

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2016-12

DATE:

From: July 4, 2016 To: July 19, 2016

VESSEL:

CCGS TULLY

PROJECT(S):

WCVI MOORINGS
WCTSS

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

Book 1/2

WaterProperties.ca

Rosette Setup:

Number of bottles: 24
Manufacturer: 105
Volume of bottles (litres): 70L

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: SEOSAMP Version: _____

Sampling interval (seconds): 30

Fluorometer sensor serial number: WS35953P

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

ADCP Setup:

Computer time zone: _____

Sampling interval (sec): _____

Bin Length: (2^x): _____

Pulse Length: _____

Buffer (bytes): _____

Gyro Offset: _____

User Exits: Name: _____ Exit points: _____

Name: _____ Exit points: _____

Name: _____ Exit points: _____

Work File: _____

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:

Rosette Setup:

Number of bottles: 24
Manufacturer: LOS
Volume of bottles (litres): 70L

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: SEOSAVE Version: _____ S/N 3411
Sampling interval (seconds): 30
Fluorometer sensor serial number: W535953P

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°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:

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Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>July</u>			Year <u>2016</u>			Vessel <u>TULLY</u>			Cruise ID <u>2016-12</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
01	SI	05	02:47	BE	ROS	US	48° 39.600	123° 30.120			-		TF	☒ ☐	test cast
			02:51	BO			48° 39.590	123° 30.120	-	172	-			☐ ☐	bottles fired but
			02:56	EN			48° 39.590	123° 30.130			-			☐ ☐	no sample taken
02	SOGN2-C	05	16:26	BE	ROS	US	49° 50.040	124° 51.810	332		25-29	5	CH	☒ ☐	Particle cast
			16:32	BO			.	.			-			☐ ☐	
			16:43	EN			49° 50.02	124° 51.860			-			☐ ☐	
03	SOGN2-C	05	17:00	BE	ROS	UP	49° 50.06	124° 51.76	331		1-24	24		☒ ☐	Superchem
			17:08	BO			49° 50.07	124° 51.77		326	-			☐ ☐	
			17:31	EN			49° 50.06	124° 51.73			-			☐ ☐	deck pressure 1.1
04	SOGN C	05	19:11	BE	CTD		49° 49.16	124° 54.12	184		-			☒ ☐	
			19:20	BO			49° 49.15	124° 54.17		179	-			☐ ☐	
			19:24	EN			49° 49.16	124° 54.16			-			☐ ☐	deck pressure 1.2
05	SOGN W	05	20:33	BE	CTD		49° 48.13	124° 56.10	88		-			☒ ☐	
			20:40	BO			49° 48.13	124° 56.12		83	-			☐ ☐	
			20:41	EN			49° 48.14	124° 56.13			-			☐ ☐	
06	PINE ISLAND	06	12:47		SCT		51° 00.00	127° 47.			-		HB, SP	☐ ☐	3 SCTs deployed # 507, 508, 509
07	HNAKI	06	17:48	BE	ROS		51° 42.66	128° 14.20	140		30-48			☐ ☐	
			17:52	BO			51° 42.66	128° 14.15	137		-			☐ ☐	
			18:05	EN			51° 42.68	128° 14.08			-			☐ ☐	Deck pressure 1

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

Notes:

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, IOS

WaterProperties.ca
 Version: 20 April 2016

SOGN2-C Mooring Recovery July 5, 2016

This page is for any notes or observations

1739 UTC - On Station
 - Send 16B3 372 372 370 - through hull transducer
 1746 - Relocate South 434 439
 1747 - Send 16B3 + 16S5 445 447 executed
 1748 - On Surface

SOGN2-C Mooring Recovery July 5, 2016

1935 - On Station
 - Send 1A28 283 281 280 279
 1945 - Relocate South intermittent contact 409 391 377 moving closer for better contact through hull transducer
 1947 - Send 1A28 + 1A55 312 305 executed
 1949 - On Surface
 2010 - On deck

