DAILY SCIENCE LOG BOOK

MISSION NUMBER: IOS 2017-41
SOG 2017-05

DATE: From: JUNE 14, 2017 To:

VESSEL: Nordic Queen

PROJECT(S): Discovery Islands Purse Seine

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

WaterProperties.ca

Captain: Harold Sewid First Officer: Jim Sewid

Second Officer: Norman Sewid Third Officer: Marton Sewid

Fishing Master: _____ Chief Engineer: _____

Mission Participants / Agencies:

_____

**** 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
Yeongha Jung					
Julia Bradshaw					
Lenora Turcotte					

2nd Leg Scientific Personnel: Chief Scientist: _____

Name	Watch	Cabin	Name	Watch	Cabin

**** The following 3 pages are VERY IMPORTANT as they document equipment and settings used on board ****

These pages are to be <u>completed by the CTD Technician</u> setting up the equipment, the <u>Watch Leader on board</u>, and the <u>Chief Scientist MUST verify that all relevant sections are completed prior to leaving the vessel</u>. ***Any mid-cruise changes to be noted by watch leader in the notes.***

Data logging computer: _____

Data acquisition program: _____

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

Primary CTD

Make: Seabird model: 25 serial number: 2543784-0404

Primary temperature serial number: 290464

Primary conductivity serial number: 041764

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: P Model: 43 s/n: 431176 P, S or NO pump?

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

Other sensors: pH 18-I s/n: 190852 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?

Secondary CTD

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): _____

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

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: 60 cm Mesh: 253 µm Flowmeter: 7182
Bongo #2 Frame Size: _____cm Mesh: _____ µm Flowmeter: _____
_____ Frame Size: _____cm Mesh: _____ µm Flowmeter: _____
_____ Frame Size: _____cm Mesh: _____ µm 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. _____

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month JUNE **Year** 2017 **Vessel** Nordic Queen **Cruise ID** 2017-41 SOG2017-05

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
001	1	14	16:03	BE	SET		50°18.322	125°19.781	40.8 (FA)		-			☐☐	BOTTOM - FA
002	↓		17:01		CTD		°.332	°.814	40.5	50m	-		YJ	☐☐	
003	2		18:05		SET		°.319	°.804	40.5		-			☐☐	
004			18:48		CTD		°.330	°.815	40.5	70m	-		YJ	☐☐	
005			19:06		NET		°.334	°.880	40.0	50	-		YJ	☐☐	3698-4034 FM Δ10°
006	3		20:01		SET		°.308	°.837	40.2		-			☐☐	
007			20:45		CTD		°.328	°.818	39.5	60m	-		YJ	☐☐	
008	4		22:00		SET		°.313	°.893	39.7		-			☐☐	
009			22:48		CTD		°.329	°.818	39.5	60m	-		YJ	☐☐	
010		↓	22:56		NET		°.330	°.811	40.4	50	-		YJ	☐☐	4034-4362 FM
011	5	15	00:06		SET		°.324	°.819	40.8		-			☐☐	
012			00:48		CTD		°.332	°.804	41.0	60m	-		YJ	☐☐	
013	6		02:02		SET		°.317	°.825	41.5		-			☐☐	
014			02:33		CTD		°.327	°.810	41.5	60m	-		YJ	☐☐	
015			02:42		NET		°.317	°.808	41.5	50	-		YJ	☐☐	FM 4362-4678
016	7		04:00		SET		°.332	°.810	41.2		-			☐☐	
017			04:37		CTD		°.333	°.790	41.6	60m	-		YJ	☐☐	
018	8		07:10		SET		°.318	°.780	41.7		-			☐☐	
019			07:56		CTD		°.336	°.801	41.4	60	-		YJ	☐☐	

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

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

Time Code:
BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast
DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

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

Notes: _____

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 20 April 2016

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month JUN-JUL **Year** 2017 **Vessel** Nordic Queen **Cruise ID** 2017-41 SOG2017-05

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
020	8	15	08:03	BE	NET		50°18.306	125°19.891	40.1 FA	50 M	-		YJ	☐☐	FM4678 – 4970
021	9	15	09:09		SET		°.342	°.816	39.2		-			☐☐	
022	10		11:55		SET		°.329	°.817	41.1		-			☐☐	
023 ✓	10		12:36		CTD		°.322	°.808	41.2	60	-		YJ	☐☐	
024	↓		12:53		NET		°.323	°.807	41.1	50	-		YJ	☐☐	FM4970 – 5245
025	11		14:08		SET		°.331	°.815	41.1		-			☐☐	
026 ✓	1		14:53		CTD		°.337	°.805	40.7	60	-		YJ	☐☐	
027	↓	↓	15:02		NET		°.335	°.792	40.7	50	-		YJ	☐☐	FM 5245 – 5538
028			:				°.	°.			-			☐☐	CS SKIPS EVENT/ST TO 030/14
029			:				°.	°.			-			☐☐	
030	14	JUL 12	20:05		SET		50°18.358	125°19.843	39.2		-			☐☐	
031			20:46		CTD		°.334	°.804	39.0	60	-		YJ	☐☐	
032	↓		20:56		NET		°.307	°.845	39.4	50	-		↓	☐☐	FM7780 – 8060
033	15		23:05		SET		°.336	°.811	40.7		-			☐☐	
034			23:40		CTD		°.322	°.825	40.5	70	-		YJ	☐☐	
035	A		23:48		NET		°.304	°.864	40.4	50	-			☐☐	FM 8060 – 8180
036	↓ B	↓	23:55		NET		°.291	°.911	40.1	50	-		↓	☐☐	FM 8180 – 8280
037	16	13	02:01		SET		°.	°.	40.7		-			☐☐	POSITION NOT RECORDED
038	↓	↓	02:35	↓	CTD		°.336	°.823	40.8	70	-		YJ	☐☐	

