

Seasonal cruise Q3

Cruise Report



Seasonal cruise Q3 2019 Cruise 2019706

RV Kronprins Haakon Longyearbyen - Longyearbyen August 5 - August 27, 2019

Authors:

Marit Reigstad Tove Gabrielsen Marti Amargant Rita Amundsen Bodil Bluhm Yasemin Bodur Jan Bremnes Nadja Brun Padmini Dalpadado Kasia Dmoc Bente Edvardsen Jack Garnett Christine Gawinski Julia Giebichenstein Ane Haarr Siv Hoff Eric Jorda Konrad Karlsson Stephen Kohler Jon Leithe Miriam Marquardt Christian Morel Oliver Müller Håvard N. Liholt Jan Vidar Nordstrand Robynne Nowicki Lasse Olsen Griselda Anglada Ortiz Ronald Pedersen Nicolas Sanchez Karoline Saubrekka Arunima Sen Leif Christian Stige Angela Stippkugel Anna Vader Anette Wold Fekadu Yadetie

To be cited as: Marit Reigstad, Tove Gabrielsen, Marti Amargant, Rita Amundsen, Bodil Bluhm, Yasemin Bodur, Jan Bremnes, Nadja Brun, Padmini Dalpadado, Kasia Dmoc, Bente Edvardsen, Jack Garnett, Christine Gawinski, Julia Giebichenstein, Ane Haarr, Siv Hoff, Eric Jorda, Konrad Karlsson, Stephen Kohler, Jon Leithe, Miriam Marquardt, Christian Morel, Oliver Müller, Håvard N. Liholt, Jan Vidar Nordstrand, Robynne Nowicki, Lasse Olsen, Griselda Anglada Ortiz, Ronald Pedersen, Nicolas Sanchez, Karoline Saubrekka, Arunima Sen, Leif Christian Stige, Angela Stippkugel, Anna Vader, Anette Wold, Fekadu Yadetie 2019: Seasonal cruise Q3 2019: Cruise Report. *The Nansen Legacy Report Series*, 27/2022. DOI: https://doi.org/10.7557/nlrs.6407

© The authors. This report is licensed under the <u>Creative Commons Attribution 4.0</u> International license

ISSN 2703-7525

Publisher: Septentrio Academic Publishing, Tromsø, Norway

Summary	4
Introduction	4
SCIENTIFIC GOALS AND ACHIEVEMENTS	4
BRIEF DESCRIPTION OF THE ACTIVITY	4
Along track measurements carried out during the cruise	6
METEOROLOGICAL MEASUREMENTS FROM VAISALA AWS430 WEATHER STATION	6
THERMOSALINOGRAPH	
OCEAN CURRENT MEASUREMENTS FROM ADCP 150 KHz.	
PCO2 MEASUREMENTS Acoustics measurements of zooplankton and fish with the vessel's EK80	
ACOUSTICS MEASUREMENTS OF ZOOPLANKTON AND FISH WITH THE VESSEL S ENOU	
Glider deployments	
Mooring deployments	
Station-based work	
NLEG stations	9
T1-1.2 Hydrographic characterisation	9
T1-2.2 Sea ice	
T2-1.1 Nutrients and DIC	
T3-1.1 Characterisation of microbial communities	
Process stations	. 11
RESEARCH FOCI 1: PHYSICAL DRIVERS	
RESEARCH FOCI 2: HUMAN DRIVERS	
T2-1.1; 1.4. Current variability and drivers of ocean acidification (T2-1-1) and Ocean acidification effects	
planktonic calcifiers and biological pump efficiency (T2-1-4) T2-1.2. Ocean acidification effects on the mobility of particulate and dissolved organic carbon (POC, DC	
essential trace elements (micro nutrients) and heavy metals	
T2-2.1. Effects of changes in species composition and distribution on contaminant in food web accumula	
T2-2.3. Effects of oil and contaminants on northern Barents Sea ecosystem health.	
T2-2.4. Using genomic and proteomic tools to identify responses to effects of pollutants on zooplank and fish.	
T2-2.5. Critical seasonal windows of responses to multiple stressors on key organisms in a pelagic food cl	
T2-3.1. Climate change and fisheries: Spatial environmental variables and genomics	. 20
Research Foci 3 – The living Barents Sea	
T3.1 and T3.4 Microbes: biodiversity, abundance, biomass, distribution and activity	
T3-1.1. Characterize biological phytoplankton/ protist communities and seasonality in terms of biodivers abundance, biomass and distribution patterns	-
T3-1.1; 2.1. Mesozooplankton taxonomy, abundance, biomass and genomics	
T3-1.1; 2.1; 2.2; 4.2; 4.4. Characterize biological mesozooplankton communities and seasonality in term	
biodiversity, abundance, biomass and distribution patterns (1.1), secondary production (2.1), trop	
ecology (4.2) and sympagic-pelagic-benthic coupling (4.4)	. 29
T3-1.1; 2.1. Macrozooplankton	
T3-1.1; 1.2; 4.3; 4.4. Characterize and quantify biota in the seasonal ice zone (1.1), relate environme	
conditions to biological communities (1.2), and explore the sympagic-pelagic-benthic coupling and trop	
ecology of benthos (4.4) T3-1.3 Stable isotopes, fatty acids & HBIs of POM, zooplankton & fish	
T3-2.2. Measure how current environmental settings drive the phenology of primary and second	
production, and test how changing conditions may affect these seasonal patterns	-
T3-3.1; 4.2. Estimate ranges of annual production along environmental and latitudinal gradients (3.1)	
Trophic ecology of key zooplankton (4.2)	. 42

T3-2.2; 4.4. Measure how current environmental settings drive the phenology of primary an production, and test how changing conditions may affect these seasonal patterns (2.2) ar pelagic-benthic coupling (4.4)	nd Sympagic-
Sea ice work	45
T1-2.2 Physical sea ice conditions	47
T3-1; T3-4 Sea ice microbes: biodiversity, abundance, biomass, distribution and activity	47
Transport and biogeochemical cycling of PFAS	49
Logistics	50
Transport of equipment and samples	50
ON BOARD COMMUNICATION	51
STATION PROGRAMS	51
WATER BUDGETS	52
SAMPLE AND DATA MANAGEMENT FOR LEGACY	
COMMUNICATION AND OUTREACH	53
Appendix 1: Tables	54
TABLE A1.1 FULL STATION LIST WITH LOCATIONS AND SAMPLING GEAR (MODIFIED FROM CRUISE LOG)	54
TABLE A1.2. NANSEN LEGACY TRANSECT. FULL STATION LIST INCLUDING PROCESS STATIONS (P) AND TRANSECT	CTD STATIONS
(NLEG)	62
TABLE A1.3. CRUISE PARTICIPANTS (TEAM LEADERS IN BOLD)	63
TABLE A1.4. INTERNSHIP ON SEA ICE	65
TABLE A1.5. WORKING HOURS AND CABIN DISTRIBUTIONS	66
TABLE A1.6. LAB-USE DURING THE NANSEN LEGACY Q3 CRUISE	67
Appendix 2: Blogs	69
Appendix 3 Datasets	70
Shipmounted datasets	70
DATASETS	
GEAR ID WITH METADATA	72

Summary

The Nansen Legacy Q3 cruise, 5-27 August 2019, initiated the seasonal investigations of the Nansen Legacy transect. The transect represent an environmental gradient going through the northern Barents Sea, and included 7 process stations (P1-P7) lasting 6-53 hrs. CTD stations were taken to increase the hydrographic resolution on the transect. The work started at 76°N at the open Atlantic Water dominated station P1, was sea ice covered from station P4 at 79°N, and included deep water stations at 82°N at P7 in the Nansen Basin.

The program included measurements and sampling from the atmosphere, sea ice, ocean and sea floor. Data collected ranged from physical observations, chemical, biological and geological data collection, and the aim was to link observations and measurements to improve our understanding of the systems involving both climate, human impacts and the ecosystems. An important task was to understand interactions both within the ecosystem, but also linked to the environment. Environmental descriptions linked to the Atlantic and Arctic shelf regimes and the deep Arctic Basin, and how the environmental conditions relate to both present days and potential future communities of organisms from virus and bacteria to fish, and their interactions and production, was therefore a core activity.

Deployment of moorings and gliders extended the observational capacity in time and space, outside the cruise period.

Introduction

Scientific goals and achievements

The RV Kronprins Haakon cruise Nansen Legacy seasonal Q3 (Q3= 3rd quarter of the year), initiated the seasonal investigation of the northern Barents Sea and adjacent Arctic Basin. This activity is a key milestone planned for the project.. The cruise addressed objectives of the research foci in RF1 on Physical drivers, RF2 on Human drivers and RF3 on the living Barents Sea, and collected necessary data along the Nansen Legacy transect in open waters and within the ice. Experiments were an important component of the research to quantify processes, rates and interactions that will also feed modeling work and projections in RF4. The ongoing establishment of routines for sampling, data management and data storing continued as part of the practical work onboard. The observational capacity was increased also outside the cruise periods, through deployment of 2 gliders for RF1, and 3 moorings in collaboration with RF1/2/3. Many of the cruise participants were new PhD and post docs, and represent a new generation Arctic scientists. To document the research activity for a broader communication of the research and results, a professional photographer has produced pictures and videos during the cruise.

Brief description of the activity

RV *Kronprins Haakon* left Longyearbyen on 5 August, 2019, in the afternoon, with a science team of 35 persons. The departure was delayed by ~1 day compared to the original plan due to a leakage around one propeller causing an unplanned stay in dock. Cruise participants without survival suit training carried out the necessary exercise close to the vessel in the harbor of Longyearbyen while the vessel was loaded. A monitoring station outside Longyearbyen, IsA, was sampled with one CTD to facilitate reference measurements prior to planned experiments onboard, and also served two collaboration projects. West of Sørkapp, Glider 1 was deployed to monitor the hydrographic structures in the Fram Strait across the AW inflow. Glider 2 was deployed close to our first Process station, P1 (Figure 1), in the Hopen deep south of the Polar Front at 76°N, on 7 August. This glider will patrol across the Polar Front between the Hopen

depth and the basin north west of Storbanken. Seven Process stations (P1-P7, Figure 1) was planned investigated along the Nansen Legacy transect established in 2018. The first process station (P1) was successfully finished on 9 August including experiments, after 37 hrs, as planned. Between the P stations, smaller CTD stations (NLEG 1-25) was distributed to get a higher resolution on hydrographical and biogeochemical parameters along the transect. The sampling program was set on hold on 9-10 of August due to an unforeseen need for spare parts necessary to go into the sea ice. These were brought to Hopen by helicopter and had to be picked up there. The incident made it possible to supply a researcher with lost filters. The window to get helicopter transport followed CTD problems caused by the combination of large waves and a light Kevlar line that was damaged, and NLEG 2-3 could not be sampled. CTD cable were fixed during transit to Hopen, but we had to proceed to P2 on Storbanken to catch up timewise.

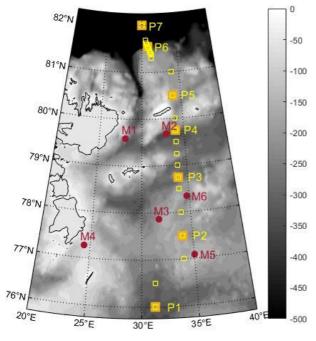


Figure 1. Station map for the Nansen Legacy seasonal Q3 cruise. Process stations P1-P7, intermediate CTD stations (NLEG), and mooring sites M1-M6 is shown. Moorings at M5 and M6 were deployed during the cruise.

The P2 station was sampled successfully on 11-12 August. A double mooring (M5) for physics and bioacoustics were deployed east of the P2 station prior to the station work. Another physical mooring (M6) was deployed further north, southeast of NLEG 6 to measure AW inflow to Storbanken. Due to time lost with late departure and the detour to Hopen, the sampling program at P3 was reduced to a 6 hrs biomass/ community sampling (including trawling), biogeochemistry and hydrography station. No experiments or process measurements were carried out. At Station P4 south of Kvitøya, we met the sea ice, but floes were relatively small, and the station was sampled with the full open water sampling program including experiments, on 13-15 August (30 hrs station). Trawling was carried out a few nautical miles south of the station in more open waters. Transit time between stations increased with the sea ice, but we kept about 5 knots and reached P5 north of Kvitøya on August 15. Ice floes were larger here, but due to time constrains and expected better ice conditions on the two northernmost stations no ice station was carried out here. Station P6 on the shelf break towards the Polar basin started on 17 August. A sea ice training course was held on our way to the P6 station, to prepare all participants for the work on and associated to the sea ice with respect to both sampling and safety. Ice floes were 100 m to > km in size, 1 to 1.5 m thick, and suitable for sea ice work. We completed a full ice station and open water program (except trawling). A sea

ice sampling program including ice cores, meltwater ponds and under-ice water was carried out during the first evening, to utilize good weather conditions. Teams of experienced and unexperienced scientists were composed to train a new generation of scientists in sea ice work (Table A1.4). The ice station was followed by a full ocean sampling program on August 18-19. A relatively soft sea ice cover of 1-1.5 m allowed efficient transit to the last process station P7, including all NLEG stations. A similar program to P6 was carried out at P7. To increase the number of observational sites and improve the datasets on sea ice and sea floor observations, one additional ice floe (SICE4, Table A1.1) was selected for a reduced coring program, including a deep CTD with water for standard parameters on 23 August, and 3 more box core samples were taken. The SICE4 station was located at 82°N, 24.34 E, with a depth of 3600 m (sea ice thickness ~1.5 m), to compensate for the slightly shallower box core sampling site at P7 caused by drift from 3280 m to 2500 m during the station period. The CTD cable turned out to be damaged around 3200 m (not known), so the CTD could not go to the sea floor. During transect back, a mulitbeam survey was carried out in the slope region (80°N, 12°E). Glider 1 was recovered again by KPH outside Isfjorden up-on return, due to poor data quality.

Along track measurements carried out during the cruise

RV Kronprins Haakon is equipped with several underway measurement systems to provide data along the cruise track.

Meteorological measurements from Vaisala AWS430 weather station

Air and sea temperature (8 m depth), air pressure, wind speed and direction, relative humidity and solar radiation is measured continuously by a Vaisala AWS430 weather station.

Thermosalinograph

Temperature, salinity, density and fluorescence is measured from the clean water intake at 4 m depth, and continuously logged from departure Longyearbyen. The clean water intake is sensitive to ice (filter get clogged) or water at freezing temperature (-1.7), so pumps shut down in shorter periods (station NLEG 12, P5, ...) for ice removal. The alternative inlet at 9 m depth, is located in the sinking keel, that cannot be used in ice covered waters.

Ocean current measurements from ADCP 150 kHz

Currents in the upper ~500 m of the water column were continuously measured during the cruise using a 150 kHz ADCP (RDI Instruments) mounted on the drop keel. The setup followed the setup in the test cruise. The instrument was synchronized with the EK80 using K-sync. The 38 kHz ADCP was not used due to interference with the 38 kHz of the EK80. The ADCP data was not processed during the cruise due to time constraints.

pCO2 measurements

Using the 4 m sea water inlet, a pCO_2 underway system for autonomous high frequency surface water measurements provide data on pCO_2 in sea water and air, dissolved O_2 and O_2 saturation and sea water temperature during the entire cruise (Figure 2). Same water-intake as thermosalinograph – and similar problems with ice at low temperatures.



Figure 2. The pCO2 underway measurements measures relevant parameters on CO_2 , temperature and O_2 from the 4 m sea water intake.

Acoustics measurements of zooplankton and fish with the vessel's EK80

Acoustic surveying of fish and zooplankton was conducted using the six scientific Simrad EK80 echo sounders (18 kHz, 38 kHz, 70 kHz, 120 kHz, 200 kHz, 333 kHz split beam systems), all mounted on the drop keel. When going in sea ice the keel was retracted and the data collection were conducted with similar systems mounted in the Arctic tanks. The EK80 was operated in CW modus. Data were stored down to 1000 m depth, although electrical noise during transit prevented high-quality data below about 600 m depth.

Multi-frequency scrutinization and target strength analysis was conducted for the 38kHz data using Korona allocating NASC into the category's capelin, plankton, cod, herring, and others. The map below shows where scrutinized data were obtained (Figure 3).

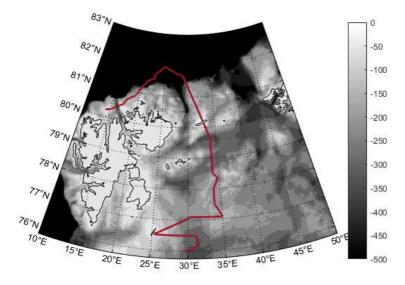


Figure 3. Cruise track illustrating where density estimation of several fish species and plankton has been obtained based on scrutinized 38 kHz data from EK80 and target strength analysis during the Q3 cruise 6-26 August 2019.

Acoustic registration of fish and plankton using TS probe

Detailed inspections at short range of interesting acoustic layers were made with an acoustic probe lowered in the water column. The specially designed probe has full wideband capacity and carries 4 EK80 echo sounders with 5 selectable transducers at 38,70, 120, 200 and 333 kHz. The probe was used in vertical mode, for target strength measurements of specific organisms. Target strength values are needed for several of the Arctic fish and zooplankton species to allow for accurate density estimation from the vessels-based systems. The probe was lowered from surface to the bottom (max 1000 m depth) at about 1 ms⁻¹. Full multi-frequency echograms were recorded during the profile. The TS probe was run on five stations.

Glider deployments

During the transit from Longyearbyen to the Nansen Legacy transect (Figure 1), 2 gliders was deployed for RF1 and Ilker Fer (UiB) to measure the hydrographic characteristics across the Atlantic Water inflow in the west Spitsbergen current, and across the Polar front, west of the Nansen Legacy transect. Glider 1 (SG560) was deployed west of Sørkapp on 6 August 2019 (Table 1). Glider 2 (SGF561) was deployed close to station P1, on 7 August, 2019.

Date	Time (UTC)	Glider ID	Glider name	Latitude	Longitude	Depth (m)
06.08.2019	09:54	SG560	Glider 1	76° 24.994263 N	13° 54.281974 E	1050
07.08.2019	13:42	SGF561	Glider 2	76° 00.310775 N	31° 02.073206 E	327

Table 1. Overview of Glide	r deployments during	Nansen Legacy Q3	seasonal cruise,	August 2019.
----------------------------	----------------------	------------------	------------------	--------------

Both Gliders were successfully deployed, with reports of successful dives in the days after deployment. After a couple of weeks, Glider 1 failed, with poor data quality, and some days later also Glider 2 failed, due to problems of performance. Glider 2 was collected by KV Andenes, and Glider 1 was retrieved outside Isfjorden at the end of the cruise by KPH.

Mooring deployments

Three moorings were deployed during the survey. To study seasonal variability in temperature, salinity, currents and pH under Arctic conditions, one mooring containing a Signature 250 i 135 m depth, a Seabird SBE 37-SM Microcat in 133 m depth, a Signature 250 in 92 m, a Seabird SBE 37- SMP SeaPHox in 72 m depth, and with top buoy in 70 m depth, were deployed at 77° 04.516N, 35° 02.168E (southern part of Great Bank). To also study seasonal variations in zooplankton and fish appearance, another mooring containing a Signature 100 in 136 m depth were deployed close to the first mooring (at 77° 04.947, 35° 03.487 E). Both mooring locations are within a region closed for fishery.

A third mooring were deployed in the northern part of the Great Bank to study inflow of Atlantic Water on the bank. The location (78°20.868N, 34°45.744E) were chosen based on maps on fishery activity. The mooring contains a Nortek Continental in 230 m depth, a Seabird SBE 37-SM Microcat in 177 m depth, a Nortek Continental in 128 m depth, and have a top buoy in 76 m depth.

Station-based work

The Nansen Legacy transect (Fig. 1) provides a climatic gradient from the southern Atlantic influenced region of the Barents Sea (P1) across the more Arctic influenced northern shelf (P2-P5), and into the Arctic Basin (P7). The northern branch of the Atlantic Water Current into the Arctic Basin along the shelf break, is covered by the shelf break station (P6). This transect may also represent a space-for-time gradient. On a seasonal time-scale, ice-free waters in the south can reflect a later seasonal stage compared to the ice-covered regions in the north were sea-ice cover may delay the productive onset in the water column. At the same time, this may be compensated by an early ice algal production. On a longer timescale, the climatic conditions in the Barents Sea is strongly impacted by the warm and saline Atlantic Water inflow. With increased and extended Atlantic impact further north, an "atlantification", characteristics of the southern end of the transect may represent elements of future conditions in the north.

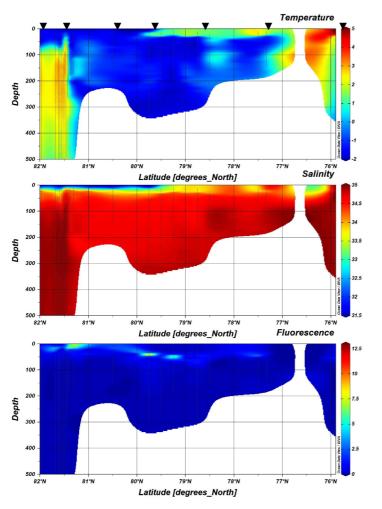
NLEG stations

T1-1.2 Hydrographic characterisation

Tove Gabrielsen (UNIS/UiA), Marit Reigstad (UiT), PIs: Randi Ingvaldsen (IMR), Arild Sundfjord (NPI)

To increase the observational resolution along the transect, 18 additional CTD stations (NLEG1-25) reduce the gaps between the process stations (P1-P7). The overview of NLEG and P-stations are given in Table A1.2. A reduced biogeochemical sampling program was carried out on the NLEG stations.

All NLEG stations, with the exception of NLEG 2 and NLEG3 across the Polar Front, were covered in full depth with CTD, with T, S, O2, fluorescence and LADCP. The hydrographic characterization along the transect with respect to temperature, salinity and fluorescence, is shown in Figure 4. The watermass characteristics for the different P-stations, are illustrated in Figure 5.



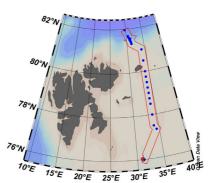


Figure 4. Temperature, salinity and fluorescence along the Nansen Legacy transect from 76 to 82° N in August 2019. The process stations P1-P7 (P1 to the south and right) are marked with black triangles on the upper figure. Data from 0-500 m is plotted here, but the full water column down to > 3000 m was sampled north of the shelf break.

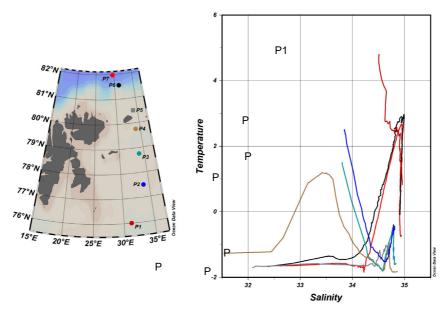


Figure 5. Temperature-salinity plot (TS diagram) illustrating the difference in water masses on the different process stations P1-P7, with reduced salinity and temperature moving northwards. Station P6

is located on the shelf break where the AW branch north of Svalbard goes. Colors correspond to station colors on the map (left).

Sensor deviations during the survey: Primary temperature sensor serial number 5647 was occasionally spiking from Local station 189, and got worse. Changed to sensor s/n 6298 from Local station 192. These correspond to 2-4 of in total 4 CTD casts at P7. Too high values from O2 sensors on some of the stations.

T1-2.2 Sea ice

Jon Leite (NPI), Leif Christian Stige (UiO), Tove M. Gabrielsen (UNIS/UiA), Marit Reigstad (UiT), Padmini Dalpadado (IMR), Anna Vader (UNIS), PI: Sebastian Gerland (NPI)

Sea ice observations were carried out according to the recommendations from the Ice Watch Program. The sea ice conditions, characteristics and weather were registered every 6th hour from the bridge accompanied with photos. Data are uploaded and available at <u>https://icewatch.met.no</u>.