SOGN2-C Mooring Recovery July 5, 2016
 - On Station

SOGN2-C Mooring Recovery July 5, 2016

This page is for any notes or observations

1739 UTC - On Station

- Send 16B3 372 372 370

- through hull transducer

1746 - Relocate South 434 439

1747 - Send 16B3 + 1655 445 447

executed

1748 - On Surface

SOGN2-C Mooring Recovery July 5, 2016

1935 - On Station

- Send 1A28 283 281 280 279

1945 - Relocate South intermittent contact

409 391 377

moving closer for better contact through hull transducer

1947 - Send 1A28 + 1A55 312 305

executed

1949 - On Surface

2010 - On deck

SOGN2-C Mooring Recovery July 5, 2016

- On Station

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Month <u>July</u>			Year <u>2016</u>			Vessel <u>TULLY</u>			Cruise ID <u>2016-12</u>						
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							
8	LS100	07	02:44	BE	CTD	/	52°38.610	128°54.880	158		-	-	SP	☒ ☐	
			02:47	BO			52°38.610	128°54.880		153	-			☐ ☐	
			02:51	EN			52°38.610	128°54.870			-			☐ ☐	
9	LS95	07	03:42	BE	CTD	-	52°42.110	129°1.400	240		-	-	SP	☒ ☐	
			03:47	BO			52°42.090	129°1.440		235	-			☐ ☐	
			03:53	EN			52°42.080	129°1.400			-			☐ ☐	
10	LS89	7	04:42	BE	CTD	-	52°46.702	129°8.378	204		-		SP	☒ ☐	
			04:47	BO			52°46.700	129°8.393		201.5	-			☐ ☐	
			04:51	EN			52°46.690	129°8.410			-			☐ ☐	
11	LS85	07	05:28	BE	CTD	-	52°51.190	129°11.176	106		-		SP	☒ ☐	
			05:31	BO			52°51.190	129°11.170		103	-			☐ ☐	
			05:33	EN			52°51.187	129°11.210			-			☐ ☐	
12	SC74	07	06:48	BE	ROS	VS	53°0.68	129°15.83	375		49-61	13	SP	☒ ☐	
			06:54	BO			53°0.67	129°15.79		375	-			☐ ☐	
			07:12	EN			53°0.67	129°15.69			-			☐ ☐	
13	SC74		07:19		DRF		53°0.800	129°15.750			-		SP+H	☐ ☐	SC74 # 512
14	WHA3	07	08:32	BE	CTD		53°8.430	129°7.290	545		-		SP	☒ ☐	
			08:40	BO			53°8.410	129°7.260		543	-			☐ ☐	
			08:49	EN			53°8.410	129°7.310			-			☐ ☐	

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

Notes:

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, IOS

WaterProperties.ca
 Version: 20 April 2016

SOGNW-C Mooring Recovery July 5, 2016

2050^{UTC} On Station

- Send 1A2D

142 143 160 171 198

2058 - relocate

248 254 256

2100 - Send 1A2D+1A55

256 255

Executed

2101 - on Surface

This page is for any notes or observations

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Month <u>July</u>				Year <u>2016</u>		Vessel <u>TULLY</u>				Cruise ID <u>2016-12</u>						Page <u>3</u> of <u> </u>	
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									
15	WHA3	07	08:54		DRIFTER		53° 08.443	129° 07.385									
16		07	09:12		Drifter		53° 11.352	129° 08.010			-		HB	☐	#513		
17		07	09:34		Drifter		53° 14.692	129° 07.202			-		HB	☐	#514		
18		07	09:53		Drifter		53° 17.402	129° 08.100			-		HB	☐	#515		
19	VP43	07	10:53	BE	CTD		53° 24.830	129° 7.150	311		-		HB	☐	#516		
			10:59	BO			53° 24.830	129° 7.120		312	-		SP	☒			
			11:05	EN			53° 24.810	129° 7.110			-			☐	- altimeter behaved oddly at bottom of cast.		
20	VP39	07	11:51	BE	CTD		53° 29.610	129° 4.670	170		-			☐			
			:54	BO			53° 29.530	129° 4.690		167	-		SP	☒			
			:57	EN			53° 29.510	129° 4.670			-			☐			
21	VC31	07	12:41	BE	CTD		53° 32.250	128° 59.850	46		-			☐			
			:42	BO			53° 32.180	128° 59.890		42	-		SP	☒	- strong current drifted back aft for cast		
			:43	EN			53° 32.150	128° 59.900			-			☐			
22	VP26	07	14:01	BE	CTD		53° 32.810	128° 53.40	210		-			☐			
			14:07	BO			53° 32.77	128° 53.49		205	-			☐			
			14:11	EN			53° 32.74	128° 53.55			-		CH	☒			
23	Dev Channel	07	:	BE	Drifters	-	53° 35.199	128° 49.975	60	0	-			☐	deck pressure 1.1		
			:				.	.			-			☐	510, 511		
			:				.	.			-			☐			
			:				.	.			-			☐			

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

LOOP = Sea Water Loop
MOR = Mooring
NET = Plankton Net

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

Time Code:
BE = Bottle Event
BO = Bottle Only
EN = Event Only
CTD = CTD Only

CTD Transmissometer and Fluorometer

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:

HAKI-A Mooring Deployment July 6, 2016

1950 UTC

51° 42.717' N

128° 14.155' W

144 m depth

This page is for any notes or observations

511 is always on / - between Dec 26 and Dec 23

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Ocean Sciences Division, Institute of Ocean Sciences

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Month <u>July</u>			Year <u>2016</u>			Vessel <u>TULLEY</u>			Cruise ID <u>2016-12</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
23	DEC19	07	15:11	BE	CTD		53°39.34	128°52.38	267		-	0	CH	☒ ☐	Fluorometer signal spiky.
			15:19	BO			53°39.38	128°52.24		264				☐ ☐	
			15:24	EN			53°39.38	128°52.17						☐ ☐	
24	DOUG11	07	16:43	BE	ROS		53°49.75	128°49.27	326		62-75		CH	☒ ☐	
			16:50	BO			53°49.76	128°49.19		325	-			☐ ☐	
			17:07	EN			53°49.79	128°49.16			-			☐ ☐	
25	DOUG4	7	18:01	BE	ROS		53°55.56	128°42.31	218		76-			☐ ☐	deck pressure 1.3
			18:07	BO			53°55.56	128°42.34		213	-			☐ ☐	
			18:22	EN			53°55.56	128°42.35			-			☐ ☐	
26	DOUG16	7	19:43	BE	ROS		53°46.65	128°54.67	377		97-111			☒ ☐	started descent with pump off
			19:54	BO			53°46.71	128°54.67		372	-			☐ ☐	back to surface.
			20:18	EN			53°46.960	128°54.770			-			☐ ☐	Try again
27	DOUG16	7	20:23		DRF		53°46.9	128°54.8			-			☐ ☐	#516-517
28	FOCI	7	20:58	BE	ROS		53°44.110	128° 1.462	370		112-119	8		☐ ☐	Particle
			21:07	BO			53°44.190	129° 1.450		365	-			☐ ☐	1.1m on deck
			21:21	EN			53°44.341	129° 1.374			-			☐ ☐	
29	FOCI	7	21:41	BE	ROS		53°44.03	129°01.46	371		120-144	24	CH	☐ ☐	1.1 m on deck
			21:50	BO			53°44.18	129°01.43		369	-			☐ ☐	
			21:10	EN			53°44.22	129°01.55			-			☐ ☐	