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Month JUL **Year** 2017 **Vessel** NORDIC QUEEN **Cruise ID** 2017-41 SOG2017-05

Event Number	Station Name	Day	Time ~~(UTC)~~ PST	Time Code	Event Type	Firing Method	Positional Information Latitude	Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
039	16	13	02:44	BE	NET		50° 18.302	125° 19.805	42.0 FA	50	-		YJ	☐☐	FM 8280 – 8445
040	17		05:02		SET		° .385	° .620	40.4		-			☐☐	
041	↓		05:38		CTD		° .357	° .745	40.7	70	-		YJ	☐☐	
042	A		05:48		NET		° .331	° .769	41.7	50	-		↓	☐☐	~~FM 8445 – 8470~~ * ~~FM MALFUNCTION~~
043	↓ B		05:55		↓		° .384	° .837	41.7	↓	-		↓	☐☐	~~FM 8470 – 8580~~
044	18		06:08		SET		° .345	° .768	41.0		-			☐☐	
045	↓		06:41		CTD		° .325	° .820	40.2	60	-		YJ	☐☐	
046	19		08:10		SET		° .350	° .816	39.7		-			☐☐	
047	19		08:57		CTD		° .333	° .820	40.4	60	-		YJ	☐☐	
048	↓		09:02		NET		° .329	° .852	39.6	50	-		↓	☐☐	FM 8580 – 8888
049	20		11:02		SET		° .335	° .815	41.1		-			☐☐	
050			11:41		CTD		° .318	° .816	41.1	60	-		YJ	☐☐	
051	A		11:52		NET		° .306	° .772	42.4	50	-			☐☐	FM 8888 – 8990 *
052	↓ B		11:58		↓		° .328	° .805	41.0	↓	-		↓	☐☐	FM 8990 – 9095 *
053	21		14:05		SET		° .330	° .815	41.4		-			☐☐	
054			14:42		CTD		° .340	° .804	40.8	60	-		YJ	☐☐	
055	↓		14:51		NET		° .313	° .847	41.0	50	-		↓	☐☐	FM 9095 – 9280
056	22		17:02		SET		° .330	° .815	40.0		-			☐☐	
057	↓	↓	17:41	↓	CTD		↓ ° ↓ .333	↓ ° ↓ .797	40.1		-		YJ	☐☐	

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058	22 A	13	17:47		NET		50° 18.317	125° 19.800	40.5	50	-		YJ	☐☐	FM9280-9595
059	↓ B	↓	17:53		↓		50° 18.305	125° 19.840	40.0	↓	-		↓	☐☐	FM 9895-9805
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
SEPTEMBER			:				° .	° .			-			☐☐	
060	23	12	15:01		SET		50°18.310	125°19.865	41 FA		-			☐☐	
061	|	|	15:45		CTD		50°18.358	125°19.974	40	60	-		JB	☐☐	[illegible]
062	↓	↓	15:55		NET		50°18.358	125°19.974	40	60	-		JB	☐☐	FM14975-15475
063	24	12	18:00		SET		50°18.325	125°19.828	41.5		-			☐☐	
064	|	|	18:30		CTD		50°18.357	125°19.821	40.2	60	-		JB	☐☐	
065	↓	↓	18:37		NET		50°18.360	125°19.744	41.4	60	-		JB	☐☐	FM15475-15740
066	25	12	:		SET		50°18.330	125°19.826	41.7		-			☐☐	
067	|	|	21:35		CTD		50°18.311	125°19.863	40.7	60	-		JB	☐☐	
068	↓	↓	:		NET		50°18.311	125°19.863	40	60	-		JB	☐☐	FM 15740-16180
069	26	13	00:00		SET		50°18.314	125°19.898	40.5		-			☐☐	
070	|	|	00:37		CTD		50°18.330	125°19.823	40.1	60	-		JB	☐☐	
071	↓	↓	00:41		NET		50°18.345	125°19.820	40.1	60	-		JB	☐☐	16180-16675

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Notes: _____

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DAILY SCIENCE LOG

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Month September **Year** 2017 **Vessel** Nordic Queen **Cruise ID** 2017-41 SOG 2017-05

Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Information Latitude	Longitude	Bottom Pressure	Max Cast Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
072	27	13	03:01		SET		50°18.363	125°19.867	39.1		-		[illegible]	☐☐	FM 16675 - 17015
073	↓	↓	03:31		CTD		50°18.333	125°19.805	40	60	-		JB	☐☐	↓
074	↓	↓	03:40		NET		50°18.333	125°19.805	40	60	-		JB	☐☐	↓
075	28	13	06:01		SET		50°18.327	125°19.829	40.5		-			☐☐	spilled a tiny bit opening the codend
076	↓	↓	06:34		CTD		50°18.345	125°19.796	40.5	60	-		JB	☐☐	
077	↓	↓	06:41		NET		50°18.345	125°19.796	40.5	60	-		JB	☐☐	FM 17015 - 17360
078	29	13	08:57		SET		50°18.351	125°19.886	41.4		-			☐☐	
079	↓	↓	09:21		CTD		50°18.333	125°19.805	41.0	60	-		JB	☐☐	
080	↓	↓	09:30		NET		50°18.333	125°19.805	41.0	60	-		JB	☐☐	FM 17360 — 17810
081	30	13	12:00		SET		50°18.318	125°19.812	40.9		-			☐☐	
082	↓	↓	12:27		CTD		50°18.329	125°19.822	40.7	60	-		JB	☐☐	
083	↓	↓	12:36		NET		50°18.329	125°19.822	40.7	60	-		JB	☐☐	FM 17810 - 18230
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	
			:				° .	° .			-			☐☐	

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