T2-1.1 Nutrients and DIC

Griselda Ortiz (CAGE-UiT), PI: Melissa Chierici, (IMR)

Nutrients and DIC was sampled at all NLEG stations. A total number of 225 water samples from the Niskin bottles have been collected in order to study each chemical parameter at 20 different stations at all standard depths. The sampling and chemical treatment (60 μ m of mercuric chloride at the DIC/Alk samples and 200 μ m of chloroform at the nutrients samples) were done following the protocol from the Nansen Legacy v4. All the samples were stored in the dark at 4-6° and sent to Institute of Marine Research (Melissa Chierici) and Norwegian Polar Institute (Agneta Fransson) for further analysis.

T3-1.1 Characterisation of microbial communities

Oliver Müller and Lasse Olsen, (UiB), PI: Bente Edvardsen (UiO)

Flow Cytometry samples were taken for the standard depths at ten of the NLEG stations (in addition to the P-stations) to quantify the abundance of bacteria, virus, pico- and nanoplankton by flow cytometry. The NLEG stations sampled were NLEG5, NLEG6, NLEG8, NLEG9, NLEG10, NLEG12, NLEG14, NLEG15, NLEG19, NLEG23, NLEG24.

Process stations

Research foci 1: Physical drivers

Atmospheric data were collected launching a radiosonde balloon at noon at all P stations. Ocean currents in the upper ~500 m of the water column were continuously measured, also during the P stations, using a 150 kHz ADCP (RDI Instruments) mounted on the drop keel. The setup followed the setup in the test cruise. The instrument was synchronized with the EK80 using K-sync. The 38 kHz ADCP was not used due to interference with the 38 kHz of the EK80. The ADCP data was not processed during the cruise due to time constraints.

An LADCP mounted on rosette were run on some selected stations. Problems with logging and downloading of data on P3 to P4 (Local stations 161-169), but worked again from NLEG12 (Local station 170) (Table A1.1). Problems were caused by a defect cable. CTD were operated from the side of the vessel from the start and including P1 (Local station 151). The remaining cruise from P2 (Local station 154) we had to operate the CTD rosette from the moonpool,

missing the upper 10 m. Compensating CTD casts using an SAIV sonde from UNIS from the side provided surface measurements. Technical problems with the main hydrography winch with wire (W03) required use of an alternative winch (W04) with Kevlar Cable from the side. This light weighted cable was damaged during use in waves, and we were forced to use the moonpool as a suboptimal but functional solution.

Sea ice observations supporting research in RF1, is included in a separate section on Sea Ice together with the chemical and biological parameters.

Research Foci 2: Human drivers

T2-1.1; 1.4. Current variability and drivers of ocean acidification (**T2-1-1**) and Ocean acidification effects on planktonic calcifiers and biological pump efficiency (**T2-1-4**) *Griselda Anglada-Ortiz (CAGE-UiT), PIs: Melissa Chierici (IMR), Tine Rasmussen (UiT)*

To better understand the effects of ocean acidification on the Barents Sea, the abundance and carbonate contribution of different planktonic marine calcifiers (foraminifera, pteropods and coccolithophores) will be studied from 64 um multinet samples (foraminifera and pteropods) and water samples (coccolithophores) regarding the water chemistry (nutrients, δ^{18} O and DIC/Alkalinity) from the sampling zone.

A total number of 108 samples have been retrieved on 6 of the P stations to study these marine calcifiers (Table 2). On one hand, 52 samples have been collected using the 64 um multinet on the P stations at the standard depths 300-200m, 200-150m, 150-100m, 100-50m and 50-0m. Once on deck, a maximum of 120 specimens (60 foraminifera and 60 pteropods) have been picked from the 3 shallowest depths every 3 stations and freeze them individually at -80° C for protein extraction analysis. The rest of the samples have been stored on plastic bags and preserved at -20° C for further analysis on shore.

On the other hand, 28 samples coming from the P stations and different depths have been collected from the Niskin bottles. A total volume of 5 L was sampled at the different depths (200 m, 120 m, 50 m, chl max depth and 10 m) and filtered through a 0,45 um Acetate cellulose filter (volume= 2L) and 0,4 um Polycarbonate filter (volume= 3L). Once the samples have been filtered, the filters have been rinsed with distilled water buffered with ammonia and oven dried on the petridish at 60° C for at least 1 hour.

Once we are back, these samples will be analysed at CAGE-UiT (Tromsø) through [1] comparing the living species distribution with the pre-industrial distribution (from core samples retrieved during the Nansen Legacy cruise last September); [2] investigating the state of the shell of the living organisms regarding the carbonate chemistry of the water; [3] determining the dissolution index and [4] assessing the carbon fluxes generated by these living planktic marine calcifiers.

	-		-		
Station	Niskin	Niskin	Niskin	Niskin -	Multinet 64 um -
name	DIC/ALK	δ ¹⁸ Ο	Nutrients	Coccolitophores	Foraminifera and pteropods
IsA st					
P1					* picking
P2					
NLEG5					
NLEG6					
P3					
NLEG8					
NLEG9					
P4					* picking
NLEG12					
P5					
NLEG14					
NLEG15					
NLEG19					
P6					
NLEG23					
NLEG24					
P7					*failed picking (too few specimens)
SICE4					

Table 2. Station overview of the water chemistry samples, and calcifying organisms collected.

T2-1.2. Ocean acidification effects on the mobility of particulate and dissolved organic carbon (POC, DOC), essential trace elements (micro nutrients) and heavy metals *Stephen Kohler and Nicolas Sanchez (NTNU), PI: Murat V. Ardelan (NTNU)*

Objective: The purpose of this task is to understand the impact of ocean acidification on the biogeochemistry (cycling and mobility) of dissolved organic carbon (DOC) and trace elements in the water column of the Northern Barents Sea. To best explore this topic, a complete survey of trace elements and heavy metals needs to be sampled along the entire transect and at various depths under clean sampling and handling conditions. In addition, the characterization of dissolved organic matter (DOM, DOC), at each station at select depths will aid in understanding the different forms and distributions of DOM and how they may interact with trace elements. As the solubility of trace metals, both essential and toxic, are dependent on its interaction with DOM, the distribution and type of both trace metals and DOM was surveyed.

Trace elements (micronutrients): Both total (n= 56) and dissolved (n= 56) trace elements, were successfully sampled at all process stations (P1-P7) at eight depths up to 15 m above the seabed or up to 500m with GO FLO bottles with clean sampling and handling techniques. Replicate samples were collected at certain stations

Heavy metals (Hg): Separately, samples for both total mercury (n=56) and methylmercury (n=56) were also collected at all process stations (P1-P7) at eight sampling depths up to 500m with GO FLO bottles using clean sampling and handling techniques. At stations P6 and P7, samples for total mercury and methylmercury were also collected from the deeper depths (>500m) from the CTD rosette with bottles to complete the profile. Replicate samples were collected at P1, P4, and P7. To compare the clean sampling technique to the CTD, samples were collected from the CTD at P7 at the same depth as one of the GO FLO depths. We hope to share mercury data with RF2, T2-2, and RF3, T3-4.1.

Dissolved organic matter (DOM) characterization: Samples were collected for depths labeled *surface (10 m), middle,* and *deep,* dependent on local station bottom depth. All process stations (P1-P7) were sampled and collected from GO FLO bottles, with the exception of P6 and P7 deep samples collected from the CTD rosette. TOC, and ancillary POC measurements were collected from all samples, and DOC quantitation samples were taken at P1, P4, and P7. Two additional casts were made at P1 and P4 to serve as replicates for surface and deep

samples. P7 replicates were sampled simultaneously for surface (two GO FLOs attached together) and deep (two CTD bottles). All samples were subsequently collected, filtered, and extracted for DOM.

Ice work: Two ice cores were collected for trace elements at P6 ICE and P7 ICE. Cores were collected whole, and then cut and processed onboard according to AeN protocol.

Two ice cores were collected for Hg at P6 ICE and P7 ICE. Cores were collected whole, and then cut and processed onboard. At P6 ICE, 1 meltpond was sampled for total mercury, and at P7 ICE, 3 meltponds were sampled for total mercury.

1 ice core was collected for DOM at P6 ICE and kept frozen onboard. The core will be transported frozen back to NTNU for processing. At P6 ICE, 1 meltpond was sampled for DOM, filtered, and extracted.

Sediment sampling: At all process stations (P1-P7), with the exception of P3, samples of surface sediments were collected by the benthos group (UiT – Nord) for trace element analysis by sequential sediment extraction.

T2-2.1. Effects of changes in species composition and distribution on contaminant in food web accumulation

Julia Giebichenstein (UiO), Rita Amundsen (UiO), Ane Haarr (UiO), Håvard Nilsen Liholt (UiO), Robynne Nowicki (UNIS), PI: Katrine Borgå (UiO)

Purpose: As changes in temperature and sea ice distribution and thickness are expected in the Barents Sea, the energy transfer processes in the food web are expected to change. The present study aims at identifying and comparing bioaccumulation and biomagnification processes of legacy and emerging contaminants (e.g. persistent organic pollutants and mercury) related to energy use and availability between an Atlantic-influenced and an Arctic marine pelagic food web in the Barents Sea throughout the year. Zooplankton and fish samples will be collected during the process study cruises. From these, chemicals representing lipid soluble and protein associated contaminants will be analyzed, in addition to dietary descriptors to trace energy source (stable isotopes and lipid analyses). Model predictions of climate change effect on food web accumulation of contaminants include reduced accumulation due to predicted reduction in lipid storage. Bioaccumulation changes due to altered dietary composition is predicted to have less influence than the predicted lower lipid content. These predictions will be tested in the present task.

Approach: During this cruise we have collected water, zooplankton and fish samples for legacy and emerging contaminants, mercury, stable isotope and fatty acid analyses. Doreen Kohlbach (NPI) will analyze the fatty acid samples and the stable isotope samples will be analyzed at UiO. We hope to share mercury data with T2-1.2 and PFAS data with Jack Garnett from Lancaster University.

Water samples for legacy persistent organic pollutant (POP) analyses were collected with an in-situ filtration pump (see Figure 6) at the process stations P2, P4, P6 and P7. To compare the



influence of warmer, more saline Atlantic water on contaminant levels with the cold, fresher Arctic water we tried to target both water masses, if applicable. In addition, we took water samples from the CTD rosette in triplicates for PFAS analyses at P1-2, 5-7.

Figure 6. In-situ filtration pump

Meso- and macrozooplankton samples of key food web species were collected at each process station, except P3. Mesozooplankton (primarily Copepod stages CIV and CV) were sampled with either WP3 or Bongo Nets. Macrozooplankton (mainly euphasiids, amphipods and chaetognaths) samples were collected from the MIK net or from the macrozooplankton trawl (see Figure 7 for an example from the MIK net). Deep and shallow nets were taken at P6 and P7 to target species from both water masses (see Macrozooplankton part – RF3 in this report for further information on species composition at the different process stations). All zooplankton samples were sorted and grouped by family and by species if possible. Samples for contaminants were handled as little as possible to avoid cross-contamination. We sampled for POPs, mercury, stable isotope and fatty acid analyses.





Figure 7. Zooplankton sample from P7 (left), and Polar cod (Boroegadus saida) caught at P4 (right).

Fish tissue and whole fish were sampled for POPs, mercury, stable isotope and fatty acid analyses at P1-P4. The stomach was frozen for microplastic analyses and otoliths for age determination were dissected. The target species relevant to the pelagic Barents Sea food web included Polar cod (*Boreogadus saida*), Atlantic cod (*Gadus morhua*) and Capelin (*Mallotus villosus*) and were below 25 cm in total length (see Table 3). Other dominant fish species (like *Sebastes spp.* at P1) were sampled opportunistically and frozen whole. (see part T2-3-1 in this report for detailed information on the trawls).

Table 3. Overview of the number of sampled fishes at the process stations.

Process station	P1	P1 vicinity	P2	P3	P4	Total
Atlantic cod (Gadus morhua)	9	-	-	-	-	9
Polar cod (Boreogadus saida)	11	-	15	10	17	5
Capelin (Mallotus villosus)	10	55	-	-	-	65

Part of the sampled fishes were shared with subtasks 2-3.1, 2-2.3, 2-2.4 and 2-2.5 for genomic and further ecotoxicological analyses.

T2-2.3. Effects of oil and contaminants on northern Barents Sea ecosystem health.

Ane Haarr and Håvard Liland (UiO), PI: Ketil Hylland (UiO)

The purpose of this work is to quantify levels of DNA damage (measured in fresh blood) and concentration of PAH metabolites (measured in bile) in individual fish from different species residing in the northern Barents Sea. The Atlantic cod *Gadus morhua*, atlantic capelin *Mallotus villosus*, polar cod *Boreogadus saida*, and American plaice *Hippoglossoides platessoides*, are abundant fish species in the northern Barents Sea, representing different ecological niches and trophic levels and are important both ecologically and commercially.

Polyaromatic hydrocarbons (PAHs) are organic contaminants of petrogenic or pyrogenic origin, meaning that they are associated with petroleum products or formed by incomplete combustion of organic material. Some PAHs are well known carcinogens, such as benzo(a)pyrene, while some are less well known. Most vertebrates are quite efficient in metabolizing and detoxifying PAHs, so its metabolites are therefore often measured in the bile and used as an indicator of PAH exposure. Laboratory experiments have shown the association between PAH exposure and DNA damage, and various methods can be used to quantify damage to the genome. The Comet assay is a relatively quick, easy and inexpensive method to assess single or double stranded breaks in the DNA, which can result from exposure to contaminants and other types of stressors. Even though causal relationships are difficult to assess from field studies, it is still important to monitor contaminant concentrations and levels of DNA damage to assess species-specific differences in exposure, baseline activity and sensitivity, especially in a rapidly changing Arctic environment.

During this cruise, 30 individuals of each fish species were collected across stations P1-P4 using pelagic and benthic (with and without fish lift) trawls. No trawls were conducted north of P4 due to the ice conditions. Opportunistic sampling of the Arctic amphipod *Themisto* sp. for quantification of DNA strand breaks was also a part of the initial plan, but this species was only caught in abundance at P2, and was not available for this purpose. For all sampled fish, biometric data were recorded, and some individuals were shared between the other groups. For shared fish, different types of tissues were taken for various purposes: stomach for the analysis of microplastics, muscle samples for POPs, mercury, fatty acids, and stable isotopes (Julia Giebichenstein, T2-2.1); spleen and fin clip for genomic analysis as well as assessments of age and maturation stage (Siv Hoff and Leif Christian Stige, T2-3.1); and liver slices for experimental exposure studies (Nadja Brun and Fecadu Yadtetie, T2-2.4). At P1, Atlantic cod were abundant in the first benthic trawl. 29 individuals of various size classes (approximately one third small, medium, and large individuals) were sampled. Eight individuals of polar cod were sampled, but the fish were in bad condition after the trawling (without fish lift), and blood samples may be affected by this. As there was an echosignal between P1 and P2, a pelagic trawl was conducted, and 30 individuals of capelin were sampled for blood and bile. Bile samples are not complete for all individuals, as the gall bladder sometimes was empty or difficult to locate in the small capelin. Additional polar cod were caught with benthic trawls (with fish lift) at the rest of the stations (up to station P4) and the fish could be kept alive in the fish tanks prior to sampling. After the sample size was complete (30 individuals), an additional 20 individuals were sampled to assess different methods for preservation of blood. The cryopreservation method in the protocol include gradual freezing of blood samples mixed with a cryosolution, and thus, 10 blood samples were frozen directly at -80°C without cryosolution, and 10 blood samples were snap frozen in liquid nitrogen and stored at -80°C.

T2-2.4. Using genomic and proteomic tools to identify responses to effects of pollutants on zooplankton and fish.

Fekadu Yadetie (UiB) and Nadja Brun (Woods Hole Oceanographic Institution, USA), PI: Anders Goksøyr (UiB).

The Arctic region is susceptible to pollution from expanding petroleum related activities as well as from long range transport of pollutants deposited in the polar region. Seasonal and climate changes may dictate high lipid content and its mobilization which can influence pollutant bioaccumulation, bioavailability, and effects in Arctic organisms. Despite the unique energy and pollutant dynamics, toxicological data on the arctic species is sparse. The aim of this sub-task is to map toxicogenomic responses in arctic fish and zooplankton (*Calanus*).

Fish: The focus on this cruise was to sample key Arctic fish species, and culture liver slices to perform exposure studies to the oil related PAH compound benzo[a]pyrene (BaP). Four species, Atlantic cod (*Gadus morhua*), capelin (*Mallotus villosus*), Polar cod (*Boreogadus saida*) and American plaice (*Hippoglossoides platessoides*) were sampled from the process stations P1, P2 and P3 and seven exposure experiments (each with 6 replicates per group, with 4 exposure groups) were performed. Samples collected and frozen were: liver or whole fish for possible chemical analysis (Table 4), liver slices for RNA (transcriptomics) and proteomics and/or enzyme assay (e.g. EROD) (Table 5). Slices were also collected for viability and possible vitellogenin assays for each species. Media samples from each liver slice experiments were collected for viability assay and frozen. All tissue samples were snap-frozen in liquid N2 and stored at -80 °C. Although further chemical exposure experiments were planned after station P4 with polar cod kept alive in fish tanker, this could not be performed because the fish were accidentally exposed warmer water in the tanker and died. Biometric data (total length, fish weight, liver weight, sex) on most of the fish we sampled were shared with other sub-tasks in RF2: T2-2.1, T2-2.2, and T2-2.3.

Calanus: In process stations P6 and P7, key copepod species *Calanus finnmarchicus*, *C. hyperboreus* and *C. glacialis* were sampled and exposed to the PAH compounds Phenanthrene (Phe) and BaP. These experiments were planned and performed in collaboration with the Ecotox groups (sub-tasks T2-2.2 and 2-2.3) at UiO (Julia Giebichenstein) and Kasia Dmoch. After a range finding experiment with increasing doses of Phe and BaP (using *Calanus finnmarchicus*), a single dose was selected, and exposure experiments were performed for each of the three *Calanus* species (Table 6). The animals were collected and snap-frozen in liquid N2 and stored at -80 °C. RNA will be extracted and extracted and toxicogenomic responses will be studied and compared using RNA-seq at UiB.

In both fish and *Calanus* experiments, we expect to characterize global gene expression fingerprints in response to the PAHs in these species which may give us information on mechanisms, comparative susceptibilities, and possible future expression biomarkers.

Process station	Trawl type	Species sampled	Number of fish	Sex	Processing	Samples collected	Comments
P1	Bottom	Atlantic cod	6	Male	PCLS culture and BaP exposure	Slices for RNA and protein extraction	4 concentration groups (6 fish replicates (paired design).

Table 4. Fish tissue sampled at different stations.

							72h exposure, 10 °C.
P1 vicinity	Pelagic	Capelin	24	Male and female	Manual slicing and culture, 1 liver/well. BaP exposure	Slices for RNA, protein extraction and viability (ATP) assay.	Manually sliced, 6 replicates/per group, 1 fish liver per well. 72 h exposure at 10 °C.
P2	Bottom	American plaice	6	Female	PCLS culture and BaP exposure	Slices for RNA, protein extraction and viability (ATP) assay.	72 h exposure at 10 °C.
P2	Pelagic	Capelin	25	Male and female	Manual slicing of pooled livers, BaP exposure	Slices for RNA, protein extraction	Manually sliced, 6 replicates wells per group. 48h exposure at 6 °C.
Р3	Bottom	Polar cod	6	Male	PCLS culture and BaP exposure	Slices for RNA, protein extraction and viability (ATP) assay	72 h exposure at 6 °C.
P3 (from tank)	Bottom	Polar cod	6	Female	PCLS culture and BaP exposure	Slices for RNA, protein extraction	72 h exposure at 6 °C.
P3 (from tank)	Bottom	Polar cod	6	Female	PCLS culture and BaP+ EE2 exposure	Slices for RNA or protein extraction and viability (ATP) assay	To test mixture (BaP and EE2). Test for anti- estrogenic effects of BaP. 72 h exposure at 6 °C.

Process station	Trawl type	Species sampled	Number of fish	Sex	Samples collected	Comments
P1	Bottom	Atlantic cod	7	Male and female	Piece of liver (ca. 1g and 5g) frozen	All cod have intestinal parasites
P1	Bottom	American plaice (AP)	4	Female	Piece of liver (ca. 5g) frozen	All AP have intestinal parasites, and all appear females. Most have discolored, neoplastic like liver
P1 vicinity	Pelagic	capelin	10	Male and female	10 whole capelin frozen	For possible chemical analysis
P2	Bottom	American plaice	13	Female	Piece of liver (ca. 5g) frozen	Most of the AP livers have discoloration (at least partly) and many seem to have neoplasms/cancer (pictures taken). All AP have intestinal parasites. AP seem all female
P3	Bottom	Polar cod	20	Male and female	Whole livers frozen	For possible chemical analysis

Table 6. Calanus samples and PAH exposure experiments.

Statio n	Gear type	Species sampled	Number of animals	Stag e	Processing	Samples collected	Comments
P6	МІК	C. finmarchicu s	300-350	CV	Exposure DMSO control, 0.1uM Phe, 0.1uM BaP 5 replicates of 0.5L (20 animals/bottle) Extra bottles for seawater only control.	Live animals collected and frozen for RNA extraction.	72h exposure at 3.5 °C.
P6	Bongo net 180 um	C. glacialis	120-150	CV	Exposure DMSO control, 0.1uM Phe, 0.1uM BaP 4 replicates of 0.5L (10 animals/bottle). Extra bottles for seawater only control.	Live animals collected and frozen for RNA extraction.	72h exposure at 0.5 °C.
P7	МІК	C. hyperboreu s	200-250	CV	Exposure DMSO control, 0.1uM Phe, 0.1uM BaP 5 replicates of 0.5L (10 animals/bottle). Extra bottles for seawater only control.	Live animals collected and frozen for RNA extraction.	72h exposure at 3.5 °C.

T2-2.5. Critical seasonal windows of responses to multiple stressors on key organisms in a pelagic food chain

Robynne Nowicki, PhD student (UNIS/UiO), PI: Geir Wing Gabrielsen (NPI)

Purpose

The samples taken on this cruise will be used in T2-2.5. This cruise is the first of 4 seasonal cruises in which macrozooplankton and fish samples will be taken for bioenergetics, protein, lipid and pollutant remobilization analysis. The samples taken will be used to assess seasonal fluctuations in energy content of key organisms in the pelagic food web of the Barents Sea. This data will be used to expose the annual critical windows in which organisms may be of weakened body condition and predators may have a low-quality food supply. Thus these organisms may be more susceptible to stressors such as persistent organic pollutants and climate change parameters, during this critical period. I also took samples of macrozooplankton to assess sexual maturity and life history stages, in order to allow for a more trait-based approach to seasonal energy variation. As well as this, polar cod brains were collected (to be used in conjunction with brains collected from Brunnich guillemots and kittiwakes from Svalbard in future) for organ specific analysis of seasonal pollutant remobilization. Samples were taken at each process station (excluding P3), allowing for additional comparison of southern (Atlantic) and northern (Arctic) species, as well as regional differences in individuals of the same species.

Sampling approach

Macrozooplankton: Macrozooplankton were sampled using MIK-net 1500um V-hauls, and macrozooplankton trawls, at stations P1-5, with P6 and P7 only having MIK-net 1500um vertical hauls due to ice conditions. The bulk samples were sorted into major zooplankton groups, with this work focusing on krill, amphipods and pteropods, with 2-3 species selected for each. Individuals were selected and measured, with an aim to collect a range of size classes, in order to assess the relationship between body size and energy content. For each sample, organisms were wrapped in aluminium foil, placed in a labelled Ziploc bag and frozen at -20°C. Large organisms were stored individually, whilst smaller organisms were pooled per sample, with the aim of each sample weighing between 0.5-1g. Samples were taken opportunistically, with not all species being collected from each station. Where abundance allowed, I also took samples to be later assessed for sexual maturity and life history stage. I stored these individuals in 5% formalin seawater solution. *Themisto libellula* was the most consistent species, being collected from every process station.