Event Type:

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

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NET = Plankton Net Haul

DRF = Drifter

___ =

Bottle Firing Method:

US = Up / Stop (default)

UN = Up / No stop

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Notes:

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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Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 20 April 2016

FOC1-C Mooring Recovery July 7, 2016

This page is for any notes or observations

2217 - On Station

- Send 089D 421 427 431 447

2223 - Relocate 506 505 506 506

2227 - Send 089D + 0855 520 524 No executed Check release #1191

DAILY SCIENCE LOG

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Month <u>July</u>				Year <u>2016</u>		Vessel <u>Tully</u>			Cruise ID <u>206-12</u>						
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
30	Foc	07	23:14		DRF										
31	Doug26	08	00:50	BE	ROS		53°40.38	129°07.44	397		145-158	14		☐	# 218 #518
			01:03	BO			53°40.25	129°07.52		391	-		CKW	☒	Deck pressure 1.1
			01:24	EN			53°40.15	129°07.45			-			☐	did not wait 30s for bottle #7
32	DOUG29	08	02:00	BE	CTD		53°38.120	129°11.420	373		-			☐	
			02:07	BO			53°38.080	129°11.430		375	-		SP	☒	
			02:14	EN			53°38.050	129°38.450			-			☐	
33	DOUG29	08	02:16		DRIFTERS		53°38.323	129°38.438			-			☐	
34	Doug31	08	02:42	BE	ROS		53°36.600	129°12.690	292		159-169	11	HB	☐	#519
			02:48	BO			53°36.510	129°12.730		280	-			☒	
			03:02	EN			53°36.600	129°12.750			-			☐	
35	DOUG32	08	03:30	BE	CTD		53°35.712	129°12.728	243		-		SP	☒	
			03:35	BO			53°35.672	129°12.712		240	-			☐	
			03:39	EN			53°35.646	129°12.694			-			☐	
36	DOUG32	08	03:40		DRF		53°35.540	129°12.780			-		HB	☐	#520
37	DOUG35	08	04:10		CTD		53°32.270	129°12.250	327		-		SP	☒	
			04:15				53°32.290	129°12.180		325	-			☐	
			04:22				53°32.270	129°12.120			-			☐	
38	DOUG35	08	04:26		DRF		53°32.188	129°12.022			-			☐	#521

Event Type:

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Bottle Firing Method:

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Notes:

Time Code:

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Month <u>July</u>			Year <u>2016</u>			Vessel <u>Tully</u>			Cruise ID <u>2016-12</u>						
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							
39	DOUG-36	08	04:43	BE	CTD		53°31.07	129°12.39	351		-	-	SP	☒ ☐	
			04:49	BO			53°31.064	129°12.382		350	-			☐ ☐	
			04:55	EN			53°31.066	129°12.383			-			☐ ☐	
40	KSK-1	08	05:19	BE	ROS	US	53°28.830	129°12.530	372		170-183	14	SP	☒ ☐	- missed tripping
			05:24	BO			53°28.840	129°12.480		369	-			☐ ☐	ball is, went back to b-5
			05:44	EN			53°28.865	129°12.400			-			☐ ☐	to collect.
41	DOUG-40	08	06:13	BE	CTD		53°26.740	129°12.540	394		-		SP	☒ ☐	
			06:18	BO			53°26.750	129°12.550		390	-			☐ ☐	
			06:22	EN			53°26.770	129°12.560			-			☐ ☐	
42	DOUG-45	08	07:19	BE	ROS	US	53°22.270	129°11.610	452.		184-199	16	SP	☒ ☐	
			07:27	BO			53°22.270	129°11.610		453	-			☐ ☐	
			07:50	EN			53°22.240	129°11.720			-			☐ ☐	
43	WC-43	08	08:30	BE	CTD		53°21.034	129°16.441	514		-		SP	☒ ☐	
			:39	BO			53°21.070	129°16.454		512	-			☐ ☐	
			:48	EN			53°21.097	129°16.421			-			☐ ☐	
44	SC-58	08	10:03	BE			53°16.520	129°25.570	530		-		SP	☒ ☐	
			10:12	BO			53°16.550	129°25.530		525	-			☐ ☐	
			10:21	EN			53°16.550	129°25.560			-			☐ ☐	
45	Grenville		:		DRFR		°	°			-		HB	☐ ☐	# 522/523/524

Event Type:

BOT = Bottle cast (no CTD)
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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

Notes:

