	20:29	BE	SET		50°01.007	125°05.023	256	0	-			☐	
103	62	↓	22:15	BE	SET		49°58.351	124°59.131	168	30	-			☐	
104	63	↓	23:27	BE	SET		49°55.225	124°54.740	237	15	-			☐	
105	↓	↓	24:57	BE	CTD		49°51.671	124°50.899	255	245	-			☐	Sun+ water hipped
↓	↓	↓	01:02	Bo	↓		49°51.669	124°50.893	↓	↓	-			☐	
↓	↓	↓	01:06	EN	↓		49°51.659	124°50.875	↓	↓	-			☐	
106	↓	↓	01:11	BE	NET		49°51.666	124°50.869	253	243	-			☐	

Event Type: BOT = Bottle cast (no CTD)
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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month			Year			Vessel			Cruise ID						
SEPTEMBER			2023			FRANKLIN			2023-054						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trms/FI Cleaned	Comments
							Latitude (N)	Longitude (W)							
106	63	27	01:18	BO	NET		49° 51.657	124° 50.845	253	243	-			☐	good conditions
↓	↓	↓	01:22	EN	↓		49° 51.655	124° 50.846	↓	↓	-			☐	
107	64	28	14:28	BE	SET		49° 45.31	124° 51.4	107	0	-			☐	
108	65	↓	15:34	BE	SET		49° 45.575	124° 49.826	194	60	-			☐	
109	66	↓	16:57	BE	SET		49° 48.572	124° 49.413	348	15	-			☐	
110	67	↓	18:13	BE	SET		49° 50.721	124° 47.945	138	30	-			☐	
111	68	↓	19:25	BE	SET		49° 48.407	124° 42.060	164	0	-			☐	
112	69	↓	20:36	BE	SET		49° 45.616	124° 40.183	148	30	-			☐	
113	↓	↓	22:35	BE	CTD		49° 44.234	124° 43.928	346	336	-			☐	5' wave, sun/cloud
↓	↓	↓	22:40	BO	↓		49° 44.183	124° 44.020	↓	↓	-			☐	
↓	↓	↓	22:46	EN	↓		49° 44.152	124° 44.007	↓	↓	-			☐	
114	↓	↓	22:49	BE	NET		49° 44.129	124° 44.110	342	332	-			☐	
↓	↓	↓	23:00	BO	↓		49° 44.11	124° 44.250	↓	↓	-			☐	
↓	↓	↓	23:06	EN	↓		49° 44.11	124° 44.340	↓	↓	-			☐	
115	70	↓	22:45	BE	SET		49° 44.87	124° 43.320	358	0	-			☐	
116	↓	↓	24:40	BE	CTD		49° 35.658	124° 40.190	144	134	-			☐	water that more associated w/ set 71
↓	↓	↓	24:42	BO	↓		49° 35.051	124° 40.186	↓	↓	-			☐	
↓	↓	↓	24:44	EN	↓		49° 35.033	124° 40.182	↓	↓	-			☐	
117	↓	↓	24:49	BE	NET		49° 35.060	124° 40.171	144	134	-			☐	

Event Type:
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DAILY SCIENCE LOG

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Month	SEPTEMBER			Year	2023			Vessel		FRANKLIN		Cruise ID			2023-054		
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments		
							Latitude (N)	Longitude (W)									
117	70	28	24:53	BO	NET		49°35.066	124°46.154	144	134	-			☐			
↓	↓	↓	24:55	EN	↓		49°35.069	124°40.143	↓	↓	-			☐			
118	71	29	14:18	BE	SET		49°41.179	124°47.767	93.1	0	-			☐			
119	72	↓	15:56	BE	SET		49°35.000	124°39.516	150	58	-			☐			
120	73	↓	17:08	BE	SET		49°38.607	124°37.170	90	15	-			☐			
121	74	↓	19:06	BE	SET		49°41.654	124°34.491	261	30	-			☐			
122	↓	↓	20:05	BE	CTD		49°39.726	124°31.227	192	182	-			☐	5' wave, sun		
↓	↓	↓	20:08	BO	↓		49°39.712	124°31.235	↓	↓	-			☐			
↓	↓	↓	20:11	EN	↓		49°39.704	124°31.235	↓	↓	-			☐			
123	↓	↓	20:14	BE	NET		49°39.699	124°31.233	195	185	-			☐	some wind		
↓	↓	↓	20:19	BO	↓		49°39.688	124°31.226	↓	↓	-			☐			
↓	↓	↓	20:22	EN	↓		49°39.683	124°31.236	↓	↓	-			☐			
124	75	↓	20:47	BE	SET		49°36.973	124°30.647	335	15	-			☐			
125	76	↓	21:55	BE	SET		49°36.516	124°26.154	198	0	-			☐			
126	77	↓	22:10	BE	SET		49°33.780	124°22.906	265	30	-			☐			
127	↓	↓	24:57	BE	CTD		49°28.099	124°37.552	156	146	-			☐	water flat, sun		
↓	↓	↓	01:59	BO	↓		49°28.073	124°37.549	↓	↓	-			☐			
↓	↓	↓	01:02	EN	↓		49°28.087	124°37.548	↓	↓	-			☐			
128	↓	↓	01:05	BE	NET		49°28.683	124°37.549	157	147	-			☐			