Fish: Fish were collected using campelen and Harstad fish trawls at station P1, P2 and P4. Atlantic cod (*Gadus morhua*), capelin (*Mallotus villosus*) and polar cod (*Boreogadus saida*) were the target species collected. However Atlantic cod were only available from P1 and capelin from P1 and P2, whilst polar cod were taken from all sampled stations. The fish were taken whole from the trawl (roughly 10-25 individuals per species per station where abundance allowed), weighed and measured for total length. Individuals were then wrapped in aluminium foil and frozen at -20°C. Polar cod were present at every process station. Polar cod that were dissected for other simultaneous sampling onboard had their brains removed for remobilization studies, with weight and total length of the sample fish being noted.

T2-3.1. Climate change and fisheries: Spatial environmental variables and genomics *Siv Hoff and Leif Christian Stige (UiO), PI: Sissel Jentoft (UiO)*

The aim of this task is to investigate the roles of spatiotemporal population structure and possible local adaptations in three key fish species in the northern Barents Sea ecosystem: The Northeast Arctic population of the Atlantic cod (*Gadus morhua*), capelin (*Mallotus villosus*) and polar cod (*Boreogadus saida*). If local adaptations are important for population dynamics and responses to climate change, it may be necessary to revisit the management of fisheries in order to maintain intact spatial and genetic structure. For this purpose, individual samples

of these species will be collected at transect cruises in summer (2 years) and winter (1 year) for whole-genome sequencing. We will also include samples of the same species collected in associated projects at other locations, such as at their spawning grounds. From these data we aim to characterize the population sub-structure(s) for each of the species, as well as identify signatures of directional selection, for instance as a result of temperature adaptations. In addition to spatial structure, we will assess possible temporal structure, linked to seasonal partitioning of habitat use.

During this cruise we have been collecting tissue samples of the Northeast Arctic cod, polar cod and capelin from the different process stations: P1, P2, P3, and P4 vicinity (Table 7). At all stations, one demersal (Campelen) fish trawl was taken. Pelagic trawling was planned to be done "opportunistically" if signal on the echo sounder indicated presence of fish schools, resulting in one pelagic (Harstad) trawl that was taken between P1 and P2 (P1 vicinity). At station P3 and P4 a fishlift was attached to the trawl, and fish from these catches were kept alive in fishtanks.

Table 7. Number of fish sampled at each of the stations during SSQ3. All trawls taken was demersal except P1 vicinity, which was a pelagic trawl.

Station/ Species	P1	P1 (vicinity)	P2	P3	P4 (vicinity)	P5
Northeast Arctic cod	32	-	5	-	-	-
Capelin	24	36	26	6	-	-
Polar cod	17	-	40	40	43	-

In concordance to last year sampling (JC1/2: 6-23 Aug. 2018), the Northeast Arctic cod was observed at the first two stations P1 and P2, where P1 trawl catch contained a mix of smaller individuals and larger individuals and P2 station contained a few smaller individuals (<20 cm). Capelin was caught both in pelagic and bottom trawls. Interestingly, in comparison to last year's sampling, adult polar cod was this year caught in all demersal trawls taken, from P1 through P4, whereas they were first time observed at P3 last year. P5 was not trawled this year due to ice.

For all sampled fish, a total of three tissue samples were taken, two for whole-genome DNA sequencing (approx. 20x coverage), and one for RNA sequencing. Additionally, otoliths were collected for all fish sampled, in order to determine age.

Metadata was recorded for all fishes sampled, and includes the following parameters: fork length, total length, total weight, sex, maturation stage and presence of ecto/endoparasites. In addition, for the Northeast Arctic cod and a subset of the sampled polar cod at each station liver, gonad and somatic weight was also recorded. A subset of the sampled fish was shared with subtasks 2-2.1, 2-2.3, 2-2.4 and 2-2.5 for ecotoxicological analysis.

Research Foci 3 – The living Barents Sea

T3.1 and T3.4 Microbes: biodiversity, abundance, biomass, distribution and activity. *Oliver Müller (UiB), Lasse Olsen (UiB), Miriam Marquardt (UiT), Martí Amargant (UiT), Bente Edvardsen (UiO), Karoline Saubrekka (UiO), Anna Vader (UNIS), Pls: Bente Edvardsen (UiO), Gunnar Bratbak (UiB)*

The activity contributes to tasks T3-1 and T3-2 and links to T3-3 and T3-4. Samples for microbial (viruses, prokaryotes and protists) community composition, abundance and activity were collected from two open water stations (P1 and P2) and four ice covered stations (P4, P5, P6 and P7). A reduced sampling effort was conducted at the open water station P3 and ice covered station SICE4. Pelagic samples were collected at all stations, while stations P6, P7 and SICE4 also included ice samples (ice-cores, under ice water and melt ponds, see more detailed description of sea ice work below). In addition, Flow Cytometry samples were taken for the standard depths at several NLEG stations (NLEG5, NLEG6, NLEG8, NLEG9, NLEG10, NLEG12, NLEG14, NLEG15, NLEG19, NLEG23, NLEG24). Sampling also included phytoplankton nets. Chl *a* and live protist samples were analysed on board, while all other samples were preserved or frozen for later analyses. An overview of parameters and samples (also including samples from sea ice cores, is given in Table 8.

List of parameters sampled:

Biodiversity

- Genetic identification of community composition of protists and prokaryotes (Metabarcoding)
- Genetic identification of (free) virus diversity (Virus diversity)
- Qualitative analyses of protists >10 µm from net hauls (Net)
- Qualitative analyses of small protists for cultures and electron microscopy from water (Vivaflow)
- Qualitative and quantitative analysis of plankton including coccolithophores by scanning electron microscopy (SEM)
- Algal diversity by culturing (Cultures)

Abundance and biomass

- Algal biomass (total and >10 µm chlorophyll a concentration Chl *a*)
- Abundance of bacteria, virus, pico and nano-plankton by flow cytometry (FCM)
- Quantitative analyses of protists from water samples by light microscopy (Microscopy)
- Particulate organic carbon and nitrogen (POC/PON)
- Elemental composition of seston (XRF, particulate C:N:Si:Ca:P:Mg:S:K:Fe)(XRF)

Activity

- Genetic identification of protist activities (Metatranscriptome)
- Bacterial production
- Primary production
- Nitrogen uptake by primary producers
- Primary producer's response to light intensity

Table 8. water column and ice sampling for microbes (see text above for abbreviations). For nutrients, see also overview in Table 2.

Stn	Depth (m)	Metabarcoding	Virus diversity	Phytoplankton	Vivaflow	SEM	Cultures	Chl. <i>a</i>	FCM	Microscopy	POC/PON	XRF	Metatranscriptom	Bacterial	Primary	Nitrogen uptake	P vs. I curves	Nutrients
P1	•																	
	5	х				х/		х	х	х	х		х	х	х	Х		Х
	10							Х	Х	Х	Х	х		Х				Х
	20							Х	Х		Х	х		Х	Х			Х
	30							Х	Х	Х	Х			Х				Х
	40							Х	Х		Х			Х	Х			Х
	50							Х	Х		х	х		х				Х
	60							Х	Х	Х	х	Х		х	х			Х
	90					0.4		Х	Х	х	Х	х		х	х			х
	120					/X		Х	Х		X			Х				X
	200	X				x/		X	X		X	X		Х				X
	bottom	X	X		v	x/X x/X	v	X	X	X	X	X		X	X	X	v	X
	Chl a=45	х	х		х	X/X	х	х	х	х	х	х		Х	х	х	х	х
	0-50			x			х											
P2	0-00			^			^											
1 2	10	х				x/	х	х	х	х	х	x	х	х	х	х		х
	20	~				74	~	x	x	~	x	X	~	x	~	~		x
	30							X	X	х	X	X		x				X
	40							x	X		X			X				X
	50=Chl a	х	х		х	x/X	х	х	х	х	х	х		х	х	х		х
	60							х	х	х	х	х		х				х
	90							X	X	X	X	X		X				X
	120							х	х		х			х				х
	150	х				x/X		х	х		х	х		х				Х
	bottom	х	Х			x/X		х	х		Х	х		х				х
	0-100			х			х											
P3																		
	10	х				х/	Х	Х	Х	Х	Х	х		Х				Х
	20							Х	Х		Х	х		Х				Х
	30							х	х	х	Х			х				х
	40							Х	Х		Х			Х				Х
	50							Х	Х		Х	х		Х		_		Х
	60		<u> </u>	ļ				Х	Х	Х	Х	Х		Х				Х
	90							Х	Х	Х	X	Х		Х				Х
	120					VN		X	X		X			Х				X
	200	X				x/X		X	X		X	X		X				X
	bottom Chl	X			v	x/X x/X	v	X	X	v	X	X		X				X
	a=75	x			x	***	х	х	х	х	x	Х		x				x
	0-100			х			х											
P4	10																	
	10	Х				x/	Х	Х	Х	х	Х	Х	Х	Х	Х	Х		Х
	20 20-051					~~~		Х	X		X	X		X	Х			X
	30=Chl a	X	x		х	x/X	х	х	х	x	х	X		x	x	х	х	x
	40							х	Х		Х			х	х			Х

	50							х	х		х	х		х				х
	60							X	X	х	X	X		X	x			X
	90							x	x	x	X	x		x	x			x
	120							x	x	^	X	^		x	^			x
	150					Х		^	x		X			x				x
	200	x				x/		х	x		x	х		x				x
	bottom	X	х			x/X		X	x		x	x		x				x
	0-100	~		х			х	^	~		^	^		~				~
P5	0 100			^			^											
	10	x				x/	x	х	x	х	х	x	x	х	x	x		х
	20=Chl	X	х		х	x/X	x	x	x	x	x	X	~	x	x	x	х	x
	a	~	~				^	^	^	^	~	^		^	^	^	^	^
	30							х	х	х	х	х		х				х
	40							х	х		х			х	х			х
	50							х	х		х	х		х				х
	60							х	х	х	х	х		х	х			х
	90					Х		х	х	х	х	х		х	х			х
	120	1		1				х	х		х			х				х
	150	Х	L	L		х/		х	х		х	х		х				х
	bottom	х	Х			x/X		х	х		Х	х		х				Х
	0-100			Х			х											
P6																		
	10	х				x/		х	х	х	Х	х	х	х	х	х		х
	20							х	х		Х			х				х
	30							х	х	х	Х			х	х			х
	40							х	х		х	х		х	х			х
	50							х	х		х			х				х
	60							х	х	х	Х			х	х			х
	90							х	х	х	Х	х		х	х			х
	120							х	х		Х			х				х
	200	х				x/X		Х	Х		Х	Х		Х				Х
	500								Х		Х	Х		Х				Х
	bottom	х	Х			x/X		Х	Х		Х	Х		Х				Х
	Chl	х	Х		х	x/X	х	х	х	х	х	х		х	х	х	х	х
	a=15																	
	0-100			х			х											
P7	10																	
	10	Х			-	x/		X	Х	х	X		х	х	х	х		X
	20							X		\	X							X
	30	-	-	+	1			X	Х	Х	X	~		Х				X
	40 50							X			X	Х			Х			X
	60	+	+	+				X	~	v	x	v		v	~			X
	90				+			X	X X	X	X X	Х		X	X			X
	120	+	+	+				X X	X X	Х	X			X X	Х			X X
	200	x				x/		X	X		X	x		X				X
	500	^	+	+		~		^	X X		X	X		X X				X X
	1000	+				x/		x	X		X	X		X				X
	1500	+	+	+		~		^	X		X	X		X				X
	2000	+	+	+	+				X		X	X		X				X
	2500	+	+	+	+				X		X	X		X				X
	bottom	х	x	1	1	x/X		х	X		X	X		X	<u> </u>			X
	Chl	X	X	1	х	x/X	x	x	x	х	^	x		x	x	х	x	x
	a=15			1														
	0-100	1	1	х	1	1	х	1					1		1			1
P6ic	0.00																	
e																		
	0-3	Х				1	х	х	х	х	х			х	х	1	1	х

	3-10	v					v	v	v	v	v			v				v
	10-20	x x	<u> </u>				Х	X X	X	X X	X			X	-			X
	20-30		<u> </u>						X		X			X	-			X
	30-50	x x	<u> </u>					X	X	X X	X			X X				X X
	50-70							X	X		X			~				
	70-90	X						X	X	X	X							X
		X						X	X	X	X							X
	90-110	X	1					X	X	X	X							X
	110-130	Х						Х	Х	Х	х							х
	130-top	Х						Х	Х	х				Х				х
	0-10		Х			x/X						Х						
	UIW 0.5	Х		Х	Х	x/X	Х	Х	Х	Х	Х	Х		Х				Х
	MP1	Х			Х	x/X	Х	Х	х	Х	Х	Х		Х				х
	MP2	Х				Х		Х	Х	Х	Х	Х		Х				х
	MP3	Х				Х		Х	Х	Х	Х	Х		Х				х
	MPM							Х							Х	х		Х
P7ic e																		
	0-3	Х					х	х	х	х	Х			х	х	х	х	х
	3-10	Х					х	х	х	х	Х			х				х
	10-20	х	[ſ	ſ		ſ	х	х	х	Х	ſ	ſ	х		ľ	ſ	х
	20-30	х						х	х	х	х			х				х
	30-50	х						х	х	х	х			х				х
	50-70	х						х	х	х	х							х
	70-90	х						х	х	х	х							х
	90-110	Х						х	х	х	х							х
	110-130	х						х	х	х	х			х				х
	0-10		Х			x/X			х			х		х				
	UIW 0.5	х		х	х	x/X		х	х	х	х	х		х				х
	MP1	х		х	х	x/X	х	х	х	х	х	х		х				х
	MP2	х		х		X		х	х	х	х	х		х				х
	MP3	х		х		х		х	х	х	х	х		х				х
	MPM														х	х		
SICE																		
4																		
	0-3	х						х	х	х	х			х				х
	3-10	х						х	х	х	х			х				х
	10-20	X						X	X	X	X			X				X
	20-30	X						X	X	X	X			X				X
l –	30-50	X						x	x	x	x			x				x
<u> </u>	50-70	X	1		1			x	x	x	x	1	1		1			x
<u> </u>	70-90	x	1		1			x	x	x	x	1	t		1			x
	90-110	X			1			x	x	x	x	1	1					x
	110-130	x	1		1			x	x	x	x	1	1		1			x
<u> </u>	130-150	X	1		1			x	x	x	x	t	t		1			x
	150-top	x			-			x	x	x	x			х	<u> </u>			x
	0-10		х		<u> </u>	x/X					<u>^</u>	х			<u> </u>			
	UIW 0.5	х		х		x/X		х	х	x	х			х	† – – –			x
SICE	0														1			
4	10																	
	10 20-05					X		X	X	X	X	X	х	X	X	X		X
	20=Chl a	х	x		x	x/X	х	х	х	x	x	X		х	x	х	х	X
l –	30							х	х	х	х			х				x
l –	40							x	x		x	х		x	х			X
<u> </u>	50		1		1			x	x	1	x	1	t		1			X
<u> </u>	60				1			x	x	х	x	х	1	х	х			X
	90							x	x	x	x			X	x			X
	120				1	Х		x	x	1	x	х	1	x	1			X
1																		

150							Х	Х				Х
200	х			х		х	х	Х	Х	Х		Х
500							х	Х	Х	Х		Х
1000						х	х	Х	Х	Х		Х
1500							х	Х	Х			Х
2000							х	Х	Х	Х		Х
bottom	х	х		x/X		х	х	Х	Х	Х		Х
0-100			х		х							

On board experiments:

On board experiments included a grazer exclusion experiment, which was done at stations P1, P4 and P6, prepared by gentle reverse filtration of surface water from the ChI a max to retain organisms of different size fractions ($<0.8\mu$ m; $<3\mu$ m; $<90\mu$ m) and were incubated each for six days at close to *in situ* light and temperature. Subsamples for abundance, activity and diversity analysis were taken at different frequencies throughout the incubation period.

Several functional aspects of pelagic and sympagic primary producers were studied during the Nansen Legacy Q3 cruise. In open water stations (P1, P4, P5), water was sampled from the standard depths 10, 20, 40, 60, 90 and Chl a max. Water from these depths was spiked with radioactively labelled carbon in order to determine the Carbon fixation rate (i.e. the Primary Production rate) of phototrophic organisms throughout the water column and latitudinal gradient. Additionally, water from 10m and Chl a max was spiked with stable isotopes of Carbon (13C) and Nitrogen (15N) to estimate the F-ratio (which fraction of the primary production is new production). One incubation bottle was also treated to assess the nitrification activity of microbes. These incubations were deployed attached to the sediment trap moorings and exposed to in situ light and temperature conditions for 24 hours. In parallel, water from the Chl a max was used to study the photosynthetic response of the community to light intensity (P vs I curves). At the ice-covered stations (P6 and P7), the aforementioned water sampling and experimental work was carried out as described, and additionally the bottom 3cm of 4 ice cores were sampled and pooled for similar in situ incubations: Under-ice Primary production, Nitrogen uptake and P vs I curve. Water from a melt pond was sampled, spiked and incubated in situ for Primary Production and Nitrogen uptake. A reciprocal transplant experiment was conducted with surface water from stations P1 and P6 and will be analyzed for abundance and community shifts due to changes in environmental factors.

T3-1.1. Characterize biological phytoplankton/ protist communities and seasonality in terms of biodiversity, abundance, biomass and distribution patterns

Karoline Saubrekka and Bente Edvardsen (University of Oslo/ IBV), Anna Vader (UNIS), PI: Bente Edvardsen (UiO)

The main aim of our sampling during the cruise was to collect material which will be used to study diversity, distribution and ecology of microalgae and other protists along the Barents Sea to Arctic Ocean transect. Our sampling also focused on Sea ice communities, and we collected material from melt ponds, ice cores and under-ice.

For the **molecular analysis** of diversity (metabarcoding) and function (metatranscriptomics) of phytoplankton and protist communities along the transect. We took part in collection and filtration of the molecular samples as well as sampling and processing of ice-cores and sea water on ice. A complete list of which microbial parameters were collected at which depth and stations is presented elsewhere in the report.

For the **analysis of phytoplankton** abundance, we collected samples from CTD Niskin bottles at all planned depths at station P1. At station P2-P7 and SICE4 sample depth 5m was changed to 10m, due to sampling through the moonpool. Samples where fixed in formalin and Lugol's

solution for further light microscopy analysis in the lab. They will provide quantitative and qualitative information about phytoplankton abundance and diversity along the transect.

Morphological analysis of phytoplankton diversity and isolation of cultures of Arctic microalgae. We also collected samples for the scanning electron microscopy (SEM) analysis of small phytoplankton and groups which are not well preserved in quantitative samples fixed in Lugol's solution. This includes primarily calcifying microalgae (coccolithophores) which are an important part of the Barents Sea phytoplankton. The samples for quantitative and qualitative SEM analysis were taken at each station at four depths which corresponded to depths sampled for molecular metabarcoding and metatranscriptomics.

A plankton net (mesh size 10µm) was deployed at each station to obtain a concentrated phytoplankton vertical sample. The collected material was divided in five parts. One part was fixed in 2% formalin and one in 1% Lugol's for light microscopy to be used together with the quantitative samples above. Another part was fixed in 1% Lugol's and one in 1% glutaraldehyde and these will be used for studying diversity of protists using scanning and transmission electron microscopy at UiO. One part was kept alive in a cool room with light. This material was analysed onboard by microscopy, preliminary species lists were made and micrographs taken. It was also used to establish mono-algal cultures by dilutions on board. Finally, the last part of the net sample was mixed with algal growth medium (IMR1/2) and kept alive in the cool room with light ("raw cultures"). These dilutions and raw cultures will be taken to UiO where more cultures will be isolated.

At the process stations and all ice stations, we used **Vivaflow filtration system** to concentrate cells that are so small that they are not collected with the plankton net. This was always done from the Niskin bottles from depths with chlorophyll maximum. On ice stations, Vivaflow filtration was also done using Melt pond water samples and under-ice samples. After isolation, the same procedure was applied as with net samples. First part was fixed, second part was kept alive third part was enriched with growth medium and kept alive. To establish cultures of small microalgae, we made dilution cultures at each station using the Viva flow concentrated samples. These dilution cultures as well as raw cultures from Vivaflow material will be taken to UiO for further analysis.

At sea ice stations, we sampled water from melt ponds, 0.5m below ice and 5m below ice and concentrated it using both 10µm bottle-net and viva flow system. Part of material was fixed for SEM, TEM and LM and another part kept as raw cultures for later analysis. Also, the bottom 10cm from ice-cores was sampled, part fixed for microscopy and the rest taken to UiO as a raw culture.

The protocol has been revised from the Nansen Legacy Protocol Version 4, and a complete list of samples is given in Table 8, above.

T3-1.1; 2.1. Mesozooplankton taxonomy, abundance, biomass and genomics

Anette Wold (NPI), Kasia Dmoch (IOPAS) and Konrad Karlsson (UNIS), PI: Tove M. Gabrielsen (UNIS/ UiA)

Purpose

The main objective was to describe the mesozooplankton taxonomic composition, abundance and biomass along the transect going from open Atlantic water (P1) to ice covered Arctic water (P7). We expect to see a gradient in the presence of Atlantic and Arctic species. The transect also represent a gradient from a late summer condition at the southernmost stations to a spring situation in the northernmost ice-covered stations, allowing for a space for time approach along the transect.

The data obtained during this cruise are part of the seasonal investigations of zooplankton communities and will be continued on AeN seasonal cruises in Nov/Dec 2019 & spring 2020.

Description of work

We have sampled with Multinets and Bongonets of both 180 μ m and 64 μ m in order to cover all size groups and we refer to the samples from the two mesh sizes as "mesozooplankton" and "small mesozooplankton" respectively (Table 9). Samples for taxonomy and abundance was sampled using the Multinet at 5 standard depths (Table 10). The standard sampling depths were from the bottom-200, 200-100, 100-50, 50-20 and 20-0 m. At the deep stations, the sampling depths were from 1000-600, 600-200, 200-50, 50-20 and 20-0 m. All samples were preserved in 4 % formaldehyde free from acid. (final concentration) free from acid.

Samples for total biomass as dry weight and metabarcoding was sampled using Bongonets from the bottom-surface and from 1000 m to surface at the deep stations. The biomass samples were dried and measured onboard. Genetic samples for metabarcoding was preserved in ice cold 96 % ethanol.

Gelatinous zooplankton were picked out from MIK net & Bongonet samples at station P2, P4, P5 & P7. Pictures were taken of all individuals of each taxa. And individuals in good conditions were stored individually with ice cold 96 % ethanol. It would improve the sampling of gelatinous zooplankton to use a light-board and have a dedicated camera and a better system for naming and storing pictures immediately after sampling. Due to time constraint, pictures were not taken of the taxa from the Bongonets only from the MIK nets. We should improve the effort to also pick out smaller individuals of gelatinous zooplankton in the future.

Purpose	Gear	Station	N samples	Task
Mesozooplankton taxonomy	Multinet 180 µm	P1, P2, P3, P4, P5, P6, P7	35	T3-1.1 & 1.2 T3-2.1 & 2.2
Small mesozooplankton taxonomy	Multinet 64 µm	P1, P2, P3, P4, P5, P6, P7	35	T3-1.1 & 1.2 T3-2.1 & 2.2
Mesozooplankton biomass	Bongonet 180 µm	P1, P2, P4, P5, P6, P7	6	T3-1.1 & 1.2 T3-2.1 & 2.2
Small mesozooplankton biomass	Bongonet 64 µm	P1, P2, P4, P5, P6, P7	6	T3-1.1 & 1.2 T3-2.1 & 2.2
Mesozooplankton metabarcoding	Bongonet 180 µm	P1, P2, P4, P5, P6, P7	6	T3-1.1
Small mesozooplankton metabarcoding	Bongonet 64 µm	P1, P2, P4, P5, P6, P7	6	T3-1.1
Gelatinous zooplankton	MIK net 1500 µm & Bongonet 180 µm	P1, P2, P4, P5, P6, P7	105 (individuals)	T3-1.1 & 1.2 T3-2.1 & 2.2

Gear	Sampling depth		Hauling s	peed (m/s)
	Shallow	Deep	lowering	heaving
Multinet 180 µm	Bot-200-100-50-20-0m	Bot-600-50-20-0m*	0.5	0.5
Multinet 64 µm	Bot-200-100-50-20-0m	Bot-600-50-20-0m*	0.5	0.3
Bongonet 180 µm	Bottom-0m	1000-0m	0.5	0.5
Bongonet 64 µm	Bottom-0m	1000-0m	0.5	0.3
MIK 1500 µm	Bottom-0m	Bottom-0m	0.3**	0.6
Macrozooplankton trawl				

*At the deepest station (P7) time only allowed to sample down to 1000m

**If lowering to fast the net-bucket might flip into the net since the ring is much heavier than the bucket even when added weight to the bucket.