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

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Month <u>July</u>				Year <u>2016</u>		Vessel <u>Tully</u>				Cruise ID <u>2016-12</u>					
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							
46	SC61	8	10:54	BE	ROS		53° 12.630	129° 25.150	502	3.2	224	1	SP	☒	surface bottle only
47	SC61	8	11:07	BE	ROS	VS	53° 12.610	129° 25.180	508		200-223	24	SP	☒	-called 'WC43'
			11:17	BO			53° 12.580	129° 25.250		502	-			☐	in seabird file by error
			11:35	EN			53° 12.490	129° 25.320			-			☐	
48	OC66	8	12:36	BE	CTD		53° 11.938	129° 33.412	240		-			☐	
			:41	BO			53° 11.930	129° 33.420	2	236	-		SP	☒	
			:45	EN			53° 11.926	129° 33.454			-			☐	
49	OC66	8	12:49		DRF		53° 11.878	129° 33.424			-			☐	
50	PC73	8	13:42		CTD		53° 16.260	129° 42.990	188		-		HB	☐	#525/526
			13:48				53° 16.240	129° 43.020		183	-			☐	
			13:52				53° 16.230	129° 43.060			-			☐	
51	ES72	8	15:16	BE	CTD		53° 5.67	129° 33.78	177		-			☐	
			15:22	BO			53° 5.69	129° 33.85		172	-		CH	☐	
			15:25	EN			53° 5.69	129° 33.87			-			☐	
52	ES80	8	16:09	BE	CTD		53° 0.62	129° 28.83	123		-			☐	
			:	BO			.	.		6-4	-		CH	☒	
			16:17	EN			53° 0.54	129° 28.77			-			☐	
53	EM2-A	8	17:23	BE	CTD		52° 55.11	129° 16.19	233		-		CH	☒	deck pressure 1.1
			17:30	BO			52° 55.10	129° 16.25		229	-			☐	

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

Notes:

Time Code:

BE = Beginning Time of Cast
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RE = Recover Mooring Time

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This page is for any notes or observations

Bottle 19; Si tubing broke - replaced with normal line + spring

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Month <u>July</u>				Year <u>2016</u>		Vessel <u>Tully</u>			Cruise ID <u>2016-12</u>						
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							
53	CAM2-A	8	17:35	EN			52°55.10	129°16.19			-			☐ ☐	
54	C584	8	19:02	BE	CTD		52°54.04	129°24.02	254		-		CH	☒ ☐	deck pressure 1.1
			19:14	BO			52°54.03	129°24.01		249	-			☐ ☐	
			19:19	EN			52°54.02	129°24.07			-			☐ ☐	
55	CAM1-A	8	20:12	BE	CTD		52°47.08	129°29.72	423		-		CH	☐ ☐	deck pressure 1.1
			20:22	BO			52°47.13	129°29.68		420	-			☐ ☐	lovely stair cases in the salinity
			20:29	EN			52°47.19	129°29.64			-			☐ ☐	TS constant →
56	HEC1	9	00:50	BE	ROS		52°49.27	129°50.72	160		225-242	18	CH	☒ ☐	
			01:01	BO			52°49.26	129°50.85		162	-			☐ ☐	steep slope
			:	EN			.	.			-			☐ ☐	
57	SRW	9	04:02	BE	CTD		52°25.730	129°35.200	137		-		SP	☒ ☐	
			04:05	BO			52°25.720	129°35.240		134	-			☐ ☐	
			04:07	EN			52°25.720	129°35.260			-			☐ ☐	
58	SRW	9	04:15	BE	ROS	VS	52°25.730	129°35.300	130		243-250	8	SP	☒ ☐	
			04:18	BO			52°25.720	129°35.330		128	-			☐ ☐	
			04:27	EN			52°25.720	129°35.420			-			☐ ☐	
59	MS1	9	07:58	BE	ROS	VS	52°8.030	128°50.290	214		251-261	14	SP	☒ ☐	
			08:02	BO			52°8.060	128°50.280		209	-			☐ ☐	
			08:17	EN			52°8.140	128°50.270			-			☐ ☐	

Event Type:

BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
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 SET = Fish Set

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

US = Up / Stop (default)
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 DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
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 DE = Deployment Time
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CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

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CAM2-A Mooring Recovery July 8, 2016

1730 - On CTD Station -

- Send 16B1 - intermittent responses 830 780

- move closer 289 288 287 286

1748 - 331 333

- relocate for release

no ranges

switch to dunking transducer

312

1754 - Send 16B1 + 1655

309

308

Executed

On Surface

CAM1-A - T/S Constant below 200m.

$S1 < S2$ by 0.006/7.

Summer renewal water has O_2 33 ml/l.