Event Type:

LOOP = Sea Water Loop

Bottle Firing Method:

Time Code:

Event Type:

LOOP = Sea Water Loop

Bottle Firing Method:

Time Code:

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

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DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2023-054

DATE:

From: 29 September 2023 To: 2 October 2023

VESSEL:

FRANKLIN

PROJECT(S):

Salmon Marine Interactions

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

BOOK #2

WaterProperties.ca

Captain: Jeff Olsson
Second Officer: Cory Glencross
Fishing Master: Simon Winterburn
First Officer: Kevin McKenzie
Chief Engineer: Rick Horbas

Mission Participants / Agencies:
DFO / CCg

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

1st Leg Scientific Personnel: Chief Scientist: CHRYS NEVILLE
Name Watch Cabin

Sarah Spencer
Jessica Low
Many Kevin
Kyle Goff
Bryan Recalma

2nd Leg Scientific Personnel: Chief Scientist: CHRYS NEVILLE
Name Watch Cabin

Sarah Spencer
Jessica Low
Many Kevin
Kyle Goff
Bryan Recalma
Svetlana Eusenkajava
Justin Flemming

**** 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: Acer Aspire one 722-B2825, WP14

Data acquisition program: Sea-term

CTD deck unit make: SBE model: 25 serial number: 2543784 - 0404

Primary CTD

Make: SBE model: 25 serial number: 0404

Primary temperature serial number: 03-5724

Primary conductivity serial number: 041763

Secondary temperature serial number: X

Secondary conductivity serial number: X

Transmissometer: X Model: _____ s/n: _____

Transmissometer: X Model: _____ s/n: _____

Fluorometer: Model ECO FLRTD G4 Cable gain: _____ s/n: FLRTD-8101 P, S or NO pump?

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

Oxygen sensor: SBE Model: 43 s/n: 430047 P, S or NO pump?

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

Other sensors: pH, model: 18 (1200m) s/n: 18-1585 P, S or NO pump?

Other sensors: pressure, model: 29 (3500m) s/n: 290668 P, S or NO pump?

Other sensors: submersible pump, model: 5T (10500m) s/n: 053445 P, S or NO pump?

Other sensors: _____ s/n: 2KLV P, S or NO pump?

Secondary CTD X

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): X

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

Rosette Setup:

Number of bottles: _____

Manufacturer: _____

Volume of bottles (litres): _____

Winches:

1. Make: _____

Model: _____

Serial #: _____

Used for: _____

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):

Salinometer:

Make: _____

Model: _____

Serial Number: _____

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

Oxygen Kit(s):

Make: _____

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: _____

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: _____

Name: _____

Exit points: _____

Name: _____

Exit points: _____

Work File: _____

Sampling interval (sec): _____

Bin Length: (2^x): _____

Pulse Length: _____

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: 253 μ m Flowmeter: T.S.K s/n 0717
Bongo #2 Frame Size: _____ cm Mesh: _____ μ m Flowmeter: _____
_____ Frame Size: _____ cm Mesh: _____ μ m Flowmeter: _____
_____ Frame Size: _____ cm Mesh: _____ μ m Flowmeter: _____

2023 V is
0.159N

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 ☒ V15

Sounders : Wesmar 380 ☐ Others: sonar FS70

Acoustics:

Echosounder #1 EK 80 Frequencies (KHz): 12 ☐ 18 ☒ 38 ☒ 70 ☒ 120 ☒ 200 ☒

Others: 330 Hz

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

Others: _____

Software & Notes: _____

Other Gear in Operation:

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

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month			Year			Vessel			Cruise ID			2023-054			Page 12 of 102	
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments	
							Latitude	Longitude (W)								
128	77	29	01:10	BO	NET		49° 28.074	124° 37.580	157	147	-			☐		
↓	↓	↓	01:13	EN	↓		49° 28.071	124° 317.596	↓	↓	-			☐		
129	78	30	14:35	BE	SET		49° 30.964	124° 28.391	192	0	-			☐		
130	79	1	15:37	BE	SET		49° 28.798	124° 34.485	124	30	-			☐		
131	80	1	16:57	BE	SET		49° 27.252	124° 38.282	92	15	-			☐		
132	81	1	17:56	BE	SET		49° 28.190	124° 33.453	132	45	-			☐		
133	↓	↓	19:02	BE	CTD		49° 24.869	124° 28.880	213	203	-			☐	sun, 45' chop	
↓	↓	↓	19:05	BO	↓		49° 24.866	124° 28.874	↓	↓	-			☐		
↓	↓	↓	19:08	EN	↓		49° 24.861	124° 28.862	↓	↓	-			☐		
134	↓	↓	19:13	BE	NET		49° 24.852	124° 28.848	213	203	-			☐		
↓	↓	↓	19:19	BO	↓		49° 24.848	124° 28.836	↓	↓	-			☐		
↓	↓	↓	19:23	EN	↓		49° 24.845	124° 28.837	↓	↓	-			☐		
135	82	1	19:49	BE	SET		49° 23.323	124° 27.391	132	0	-			☐		
136	83	1	20:58	BE	SET		49° 23.777	124° 21.735	320	15	-			☐		
137	84	1	22:09	BE	SET		49° 24.610	124° 17.937	344	0	-			☐		
138	85	1	23:24	BE	SET		49° 21.065	124° 17.020	177	30	-			☐		
139	↓	↓	24:39	BE	CTD		49° 24.228	124° 19.143	355	345	-			☐	sun <.5' wave	
↓	↓	↓	24:45	BO	↓		49° 24.251	124° 19.163	↓	↓	-			☐		
↓	↓	↓	24:51	EN	↓		49° 24.270	124° 19.167	↓	↓	-			☐		