T3-1.1; 2.1; 2.2; 4.2; 4.4. Characterize biological mesozooplankton communities and seasonality in terms of biodiversity, abundance, biomass and distribution patterns (1.1), secondary production (2.1), trophic ecology (4.2) and sympagic-pelagic-benthic coupling (4.4)

Konrad Karlsson (post doc, UNIS), PI: Janne Søreide

The RF3 work package aims to describe zooplankton dynamics over season (summer, winter, and spring) and space (Atlantic, shelf, and Arctic). A further aim was to estimate grazing, egg production and hatching success of dominant zooplankton species. I participated on the cruise to conduct experiments on mesozooplankton at the three process stations: P1, P4, and P7. In addition, I took samples of zooplankton biomass and metabarcoding at six stations: P1, P2, P4, P5, P6, and P7. Three different experiments were planned prior to the cruise: (i) an experiment to estimate the grazing on phytoplankton and microzooplankton by the most dominant zooplankton, (ii) experiments to estimate the egg production and the hatching of eggs *from Calanus glacialis, Calanus finmarchicus,* and the egg production of *Pseudocalanus sp.*, (iii) an experiment to estimate respiration of the most dominant zooplankton species, and link the respiration to lipid storage and carbon nitrogen ration (C:N) of the animals.

Results: Biomass and metagenomics samples were taken at the six stations. The grazing experiments were conducted at the three stations, samples of chlorophyll-a, particulate organic carbon, and community composition (phytoplankton and microzooplankton) were taken to be analyzed later on. Egg production and hatching were estimated on board the ship. However, very few animals produced eggs, and none hatched. Experiments on respiration were unsuccessful because the Loligo sensor could not be calibrated. However, measurements of lipid storage and C:N ratio were taken.

T3-1.1; 2.1. Macrozooplankton

Padmini Dalpadado (IMR), PIs: Bodil Bluhm (UiT), Tove M. Gabrielsen (UNIS/ UiA)

Macrozooplankton consists of larger organisms such as euphausiids (krill), amphipods, arrowworms, jellyfish and larval fish. The biomass of these organisms is usually underestimated as they avoid smaller gears as well as can pass through the larger nets. In this project, we aim to combine acoustics with net catches to map distributions patterns and obtain biomass estimates/indices of key macroplankton such as euphausiids and amphipods. These organisms are key prey of many economically and ecologically important fish species in the Barents Sea. We use two types of nets, namely MIK (ring net 2m in diameter, 500µm at the cod end) and a specially designed macroplankton trawl (6*6m, 3mm mesh all throughout) to catch these organisms. As echosounders onboard operate with several frequencies we aim to use acoustic information (e.g. frequency response) together with net catches to recognize and quantify the organisms. The main aim of the August 2019 cruise was to identify key acoustic backscatters as we move from Atlantic (P1) passing through arctic waters (P2, P3 &P5) towards the mixed waters in the North (P5& P6).

Preliminary results show that at station P1 with Atlantic waters was dominated by large and small jellyfish (*Cyanea capillata, Mertensia ovum* and *Sarsia* spp.), euphausiids (*Meganyctiphanes norvegica, Thysanoessa inermis*) and some larval fish (Figure 8, Table 11). As we move towards artic waters, the species composition and diversity changed. The more Atlantic dominated species decreased already when reaching the P2 station. Especially in P3 and P4 stations, the larger arctic water associated amphipod, *T. libellula* was the most abundant in the macroplankton trawl. Echogram with plankton from P2 is shown in Figure 9. In the shallow arctic layer (50-100m) in P6 & P7, adult *Calanus hyperboreus* (CV-CVI) dominated. In the deeper waters (1000-2000m), we caught bright red colored organisms such as shrimp, *Hymenodora* and copepod, *Pareuchaeta* spp. In addition, large numbers of chaetognaths were present. It is noteworthy that some individuals from most of these groups were carrying eggs. The presence of young *Themisto libellula* (3-5mm-just released from adult

marsupium) also seem to indicate suitable growth conditions in these waters. In the shallow arctic hauls, we caught a lot of green material (likely from algal blooms higher up in the water column), indicating good feeding conditions for the young in these waters (P6 & P7).

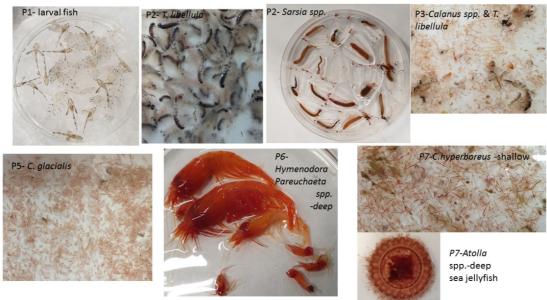


Figure 8. Images of organisms at different stations from a survey with R/V Kronprins Haakon, 5-27 August 2019

				Max.	
Station	lat	lon	Net	Depth (m)	Dominant organisms
P1		31.2897 31.0716	MIK Macroplankton	320	Jellyfish, C. finmarchicus, C. glacialis, M. norvegica, T. inermis, larval fish
		33.9955	Trawl	300	Jellyfish, larval fish T. libellula, Clione limacina C.
P2	77.5163	34.0057	MIK Macroplankton	160	glacialis, Limancina spp.
			Trawl	160	<i>T. libellula</i> , <i>Clione limacina</i> , jellyfish <i>C. glacialis</i> , Jellyfish, <i>T</i> .
P3	78.75	34.0004	MIK	300	<i>libellula</i> (smaller)
P4	79.7077	34.2833	MIK	320	C. glacialis, T. libellula, C. limacina.
	79.4983	34.6344	Macroplankton Trawl	300	T. libellula, Sagitta spp., C-limacina
P5 P6	80.5092	33.8602	MIK	140	C. glacialis, T.libellula (small)
shallow P6	81.5514	31.1684	MIK	50	<i>C. hyperborus, T. longicoudata</i> <i>C. hyperborus , krill,</i> Hymenodora
deep P7	81.5765	31.3874	MIK	1000	spp, Pareuchaeta spp.
shallow P7	81.9283	29.1460	MIK	100	<i>C. hyperborus, T.libellua</i> (small) <i>C. hyperborus, Hymenodora</i> spp., <i>T.</i>
deep	81.9811	29.7287	MIK	2000	longicaudata.

Table 11. Sampling description of Macrozooplankton & preliminary observations of taxa.

Sampled from maximum depth to surface, V-haul P1-P4, vertical P5 and P6.

P2 -STATION (120 kHz)

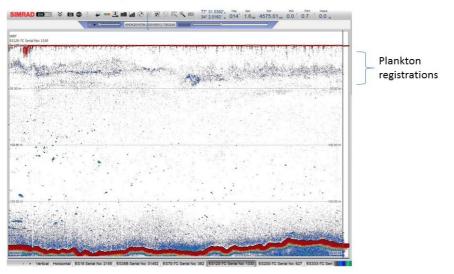


Figure 9. Echogram showing plankton registrations near P2 station.

T3-1.1; 1.2; 4.3; 4.4. Characterize and quantify biota in the seasonal ice zone (1.1), relate environmental conditions to biological communities (1.2), and explore the sympagic-pelagic-benthic coupling and trophic ecology of benthos (4.4)

Bodil Bluhm (UiT, PI), Arunima Sen (Nord University), Eric Jorda Molina (Nord University), with assistance by Yasemin Bodur (UiT), Karoline Saubrekka (UiO) and Jack Garnett (Lancaster University)

During Q3, our team contributed primarily to the Nansen Legacy RF3 tasks T3-1 and T3-4, specifically T3-1-1, T3-1-2, T3-4-3 and T3-4-4. The gear used to collect samples included a demersal Campelen trawl and a box corer.

Aims of the group were to (linked to PIs not onboard):

- T3-1-1: Characterize and quantify biota in the seasonal ice zone by sampling sediment communities for <u>biodiversity and abundance/biomass assessments</u>, specifically microbes (PI Lise Øverås, UiB), benthic Foraminifera (PI Elisabeth Alve, UiO), multicellular meiofauna (PI Bodil Bluhm) and macro-infauna (PIs Paul Renaud, APN and Henning Reiss via PhD student Eric Jorda Molina, Nord University). Note that mega-epifauna sampling was conducted at the Nansen Legacy transect during JC1-2 in August 2018, but was moved to IMR's ecosystem cruise in 2019 where it is routinely done on a larger spatial scale.
- T3-1-1: Characterize biota in the seasonal ice zone by collecting <u>voucher material</u> of benthic macro- and megafauna to be archived at the UiT Museum for a legacy of physical material of the project (PIs Bodil Bluhm, Andreas Altenburger UiT)
- T3-1-2: Relate environmental conditions to biological communities by sampling for sediment properties (grain size), indicators of food availability (total organic carbon and nitrogen, sediment pigment amount) and food sources (∂¹³C/∂¹⁵N, pigment composition)
- 4. **T3-4-4:** Sympagic-pelagic-benthic coupling by sampling representative benthic invertebrate taxa and demersal fishes for <u>stable carbon and nitrogen stable isotope</u> analysis (PIs Bodil Bluhm, UiT and Lis Jørgensen, IMR, for shared PD to be hired)
- 5. **T3-4-4:** Sympagic-pelagic-benthic coupling by conducting <u>sediment community</u> <u>respiration incubation experiments</u> onboard (PI Paul Renaud, APN, with PD Arunima Sen and PhD student Eric Jorda, Nord Univ.)

- 6. **T3-4-4: Sympagic-pelagic-benthic coupling** by sampling sediment for <u>IP₂₅ analysis</u> as an indicator of ice algal food available to the sediment communities (PI Marit Reigstad with PhD student Yasemin Bodur, UiT).
- 7. **T3-4-4: Trophic ecology of benthos** by sampling benthic <u>meiofauna for molecular</u> <u>characterization of diets of small benthic invertebrates</u> (PI Anna Vader, with PhD student to be hired, UNIS/ UiT).
- 8. **RF4 T4-4: To contribute to the energy flow ECOPATH model** by sampling benthic invertebrates for which wet weight-to-carbon conversion will be established (PI Torstein Pedersen, Bodil Bluhm, UiT)

Description of activities, samples collected

Sampling largely followed the Nansen Legacy sampling protocol version 4. We sampled demersal fish and epibenthos at <u>P1, P2, P3 and near P4</u> from a single ~15 min <u>Campelen</u> 1800 trawl haul each (Table 13, Figure 10, top; 45 min at P1). Details on the trawling procedure



are described in the fish section. Organisms were picked from the trawl haul both on deck and in the fish lab, identified to the highest practical taxonomic resolution, and either frozen (for later stable isotope analysis and wet weight-to-carbon analysis), or fixed in formalin or 70% ethanol (for the museum collection, depending on taxon), or 96% ethanol (to allow later molecular analysis of museum archived specimens). Wet weight-to-carbon conversions will feed into the ECOPATH energy flow model in RF4.

Figure 10. Sampling tools used for benthic sampling during Q3: Top: Campelen 1800 shrimp trawl. Bottom: giant box corer. Photo B. Bluhm.

Sampling for sediment parameters, organismal abundance and diversity as well as respiration experiments was done at stations <u>P1, P2, P4</u>,

<u>P5, P6, P7 and SICE4 using a 50x50 cm giant box core</u> (owned by APN) (Figure 10, bottom). <u>Three box core replicates</u> were taken at each of those stations except station P5, where only one replicate was taken because rocks prevented the closing of the box core during three additional attempts. Given one of the core boxes became damaged we refrained from additional attempts. At station P6, one deployment did not reach the seafloor after drifting to >1000 m and was repeated at the target station depth (~ 850 m). At P6, P7 and SICE4, 4, 5 and 4 deployments were done, respectively, to retrieve 3 replicate samples.

Microbes were sampled in replicates of three (one per box core) with a 4.7 cm diameter core and sectioned into 1 cm layers up to 6 cm. The center of each section was taken out with a 60 ml syringe and the sediment placed into a sterile whirlpack bag and frozen at -80°C. Foraminifera and multicellular meiofauna were sampled in replicates of three with a 5.5 cm

diameter core, sectioned into the same layers, placed into Joni containers and preserved with 70% Bengal rose stained ethanol and stored at room temperature. Macrofauna samples were taken with 11.7 cm inner diameter cores and either sieved directly through a 0.5 mm sieve and preserved in 4% formaldehyde seawater solution, or sieved and preserved after incubation experiments. Given macrofauna samples matched incubation treatments, a total of 20 replicate cores were taken per experimental station, and for consistency also at non-experimental stations.

Sediment grain size, TOC, TON and $\Delta^{13}C/\Delta^{15}N$ samples were sampled in bulk using a 4.7 cm diameter core sectioned, again, into 1 cm layers to 6 cm as above in each of the three replicated cores. Sediment pigment (chlorophyll *a*, phaeopigments) samples were taken with the same size corer, but layers also included 6-8 cm and 8-10 cm. To assess pigment composition using HPLC analysis, a single sample per core was taken from the 0-2 cm layer using a 60 ml syringe and stored at -80°C as part of a collaboration with the CHAOS project in the UK's Changing Arctic Ocean program. The top 1 cm was sampled for IP₂₅ analysis (parallel to sediment trap sampling) with a 60 ml syringe and stored at -20°C. One surface scrape each was taken for molecular analysis of diets of select meiofauna taxa (stored in 96% ethanol at -20°C), and for trace metal analysis from each box core. The remaining surface area was sieved through 0.5 or 1 mm mesh and organisms retrieved (mostly polychaetes) were identified to family level where possible and frozen at -20°C for later stable isotope analysis.

Sediment incubations for measuring bulk respiration rates were conducted with sediment retrieved from stations P1 (320 m depth), P4 (330 m depth), P6 (850 m depth) and P7 (3000 m depth). Therefor rates were measured at two shelf stations, one slope station and one deep water, basin station. All stations except P1 had some amount of ice at the water surface, although the ice was very patchy at P4.

At each station where incubations were conducted, about 100L of CTD water was collected early during activities at the station from the bottom and kept in the cold rooms in the dark to keep them at the temperature at which the incubations were conducted. The CTD data from both this year and the year prior were used for determining the temperatures at which incubations would be conducted. Negative temperatures were not possible to achieve in the designated cold rooms, therefore experimental temperatures did not completely match in situ conditions, however, we attempted to mimic seafloor conditions as much as possible while also maintaining observed inter-station variability. Two treatments were maintained at ambient water conditions: Treatment 1 (T1), with no added factors, and Treatment 2 (T2), where 30 g of isotopically enriched dried and resuspended algal powder was added to the sediment of the cores. Additionally, two treatments were maintained at temperatures about 4°C above ambient conditions, to simulate expected warming conditions. Treatment 3 (T3) paralleled T1 (no added factors, just warmer temperature) and Treatment 4 (T4) had algae added, similar to T2. For each treatment, 5 replicate cores were maintained. Due to time constraints and narrow sieving windows (sieving could only be conducted when no other activities were taking place), only T1 and T2 were conducted for P6 and P7. Table 12 lists the treatments and temperatures that were conducted at the various stations.

Station	Treatment 1	Treatment 2	Treatment 3	Treatment 4
	(ambient	(ambient temp +	(ambient temp	(ambient temp +4°C
	temp)	algae)	+4°C)	+ algae)
P1	5 replicates	5 replicates	5 replicates	5 replicates
	2°C	2°C	6°C	6°C
P4	5 replicates	5 replicates	5 replicates	5 replicates
	0°C	0°C	4°C	4°C
P6	5 replicates 0°C	5 replicates 0°C	none	none

Table 12. Treatments and temperatures at which benthic community oxygen consumption experiments were conducted at the various stations.

P7	5 replicates	5 replicates	none	none
	0°C	0°C		

At P1 and P4, 20 sub-cores and at P6 and P7 10 sub-cores (sub-cores were 11.7 cm in inner diameter) were inserted into the sediment of the three box cores, filled with bottom water from the CTD and kept in the appropriate cold rooms. Cores were bubbled for 12 hours to saturate with oxygen following which 15-20 ml of overlying water was taken for quantifying nutrients. Algae was added to treatment 2 and 4 as close to the sediment as possible. Core tops with magnetic stir bars were fixed on, removing air bubbles, and connected to electric transformers to keep the bars stirring, in order to avoid stratification of the water in the cores. Oxygen measurements were taken every 6 hours via the PreSens Fibox 4 optical sensor system. Experiments were terminated when oxygen concentrations reached 15-30% of saturation levels (70% for P6 and P7), upon which, nutrient samples were taken once more from the overlying water. Cores were sieved on a 0.5 mm sieve and all macrofauna retained were fixed in 4% formaldehyde and rose Bengal. In treatments 2 and 4, prior to sieving for macrofauna, sub-sections of the first 2 cm of the sediment were taken with a cut off 60 ml syringe and frozen, to assess algal uptake by foraminiferans.

For each sample type, a separate metadata excel sheet was created using the SIOS excel template generator. UUIDs were assigned to each sample following the Nansen Legacy guidelines. Sediment cores for respiration incubations were given a UUID through the system, but no labels were generated since these cores did not have a physical form after incubations were terminated. However, macrofauna samples, nutrient samples and meiofauna samples (post-incubations) were taken from these cores and all these samples had UUIDs and appropriate labels, with the parent UUID being the generated, but label-less UUIDs for the incubation cores.

Table 13. Overview over stations sampled for each of the different activities. Numbers in parentheses indicate the number of sediment layers.

Sample type	Task	PI/responsible	Institution	P1	P2	P3	P4	P5	P6	P7	SICE4
Sediment microbes	T3-1-1	T3-1-1 L. Øvreås	UiB	3 (6)	3 (6)		3 (6)	1 (6)	3 (6)	3 (6)	3 (6)
Meiofauna	T3-1-1	T3-1-1 E. Alve	UiO	3 (6)	3 (6)	•	3 (6)	1 (6)	3 (6)	3 (6)	3 (6)
Macrofauna	T3-1-1	P. Renaud/H. T3-1-1 Reiss, E. Jorda	APN / Nord	20	20		20	7	20	20	20
Museum lots	T3-1-1	T3-1-1 B. Bluhm	UiT	24	18	12	10	10	7	10	m
Grain size, TOC/TON, d13C/d15N	T3-1-2	T3-1-2 E. Alve	UiO	3 (6)	3 (6)	ı	3 (6)	1 (6)	3 (6)	3 (6)	3 (6)
Sediment Chl / phaeopigments	T3-1-2	T3-1-2 P. Renaud	APN	3 (8)	3 (8)	ı	3 (8)	1 (8)	3 (8)	3 (8)	3 (8)
Sediment pigment compositon	T3-1-2	P. Renaud / UK T3-1-2 CHAOS	APN	3(1)	3(1)	,	3(1)	1(1)	3(1)	3(1)	3(1)
Organisms δ^{13} C/ δ^{15} N	T3-4-4	B. Bluhm / L. T3-4-4 Jørgensen	Uit / IMR	28 taxa	46 taxa	27 taxa	24 taxa	16 taxa	18 taxa	6 taxa	12 taxa
Incubation experiments	T3-4-4	T3-4-4 P. Renaud / A.	APN / Nord	4 T/5 R	•		4 T/5 R		2 T/5 R	2T/5R	1
P. Re Nutrients pre-incubations T3-4-4 Sen	ТЗ-4-4	P. Renaud / A. Sen	APN / Nord	4 T/5 R	ı	ı	4 T/5 R	ı	2 T/5 R	2T/5R	'
Nutrients post-		P. Renaud / A.									
incubations	T3-4-4 Sen	Sen	APN / Nord	4 T/5 R	•	'	4 T/5 R		2 T/5 R	2T/5R	'
Meiofauna post- incubation	T3-4-4	T3-4-4 E. Alve	UiO	2 T / 5 R (2)	١		2 T / 5 R (2)		1 T/5 R	1 T/5 R	ı
Sediment IP ₂₅	ТЗ-4-4	M. Reigstad / Y. T3-4-4 Bodur	UiT	3(1)	3(1)		3(1)	1(1)	3(1)	3(1)	3(1)
Meiofauna molecular diet T3-4-4 A. Vader	Т3-4-4	A. Vader	UNIS	3(1)	3(1)	ı	3(1)	1(1)	3(1)	3(1)	3(1)
Wet weight-to-carbon conversion	RF4	T. Pedersen / B. Bluhm	UiT	11 taxa	23 taxa	12 taxa	8 taxa	8 taxa			'
Trace metals	RF2	M. Adelan / N. Sanchez	NTNU	1 (1)	1(1)	,	3(1)	1(1)	3(1)	3(1)	3(1)

Field observations

Epifauna

Although trawls were not quantitatively analyzed during Q3, we note that - as last year - the most frequent epifaunal invertebrates across most trawl stations included the shrimp *Sabinea septemcarinata*, the sea cucumber *Molpadia borealis*, soft corals from the family Nephtheidae (*Gersemia* sp. likely) and the sea star *Ctenodiscus crispatus*. P2 was the most taxon rich of the four trawl stations. The harvested shrimp *Pandalus borealis* was abundant and dominant at Stations P1 and P4; Pycnogonids and *Polymastia* sponges were also common at these two stations (Figure 11, top). In contrast to last year, the brittle star *Ophiura sarsii* was not particularly abundant or frequent.



Figure 11. Example of trawl catch and sediment sample. Photo B. Bluhm.

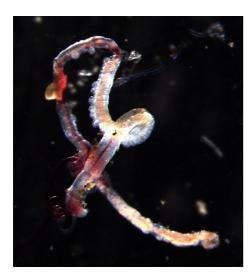
Sediment

Sediment texture and color varied both between sites and particularly down core. In all cores, surface sediments were brownish in coloration, with variations from creamy to chocolatey (Figure 11, bottom). Under the soft layer was a clay layer that was very dense in some cases. Station P4 had particularly soft sediment and stripes of different sediment colors. Station P5 had much gravel and boulders providing a substrate for limpids, *Lepeta caeca* to attached; coarse sediment was incorporated into tubes of, for example, the polychaete *Nothria conchilega*.

Macroinfauna

In most cores, polychaete tubes were visible on the surface, and - in the case of Spiochaetopterus - extended into the clay layer. At shelf stations (P1, P2, P4 P5) representatives of and the families polvchaete Lumbrineridae. Maldanidae. Nepthydae and Spiochaetopteridae were quite abundant. Different types of Bryozoans were also present at some cores along the shelf.

At the slope at P6, the sediment surface contained clumps of sponge spicules. Isopods, amphipods, and cnidarians *Umbellula* and Pennatulacea were visible. Spionid polychaetes were also present together with Maldanidae, Ampharetidae and Trichobranchidae individuals.



At the deep, P7 station, frenulate siboglinid worms were recovered and extraction from the tubes revealed the genus to be *Siboglinum* (Figure 12). These are polychaetes with obligate internal chemosynthetic bacterial symbionts.

Figure 12. Siboglinum sp. found at basin station P7. Photo A. Stippkugel

Black sediment was observed in parts of the box cores

from this station, which could be indicative of reducing conditions, which would align with the presence of siboglinid worms that require access to reduced chemicals in sediment porewater for nutrition. At P7, one core contained an empty shell of the irregular sea urchin *Pourtalesia geoffreyi*. At both P7 and SICE4 foraminifera appeared to be numerically abundant. At SICE4 some individuals of Lumbrineridae, Trichobranchidae and Sabellidae were retrieved, although abundances appeared to be even lower than at P7.