CAM1-A - Mooring Recovery July

2030 - On CTD Station

- Send 16B5

Ranges

800 - 900

, drifting away from location

2036 - 487 503 532 531 532

2043 - Send 16B5 + 1655

531 531

Executed

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Month <u>July</u>				Year <u>2016</u>		Vessel <u>TC 114</u>			Cruise ID <u>2016-12</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
60	MS2	9	10:14	BE	CTD		52° 0.070	129° 14.040	180		-		SP	☒ ☐	
			10:18	BO			52° 0.030	129° 14.020		177	-			☐ ☐	
			10:21	EN			52° 0.014	129° 13.990			-			☐ ☐	
61	SRC	9	12:59	BE	CTD		52° 15.160	129° 40.600	215		-		SP	☒ ☐	
			13:02	BO			52° 15.160	129° 40.600		210	-			☐ ☐	
			13:06	EN			52° 15.140	129° 40.610			-			☐ ☐	
62	MS3	9	18:24	BE	ROS		51° 48.80	129° 41.39	299		265-275	11	CM, CW	☒ ☐	bottle 2 + 3
			:	BO			.	.		295	-			☐ ☐	bottle tripped at
			18:47	EN			51° 48.77	129° 41.52			-			☐ ☐	200 m.
63	MS4	9	20:10	BE	ROS		51° 41.53	129° 57.40	358		276-293	17	CM, CW	☒ ☐	deck pressure 6.2
			20:20	BO			51° 41.57	129° 57.39		354	-			☐ ☐	had to go back & trip second
			20:41	EN			51° 41.75	129° 52.20			-			☐ ☐	50 m bottle
64	MS5	10	00:41	BE	CTD		51° 37.39	130° 16.120	560		-			☐ ☐	Verg strange
			00:55	BO			51° 37.34	130° 16.18		550	-			☐ ☐	sounder & altimeter in series disagree
			01:05	EN			51° 37.34	130° 16.21			-			☐ ☐	
65	MS6	10	02:32	BE	ROS	VS	51° 31.170	130° 30.620	1340		294-312	17	SP	☒ ☐	PRR removed
		10	02:51	BO			51° 31.150	130° 30.650		1332	-			☐ ☐	
		10	03:26	EN			51° 31.210	130° 30.540			-			☐ ☐	
			:				.	.			-			☐ ☐	

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

Notes:

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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HEC1-C Mooring Recovery July 8, 2016

2231 - On Station
 - Send 16BB 464 464 464
 2237 - 251 245 258 257 266
 2244 - 353 intermittent ranges
 2247 Send 16BB + 16SS 384 387 Executed - on Surface

RA1-C Mooring Recovery July 9, 2016

2211 - On Station
 - Send B529 528 609 3495 Random Responses
 ship quiet 3105 random responses
 2228 1119 6103
 Send D000 For transponder random responses
 Send B529 1109 1054 3578 4011 no coherent replies
 2243 - Switch deck units & transducers - still no joy
 2246 1798 3449
 2247 - Send release code B530 1070 executed
 Several coherent ranges 162 163 - on Surface

M55 - Altimeter + sounder in serious disagreement were either 5 mab or 50 mab.
 Don't know which
 Is this a soft oozy bottom?
 ↑ sounder ↑ altimeter

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Month <u>July</u>			Year <u>2016</u>			Vessel <u>Tully</u>			Cruise ID <u>2016-12</u>						
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							
66	MS7	10	04:34	BE	CTD		51°27.740	130°40.160	1740		-		SP	☒	Termination
			04:57	BO			51°27.820	130°40.140		1755	-			☐	re-taped prior to cast
			05:17	EN			51°27.810	130°40.150			-			☐	
67	MS8	10	07:01	BE	ROS	US	51°23.530	130°55.810	2200		313-333	21	SP	☒	
			07:39	BO			51°23.560	130°55.870		2224	-			☐	
			08:31	EN			51°23.660	130°55.810			-			☐	
68	CI8	10	13:44	BE	ROS	US	50°54.51	129°52.86	2044		332-354	23	CH, CW	☐	over →
			14:26	BO			50°54.41	129°53.34		2065	-			☐	
			15:18	EN			50°54.49	129°53.88			-			☐	
69	CI7	10	16:08	BE	CTD		50°56.40	129°48.63	1565		-		CH	☒	deck pressure 1.3
			16:40	BO			50°56.40	129°48.		1625	-			☐	over →
			17:08	EN			50°56.55	129°48.97			-			☐	
70	CI6	10	18:18	BE	ROS	US	51°1.99	129°38.10	815		355-368	14	CH, CW	☒	1.1 m pressure
			18:36	BO			51°1.99	129°38.08		829	-			☐	on deck
			19:03	EN			51°1.980	129°38.120			369-38	17		☐	
71	Scots 2	10	20:33	BE	ROS	US	51°07.64	129°28.56	287		369-385	17		☒	1.3 m pressure
			20:41	BO			51°07.61	129°28.58		286	-			☐	or dock
			20:58	EN			51°07.67	129°28.53			-			☐	20 m thick subsurface chl-a layer
			:				.	.			-			☐	
Event Type: LOOP = Sea Water Loop Bottle Firing Method: Time Code:															

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

Notes:

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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RA1-C2 mooring recovery July 9, 2016

2307 - On station - had ranges ~ 800 From RA1-C

- Send 1A2B 308 313 325 300 290

"pythagorizing"