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

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WaterProperties.ca
Version: 20 April 2016

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month SEPTEMBER/OCTOBER				Year 2023		Vessel FRANKLIN				Cruise ID 2023 - 054					
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude (N)	Longitude (W)							
140	85	30	24:55	BE	NET		49° 24.283	-124° 19.159	354	344	-			☐	
			01:07	BO			49° 24.333	-124° 19.168			-			☐	
↓	↓	↓	01:13	EN	↓		49° 24.359	-124° 19.164	↓	↓	-			☐	
141	86	1	14:55	BE	SET		49° 22.215	-124° 16.734	276	30	-			☐	
142	87	1	15:54	BE	SET		49° 23.359	-124° 12.491	336	60	-			☐	
143	88	1	17:16	BE	SET		49° 26.252	-124° 07.100	135	0	-			☐	
144	89	1	19:15	BE	SET		49° 24.743	-123° 52.999	198	15	-			☐	
145	90	1	-	-	SET		-	-	no info	-	-			☐	cancelled set due to humpbacks
146			21:00	BE	CTD		49° 27.18	-124° 01.192	296	286	-			☐	sun. water rippled
			21:04	BO			49° 27.130	-124° 01.236	↓	↓	-			☐	
↓			21:09	EN	↓		49° 27.099	-124° 01.263	↓	↓	-			☐	
147			21:14	BE	NET		49° 27.062	-124° 01.249	310	300	-			☐	
			21:22	BO			49° 27.006	-124° 01.321	↓	↓	-			☐	
↓			21:27	EN	↓		49° 26.980	-124° 01.399	↓	↓	-			☐	
148	91		22:07	BE	SET		49° 36.802	-124° 04.159	162	30	-			☐	
149	92		23:32	BE	SET		49° 36.579	-124° 07.008	246	0	-			☐	
150			24:41	BE	CTD		49° 40.567	-124° 16.465	360	350	-			☐	overcast water flat
			24:47	BO			49° 40.561	-124° 16.487	↓	↓	-			☐	
↓			24:53	EN	↓		49° 40.556	-124° 16.510	↓	↓	-			☐	

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DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month			Year		Vessel		Cruise ID				Page				
OCTOBER			2023		FRANKLIN		2023-054				15 of 16				
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Tms/FI Cleaned	Comments
							Latitude (N)	Longitude (W)							
151	92	1	24:57	BE	NET		49° 40.553	124° 16.521	360	350	-			☐	
			01:07	BO			49° 40.537	124° 16.557			-			☐	
			01:13	EN	↓		49° 40.528	124° 16.568	↓	↓	-			☐	
152	93	2	14:37	BE	SET		49° 45.902	124° 30.679	296	15	-			☐	
153	94	1	15:39	BE	SET		49° 44.816	124° 24.690	324	45	-			☐	
154	95	1	17:02	BE	SET		49° 43.415	124° 18.103	150	0	-			☐	
155	96		19:03	BE	SET		49° 45.996	124° 10.316	387	0	-			☐	
156	97		20:42	BE	SET		49° 49.197	123° 54.911	673	30	-			☐	
157	98		21:53	BE	SET		49° 53.835	123° 54.649	659	0	-			☐	
158	99		22:51	BE	SET		49° 56.103	123° 58.006	554	15	-			☐	
159			23:47	BE	CTD		49° 59.754	123° 58.925	556	350	-			☐	overcast water flat
			23:52	BO			49° 58.744	123° 58.936			-			☐	
			23:58	EN	↓		49° 59.738	123° 58.944	↓	↓	-			☐	
160			24:01	BE	NET		49° 59.730	123° 58.954	556	350	-			☐	
			24:12	BO			49° 59.753	123° 58.929			-			☐	
			24:17	EN	↓		49° 59.751	123° 58.936	↓	↓	-			☐	
161			02:44	BE	CTD		49° 46.249	124° 07.523	546	350	-			☐	night wave
			02:50	BO			49° 46.259	124° 07.518			-			☐	
			02:56	EN	↓		49° 46.266	124° 07.517	↓	↓	-			☐	

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