Respiration experiments

Differences in respiration rates were observed between the cold, ambient treatments, and the warmer treatments (example in Figure 13).

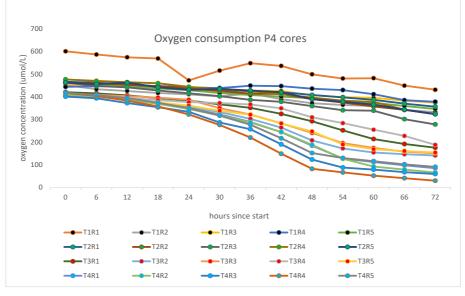


Figure 11. Example of respiration results for whole community sediment cores (from P4). T = treatments. T1 (black circles) is at ambient temperature, T2 (green circles) is at ambient temperature with the addition of isotopically enriched algal food, T3 (red circles) is at ambient temperature + 4 degrees C, and T4 (blue circles) is at + 4 degrees C and with isotopically enriched algae added.

Algal treatments at some stations appeared to experience higher respiration rates than the non-algal treatments at the same temperature. Detailed analyses need to be carried out to determine whether the differences were significant or not. It should be noted that upon termination of the experiments, it was observed that the added algae were still highly visible

and present in the sediment. Further work will determine whether and to what extent both the macrofaunal and meiofaunal components of the community incorporated the added algae.

Cores where relatively large animals were clearly visible appeared to have relatively high respiration rates (e.g., cores in which *Gersemia* was clearly present).

Links to other tasks / RFs / RAs / projects

The field activities contribute to most other work packages in the Nansen Legacy. The Foraminifera objective extends to RF1, because both recent and palaeo analyses are performed on the cores. The trace metal sediment samples contribute to RF2. The wet weight-to-carbon conversions and biotic biomasses will serve as input data to the food web and energy flow models in RF4. Our data and sample archival is a component of RA-B, and our blogs and the museum voucher collection contribute to outreach objectives in RA-D. Sediment pigment analysis via HPCL is a collaboration with the UK CHAOS project.

T3-1.3 Stable isotopes, fatty acids & HBIs of POM, zooplankton & fish

Anette Wold, NPI, Kaisa Dmoch, IOPAS, PI: Philipp Assmy (NPI)

Purpose

Stable isotopes, fatty acids & HBIs of POM, main zooplankton taxa will be used to study coupling/de-coupling of sympagic and pelagic primary and secondary producers. In addition fatty acids (together with C/N ratios) will be used as a measure of food quality for the planktonic grazer communities and will be linked to on board grazing experiment.

Description of work

Stable isotopes, fatty acid and HBI samples have been taken for POM from the ChI max from stations P1, P2, P4, P5, P6 & P7 and from the bottom 10 cm of the ice core at two ice stations (P6 ice & P7 ice). We filtered between 1.2-2.8L from ChI max in order to get enough material, three replicates were taken for each sample type. For the ice core we were restricted to one replicate due to very little biological material.

Samples for all three parameters were also sampled from the main mesozooplankton & microzooplankton taxa (Table 14). This work was done in collaboration with the Ecotox group (Julia Giebichenstein and Robynne Nowicki). Stable isotopes will be analysed at UiO. while fatty acids will be analysed by Doreen Kohlbach, NPI. In the southernmost stations the water mass was quite homogenous, and samples were taken from the entire water column, while at the two off shelf stations (P6 & P7) samples were taken from the surface arctic layer and from the deeper Atlantic layer.

Table 14. Overview of fatty acid and HBI samples (overview of the stable isotope samples is given in the Ecotox section).

Gear Type	Station	Depth	Taxon
MIK-net 1500 μm WP2 90 μm	P1	300-0m	Calanus glacialis, C. hyperboreus Sagiitta spp. Mertensia ovum Beroe cucumis Sarsia sp. Catablema visicarium Aglanta digitale Sagitta elegans Meganyctiphanes norvegica Thysanoess spp.
MIK-net 1500 μm WP2 90 μm	P1	70-0m	Oithona similis Pseudocalanus spp. Calanus finmarchicus, C. glacialis, C. hyperboreus Beroe cucumis Mertensia ovum Meganyctiphanes norvegica
MIK-net 1500 μm WP3 1000 μm	P2	150-0m	Metridia longa Calanus finmarchicus, C. glacialis, C. hyperboreus Limacina helicina Clione limacina Sagitta elegans Themisto libelulla Thysanoess spp. Bougenvilla supercillaris
Macroplankton trawl MIK-net 1500 μm Bongonet 180 μm	P4	320-0m	Oithona similis Metridia longa Calanus finmarchicus, C. glacialis, C. hyperboreus Limacina helicina Clione limacina Sagitta elegans Apherusa glacialis Themisto libelulla Thysanoessa inermis Meganyctiphanes norvegica Oikopleura vanhoffeni
Bongonet 180 μm	P5	140-0m	Oithona similis Microcalanus spp. Pseudocalanus spp. Calanus finmarchicus, C. glacialis, C. hyperboreus Metridia longa
MIK-net 1500 μm	P6	50-0m Arctic	Calanus hyperboreus Euchaeta glacialis Oikopleura vanhoffeni Eukhronia hamata Themisto abyssorum Thysanoessa longicaudata
MIK-net 1500 μm Bongonet 180 μm	P6	400-0m Atlantic	Calanus finmarchicus Ostracodes Themisto abyssorum Triconia borealis Aglantha digitale

MIK-net 1500 μm Multinet 180 μm	P7	1000-0m Atlantic	Pseudocalanus spp. Calanus finmarchicus, C. glacialis, C. hyperboreus Eukrohnia hamata Sagitta maxima Ostracodes Themisto abyssorum Thysanoessa longicaudata Meganytiphanes norvegica Hymenodora glacialis
Bongonet 180 μm	Ρ7	100-0m Arctic	Oithona similis Microcalanus spp. Calanus finmarchicus, C. glacialis, C. hyperboreus Onceidae Ostracodes Cyclocaris guilelmi Thysanoessa longicaudata Themisto abyssorum

T3-2.2. Measure how current environmental settings drive the phenology of primary and secondary production, and test how changing conditions may affect these seasonal patterns

Christine Gawinski (UiT), PI: Camilla Svensen (UiT)

The goal of this task is to identify and quantify how environmental conditions influence the phenology of production cycles both on the community and species levels. During the cruise in August 2019 the focus was on the small planktonic copepod *Oithona similis* which is often underrepresented in traditional zooplankton surveys due to the use of coarse plankton nets, which *Oithona* can easily pass through. To assess the relative importance of this copepod species in the ecosystem of the Barents Sea and Arctic Ocean, the production of this species was experimentally determined through egg incubation experiments. Assuming that female copepods allocate their ingested carbon into egg production rather than into growth, the specific egg production rate can be used as an estimate of the production of the population. To assess how population dynamics vary across space, egg incubation experiments were set up at three stations, namely P1, representing Atlantic conditions, P4, based on the shelf and P7, representing Arctic conditions.

According to protocol, 30 females of *Oithona similis* should be incubated per station at the *in situ* water temperature in the surface layer. The incubation temperatures were as follows: 3 °C (P1), -1.5 °C (P4) and -1.5 °C (P7). At stations P1 and P4 very few *Oithona* with eggs were found. Therefore, the incubation was set up with only 19 instead of 30 individuals at station P1. At station P4 the incubation was started with an initial number of 22 individuals and another 8 females were added after 12 h, as the picking of copepods with egg sacks took some hours. At station P7 females with eggs occurred in abundance, therefore 30 individuals could be used for the incubation from the beginning. At each station the experimental animals were photographed in the first 48 h, to determine the prosome length and clutch size of each female. The incubation chambers were checked every 12 h for newly hatched nauplii. In case of a hatching event the exact hatching time and number of hatchlings was noted and the nauplii were removed from the incubation chambers. The duration of the experiment at P1 was 408 h, at P4 276 h and at P7 108 h.

At station P1 a total of 219 nauplii hatched from 17 of the 19 females (89 % hatching rate). The maximum number of nauplii per hatching event was 21 nauplii and the maximum number of nauplii hatched per female was 23. The earliest hatching event occurred after 36 h and the last hatching event after 408 h. One copepod died after 252 h and another one after 408 h. At station P4 209 nauplii hatched from 13 of the 30 females (43 % hatching rate). The maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii and the maximum number of nauplii per hatching event was 27 nauplii per hatching event was 28 nauplii per hatching event was 29 nauplii per hatching event was 27 nauplii per hatching event was 27 nauplii per hatching event was 28 nauplii per hatching event was 28 nauplii per hatching event was 29 nauplii per hatching event was 29 nauplii per hatching event was 28 nauplii per hatching event was 29 nauplii per hatching event was 20 nauplii per hatching event was 29 nauplii per hatching event was 29 nauplii per h

hatched per female was 29. The earliest hatching event occurred after 24 h and the last hatching event after 276 h. None of the copepods died, however one was lost during sampling. At station P7 18 nauplii hatched from 1 of the 30 females (3 % hatching rate). The hatching event occurred after 48 h. None of the copepods died, however one was lost during sampling.

The timing of the reproductive cycle will be determined across the annual cycle based on the set of four seasonal cruises, with three yet to come.

To investigate Oithona's position in the food web, samples for carbon, stable isotope and fatty acid analyses were taken at each of the three process stations. According to protocol, 100 female Oithona should be picked for Carbon analysis after their egg sacks have been removed. Because of the low abundance of females with eggs at stations P1 and P4, two times 100 Oithona were randomly picked from the sample (all without egg sacks) and 30 individuals were photographed to determine their size and developmental stage. At station P7 two times 50 females and in addition two times 50 egg sacks were sampled for Carbon analysis. At each station three times 50 Oithona were picked for stable isotopes and fatty acid analyses. To investigate a possible top-down control of Oithona on the microbial food web, a grazing experiment was conducted in collaboration with Oliver Müller and Lasse Olsen. In addition to their incubations of 0.8 µm, 3 µm and 90 µm filtered sea water, 20 Oithona were added in three replicates to 1 l of 90 µm filtered sea water. To compare the feeding strategies of Oithona with that of larger copepods, a treatment with three Calanus sp. was added in three replicates. Samples were incubated for 6 days, after which each copepod was removed from the sample to be photographed (size and developmental stage determination, dead/alive). The grazing experiment was performed at three stations, namely P1, P4 and P6, at the same temperatures as the egg incubation experiments (3 °C P1, -1.5 °C P4 and -1.5 °C P7).

T3-3.1; 4.2. Estimate ranges of annual production along environmental and latitudinal gradients (3.1) and Trophic ecology of key zooplankton (4.2)

Angela Stippkugel (NTNU), PI: Rolf Gradinger (UiT), Janne Søreide (UNIS)

Experiments for selective grazing of micro- and mesozooplankton were conducted on board RV Kronsprins Haakon along a south-north gradient in the Barents Sea at three process stations (P1, P4 and P7) that were assigned as experimental stations.

To set up experiments, two CTD casts were taken from the deep chlorophyll maximum (DCM): i) 20 litres of seawater were collected to prepare 0.2 µm filtered seawater for the dilution and ii) up to 50 litres of seawater were collected and immediately pre-screened through a 180 micrometer sieve to exclude random mesozooplankton in the incubations. To prevent delicate organisms from damages seawater was sampled from the CTD by means of the funneltransfer technique (Loeder et al., 2010). Filtered and unfiltered seawater was stored cool until use. In addition, a WP2 net with a 90 µm mesh size was taken to sample mesozooplankton from the integrated water body (0-70 m). Cyclopoid copepods *Oithona* spp. (mixture of *O. similis* and *O. atlantica*) and calanoid copepods *Calanus* spp. (mixture of *C. glacialis* and *C. finmarchicus*) were selected using a dissecting microscope (Leica M205C) in the chilled room 301 and stored in seawater of ambient temperature thereafter.

Two-point dilution experiments (Morison and Menden-Deuer, 2017) modified after Landry and Hassett (1982) were set-up using the collected seawater from the CTD casts. By means of dilution experiments the phytoplankton net growth rate μ and the instantaneous growth rate μ_0 excluding the grazing impact of micro- and mesozooplankton can be calculated. As microzooplankton grazing pressure can have a strong influence on the phytoplankton standing stocks (Irigoien et al., 2005), effects obscured by grazing pressure are likely to become visible in μ_0 .

Dilutions of 10 and 100% were set-up in 2.5 litre carboys. 10% dilutions contained a mixture of unfiltered to sterile filtered seawater in a 1:9 ratio. 100% dilutions contained undiluted seawater with natural phyto- and microzooplankton communities. In addition, two treatments using 100% unfiltered seawater with i) around 100 *Oithona* spp. and ii) 5 *Calanus* spp. were added as mesozooplankton grazer treatments. The 10% dilution served as a control for phytoplankton growth since the number of grazers is considered as neglectable in the 10% dilutions. A control treatment was added with extra nutrients (f2 medium) to account for nutrient depletion in natural seawater in different seasons.

Incubation bottles were set up in triplicates and placed in a cool room adjusted to the *in-situ* seawater temperatures at sampling depth (between -1.5 to 2 °C). Squared, transparent 2.5 litre plastic bottles were used for the incubations. At P1, a plankton wheel with a jet pump was used to rotate bottles and to keep the incubated water inside the bottles in motion to prevent organisms from settling. Unfortunately, the water that circulated through the jet pump was heated up to 25 degrees and ruined the experiments at the first station. To prevent this mistake from happening again, bottles were placed horizontally in a shelf at P4 and P7 and manually rotated every 5 to 8 hours. Bottles were incubated in a 24 hours light cycle to simulate natural summer conditions. The grazing experiments were terminated after 24 to 48 hours. Different incubation times were chosen to account for temperature-dependent metabolism of grazers.

Growth rates of phytoplankton will be obtained using pigment measurements and phytoplankton counts. Phytoplankton net growth rate μ will be calculated using an exponential growth model (Landry and Hassett, 1982). To account for total grazing and selective grazing patterns of micro- and mesozooplankton, pigment samples before and after the incubations will be compared and phytoplankton and microzooplankton cell counts obtained using Uthermoehl sedimentation and inverted microscope techniques. Nutrient concentrations before and after incubations will be measured. In addition to the quantification of prey items and biomass, stoichiometry (C:N:P) will be measured.

T3-2.2; 4.4. Measure how current environmental settings drive the phenology of primary and secondary production, and test how changing conditions may affect these seasonal patterns (2.2) and Sympagic-pelagic-benthic coupling (4.4)

Yasemin Bodur, Miriam Marquardt, Martí Arumi-Amargant, Marit Reigstad, PIs: Camilla Svensen (UiT), Lis Lindahl Jørgensen (IMR)

Sediment trap deployment and sampling: To assess the vertical flux at the P-stations along the cruise transect, short-term sediment traps (KC-Denmark) were deployed at 5 locations up to 25 h (Table 15). At all stations except for P5, 4 trap cylinders (1.8l volume) were deployed at 30, 60 and 200m and 2 cylinders at 40, 90 and 120m, respectively (Figure 14). At 5, 20, 40, 60, 90m and Chl a max, bottles for the assessment of primary production were deployed (see report from M. Amargant-Arumi). Due to the shallow depth of P5. no cylinders were deployed at 200m and 4 traps were deployed at 120m. Prior to the deployment, the cylinders were filled with filtered deep water (below 200m) from the corresponding station or from a prior station to make sure that the water within the cylinders had a higher density than at the sampling depths. An anchor of 35kg was fixed to the bottom of the mooring to keep it upright in the water column. To keep the traps neutrally buoyant in the water, 3 large buoys were attached at 10 and 5m (Figure 14). A flagged pole equipped with an AIS beacon was used to mark the location of the mooring and to relocate its position for recovery. A small buoy with a long rope was attached to the pole for the recovery of the mooring. At the ice-covered stations (P4, P5, P6, P7) a chain was added between 10 and 5m to protect the rig from sea ice, while at P5, P6 and P7 the mooring was deployed on an ice floe where it was attached by an additional chain on two metal poles that were hammered into the ice (Figure 15).

Station	Deployment time (UTC)	Recovery time	Total time deployment	Deployment conditions
P1	08.08.2019 22:15	08.08.2019 23:48	25 h 33 min	In open water
P4	13.08.2019 21:45	14.08.2019 17:51	20 h 6 min	Under ice conditions, in the water
P5	15.08.2019 20:00	16.08.2019 16:40	20h 40min	On an ice floe
P6	18.08.2019 11:30	19.08.2019 06:39	19 h 9 min	On an ice floe
P7	21.08.2019 01:00	22.08.2019 23:45	22 h 45 min	On an ice floe

Table 15. Overview of sediment trap stations during AeN Seasonal Q3 with deployment and recovery time, and the total time of deployment.

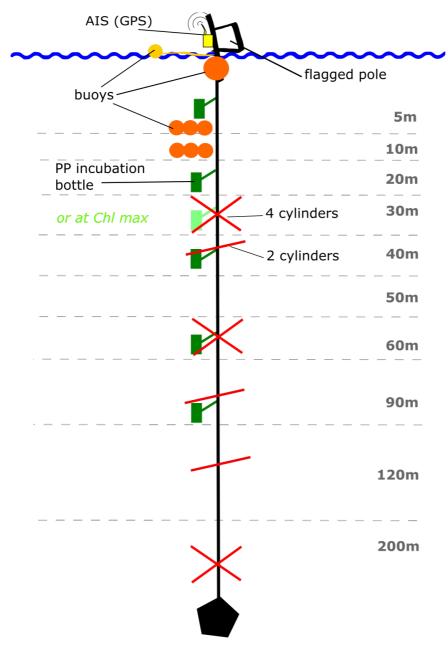


Figure 14. Scheme illustrating the structure of the mooring and the sampling depths of the sediment traps at open water conditions. At 30m, incubation bottles for primary production were deployed when the ChI a max was already covered at another depth.



Figure 15. Deployed sediment trap under ice conditions (left) and on an ice floe (right).

Sampling largely followed the Nansen Legacy sampling protocol version 4. Upon recovery of the sediment traps, the cylinder content of each depth was pooled and partitioned. From each depth, water was filtered for triplicate POC/PON analyses on pre-combusted GF/F filters and for size fractionated algal pigments (total ChI a (in triplicates on GF/F filters) and ChI a >10µm; on Polycarbonate filters) and water samples were taken for microscopic counts of fecal pellets and phytoplankton communities. Filters for algal pigments were immediately stored in Ethanol at 4C and measured with a fluorometer on board ideally after 12-24 h. Fecal pellets were preserved in a hexamine-buffered 4% Formaldehyde solution and phytoplankton communities in GA-Lugol. At 30, 60 and 200m depth additional triplicate samples were filtered for stable isotopes (pre-combusted GF/F), HPLC and IP25 analyses (GF/F). Approx. 1I was filtered for DNA analyses. through sterivex filters. DNA and HPLC samples were stored at -80C. POC/PON, stable isotopes and IP25 samples were stored at -20C.

Sea ice work

Organized by Anna Vader (UNIS), Miriam Marquardt (UiT)

Sea ice work were organized to optimize sampling efficiency, and the entire group helped out. Two sea ice coring teams, 1 team making hole for under-ice sampling and 1 melt pond team were supported by a team transporting cores to the ship, two teams handling cores in the lab preparing for the different analysis, 2 polar bear guards on the ice and 3 watches on bridge. The chief scientists coordinated the sea ice work with the crew and safety personnel, and the sea ice safety responsible checked the ice floe prior to the sea ice work.

Description of the sea ice work:

Ice cores were collected within a 10x10m grid by two or three teams of 3-4 people each, equipped with 9 cm Kovacs ice corers. Bio-bulk, meiofauna and one temperature/salinity and one nutrient ice core were sectioned every 10 cm (additionally, the lowest 10 cm of the biobulk and meiofauna cores were cut into 0-3 and 3-10 cm sections). Both the bio-bulk and meiofauna cores were cut under low light exposure inside a tent and sections stored in round plastic containers protected from the light. The temperature of the ice core was measured directly on the ice, before the core was sectioned for salinity measurements. Two cores (Stratigraphy and Back-up) were bagged in long plastic sleeves and taken back as entire cores. For all cores that were taken, snow depths, ice thickness free board and core length were measured. Coring work took 6 hours at P6 ice 4.5 hours at P7 ice and 4 hours at SICE4. At all times two polar bear guards were on the ice. In addition, there were three polar bear guards on the bridge. Simultaneously, a team of 2-3 people made a hole in the ice large enough to deploy a GoFlow bottle to collect water from under the ice at 0.5m depth. A third team of 2-3 people collected water from melt ponds using a bucket. Three separate melt ponds were sampled at both P6 ice and P7 ice. No melt ponds were sampled at SICE4. All water samples were protected from the light by covering the canisters using black garbage bags. Ice core sections from bio-bulk and meiofauna cores were mixed with sterile filtered sea water (0.22µm) in a ration of 100ml per one cm core and slowly thawed in the dark in a moderately warm room (ca. 10°C, fish lab).

Stn	Depth (m)	Metabarcoding	Virus diversity	Phytoplankton net	Vivaflow	SEM	Cultures	Chl. a	FCM	Microscopy	POC/PON	XRF	Metatranscriptom	Bacterial	Primary	Nitrogen uptake	P vs. I curves	Nutrients
P6ice																		
	0-3	х					х	х	Х	Х	Х			х	х	х	х	х
	3-10	X					x	x	X	X	X			x	^	^	^	x
	10-20	X					~	X	x	X	x			X				X
	20-30	X						x	X	X	X			X				X
	30-50	X						x	x	X	x			X				x
	50-70	X						x	X	x	x			~				X
	70-90	X						x	x	x	x							X
	90-110	X						x	x	X	X							X
	110-130	X						X	X	X	X							X
	130-top	X						x	x	x				х				X
	0-10		х			x/X						х						
	UIW 0.5	Х		х	х	x/X	х	х	х	х	х	х		х				х
	MP1	Х			х	x/X	х	х	х	х	х	Х		х				х
	MP2	Х				Х		х	х	х	х	Х		х				х
	MP3	х				Х		х	х	х	х	Х		х				х
	MPM							х							Х	Х		х
P7ice																		
	0-3	х					Х	Х	Х	Х	Х			Х	Х	Х	Х	Х
	3-10	х					Х	Х	Х	Х	Х			Х				Х
	10-20	х						х	х	х	х			х				х
	20-30	х						х	х	Х	х			Х				х
	30-50	х						х	х	Х	х			Х				х
	50-70	х						Х	Х	х	Х							х
	70-90	х						Х	Х	х	Х							х
	90-110	Х						Х	Х	Х	Х							х
	110-130	Х						Х	х	Х	Х			Х				х
	0-10		Х			x/X			Х			Х		Х				
	UIW 0.5	Х		Х	Х	x/X		Х	Х	Х	Х	Х		Х				Х
	MP1	Х		Х	Х	x/X	Х	Х	Х	Х	Х	Х		Х				Х
	MP2	Х		Х		Х		Х	Х	х	Х	Х		Х				х
	MP3	Х		Х		Х		Х	х	х	х	Х		Х				х
SICE4	MPM														Х	Х		
SICE4	0.2	×						X	X	X	X			X				v
	0-3 3-10	X X						X X	X X	X X	X X			X X				X X
	10-20	X						X X	X X	X X	X X			X X		-	-	X X
	20-30	X						X	X	X	X			X				XX
	30-50	X						x	× X	^ X	× X			^ X				x
	50-30	X						X	× X	X	× X			^				x
	70-90	X		<u> </u>				X	x	X	X							x
	90-110	X						x	x	x	x							x
	110-130	X						x	x	X	x		<u> </u>					x
	130-150	X						X	X	X	X							X
	150-top	X						x	x	X	x			х				x
	0-10		x			x/X						х						
	UIW 0.5	х	+ • •	х		x/X		х	х	х	х	<u> </u>		х				х

Table 17. Sea ice sampling for microbes from sea ice cores (see text for abbreviations)

List of parameters (and abbreviations used in Table 17) sampled from sea ice cores at the Q3 sea ice stations. For PI's for the different datasets, see data report.