2312 - Relocated to the east 384 395

2316 -- 401 400

2317 Send 1A2B+1A55 406 407 executed

Some strangeness with samples numbers: bottle 1+2 now labelled 9332 and 9333

lovely coordinated wigh: T, 10, turbidity & S at ~ 130m and 250m. + ~ 1500m

SRC 1-A Mooring Deployment July 9, 2016

1528 UTC

52° 15.216' N

129° 40.722' W

212.5 m depth

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Month <u>July</u>				Year <u>2016</u>		Vessel <u>Triton</u>				Cruise ID <u>2016-12</u>					
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
72	CI5	10	22:39	BE	CTD		51°11.09	129°15.98	302		-		CH	☒	deck pressure 1.2
			22:41	BO			51°11.10	129°15.96		300	-			☐	
			22:52	EN			51°11.83	129°15.92			-			☐	
73	SCTΦ	10	23:24		DRF		51°12.78	129°09.84			-			☐	
74	CI4	11	00:33	BE	CTD		51°19.24	129°03.05	261		-		CH	☒	
			00:38	BO			51°19.27	129°03.03		258	-			☐	
			00:43	EN			51°19.27	129°03.00			-			☐	
75	CI3	11	02:07	BE	ROS	VS	51°21.080	128°42.980	217		386-394	9	SP	☒	
			02:10	BO			51°21.030	128°42.930		214	-			☐	
			02:22	EN			51°21.010	128°42.890			-			☐	
76	CI2	11	03:35	BE	CTD		51°28.015	128°29.922	201		-		SP	☒	
			03:38	BO			51°27.995	128°29.899		200	-			☐	
			03:41	EN			51°27.950	128°29.890			-			☐	
77	CI1	11	04:58	BE	ROS	VS	51°35.770	128°18.220	155		395-407	13	SP	☒	
			05:00	BO			51°35.740	128°18.180		153	-			☐	
			05:10	EN			51°35.710	128°18.370			-			☐	
78	CS11	11	06:44	BE	ROS	VS	51°23.010	128°12.430	147		408-420	13	SP	☒	
			06:47	BO			51°23.010	128°12.400		144	-			☐	
			06:58	EN			51°23.030	128°12.540			-			☐	

title cast (no CTD)
alone CTD
Rosette

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

Bottle Firing Method:

US = Up / Stop (default)
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Notes:

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Scott 2-A Mooring Deployment July 10, 2016
2137 UTC 51° 7.624' N
129° 28.472' W
289 m depth

Scott 1-A Mooring Deployment July 11, 2016
1542 UTC 50° 47.650' N
128° 48.122' W
112 m depth

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Month <u>July</u>				Year <u>2016</u>			Vessel <u>Tully</u>			Cruise ID <u>2016-12</u>					Page <u>12</u> of <u> </u>	
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments	
79	CS10	11	08:10	BE	CTD		51° 16.520	128° 19.050	79		-		SP	☒		
			08:13	BO			51° 16.510	128° 19.010		76	-			☐		
			08:15	EN			51° 16.510	128° 19.020			-			☐		
80	CS09	11	09:02	BE	ROS	VS	51° 12.541	128° 28.030	194		421-429	9	SP	☒	-ship cast paused at 168m due to large aft lead	
			09:08	BO			51° 12.524	128° 28.171		191	-			☐		
			09:20	EN			51° 12.553	128° 28.099			-			☐		
81	CS08	11	10:08	BE	CTD		51° 8.630	128° 36.070	144		-		SP	☒		
			10:12	BO			51° 8.640	128° 36.130			-			☐		
			10:15	EN			51° 8.640	128° 36.130			-			☐		
82	CS07	11	11:06	BE	CTD		51° 4.600	128° 43.900	65		-		SP	☒		
			11:08	BO			51° 4.610	128° 43.940		62	-			☐		
			11:10	EN			51° 4.610	128° 43.970			-			☐		
83	CS06	11	12:01	BE	ROS	VS	51° 0.140	128° 49.950	67		430-440	11	SP	☒		
			12:03	BO			51° 0.140	128° 50.000		62.8	-			☐		
			12:09	EN			51° 0.160	128° 50.090			-			☐		
84	CS05	11	13:13	BE	CTD		50° 55.980	129° 0.000	65		-		SP	☒		
			13:14	BO			50° 55.990	129° 0.070		61	-			☐		
			13:15	EN			50° 55.990	129° 0.070			-			☐		
85			13:19		DRF		50° 55.997	129° 0.090			-		HB	☐		

Event Type:

LOOP = Sea Water Loop

Bottle Firing Method:

Time Code:

Event Type:

CT = Bottle cast (no CTD)
 ST = Standalone CTD
 R = in Rosette

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

Bottle Firing Method:

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DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2016-12

DATE:

From: July 4, 2016 To: July 19, 2016

VESSEL:

TULLY

PROJECT(S):

WCVI MOORINGS

WCT55

Book 2/2

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

WaterProperties.ca

DAILY SCIENCE LOG

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Month <u>JULY</u>			Year <u>2016</u>			Vessel <u>TULLY</u>			Cruise ID <u>2016-12</u>						
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
86	SCOTT1	11	14:45	BE	CTD		50°47.64	128°48.16	113		-		CH	☐	Deck pressure 1.5
			14:51	BO			50°47.62	128°48.15		108	-			☒	over
			14:54	EN			50°47.62	128°48.15			-			☐	
87	SCT 4	11	:		DRF		50°46.30	128°52.31			-		CH	☐	#530
88	SCT 5	11	17:19		DRF		50°40.410	128°52.161			-		CH	☐	#531 Wind 25kt
89	BP 1	11	23:53	BE	CTD		50°03.50	127°53.34	110		-		CH	☒	
			23:59	BO			50°03.50	127°53.35		107	-			☐	
		12	00:00	EN			50°03.50	127°53.34			-			☐	
90	MUC1	12	13:59	BE	CTD		49°38.59	126°19.07	287		-		CH	☐	
			14:05	BO			49°38.58	126°19.10		286	-			☐	
			14:11	EN			49°38.58	126°19.08			-			☐	
91	ZUC1	12	16:36	BE	CTD		49°37.980	126°29.964	192		-		DS	☒	1.4 m on deck
			16:43	BO			49°37.964	126°29.954		188	-			☐	
			16:47	EN			49°37.955	126°29.958			-			☐	
92	E01	12	19:38	BE	CTD		49°17.460	126°36.810	102		-		SP	☒	
			19:40	BO			49°17.470	126°36.860		99	-			☐	
			19:41	EN			49°17.470	126°36.880			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	

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=

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

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Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

very large ^{near} surface chlorophyll

BPI-55 Mooring Recovery July 11, 2016

2231 - On Station

Send OB15 - no response

switch transducers - no response

switch deck units - no response

Ship's position off - (previous position of mooring?)

2245 - 823 - 694 - 651 - 437

2251 - 205, 197, 193

2255 - 233, 242,

2256 - ~~Send OB15 + OB51~~ lost contact

2258 420 398 340 317

2300 Send OB15 + OB55 273 + no response Range again 223

2300 Send again 213 217 + executed - on surface

BPI-56 Mooring Deployment July 11, 2016

2343 UTC 50° 3.546' N

127° 53.461' W

110 m depth

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month				Year			Vessel				Cruise ID				
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information		Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
							Latitude	Longitude							
93	ESPI	13	02:13	BE	CTD		49°49.56	127°00.31	61		-		CH	☒	Time to change
			02:18	BO			49°49.56	127°00.31		55	-			☐	no plastic guide
			02:19	EN			49°49.56	127°00.31			-			☐	on LARS.
94	A1	13	19:06	BE	ROS	VS	48°31.730	126°12.320	514		441-456	15	SP	☒	Series groove
			19:13	BO			48°31.730	126°12.270		511	-			☐	
			19:35	EN			48°31.750	126°12.190			-			☐	
95	HSC1	14	02:07	BE	CTD		49°22.310	126°14.800	54		-		HB	☒	
			02:10	BO			49°22.330	126°14.810		50.7	-			☐	
			02:11	EN			49°22.350	126°14.810			-			☐	
96	EFF02	15	15:28	BE	ROS	VS	49°4.98	125°10.310	71		457-462	6	SP	☒	NO EFF01 DUE TO LOGS IN EFF INLET @ EFF01
			15:29	BO			49°4.98	125°10.300			-			☐	
			15:37	EN			49°4.97	125°10.300			-			☐	
97	EFF03	15	15:55	BE	ROS	VS	49°4.306	125°9.409	118		463-470	8	SP	☒	
			15:58	BO			49°4.313	125°9.403		113.5	-			☐	
			16:10	EN			49°4.328	125°9.395			-			☐	
98	EFF04	15	17:35	BE	ROS	VS	49°3.110	125°8.550	58		471-475	5	SP	☒	
			17:38	BO			49°3.110	125°8.540		52.8	-			☐	
			17:44	EN			49°3.110	125°8.520			-			☐	
			:				°	°			-			☐	

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Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

ZUC 1-A Mooring Recovery July 12, 2016

This page is for any notes or observations

1558 - On Station

- Send 1A2C as approaching 340 269 266

1600 - relocate

1604 - 278 280

1605 - Send 1A2C + 1A55

277 275 - executed - on surface

EO1-55 Mooring Recovery July 12, 2016

sunny & calm (at last)

1740 - doing EO1 CTD

- Send 1800 - 900 910 948

1951 - relocate 389

- 392

1953 - Send 1800 + 1855

- Send again

1957 -

- getting ranges -

- Send 1800 + 1849 -

- Send 1800 + 1855 -

392 392 - executed

- on surface - it's a whale!

406 409 - executed

400 384 - executed

304 238 220

307 + 5082

172 + 173 + Executed

- 208 + 191 + Executed

- 195 + 196 + Executed

170 + 169 + Executed

170 + 170 + Executed

- Prepare For Drag

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month				Year		Vessel					Cruise ID				
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
99	EFF05	15	17:57	BE	ROS	VS	49° 2.560	125° 9.090	203?		476-486	11	SP	☒	
			18:00	BO			49° 2.570	125° 9.070		198.8	-			☐	
			18:16	EN			49° 2.580	125° 9.050			-			☐	
100	EFF06	15	18:55	BE	ROS	VS	49° 1.820	125° 9.200	158		487-495	9	SP	☒	
			18:58	BO			49° 1.810	125° 9.150		155.8	-			☐	
			19:25	EN			49° 1.810	125° 9.150			-			☐	
101	EFF07	15	19:37	BE	ROS	VS	49° 1.260	125° 9.420	122		496-503	8	SP	☒	
			19:39	BO			49° 1.260	125° 9.440		117	-			☐	
			19:50	EN			49° 1.260	125° 9.450			-			☐	
102	EFF08	15	20:09	BE	ROS	VS	49° 0.670	125° 10.250	86		504-510	9	SP	☒	
			20:11	BO			49° 0.670	125° 10.250		81.7	-			☐	
			20:19	EN			49° 0.660	125° 10.260			-			☐	
103	EFF09	15	20:33	BE	ROS	VS	49° 0.130	125° 10.870	53		511-515	5	SP	☒	
			20:34	BO			49° 0.120	125° 10.870		46.9	-			☐	
			20:40	EN			49° 0.120	125° 10.870			-			☐	
104	EFF10	15	20:52	BE	ROS	VS	48° 59.840	125° 11.210	100		516-522	7	SP	☒	
			20:54	BO			48° 59.840	125° 11.240		96.1	-			☐	
			21:02	EN			48° 59.840	125° 11.270			-			☐	
			:				.	.			-			☐	

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Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 20 April 2016

E01-55 Mooring Recovery cont'd July 12, 2016

2024 - Commence drag
- 162 + 160 + executed
156 + 157 +

2039/1800 + 1849 + 157 + 157 + 5086

1800-156 155 154

1800/1805 - 154 145

2100 - Start hauling in 464

2106 - wind comes up tight
- on surface!