Biodiversity

- Genetic identification of community composition of protists and prokaryotes (Metabarcoding)
- Genetic identification of (free) virus diversity (Virus diversity)
- Qualitative analyses of protists >10 µm from net hauls (Net)
- Qualitative analyses of small protists for cultures and electron microscopy from water (Vivaflow)
- Qualitative and quantitative analysis of plankton including coccolithophores by scanning electron microscopy (SEM)
- Algal diversity by culturing (Cultures)

Abundance and biomass

- Algal biomass (total and >10 µm chlorophyll a concentration Chl *a*)
- Abundance of bacteria, virus, pico and nano-plankton by flow cytometry (FCM)
- Quantitative analyses of protists from water samples by light microscopy (Microscopy)
- Particulate organic carbon and nitrogen (POC/PON)
- Elemental composition of seston (XRF, particulate C:N:Si:Ca:P:Mg:S:K:Fe)(XRF)

Activity

- Genetic identification of protist activities (Metatranscriptome)
- Bacterial production
- Primary production
- Nitrogen uptake by primary producers
- Primary producer's response to light intensity

T1-2.2 Physical sea ice conditions

PI: Sebastian Gerland (NPI)

For each core, snow depth, core length and freeboard were measured. Two cores were taken for physical properties: 1) physical parameters including temperature and salinity measured on ice, and 2) stratigraphy (core described by layering, and packed for later analysis).

T3-1; T3-4 Sea ice microbes: biodiversity, abundance, biomass, distribution and activity.

Oliver Müller (UiB), Lasse Olsen (UiB), Miriam Marquardt (UiT), Martí Amargant (UiT), Bente Edvardsen (UiO), Karoline Saubrekka (UiO), Anna Vader (UNIS), PIs: Bodil Bluhm (UiT), Gunnar Bratbak (UiB)

Sea ice samples were collected at three stations; P6, P7 and SICE4. Sea ice thickness at the three stations varied between 130 and 160cm (Figure 16). Only core parameters were collected at SICE4, while P6_ice and P7_ice were full stations. Sampling included ice-cores (Figure 16) and water from under the ice (0.5m depth, sampled through a hole in the ice) as well as melt-ponds. In addition, a handheld phytoplankton net was used to collect samples from under ice (5-0m depth) and melt-ponds (only P6_ice and P7_ice). Table 16 shows an overview of which samples were collected (number of ice cores). Bio bulk samples were cut into sections which were pooled, and divided into sub-samples for metabarcoding, flow cytometry, chlorophyll *a*, POC/PON and bacterial production. All ice core samples were cut on the ice and processed on board, except "backup core" and "physics (stratigraphy)" which were stored whole and frozen for later analyses. A CTD profile was obtained from under the ice using a handheld SAIV204 CTD equipped with fluorescence sensor. Light was measured using a LiCOR light-profiler.



Figure 16. More than 30 sea ice cores were drilled to provide enough material for all the parameters. Photo: Christian Morel (christianmorel.net).

Table 16. Overview of ice cores collected for sampling of the different parameters at the sea ice stations.

	P6_ice	P7_ice	SICE4
Ice-cores			
P versus I	2	2	
Primary production	2	2	
Bio bulk	5	5	5
Phytoplankton experiment	2	2	
Ice-algae taxonomy	1	1	
Meiofauna/algae	3	3	3
SEM	1	1	1
backup core	1	1	1
XRF	3	3	3
Virus	3	3	3
nutrients	1	1	1
physics (temperature/salinity)	1	1	1
physics (stratigraphy)	1	1	1
HBI	1	1	
fatty acids	1	1	
stable isotopes	1	1	
DOM/trace metals	2	2	
PFAS	4	4	
Under ice water (0.5m depth)			
nutrients	Х	X	X
bio bulk	Х	X	X
primary production	Х	X	
phytoplankton taxonomy	Х	Х	x
XRF	Х	Х	
SEM	Х	Х	
PFAS	Х	Х	
DOM/trace metals	Х	Х	
coccolithophore diversity	Х	Х	
phytoplankton net (5-0m)		Х	x
Meltponds (3 ponds)			
nutrients	х	Х	
bio bulk	х	Х	
primary production	х	Х	
phytoplankton taxonomy	Х	Х	
XRF	Х	Х	
SEM	Х	Х	
PFAS	Х	Х	

DOM/trace metals	Х	Х	
coccolithophore diversity	Х	Х	
Vivaflow/cultures	Х	Х	
phytoplankton net		Х	

Transport and biogeochemical cycling of PFAS

Jack Garnett, Lancaster University, UK, EISPAC, CAO project

The aim of my research is to better understand the transport and biogeochemical cycling of perfluorinated alkylated substances (PFAS) to and within the Arctic environment. My sampling program focused on sea ice, but also consisted of surrounding material such as snow, melt ponds and under-ice seawater. These were collected at two sites with different ice thicknesses with potentially contrasting ice types. Data will be able to improve our knowledge on the importance of snow and ice as temporary storage of pollutants whilst also indicating the significance of pollutants derived from the atmosphere and ocean. Moreover, this data will yield valuable information on the exposure to sympagic organisms located at the base of the marine food web.

Tasks and responsibilities

During my time on board the KPH, I maintained a list of the chemical inventory and ensured items were fastened securely (see also list on upgrades). In the beginning of the expedition, I shared the large workload of the benthos team to sieve samples and prepare experiments. I also contributed a short blog highlighting the importance of studying contaminants in the Arctic and performed cleaning duties in communal areas.

At the ice stations (P6 and P7), I worked with the sea ice team to collect core samples for myself and other scientists (Table 18). I was also responsible for taking melt pond samples for all cruise participants at the two stations.

Ice samples were melted on board at room temperature and subject to an established chemical extraction procedure for analysis of trace level PFASs. The results will yield salinity and total PFAS (dissolved and particulate fraction) profiles in the ice.

Sample type	Station Sample processing		Planned analysis	Possible		
Sea ice (4 cores)	P6, P7	Pooled 2 cores x 2	PFASs (dissolved + Particulate),	PFASs (dissolved +		
Under-ice seawater (0.5 & 5m)	P6, P7		Salinity, Stable isotopes for ice origin	Particulate),		
melt ponds	P6, P7		5			
Snow	P6, P7					
Surface sediment	urface sediment P7 unknown		PFASs	Preliminary screening		

KPH improvement suggestions: In order to secure chemical containers with different sizes, several 4mm holes were needed to be drilled on each shelf in the chemical cabinet to fit bungee cords. However, the chemical store would benefit from having additional holes being drilled.

Cruise improvements suggestions: Future melt pond sampling teams would benefit from taking a hammer with them to break through the thick 6cm ice cap. Waterproof notepads and pencils are recommended for work in the field.

Future work/collaborations: Future work should include more ice types located at different vicinities. In addition, measurements of PFASs in fresh snow and ice at various stages of ice growth and melt would provide valuable information on contaminant mobilization which could also to understand seasonal fluxes of contaminants into the different environmental compartments.

I have taken a small sample of surface sediment from 3000m at P7 to screen for PFASs. If successful, results will be presented to cruise leaders to discuss the possibility of future collaborations which will investigate the fate of PFAS in the Arctic Ocean. This would also be useful to combine results from fluxes of organic matter to deep ocean sediments (Yasmine) and PFAS transport via Atlantic water (Julia).

Logistics

Transport of equipment and samples

The logistic team of the Nansen Legacy project, Håvard Hansen and Simon Bjørvig, provided a guideline well ahead of the first cruise with information and deadlines for sending equipment to cruises, and for return of equipment, cooled samples (+4°C) and frozen samples (-20°C and -80°C). Pre-arranged transportation helps on both efficiency and costs prior to and after each cruise.

Equipment was shipped to Longyearbyen with Bring, and loading the ship in Longyearbyen went smooth and efficient resulting from well-planned work, and good collaboration between the logistics team, the crew and the scientists in Longyearbyen. The Nansen Legacy seasonal Q3 team leaders (Table A1.3) helped on deck to direct the pallets to the right deck, and cruise participants carried the boxes to the designated labs.

Shipping of samples that required cooled or frozen transport was ordered in advance, including dry ice for transport of frozen samples (-80°C). To be picked up at arrival in Longyearbyen.

A few pallets were left in Longyearbyen for the Nansen Legacy Q4-cruise, and is stored in the UNIS rubbhall, sjø.

On board communication

Based on the experience from last year cruises, a key task was to address challenges in keeping people updated on ongoing and planned activities, and to keep the station activity plan updated with respect to timing and progress. The vessel is large and the distance from the instrument room at Deck 7 to Deck 3 is long.

- Cruise leader and co-lead had 6 hrs shifts to always be present, and to meet often enough to discuss program and respond to any issues regarding practical or overarching character. They planned the overall timing of cruise activities, station work, posted programs and adjusted activities when needed, and had close communication with the bridge, instrument personnel, crew and scientists.
- Station programs were posted and available on all screens in due time, updated continuously, and facilitated good preparations from crew and scientists, and efficient sampling on each station.
- Two radios were provided from the vessel, set on Channel 4, to facilitate communication between cruise leader and the responsible scientists during sampling. One radio was placed on Deck 7 with the cruise leader on duty, and the other in the Dry lab, for common access. The use varied between the groups, but was important to inform on status and depth of zooplankton sampling with the different nets and during trawling (respond to adjustments needed based on catch).
- Daily meetings were held after dinner for short science presentations of ongoing work from scientists and cruise leaders, and to share practical information regarding science work, social life and routines onboard.

Station programs

A station program was prepared in Excel, published as a web page on the *khfelles-server* and updated continuously (Table 19). This program was available on HDMI13 on the TV screens in all common rooms, on the bridge, labs and cabins. Each screen had to be updated manually (remote control) during the August 2019 cruise. Adjustments to the program were done in Excel and published as a web page which was updated every 30 sec. To facilitate the links, automated updating and publishing, the instrument chief (Jan Bremnes) made a small script. Activities were marked green when finished, or red if cancelled or postponed to a later time slot in the program due to technical problems. The availability of plans ~24 hrs ahead and regular updates, resulted in efficient sampling and work during the cruise, as both crew and scientists could plan and prepare for sampling activities, handling of sampling and rest. Helping hands were also provided from those knowing they had some available time in the program. The ability to plan the work was well received on the bridge, among the crew and the scientists.

Day	Date	Time	Station	Activity	#	Personnel	Comment	Duration (hrs)
Friday	23 Aug	10:00	SICE4	Sea ice work		Ice core team, under-ice water team, core-handle team, filtration team, polar bear guard and watch	Ice cores and under-ice water (sampling done prior to first box core in surface)	5:00
Friday	23	12:15	SICE4	Box	3	Bodil, Arunima,	3600 m	11:00
	Aug			core		Eric		

Table 19. Example from station program set up, posted prior to each transit and station work

The overarching structure of the station programs was planned to get experiments and incubation work started, as they needed time to set up (sorting and preparations) and/ or deployment time (PP and sediment traps) during the station. Water column work was carried out first, and benthic sampling "contaminating" the water column, started only after all pelagic samples including vertical flux were done.

Water budgets

Water budgets were planned in advance to optimize the utilization of the bottles on the rosette. Parameters were distributed on the different CTD casts to optimize co-sampling for related parameters, and early sampling for water needed for experiments. On deep water stations (>3000 m), all deep-water requests were given priority on one CTD cast to avoid repeated CTD to the sea floor.

Excel sheets with water budgets for the NLEG and P-station CTD sampling programs are available.

Sample and data management for legacy

Routines for labelling and logging of samples and metadata for Nansen Legacy were developed prior to and established during the Nansen Legacy Joint Cruise 1-2 of 2018. The essential part of this system is that all samples and datasets are labelled with a UUID, and all information about each sample is logged in an excel sheet containing all relevant metadata and standardized parameters. The UUIDs are printed on stickers that can be attached to the samples. The stickers are available in different sizes. Two label printers were set up with a virtual server on the network onboard, so that they could be accessed from both stationary and personal computers. The excel sheet used for logging of sample information is generated using an excel template generator which was made available on the same virtual server along with an excel file checker, UUID generator and relevant documentation (the labelling manual, sampling protocol v4, and lists over the gear and sample types used in the project).

Universally unique IDs (UUIDs) for the individual gear used was assigned by one scientist. Metadata about the gear cast was copied from the cruise logger (Toktlogger v.1.1.2; download function did not work), UUIDs were generated and given, and additional relevant metadata was added (e.g., sample depths, data file names, serial number of instruments). This information was combined in an Excel file and shared in the cruise folder so that the scientists could grab the Parent IDs for their samples and also did not individually have to acquire metadata about the gear casts. Around 215 gear casts were registered (Appendix 1), and almost 13000 entries were uploaded to SIOS from the cruise. Sample and metadata information are accessible and searchable through the SIOS webpage. In addition to logging

information about collected samples, information about planned datasets based on data collected from the cruise was collected (Appendix 3). In general, the system for labelling and logging of samples worked well, although several scientists had problems accessing the ship network. This may be related to the fact that the ship computer system is divided into different networks, and that although we should have all relevant access through the network assigned to scientists, this is not always the case. Since our labelling system is placed on a virtual server on the ship network, it is essential that all scientists have easy access. The download function of the cruise logger (v1.2.2) does not work, so information has to be copied into our gear cast log sheet. Until relevant metadata are included in the cruise logger (including generation of UUIDs for each gear cast) and the download function works, it is necessary to assign one scientist to gather the relevant metadata for each gear cast, assign parent ID and to distribute this information to cruise participants during the cruise.

Communication and outreach

The locations and activities during research cruises are well suited to visualize the Arctic environment as well as the research activities in the project. Christian Morel (www.christianmorel.net) is a professional photographer with long time experience and competence on communicating Arctic landscapes, science activities and people of the north. He was hired by the Nansen Legacy project to take pictures and make movies that shows the scientific activities, the researchers, the Arctic landscape and the vessel. The products will be used for illustrations, science communications and in a future exhibition (Figure 17).

Pictures and movies of work (under-ice water, time laps videos etc.) is also provided by students, researchers, and crew for use in a project context.



Figure 17. Preparing for under-ice sampling. Photo: Christian Morel (christianmorel.net).

Blog texts from the cruise activities were produced during the cruise, and by the end of the cruise, 12 were published on Forskning.no (Appendix 2).

Appendix 1: Tables

Table A1.1 Full	station	list with	locations	and	sampling	gear	(modified
from cruise log)						

							Bottom		Sampl e	Мах	Min
ID	Gear Type	Date	Time (UTC)	Station Name	Lati- tude	Longi- tude	Depth (m)	Local St. ID	Depth (m)	depth (m)	depth (m)
157	CTD w/bottles	2019-08- 05	16:13	IsA	78.260 9	15.535 3	86.5	145	75		
158	CTD w/bottles	2019-08- 06	07:34	W of Sørkap p	76.416 5	13.904 7	1050.2 8	146	500		
159	Glider 1	2019-08- 06	09:53	W of Sørkap p	76.416 5	13.904 6	1050.2 8	42			
160	Glider 2	2019-08- 07	13:40	P1 vicinity	76.005 1	31.034 5	327.52	43			
161	CTD w/bottles	2019-08- 07	14:04	P1 vicinity	76.006	31.031 3	328.17	147	320		
162	CTD w/bottles WP3	2019-08- 07 2019-08-	16:58	P1	76.000 0 76.000	31.219 8 31.219	325.59	148			
163	1000 um	07	17:48	P1	0	9	325.62	12		70	0
164	WP3 1000 um WP3	2019-08- 07 2019-08-	18:24	P1	76.000 0 76.000	31.219 8 31.219	325.69	13		315	0
165	1000 um WP2 90	2019-08- 07 2019-08-	19:17	P1	76.000 0 76.000	8 31.219 31.219	325.73	14		315	0
166	WP2 90 um WP2 90	2019-08- 07 2019-08-	19:32	P1	0 76.000	8 31.219 31.219	325.58	15		70	0
167	um Bongonet	2019-08- 07 2019-08-	19:51	P1	0 76.000	8 31.219	325.73	16		315	0
168	64 um	07	20:31	P1	0	8	325.41	17		315	0
169	Bongonet 180 um Sediment	2019-08- 07	21:06	P1	76.000 0	31.219 8	325.52	18		315	0
170	trap (short term)	2019-08- 07	22:19	P1	76.000 0	31.219 8	324.99	44			
171	GO-FLO CTD	2019-08- 07	23:20	P1	76.000 0 76.000	31.219 4	325.31	45			
172	w/bottles	2019-08- 08	00:46	P1	0	31.219 4	325.44	149			
174	MIK-net 1500 um MIK-net	2019-08- 08 2019-08-	03:24	P1	76.019 6 76.005	31.289 7 31.239	330.8	20		320	0
175	1500 um MIK-net	2019-08- 08 2019-08-	04:09	P1	76.005 7 75.991	6 31.189	325.41	21		320	0
176	1500 um	08	04:57	P1	5	4	323.19	22		320	0
177	Campele n trawl Phytopla	2019-08- 08	06:48	P1	76.047 9	31.098 7	333.37	101			
178	nkton net 10 um Phytopla	2019-08- 08	08:48	P1	76.003 3	31.213 7	326.21	23		50	0
179	nkton net 10 um	2019-08- 08	09:01	P1	76.003 3	31.213 7	326.14	24		50	0
180	CTD w/bottles	2019-08- 08	09:21	P1	76.003 1	31.214 1	325.86	150			
182	Multinet 64 um	2019-08- 08	11:35	P1	76.000 0	31.220 1	325.53	25		290	0

I	Multinet	2019-08-		1	76.000	31.220	1			L I	
183	64 um	08	12:17	P1	0	1	322.75	26		290	0
	Multinet	2019-08-			76.000	31.220					
184	180 um	08	12:55	P1	0	0	325.37	27		290	0
185	Bongonet	2019-08-	40.04	D4	76.000	31.220	321.15	28		200	0
186	64 um Bongonet	08 2019-08-	13:24	P1	0 76.000	0 31.220	324.16	29		300	0
100	64 um	08	13:55	P1	0	0	524.10	25		300	0
187	Bongonet	2019-08-			76.000	31.220	322.25	30			
	180 um	08	15:45	P1	0	1				300	0
188	Macropla nkton	2010.09			76.036	31.071	332.48	102			
	trawl	2019-08- 08	17:21	P1	1	6					
189	Harstad	2019-08-			76.035	31.087	337.22	103			
	trawl	08	19:34	P1	5	6					
190	CTD	2019-08-	00 50	D4	75.998	31.226	325.61	151			
191	w/bottles	08 2019-08-	20:50	P1	6 75.998	5 31.226	325.11	47			
191	GO-FLO	2019-08-	22:14	P1	6	5	323.11	47			
192	Box core	2019-08-	22.11		75.999	31.215		9			
		09	01:27	P1	7	3	326.11				
193	Box core	2019-08-		-	75.999	31.215		10			
104	Devicere	09	03:46	P1	8	4 31.215	325.9	11			
194	Box core	2019-08- 09	06:00	P1	75.999 7	31.215	324.81	11			
195	Harstad	2019-08-	00.00	P1 to	76.209	31.231	024.01	104			
	trawl	09	09:46	NLEG2	5	6	315.83				
199		2019-08-			77.080	35.038	145.56	48			
000	Mooring	11	05:38	M5	3	1	447.40	40			
200	Mooring	2019-08- 11	05:46	M5 bioac	77.082 5	35.057 8	147.18	49			
201	Mooning	2019-08-	03.40	M5 to	77.325	34.450	158.54	154			
	CTD	11	08:21	P2	2	2					
202	CTD	2019-08-			77.498	34.001	188.66	155			
000	w/bottles	11	10:56	P2	6	1	400.07	450			
203	CTD w/bottles	2019-08- 11	11:59	P2	77.498 7	34.001 2	188.87	156	178		
204	Phytopla	11	11.00	12	77.498	34.001	188.84	31	170		
	nkton net	2019-08-			6	2					
	10 um	11	12:43	P2						100	0
205	Phytopla nkton net	2019-08-			77.498 5	34.000 5	187.97	32			
	10 um	2019-00-	13:02	P2	5	5				100	0
207	WP3	2019-08-	10.02		77.498	34.000	188.57	34		100	0
	1000 um	11	14:09	P2	6	8				150	0
208	WP3	2019-08-		50	77.498	34.000	188.34	35		450	
	1000 um WP3	11 2019-08-	14:42	P2	6 77.498	7 34.000	188.34			150	0
	1000 um	2019-08-	15:00	P2	6	34.000 7	100.34			150	0
209	Campele	2019-08-	.0.00		77.515	33.934	186.95	105			<u>,</u>
	n trawl	11	15:18	P2	6	3					
210	MIK-net	2019-08-	40.40	50	77.501	33.950	186.73	36		100	~
211	1500 um MIK-net	11 2019-08-	16:42	P2	0 77.499	2 33.995	188.18	37		160	0
211	1500 um	2019-00-	17:30	P2	0	33.995 5	100.10	31		160	0
212	MIK-net	2019-08-		· -	77.508	33.966	190.79	38			, ,
	1500 um	11	18:03	P2	5	1				170	0
213		2019-08-	40.40	50	77.500	33.986	186.15	50			
214	GO-FLO	11	19:10	P2	6	5	196.00	51			
214	Active water	2019-08-			77.500 6	33.986 4	186.08	10			
	sampler	11	20:47	P2	Ĭ	.					
215		2019-08-			77.500	33.986	186.33	1			
0.1.5	TS probe	12	01:14	P2	6	4	400.0				
216	CTD w/bottles	2019-08-	02:11	P2	77.500	33.986 5	186.3	157	175		
L	wouldes	12	UZ.11	F2	6	5			1/0		