The Aluminium anodes had "Foamed" expanded to prevent the hook from falling away. Drageing shoots the "released" hook free.

E01-56 Mooring Deployment July 12, 2016

2249 UTC 49° 17.317' N
126° 36.212' W
102 m

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

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Month				Year			Vessel				Cruise ID				
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
105	EFF11	15	21:20	BE	ROS	US	48° 59.110	125° 11.06	84		523-528	6	SP	☒	
			21:23	BO			48° 59.120	125° 11.06		81.3	-			☐	
			21:29	EN			48° 59.110	125° 11.08			-			☐	
106	EFF12	15	21:50	BE	ROS	US	48° 58.020	125° 10.47	93		-			☐	
			21:54	BO			48° 58.030	125° 10.48		92.7	529-535	7	HB	☒	
			22:00	EN			48° 58.040	125° 10.48			-			☐	
107	EFF13	15	22:17	BE	ROS	US	48° 58.510	125° 10.710	106		536-542	7	HB	☒	
			22:21	BO			48° 56.510	125° 10.720		92.8	-			☐	
			22:27	EN			48° 56.530	125° 10.690			-			☐	
108	SOG N	17	00:42	BE	CTD		49° 49.770	124° 51.800	337		-		HB	☒	
			00:50	BO			49° 49.780	124° 51.750		334.6	-			☐	
			00:56	EN			49° 49.790	124° 51.630			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	
			:				°	°			-			☐	

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Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 20 April 2016

LAPI-A Mooring Recovery July 13, 2016

POT 0630 - Near station 0.5 miles

- send B541 - no responses

- wait for deck crew to arrive & ship to get on station

0702 - On Station

Send B541 - no response

- switch to dunking transducer

- no response

0710 - 610 - 343 - 492 - 815 650 676 675 - 464 779 - 1785 1720 - random responses

0718 - 710 - 609 712 647 565 1495

Try transponder

0721 - Send CEG - Ping On

Send ACFG - 8 kHz

1 pond - 9 kHz Random Responses

- 10

0750 - 347 209

- 7

- Send B542 - 1236 B541 198 325 1087

- On Surface

Bench tests of release - replies, but very weak

A1-55 Mooring Recovery July 13, 2016

1720 - Approaching Station 859 824 789 as we approach

1723 - Send 16B2 - 592, 540 553

1727 - relocate to second ranging location

1731 - 557 558 559

1734 - Send 16B2+1655 566 568 + Executed - on surface

A1-56 Mooring Deployment July 13, 2016

2059 UTC 48° 32.308' N
126° 11.714' W
500m depth

HSC1-A Mooring Deployment July 14, 2016

0202 UTC 49° 22.303
126° 14.771
53m

AR861 2138 - Test of New release on CTD cast at A1 in 517m depth

Enable - OBB5

Release - OB55

OBB5 at 500 m → 537 536

OBB5 + OB55 at 500 m → 537 536 + executed

OBB5 in waymap 459 438 427

OBB5 at 400 m 426 426

OBB5 + OB49 → 410 + 410 + 5312

OBB5 rising 312 310

OBB5 rising 215 2 198

at 150 174 175 175

Hook Open upon recovery

CYP1-A Mooring deployment - July 14, 2016

- using Betty Band From FRC - 5 mile "tow" to location
release with axe

1717UTC 49 15.051

125° 52.000

67m depth

TOFI - A Mooring Recovery July 14, 2016

- recovery via FRC

1927¹² near station

- send 1690 132 135 142 148 drifting away - wait for traffic to clear.

1932 send 1690 + 1655 204 208 + executed
260 263 + executed
302 308 + executed

1948 - move closer 1690 1655 19

- send 1690 + 1655 192 193 + executed

- release must be released, but the hook fouled

1950 - 2010 - conduct survey of ranges to locate mooring

- shortest range 60m

- try drag using FRC anchor + assorted other line ~ 60m - unsuccessful

- return to ship and take 189m line from A1 and several clump weights

- Return to mooring location conducting drag with FRC anchor + chain + 1 weight on end of line and ~ 30lb lead weight at ~ 80-90m dropping anchor at

- assumed mooring location and circling the location twice at ~ 100m and then heading off to the south. The line came up tight and we gave the FRC substantial throttle such that the mooring anchor started to strid along the bottom for ~ 100m. The mooring surface and the FRC was firmly anchored. As much line as possible was recovered and the remainder ~ 35m was cut away. The mooring & release were heavily fouled with barnacles, obstructing the release mechanism. The mooring was towed 3.5 miles back to the ship in heavy chop.

EF04-L - Mooring Recovery July 15, 2016

1426 - Approaching 224 185 143 142 157 171 253 past mooring location

1433 - 381

- orient ship & FRC to approach mooring, heading out of inner basin

- 393 370 344 297 277

1438 - Send 1A24 + 1A55 274 274 + Executed On surface

EF04-M Mooring Deployment July 15, 2016

1722 UTC 49° 38.60' N

125° 9.097' W

105m

Previously neglected mooring Deployments

MUCL-A Mooring Deployment July 12, 2016

1504 UTC 49° 38.626' N
126° 19.316' W
287 m depth

ESPI-A Mooring Deployment July 13, 2016

0209 UTC 49° 49.604' N
127° 0.302' W
58 m depth

SOGN2-D Mooring Deployment July 16, 2016

2349 UTC 49° 50.118'
124° 52.133'
333 m depth