15.0 180 um 2017 0.317 0.317 0.317 0.010	217	Multinet	2019-08-			77.500	33.986	186.36	39		1	
218 Muthinet 2019-08- 64 um 0 2053 P 6 4 4 170 0 19 Muthinet 2019-08- 64 um 0 77.500 33.986 186.47 41 160 0 221 Macropia nkton 2019-08- 12 0.433 P2 6 5 5 106 150 0 150 0 150 0 150 0 0 150 0 0 0 150 0 0 150 0 0 150 0 0 150 0 150 0 150 0 150 0 0 150 0 150 0 150 0 150 0 150 150 150 150 150 150 150 150 150 150 170 100 150 160 160 170 100 150 170 100 150 170 100 160 170 100 <t< td=""><td>217</td><td></td><td></td><td>03:19</td><td>P2</td><td></td><td></td><td>100.00</td><td>00</td><td></td><td>170</td><td>0</td></t<>	217			03:19	P2			100.00	00		170	0
	218			00.10	12			186.38	40		110	0
	210			03.23	P2			100.00	10		170	0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	219			00.00				186.47	41			
221 Macropia trawl 2019-08- 12 77.516 34.005 193.53 106 224 Box core 12 06.56 P2 7 3 7 1 224 Box core 12 06.83 P2 4 8 188.6 13 226 Dox core 12 12.57 P2 5 7 188.87 45 228 Bongomet 219-08- 180 um 12 13.28 P2 5 7 188.95 46 170 0 229 Bongomet 219-08- 190-8- 44 um 12 18.11 05 9 3.999 196.18 158 181				04:43	P2						150	0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	221			01.10				193 53	106		100	Ű
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			2019-08-					100.00	100			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				06.26	P2	Ŭ	'					
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	224	liam		00.00	12	77 499	34 000	188.46	12			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	227	Box core		08.38	P2			100.40	12			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	225	Box core		00.00	12			188.6	13			
226 xxx core 2019-08- 12 xxxx 77.499 34.000 188.76 14 14 227 Bongonet 2019-08- 12 12:57 P2 5 7 188.87 45 170 0 28 Bongonet 2019-08- 46 4 um 12 13:56 P2 5 7 6 170 0 230 GTD 2019-08- 46 4 um 12 13:19 P2 5 7 6 170 0 230 CTD 2019-08- 40 urbottles 12 18:11 05 9 8 9 196.18 188 181 181 181 233 2019-08- 40 urbottles NLEG 77.998 33.400 170.99 100 170 130 130.211 23.41.75 246.96 159 170 100 170 100 170 100 170 100 170 100 170 100 170 100 170 100 170 100 170 <td< td=""><td>220</td><td>Box core</td><td></td><td>11.01</td><td>P2</td><td></td><td></td><td>100.0</td><td>10</td><td></td><td></td><td></td></td<>	220	Box core		11.01	P2			100.0	10			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	226	Benedic		11.01				188 78	14			
227 Borgonet 180 um 2019-08- 123 77.499 34.000 188.87 45 170 0 228 Bongonet 64 um 12 13:56 P2 77.499 34.000 188.95 46 170 0 228 Bongonet 64 um 12 13:56 P2 77.499 34.000 188.88 47 170 0 230 CTD 2019-08- NLEG 77.499 34.000 188.88 47 170 0 231 Mooring 12 18:11 05 9 8 1 181 170 0 232 CTD 2019-08- 78.349 34.775 246.96 159 160 170 170 170 170 170 170 170 183.87 180.97 180.97 180.97 180.97 180.97 180.97 180.97 180.97 180.97 180.97 180.97 180.97 180.97 180.97 180.97 180.97 180.97 180.97	220	Box core		12.57	P2			100.10				
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	227			12.07	12			188 87	45			
228 Borgonet 64 um 2019-08- 12 56 P2 57 7 99 34.000 188.95 46 170 0 229 Borgonet 64 um 12 13:56 P2 5 7 180 188.88 47 170 0 230 CTD 2019-08- 12 NLEG 77.499 34.000 188.88 47 181	221			13.28	P2			100.07	-10		170	0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	228			10.20	12			188.05	46		170	0
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	220			13.56	P2			100.35	-0		170	0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	220			13.50	12			100.00	17		170	0
230 CTD wbottles 2019-08- 2019-08- 2019-08- CTD NLEG 21:22 77.9347 Mooring 34.762 4 241.23 4 52 241.23 52 52 181 231 Mooring 12 21:22 MS 8 4 52 52 232 2019-08- CTD 21:23 MS 8 1 52 52 233 CTD 2019-08- wbottles NLEG 78.349 34.000 179.89 160 70 233 CTD 2019-08- wbottles NLEG 78.734 34.000 307.25 107 - - 234 Campele n trawl 13 02:17 P3 8 8 161 - - 235 CTD 2019-08- wbottles 78.749 34.000 306.98 53 - - - - 237 MK-net 2019-08- 1500 um 78.750 34.000 306.8 50 - - - - - - - - - -	229	64 um		1/-10	D 2			100.00	47			
	220			14.13				106 19	150			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	230			10.11				190.10	100	101		
231 Mooring 12 21:22 M5 8 4		W/DOLLES		10.11	05			244.22	50	101		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	001	Maaring		01.00	ME			241.23	52			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		wooning		21.22	CIVI			246.06	150			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	232	OTD		01.00	N 4 5			246.96	159			
	000			21:30				470.00	400			
234 Campele n trawl 2019-08- 13 78.731 34.009 307.25 107 107 235 CTD 2019-08- w/bottles 78.749 34.000 306.99 161 300 236 CTD 2019-08- w/bottles 78.749 34.000 306.99 161 300 236 CAPLO 13 04:12 P3 8 6 9 161 300 237 MIK-net 1500 um 2019-08- 1500 um 78.750 34.000 306.8 50 280 0 239 Multinet 40 um 2019-08- 180 um 78.750 34.000 306.77 51 280 0 240 Multinet 64 um 2019-08- net 10 um 78.750 34.000 306.71 52 260 280 0 241 Phyto- plankton net 10 um 13 07:29 P3 78.750 34.001 306.71 52 260 260 260 260 260 260 260 260 205 260	233			00.44				179.89	160	170		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	00.4			23:41	00	-		007.05	407	170		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	234			00.44	50			307.25	107			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	005			02:11	P3				101			
236 GO-FLO 2019-08- 13 04:12 04:12 P3 8 6 53 237 MIK-net 1500 um 2019-08- 180 um 2019-08- 13 05:10 P3 2 4 34.000 307.11 48 305:10 P3 2 4 306:0 307.11 48 306:0 306:0 306:0 306:0 306:0 306:0 280 0 306:0 306:0 306:77 51 280 0 306:0 306:77 51 0 <t< td=""><td>235</td><td></td><td></td><td>00.07</td><td>50</td><td></td><td></td><td>306.99</td><td>161</td><td>000</td><td></td><td></td></t<>	235			00.07	50			306.99	161	000		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	000	w/bottles		03:27	P3				50	300		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	236			04.40	50			306.98	53			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	007			04:12	P3	-		0.07.44	40			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	237			05 40	50			307.11	48			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	000			05:10	P3				50			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	239				50			306.8	50			•
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	0.40			06:20	P3	-	-	000 77	54		280	0
241 Phyto- plankton net 10 um 2019-08- 13 07:29 P3 78.750 0 34.000 0 306.71 52 162 100 0 242 CTD w/bottles 2019-08- 13 09:40 08 3 7 162 260 100 0 243 CTD w/bottles 2019-08- 13 NLEG 79.000 33.999 269.57 162 260 100 0 244 CTD w/bottles 2019-08- 13 NLEG 79.249 34.001 215.73 163 205 164 205 164 205 164 205 165 201 201 141 164 290 165 165 165 165 165 165 165 165 165 166 100 0 100 0 0 100 0 0 100 0 100 0 100 0 100 0 100 0 100 0 100 0 100 0 100	240			~~ ~~	50			306.77	51			•
plankton net 10 um 2019-08- 13 07:29 P3 0 0 0 100 100 0 242 CTD 2019-08- w/bottles 13 09:40 08 3 7 162 260 201		64 um	13	06:58	P3		0				280	0
net 10 um 13 07:29 P3 100 0 242 CTD 2019-08- NLEG 79.000 33.999 269.57 162 260 100 0 243 CTD 2019-08- NLEG 79.249 34.001 215.73 163 205 162 205 162 100 205 162 100 205 162 100 205 163 100 205 163 100 205 163 100 205 163 100 205 163 100 205 100 205 100 205 100 205 100 205 100 205 100 205 100	241							306.71	52			
242 CTD w/bottles 2019-08- 13 NLEG 09:40 79.000 08 33.999 3 269.57 162 162 260 243 CTD w/bottles 2019-08- 13 NLEG 12:12 79.249 09 34.001 2 215.73 163 205 205 244 CTD w/bottles 2019-08- 13 NLEG 12:12 79.500 33.996 300.18 164 205 205 244 CTD w/bottles 2019-08- 13 NLEG 14:26 79.749 33.997 338.99 165 290 200 245 CTD w/bottles 13 17:46 P4 4 1 325 205 246 Bongonet 180 um 2019-08- 13 79.747 33.988 338.83 53 100 0 247 WP2 90 2019-08- um 79.747 33.982 338.11 55 70 0 248 WP2 90 2019-08- um 79.747 33.980 337.72 56 70 0 249 Bongonet 180 um 2019-08- 13 79.748 33.973 <td></td> <td></td> <td></td> <td>07.00</td> <td>50</td> <td>0</td> <td>0</td> <td></td> <td></td> <td></td> <td>400</td> <td>•</td>				07.00	50	0	0				400	•
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				07:29							100	0
243 CTD w/bottles 2019-08- 13 NLEG 12:12 79.249 09 34.001 2 215.73 163 163 205 244 CTD w/bottles 2019-08- 13 NLEG 14:26 79.500 2 33.996 6 300.18 164 290 205 245 CTD w/bottles 2019-08- 13 79.749 33.997 338.39 165 325 205 246 Bongonet 180 um 2019-08- 13 79.747 33.988 338.83 53 0 100 0 247 WP2 90 um 2019-08- um 79.747 33.985 338.43 54 70 0 248 WP2 90 2019-08- um 79.747 33.982 338.11 55 70 0 249 Bongonet um 13 19:01 P4 7 7 70 0 248 WP2 90 2019-08- um 79.747 33.980 337.72 56 3000 0 250 Bongonet 180 um 13 19:12 P4 8 1 3000 0 <td>242</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>269.57</td> <td>162</td> <td></td> <td></td> <td></td>	242							269.57	162			
w/bottles 13 12:12 09 2 8 205 244 CTD 2019-08- NLEG 79.500 33.996 300.18 164 290 245 CTD 2019-08- 79.749 33.997 338.39 165 .				09:40						260		
244 CTD 2019-08- NLEG 79.500 33.996 300.18 164 290 245 CTD 2019-08- 79.749 33.997 338.39 165 290 325 246 Bongonet 2019-08- 79.749 33.997 338.39 165 325 325 246 Bongonet 2019-08- 79.747 33.988 338.83 53 100 0 247 WP2 90 2019-08- 79.747 33.985 338.43 54 100 0 248 WP2 90 2019-08- 79.747 33.982 338.11 55 70 0 248 WP2 90 2019-08- 79.747 33.980 337.72 56 70 0 249 Bongonet 2019-08- 79.747 33.980 337.72 56 70 0 249 Bongonet 2019-08- 79.748 33.973 337.7 57 300 0 250	243							215.73	163			
w/bottles 13 14:26 10 2 6 290 200 245 CTD 2019-08- w/bottles 13 17:46 P4 4 1 338.39 165 325 100 2019-08- 325 100 0 246 Bongonet 2019-08- 180 um 13 18:31 P4 5 0 100 100 0 247 WP2 90 2019-08- um 79.747 33.985 338.43 54 70 0 248 WP2 90 2019-08- um 79.747 33.982 338.11 55 70 0 248 WP2 90 2019-08- um 79.747 33.982 338.11 55 70 0 248 WP2 90 2019-08- um 79.747 33.980 337.72 56 70 0 249 Bongonet 180 um 19:12 P4 8 1 100 300 0 250 Bongonet 180 um 19:33 P4 5				12:12						205		
245 CTD 2019-08- 79.749 33.997 338.39 165 325 246 Bongonet 2019-08- 79.747 33.988 338.83 53 100 0 247 WP2 90 2019-08- 79.747 33.985 338.43 54 100 0 248 WP2 90 2019-08- 79.747 33.982 338.11 55 70 0 248 WP2 90 2019-08- 79.747 33.982 338.11 55 70 0 248 WP2 90 2019-08- 79.747 33.982 338.11 55 70 0 249 Bongonet 2019-08- 79.747 33.980 337.72 56 70 0 249 Bongonet 2019-08- 79.748 33.973 337.7 57 300 0 250 Bongonet 2019-08- 79.748 33.973 337.7 57 300 0 251 WP3 2019-08- 79.751 33.958 336.24 58 58 58 58	244						33.996	300.18	164			
w/bottles 13 17:46 P4 4 1 325 246 Bongonet 180 um 2019-08- 133 79.747 33.988 338.83 53 100 0 247 WP2 90 2019-08- um 79.747 33.985 338.43 54 100 0 248 WP2 90 2019-08- um 79.747 33.982 338.11 55 70 0 248 WP2 90 2019-08- um 79.747 33.982 338.11 55 70 0 248 WP2 90 2019-08- um 79.747 33.982 338.11 55 70 0 249 Bongonet 180 um 19:01 P4 7 7 7 70 0 0 250 Bongonet 180 um 2019-08- 13 79.748 33.973 337.7 57 300 0 251 WP3 2019-08- 13 79.751 33.958 336.24 58 58 58				14:26	10					290		
246 Bongonet 180 um 2019-08- 13 79.747 33.988 338.83 53 100 0 247 WP2 90 2019-08- um 79.747 33.985 338.43 54 70 0 248 WP2 90 2019-08- um 79.747 33.982 338.11 55 70 0 248 WP2 90 2019-08- um 79.747 33.982 338.11 55 70 0 248 WP2 90 2019-08- um 79.747 33.982 338.11 55 70 0 249 Bongonet 180 um 13 19:01 P4 7 7 70 0 0 250 Bongonet 180 um 13 19:33 P4 5 7 33.973 337.7 57 300 0 251 WP3 2019-08- 79.751 33.958 336.24 58 58 50 0	245						33.997	338.39	165			
180 um 13 18:31 P4 5 0 100 0 247 WP2 90 2019-08- um 79.747 33.985 338.43 54 70 0 248 WP2 90 2019-08- um 79.747 33.982 338.11 55 70 0 248 WP2 90 2019-08- um 79.747 33.982 338.11 55 70 0 249 Bongonet 180 um 2019-08- 13 79.747 33.980 337.72 56 70 0 250 Bongonet 180 um 2019-08- 13 79.748 33.973 337.7 57 300 0 250 Bongonet 180 um 13 19:33 P4 5 7 57 300 0 251 WP3 2019-08- 79.751 33.958 336.24 58 58 58				17:46	P4	-	-			325		
247 WP2 90 um 2019-08- 13 79.747 33.985 338.43 54 70 0 248 WP2 90 2019-08- um 79.747 33.982 338.11 55 70 0 248 WP2 90 2019-08- um 19:01 P4 7 7 33.982 338.11 55 70 0 249 Bongonet 180 um 2019-08- 13 79.747 33.980 337.72 56 70 0 250 Bongonet 180 um 2019-08- 13 79.748 33.973 337.7 57 300 0 251 WP3 2019-08- 79.751 33.958 336.24 58 58	246						33.988	338.83	53			
um 13 18:49 P4 6 3				18:31	P4						100	0
248 WP2 90 um 2019-08- 13 79.747 33.982 338.11 55 70 0 249 Bongonet 2019-08- 180 um 79.747 33.980 337.72 56 70 0 250 Bongonet 180 um 2019-08- 13 79.747 33.980 337.72 56 300 0 250 Bongonet 180 um 2019-08- 13 79.748 33.973 337.7 57 300 0 251 WP3 2019-08- 79.751 33.958 336.24 58 58	247							338.43	54			
um 13 19:01 P4 7 7 7 70<				18:49	P4						70	0
249 Bongonet 180 um 2019-08- 13 79.747 33.980 337.72 56 300 0 250 Bongonet 180 um 2019-08- 13 79.748 33.973 337.7 57 300 0 251 WP3 2019-08- 79.751 33.958 336.24 58 5 50 10 <	248				_			338.11	55			
180 um 13 19:12 P4 8 1 300 0 250 Bongonet 2019-08- 79.748 33.973 337.7 57 300 0 180 um 13 19:33 P4 5 7 300 0 251 WP3 2019-08- 79.751 33.958 336.24 58 58 58				19:01	P4						70	0
250 Bongonet 180 um 2019-08- 13 79.748 33.973 337.7 57 300 0 251 WP3 2019-08- 79.751 33.958 336.24 58 300 0	249						33.980	337.72	56			
180 um 13 19:33 P4 5 7 300 0 251 WP3 2019-08- 79.751 33.958 336.24 58 6 6				19:12	P4						300	0
251 WP3 2019-08- 79.751 33.958 336.24 58	250					79.748	33.973	337.7	57			
				19:33	P4						300	0
1000 um 13 20:14 P4 7 8 300 0	251					79.751	33.958	336.24	58		T	
		1000 um	13	20:14	P4	7	8				300	0

252	Sediment				79.757	33.965	329.89	54	1	1	I
202	trap				8	7	020.00	01			
	(short	2019-08-			-	-					
	term)	13	21:40	P4							
253	Phytopla				79.758	33.973	330.05	59			
	nkton net	2019-08-			4	3					
	10 um	13	21:51	P4						100	0
254	Active				79.758	34.076	326.97	55			
	water	2019-08-			4	6					
	sampler	13	23:35	P4							
255	•	2019-08-			79.734	34.237	344.53	56			
	GO-FLO	14	02:19	P4	3	2					
257	MIK-net	2019-08-			79.707	34.283	351.99	60			
	1500 um	14	04:26	P4	7	3					
258	MIK-net	2019-08-			79.702	34.281	354.2	61			
	1500 um	14	05:03	P4	6	5				320	0
259	MIK-net	2019-08-			79.694	34.268	356.7	62			
	1500 um	14	05:51	P4	1	3				320	0
260	MIK-net	2019-08-			79.693	34.252	355.31	63			
	1500 um	14	06:43	P4	1	0				320	0
261	CTD	2019-08-			79.693	34.230	352.99	166			
	w/bottles	14	07:24	P4	2	0			340		
262	Multinet	2019-08-			79.696	34.224	345.53	64			
_	180 um	14	08:33	P4	4	5				325	0
263	Multinet	2019-08-			79.700	34.223	341.7	65			
	64 um	14	09:13	P4	2	7	• • • • •			280	0
264	Multinet	2019-08-			79.707	34.228	342.63	66			
	64 um	14	10:10	P4	3	1	0.2.00			325	
266	CTD	2019-08-	10.10		79.714	34.266	341.28	167		020	
200	w/bottles	14	11:06	P4	0	4	011.20		330		
267	Bongonet	2019-08-	11.00		79.717	34.290	343.08	67	000		
201	180 um	14	11:43	P4	9	9	0-0.00	07		330	0
268	Bongonet	2019-08-	11.40	17	79.720	34.306	343.78	68		000	0
200	64 um	14	12:12	P4	3	5	010.70	00		330	0
269	Bongonet	2019-08-	12.12		79.721	34.318	341.63	69		000	Ŭ
200	64 um	14	12:41	P4	1	2	041.00	00		330	0
270	CTD	2019-08-	12.11		79.722	34.331	338.9	168		000	v
210	w/bottles	14	13:15	P4	6	1	000.0	100	329		
271	Wibottioo	2019-08-	10.10		79.723	34.344	337.3	169	020		
211	CTD	14	13:52	P4	3	2	001.0	100		50	0
272	OTD	2019-08-	10.02	17	79.723	34.353	336.49	58			
212	GO-FLO	14	14:11	P4	0	0	000.40	00			
273	00120	2019-08-			79.711	34.377	338.16	3			
210	TS probe	14	16:13	P4	1	2	000.10	Ŭ			
274	Campele	2019-08-	10.10	17	79.551	34.568	328.4	108			
217	n trawl	14	19:50	P4	8	6	520.4	100			
275	Macropla	17	10.00	17	79.498	34.634	304.77	109			
210	nkton	2019-08-			3	4	004.17	100			
	trawl	14	20:56	P4	5	-					
276	uawi	2019-08-	20.00	17	79.745	34.016	333.83	15			
210	Box core	15	01:37	P4	7	9	000.00	10			
277	Box core	2019-08-	01.07	17	79.743	33.996	332.7	16			
211	Box core	15	03:10	P4	4	1	002.1	10			
	DOX COIC	2019-08-	00.10	17	79.751	34.028					
278	Box core	15	04:51	P4	8	2	331.05	17			
210	CTD	2019-08-	04.01	NLEG	79.998	33.996	001.00				
279	w/bottles	2019-08- 15	08:22	12	2	1	211.8	170	204		
213	CTD	2019-08-	00.22	12	2 80.496	33.989	211.0	170	204		
280	w/bottles	2019-06- 15	17:03	P5	60.490 6	33.969 8	162.71	171	150		
200	w/bottles	2019-08-	17.03	P0			102./1	171	100		
204	CTD		17.11	P5	80.495	33.967	150.26	170			
281		2010.09	17:44	70	00.404	8	159.36	172			
282	Bongonet	2019-08-	17.55	P5	80.494	33.962	150.0	70		140	~
202	180 um	2010.09	17:55	64	9	0	159.3	70		140	0
283	Bongonet	2019-08- 15	10.16	P5	80.495	33.950	15/ 00	71		140	0
203	180 um	10	18:16	F0	1	2	154.82	11		140	U

1	Phytopla			I	1	1	1	1	1	1	I
	nkton net	2019-08-			80.495	33.942					
284	10 um	2019-00- 15	18:31	P5	4	4	159.12	72		140	0
204	Phytopla	15	10.01	15	4	4	155.12	12		140	0
	nkton net	2019-08-			80.495	33.935					
285	10 um	15	18:47	P5	7	3	160.85	73		100	0
205	Sediment	15	10.47	15	1	5	100.05	75		100	0
	trap										
	(short	2019-08-			80.500	33.881					
286			20:32	P5	6	0	157 14	59		100	0
200	term) MIK-net	15 2019-08-	20.32	F3	80.509	33.860	157.14	59		100	0
207			21.05	DE			162 10	74			
287	1500 um	15	21:05	P5	2	2	162.19	74			
000	MIK-net	2019-08-	04.40	DE	80.511	33.854	100 54	75		140	0
288	1500 um	15	21:16	P5	7	5	168.54	75		140	0
200	MIK-net	2019-08-	04.05	DE	80.516	33.855	100.0	70		140	0
289	1500 um	15	21:35	P5	3	1	169.2	76		140	0
000		2019-08-	00.44	55	80.524	33.892	474.04	00		1.10	0
290	GO-FLO	15	22:41	P5	5	8	171.81	60		140	0
004	CTD	2019-08-	00.00	55	80.528	33.960	400 77	470			
291	w/bottles	16	00:23	P5	9	2	169.77	173			
	TO .	2019-08-			80.527	33.984	174.0-	.			
292	TS probe	16	00:55	P5	3	4	174.35	4			
	Multinet	2019-08-		_	80.495	34.086					
293	180 um	16	04:12	P5	2	0	162.0	77		140	0
	Multinet	2019-08-			80.488	34.083					
294	64 um	16	04:49	P5	4	5	159.99	78		140	0
	Multinet	2019-08-			80.477	34.066					
295	64 um	16	06:16	P5	1	9	157.25	79		150	0
	Bongonet	2019-08-			80.474	34.064					
296	180 um	16	06:39	P5	9	1	155.24	80			
	Bongonet	2019-08-			80.473	34.062					
297	64 um	16	07:09	P5	7	0	154.77	81			
	Bongonet	2019-08-			80.473	34.057					
298	64 um	16	07:30	P5	6	9	152.96	82			
	CTD	2019-08-			80.477	34.051					
299	w/bottles	16	09:03	P5	2	4	154.64	174	152		
	Sampling										
	from										
	small	2019-08-			80.484	34.067					
300	boat	16	10:08	P5	3	7	159.33	61			
		2019-08-			80.484	34.057					
	Li-Cor	16	10:15	P5	6	5	162.0			20	0
		2019-08-			80.484	34.057					
	CTD	16	10:30	P5	6	5	162.0				
		2019-08-			80.502	34.017					
303	Box core	16	11:57	P5	1	3	160.68	19			
	CTD	2019-08-		NLEG	81.001	33.999					
306	w/bottles	16	23:06	14	8	6	219.56	175	219		
307	CTD	2019-08-		NLEG	81.311	31.350	188.46	176	-		
	w/bottles	17	05:56	15	8	3	-	-	175		
308		2019-08-		NLEG	81.382	31.289		177			
	CTD	17	07:29	16	2	8	186.42				
309		2019-08-	-	NLEG	81.411	31.245	205.56	178			
	CTD	17	08:15	17	0	5		-			
310		2019-08-		NLEG	81.431	31.144	256.17	179			
	CTD	17	09:13	18	0	8		-			
311	CTD	2019-08-		NLEG	81.459	31.077	496.41	180			
	w/bottles	17	10:04	19	3	8			500		
313		2019-08-		NLEG	81.502	30.958	693.98	181			
010	CTD	17	11:52	20	5	8	000.00	.01			
	Sea ice	2019-08-			81.532	30.968	797.07				
	work	2019-08-	16:30	P6 Ice	7	4	191.01				
314	Active	17	10.00	1.0_100	81.529	30.955	789.23	64			
	water	2019-08-			7	5	100.20				
	sampler	17	18:17	P6	'	Ŭ					
L	30	. /		. •	1	1	1				

315	1 1	2019-08-			81.549	30.958	865.44	5	I	Í	Í
010	TS probe	17	23:02	P6	8	8	000.11	Ũ			
316	CTD	2019-08-			81.549	31.160	834.68	182			
	w/bottles	18	06:33	P6	5	5			831		
317	MIK-net	2019-08-	07.50	DC	81.551	31.168	839.88	83		50	0
318	1500 um MIK-net	18 2019-08-	07:52	P6	4 81.552	4 31.170	841.87	84		50	0
310	1500 um	-2019-08 18	08:07	P6	1	0	041.07	04		50	0
319	MIK-net	2019-08-	00.07	10	81.552	31.170	844.43	85		00	
0.0	1500 um	18	08:20	P6	8	9	••••••			50	0
320	MIK-net	2019-08-			81.553	31.171	848.7	86			
	1500 um	18	08:34	P6	7	6				50	0
321	MIK-net	2019-08-	00.40		81.554	31.171	853.44	87		50	0
322	1500 um Multinet	18 2019-08-	08:48	P6	8 81.556	4 31.169	860.71	88		50	0
322	180 um	-2019-08 18	09:04	P6	2	7	000.71	00		600	0
323	Sediment	10	00.04	10	81.570	31.218	860.71	65		000	
0_0	trap				5	5					
	(short	2019-08-									
	term)	18	11:30	P6							
324	CTD	2019-08-	11.10	DC	81.572	31.212	1155.7	183	200		
325	w/bottles	18 2019-08-	11:49	P6	0 81.574	8 31.245	5 1224.9	66	200		
525	GO-FLO	18	12:30	P6	8	1	1224.5	00			
326	Phytopla	10	12.00	10	81.576	31.325	1026.4	89			
	nkton net	2019-08-			2	9	6				
	10 um	18	13:53	P6							
327	MIK-net	2019-08-			81.576	31.387	1036.9	90			
200	1500 um	18	14:47	P6	5	4	1	01		1000	0
328	MIK-net 1500 um	2019-08- 18	17:47	P6	81.563 8	31.518 5	856.29	91		400	0
329	Multinet	2019-08-	17.47	FU	81.561	31.526	843.73	92		400	0
020	180 um	18	18:33	P6	2	01.020	0-10.70	52		750	0
330	Multinet	2019-08-			81.559	31.518	841.06	93			
	64 um	18	19:32	P6	5	8				300	0
331	Multinet	2019-08-			81.560	31.499	848.67	94			
220	64 um	18 2019-08-	20:26	P6	4	3	894.92	05		750	0
332	Bongonet 180 um	2019-08- 18	21:48	P6	81.566 5	31.472 4	894.92	95		750	0
333	Bongonet	2019-08-	21.40	10	81.573	31.468	989.02	96		730	0
000	64 um	18	22:51	P6	3	6	000.02	00		750	0
334	Bongonet	2019-08-			81.580	31.487	1111.6	97			
	64 um	19	00:08	P6	8	2	5			650	0
335	CTD	2019-08-	o 4 o -	50	81.585	31.519	1099.7	40.4			
220	w/bottles	19	01:07	P6	0	5	8	184	200		
336	Bongonet 180 um	2019-08- 19	02:27	P6	81.586 5	31.570 7	1099.2	98			
337	Bongonet	2019-08-	02.21	10	81.586	31.582	1089.0	50			
	180 um	19	02:47	P6	2	7	7	99			
338		2019-08-			81.584	31.621					
	TS probe	19	03:56	P6	2	2	979.27	6			
339	_	2019-08-	00.04	Da	81.545	30.847	050.00				
341	Box core	19 2019-08-	09:01	P6	2 81.563	5 30.887	856.66 1036.7	22			
341	Box core	2019-08- 19	11:22	P6	2	0	6	23			
342	DOX COIC	2019-08-	11.22	10	81.540	30.875	0	20			
• · =	Box core	19	13:01	P6	0	9	829.08	24			
343		2019-08-			81.534	30.957					
	Box core	19	15:02	P6	6	0	806.3	25			
344	CTD	2019-08-		NLEG	81.590	30.740	1545.5				
245	w/bottles	19	16:53	22	5	9	7	185			
345	CTD w/bottles	2019-08- 19	18:57	NLEG 23	81.616 5	30.652 9	1950.0	186	1950		
346	CTD	2019-08-	10.07	NLEG	81.683	30.522	1300.0	100	1900		
0.10	w/bottles	19	22:24	24	0	5	2812.6	187			
		-			•			-			

	347	Bongonet	2019-08-		I	81.984	29.987	3272.9	I		I	I I
180 µm 20 08.41 P7 6 5 7 101	017			08:03	P7				100			
349 Active sampler 2019-08- 20 81.982 09.25 29.943 P7 3274.0 7 68 Sea ice 2019-08- 20 81.982 29.997 3272.8	348						29.969	3269.4				
			20	08:41	P7	6	5	7	101			
sampler 20 09:25 P7 102 102 103 7 102 102 103 100 <th< td=""><td>349</td><td></td><td>2010.09</td><td></td><td></td><td>01 000</td><td>20.042</td><td>2274.0</td><td></td><td></td><td></td><td></td></th<>	349		2010.09			01 000	20.042	2274.0				
Sea ico 2019-08- 1500 07.30 P7 Ice 1 327.8 2 2 1 1 331 MIK-net 2019-08- 1500 12.54 P7 9 2.7 102 1260 0 332 MIK-net 2019-08- 1500 12.54 P7 9 2.7 103 2000 0 333 CTD 2019-08- wbottles 2019-08- 2019-08- 81.960 28.21 328.3 104 70 0 334 WP2 90 23.16 P7 9 4 3306.9 104 70 0 345 WP2 90 23.36 P7 0 8 4 105 70 0 356 Bongonet 2019-08- 180 um 20 23.54 P7 4 9 1 106 100 0 0 0 0 0 0 0 100 0 0 0 100 0 0 100 0<				09.25	P7				68			
				00.20		-			00			
1500 um 20 12:54 P7 9 2 7 102 12:50 0 352 MK-ret 2019-08- 81.969 29.821 293.2 7 103 2000 0 354 w/bottes 20 18:08 P7 3 18 3293.2 188 3280.1 - - - - - - - - - 0 0 336.9 104 70 0 0 355 WP2 90 23:56 P7 9 8 90 104 70 0 0 356 Bongoret 2019-08- 81.949 29.277 315.2 - 100 0 0 0 355 Sediment 100 100 0 8 9 107 100 0 0 100 0 360 7 109 100 0 100 100 0 100 0 100 0				07:30	P7_lce							
352 MiK-net 2019-08- 2019-08- wbottles 14:58 PT 1 27 7 103 2000 0 353 CTD 2019-08- wbottles 2019-08- 2019-08- wm 18:08 PR 3 16:08 28:21 3283.2 18:8 3260 - 354 WP2 90 23:16 P7 9 4 3306.9 104 70 0 355 WP2 90 23:36 P7 0 8 1950 29:285 3313.3 105 70 0 356 Beggonet 2019-08- 81.949 29:272 3315.2 106 100 0 350 Sediment (rap rap rap 81.922 29:157 3312.0 107 100 0 0 0 361 CTD 2019-08- 81.922 29:146 300.17 100 100 0 0 0 0 0 0 0 0 0 0 0 </td <td>351</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3290.8</td> <td></td> <td></td> <td></td> <td></td>	351							3290.8				
				12:54	P7				102		1250	0
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	352			14.50	57				102		2000	0
	353			14.00	P/				103		2000	0
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	000			18:08	P7				188	3280		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	354							<u> </u>		0200		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$				23:16	P7		4		104		70	0
356 Bongonet 2019-08- 1500 um 20.23:54 P7 81.949 29.272 3315.2 3315.2 106 100 0 357 MIK-net 2019-08- 1500 um 21.00:15 P7 81.948 29.254 3317.3 8 9 107 100 0 359 Sediment trap (short 2019-08- 2019-08- 81.932 29.157 3312.0 7 109 100 0 360 MIK-net 2019-08- 1500 um 81.922 29.146 3301.7 7 109 100 0 361 CTD 2019-08- wibottles 21 03.43 P7 2 6 329.7 189 3300 - 362 Phytopia nkto net 2019-08- 2019-08- 180 um 81.918 29.115 3289.4 110 8 -	355				_							
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	050			23:39	P7				105		70	0
357 Mik-net 1500 um 2019-08- 21 00:15 P7 3 8 9 107 100 0 359 Sediment trap (short 21 00:15 P7 3 8 9 107 100 0 360 Mik-net term) 21 03:03 P7 2 3 4 70 3312 - 360 Mik-net tsonu 2019-08- wbottles 21 03:43 P7 2 6 3299.7 109 100 0 361 CTD 2019-08- wbottles 21 04:28 P7 4 8 -	356			23.24	D7				106		100	0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	357			23.34		-	-	-	100		100	0
359 Sediment trap (short 2019-08- 2019-08- 1500 um 2019-08- 21 81.932 03:03 29.157 2 3312.0 3 70 3312 360 MK-net 2019-08- 1500 um 03:03 P7 3 0 7 3312.0 70 3312 361 CTD 2019-08- w/bottles 21 03:30 P7 2 6 3299.7 189 3300 362 Phytopla nkto net 2019-08- 2019-08- 81.918 29.017 3288.5 111 1000 0 364 Multinet 2019-08- 180 um 81.918 29.097 3284.5 111 1000 0 364 Multinet 2019-08- 81.802 81.892 28.968 3233.4 113 1000 0 365 Multinet 2019-08- 84 um 81.882 28.968 3233.4 113 000 0 366 CTD 2019-08- 9219-08- 81.857 28.806 3120.7 3120 0 368 CTD 2019-08- 920-908-	001			00:15	P7				107		100	0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	359											
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$												
360 MIK-ret 1500 um 21 21 03:30 21 P7 3 0 7 109 100 0 361 CTD wbottles 21 03:30 P7 2 6 3299.7 189 3300 0 0 362 Phytopla nkton net 2019-08- 2019-08- 81.926 29.139 3289.7 189 3300 00				02.02	D7				70	2240		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	360			03:03	P/				70	331Z		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	300			03:30	P7				109		100	0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	361					-	-					
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		w/bottles		03:43	P7			3299.7	189	3300		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	362								110			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$				04.00	57							
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	262			04:28	P/				111			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	303			04:56	P7				111		1000	0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	364			01.00					112		1000	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		180 um	21	06:34	P7	8	1	8			1000	0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	365				_				113			
64 um 21 09:52 P7 4 7 3136.7 300 0 368 CTD 2019-08- 81.857 28.806 190 3120 100 3120 100 3120 100 3120 100 3120 100 3120 100 3120 100 3120 100 3120 100 100 3120 100 100 3120 100	000			07:49	P7			6	444		1000	0
368 CTD w/bottles 2019-08- 21 11:11 P7 6 5 3120.7 3120 369 Bongonet 180 um 2019-08- 21 81.857 28.806 190 3120 370 Bongonet 64 um 21 11:51 P7 2 7 3116.7 371 Bongonet 64 um 21 13:06 P7 2 6 7 115 371 Bongonet 64 um 21 14:40 P7 1 7 2 7 190 372 CTD w/bottles 21 17:33 P7 2 5 2830 2830 191 373 2019-08- w/bottles 21 17:33 P7 2 5 2830 191 373 2019-08- w/bottles 81.759 28.703 2767.6 7 2 26 374 2019-08- term) 22 00:40 P7 5 8 7 2713 374 2019-08- GO-FLO 22 00:48	366			00.52	D7			2126 7	114		300	0
w/bottles 21 11:11 P7 6 5 3120.7 3120 369 Bongonet 180 um 2019-08- 21 11:51 P7 2 7 3116.7 115 115 370 Bongonet 64 um 2019-08- 21 13:06 P7 2 6 7 116.7 116	368			09.52	F /			5150.7	190		300	0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	000			11:11	P7			3120.7	100	3120		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	369	Bongonet				81.854	28.792		115			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				11:51	P7							
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	370			40.00	D7				116			
64 um 21 14:40 P7 1 7 2	371			13:06	P/				117			
372 CTD 2019-08- 81.788 28.784 2897.9 191 2830 373 2019-08- 81.759 2 0 5 2830 2830 373 2019-08- 81.759 28.703 2767.6 7 7 8 TS probe 21 19:55 P7 1 7 8 70 7 7 8 70	511			14:40	P7				117			
w/bottles 21 17:33 P7 2 0 5 2830 373 2019-08- TS probe 21 19:55 P7 1 7 8 7 7 8 70 7 70<	372								191			
TS probe 21 19:55 P7 1 7 8 Sediment trap (short 2019-08- 22 81.737 28.648 2712.9 70 10<			21	17:33	P7	2	0	5		2830		
Sediment trap (short 2019-08- 22 81.737 28.648 2712.9 70 2713 374 2019-08- term) 22 00:40 P7 5 8 7 2713 374 2019-08- GO-FLO 22 00:48 P7 1 7 8 7 2713 375 2019-08- Box core 22 02:12 P7 6 2 1 7 72 72 376 2019-08- Box core 22 02:12 P7 6 2 1 7 72 72 72 72 72 72 72 72 73 73 73 74 <td>373</td> <td></td> <td></td> <td>4.5 ==</td> <td></td> <td></td> <td></td> <td></td> <td>7</td> <td></td> <td></td> <td>]</td>	373			4.5 ==					7]
trap (short term) 2019-08- 22 00:40 P7 81.737 28.648 8 2712.9 7 2713 374 2019-08- GO-FLO 2019-08- 22 81.737 28.636 2725.7 72 375 2019-08- Box core 00:48 P7 1 7 8 7 2713 375 2019-08- Box core 00:48 P7 1 7 8 7 72 376 2019-08- Box core 22 02:12 P7 6 2 1 7 7 1 376 2019-08- Box core 22 08:34 P7 7 0 1 7 1			21	19:55	P7	1	7	8	70			
(short term) 2019-08- 22 81.737 28.648 2712.9 2713 374 2019-08- GO-FLO 22 00:48 P7 1 7 8 7 2713 2713 375 GO-FLO 22 00:48 P7 1 7 8 7 2713 1 375 2019-08- Box core 22 02:12 P7 6 2 1 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>70</td><td></td><td></td><td></td></t<>									70			
term) 22 00:40 P7 5 8 7 2713 374 2019-08- GO-FLO 22 00:48 P7 1 7 8 7 2713 1 375 2019-08- Box core 22 00:48 P7 1 7 8 1 <td></td> <td></td> <td>2019-08-</td> <td></td> <td></td> <td>81.737</td> <td>28.648</td> <td>2712.9</td> <td></td> <td></td> <td></td> <td></td>			2019-08-			81.737	28.648	2712.9				
374 2019-08- GO-FLO 22 00:48 P7 1 7 8 72 375 2019-08- Box core 22 02:12 P7 6 2 1 7 376 2019-08- Box core 22 02:12 P7 6 2 1 7 376 2019-08- Box core 22 08:34 P7 7 0 1 7 378 2019-08- Box core 22 08:34 P7 7 0 1 7 28 378 2019-08- 81.668 28.811 2329.0 28 28 28			22	<u>00:</u> 40	P7	5	8	7		<u>27</u> 13		
375 2019-08- Box core 22 02:12 P7 81.727 6 28.671 2 2648.9 1 26 376 2019-08- Box core 2019-08- 22 81.670 28.789 2349.3 27 378 2019-08- 2019-08- 81.668 28.811 2329.0 28	374				_	81.737			72			
Box core 22 02:12 P7 6 2 1 376 2019-08- 81.670 28.789 2349.3 27 Box core 22 08:34 P7 7 0 1 378 2019-08- 81.668 28.811 2329.0 28	077	GO-FLO		00:48	P7	1						I
376 2019-08- 81.670 28.789 2349.3 27 Box core 22 08:34 P7 7 0 1 1 378 2019-08- 81.668 28.811 2329.0 28 28	375	Box core		02.12	D7				26			
Box core 22 08:34 P7 7 0 1 378 2019-08- 81.668 28.811 2329.0 28	376	DUX CUIE		02.12					27			
378 2019-08- 81.668 28.811 2329.0 28	010	Box core		08:34	P7				21			
	378								28			
		Box core	22	12:49	P7	3	8	2				

379		2019-08-			81.980	24.293	3603.3	8		
	TS probe	23	01:07	SICE4	9	8	3			
380	Sea ice	2019-08-			81.978	24.473	3599.7	74		
	work	23	08:10	SICE4	4	2	6			
381		2019-08-			81.985	24.530	3603.7	29		
	Box core	23	10:18	SICE4	1	1	5			
384		2019-08-			81.988	24.735	3603.7	31		
	Box core	23	16:55	SICE4	8	8	5			
385		2019-08-			81.985	24.804	3604.0	32		
	Box core	23	20:12	SICE4	8	5	8			
386	CTD	2019-08-			81.995	24.995	3657.1	192		
	w/bottles	24	03:02	SICE4	7	2	9		3195	
387				NW	80.380	12.167	NaN	76		
		2019-08-		Spits-	6	4				
	EM302	25	11:30	bergen						
388				NW	80.589	12.054	19.57	193		
	CTD	2019-08-		Spits-	0	5				
	w/bottles	25	13:52	bergen						
389				NW	80.594	12.052	NaN	77		
		2019-08-		Spits-	4	6				
	EM302	25	14:45	bergen						

Table A1.2. Nansen Legacy transect. Full station list including Processstations (P) and transect CTD stations (NLEG).

Nansen	Legacy tra	nsect stat	ions				
Station name	Longitude (decimal)	Latitude (decimal)	Longitude (degrees)	Latitude (degrees)	Depth (m)	Type of station	Comment
P7/ NLEG25	30,0000	82,0000	030 00.00 E	82 00.00 N	3000	Process study station P7	
NLEG24	30,5258	81,6828	030 31.55 E	81 40.97 N	2807		A-TWAIN
NLEG23	30,6647	81,6165	030 39.88 E	81 36.99 N	1913		A-TWAIN
NLEG22	30,7667	81,5895	030 46.00 E	81 35.37 N	1551		A-TWAIN
P6/ NLEG21	30,8548	81,5463	030 51.29 E	81 32.78 N	865	Process study station P6	A-TWAIN, shelf- break
NLEG20	30,9618	81,5025	030 57.71 E	81 30.15 N	698		A-TWAIN, shelf-break
NLEG19	31,0775	81,4580	031 04.65 E	81 27.48 N	486		A-TWAIN, shelf-break
NLEG18	31,1448	81,4318	031 08.69 E	81 25.91 N	264		A-TWAIN, shelf-break
NLEG17	31,2468	81,4107	031 14.81 E	81 24.64 N	204		A-TWAIN, shelf-break
NLEG16	31,2933	81,3822	031 17.60 E	81 22.93 N	189		A-TWAIN, shelf-break
NLEG15	31,3487	81,3098	031 20.92 E	81 18.59 N	195		Arctic Price near- shelf-station
NLEG14	34,0000	81,0000	034 00.00 E	81 00.00 N	216		Vardø-N, Kvitøybanken
P5/ NLEG13	34,0000	80,5000	034 00.00 E	80 30.00 N	167	Process study station P5	Vardø-N, Kvitøybanken
NLEG12	34,0000	80,0000	034 00.00 E	80 00.00 N	209		Vardø-N, Kvitøybanken
P4/ NLEG11	34,0000	79,7500	034 00.00 E	79 45.00 N	332	Process study station P4	Vardø-N, trench east of Kong Karl
NLEG10	34,0000	79,5000	034 00.00 E	79 30.00 N	293		Vardø-N, trench east of Kong Karl
NLEG09	34,0000	79,2500	034 00.00 E	79 15.00 N	215		Vardø-N, trench east of Kong Karl
NLEG08	34,0000	79,0000	034 00.00 E	79 00.00 N	266		Vardø-N, trench east of Kong Karl
P3/ NLEG07	34,0000	78,7500	034 00.00 E	78 45.00 N	301	Process study station P3	Vardø-N, trench east of Kong Karl
NLEG06	34,0000	78,5000	034 00.00 E	78 30.00 N	180		Vardø-N, Storbanken
NLEG05	34,0000	78,0000	034 00.00 E	78 00.00 N	193		Vardø-N, Storbanken
P2/ NLEG04	34,0000	77,5000	034 00.00 E	77 30.00 N	190	Process study station P2	Vardø-N, Storbanken
NLEG03	34,0000	77,0000	034 00.00 E	77 00.00 N	154	or concrete to de	Vardø-N, Storbanken
NLEG02	31,2200	76,5000	031 13.20 E	76 30.00 N	308		Vardø-N, Storbanken
P1/ NLEG01	31,2200	76,0000	031 13.20 E	76 00.00 N	322	Process study station P1	Vardø-N, Hopendjupet

	Name, institution	Inst.	Nansen Legacy tasks	Sea	Weapon	Work
				ice	training	package
		· · ·· _		work		
1	Marit Reigstad	UIT	Cruise leader, sediment traps			RF3
2	Tove Gabrielsen	UNIS	Cruise leader, sample labeling		X	RF3
3	Miriam Marquardt	UiT	Water budget, sea ice work planning, filtration (Chl a, POC), sed traps, sea ice meiofauna	x	x	RF3
4	Marti Amargant, PhD	UiT	Prim prod, 14C incubations. In-situ, P vs I and P vs T curves, phytoplankton	x	(x)	RF3
5	Oliver Müller, PD	UiB	Microbiology/ BP, flow cytometry, grazing exclusion exp	х	х	RF3
6	Lasse Olsen, PD	UiB	Abundance of phytoplankton, heterotrophic flagellates, bacteria and virus, bacterial production	x	x	RF3
7	Bente Edvardsen	UiO	DNA/RNA filtrations, sampling for microscopy etc	x		RF3
8	Karoline Saubrekka, PhD	UiO	DNA/RNA filtrations, sampling for microscopy etc			RF3
9	Anna Vader	UNIS	Metabarcoding, metatranscriptomics, filtration chl a, Planning sea ice work	x	x	RF3
10	Griselda Anglada Ortiz, PhD	UiT	Ocean acidification, zooplankton (foraminifera, pteropods), sediment surface			RF1/RF2
11	Anette Wold	NPI	Mesozooplankton sampling, biomass, POM for CSIA of FA	x	x	RF3
12	Christine Gawinski, PhD	UiT	Zooplankton sampling, small zooplankton secondary production (grazing, egg production)			RF3
13	Konrad Karlsson, PD	UNIS	Mesozooplankton, grazing experiments, respiration measurements			RF3
14	Padmini Dalpadado	IMR	Macrozooplankton			RF3
15	Angela Stippkugel, PhD	NTNU	Mesozooplankton grazing experiments (dilution experiments).	х		RF3
16	Kasia Dmoc	NPI/IOPAS Poland	Mesozooplankton zooplankton			RF3
17	Robynne Nowicki, PhD	UNIS	Ecotox, Zooplankton and fish		x	RF2
18	Yasemin Bodur, PhD	UiT	Sediment traps, filtration, sediment surface sampling	(x)		RF3
19	Bodil Bluhm	UiT	Benthic sampling. Stable isotope sampling (for PD UiT/HI), NL museum voucher collection, benthic meiofauna (UiT/UNIS PhD), invertebr. for OC content (Ecopath need), ice meiofauna processing (with Miriam)		(x)	RF3
20	Eric Jorda, PhD	Nord	Living benthic forams and benthic meiofauna, experiments with Arunima			RF2/RF3
21	Arunima Sen, PD	Nord	benthic respiration, experiments with Eric			RF3
22	Fekadu Yadetie, PD	UiB	Fish sampling from trawling, liver slice culture and tissue sampling, helping out inzoo/fish/benthic labs			RF2

Table A1.3. Cruise participants (team leaders in bold)

22	Nadia Prup DD	Woods	Fish compling from trouding liver			RF2
23	Nadja Brun, PD		Fish sampling from trawling, liver			RF2
		Hole, USA	slice culture and tissue sampling,			
0.4			helping out in zoo/fish/benthic labs			DEO
24	Siv Hoff, PhD	UiO	Ecotox sampling (zooplankton /fish)			RF2
			and helping out in zoo/fish/benthic labs			
05						DEO
25	Leif Christian Stige	UiO	Ecotox sampling (zooplankton /fish)			RF2
			and helping out in zoo/fish/benthic labs			
26	Ane Haarr, PhD	UiO	Ecotox sampling (zooplankton /fish)		-	RF2
20	Alle Haall, Flid	010	and helping out in zoo/fish/benthic			RF2
			labs			
27	Julia Giebichenstein,	UiO	in situ sampling of water filtering,	x		RF2
21	PhD	010	ecotox zooplankton and fish	^		1112
28	Rita Amundsen	UiO	Ecotox zooplankton and fish			RF2
29	Håvard N. Liholt	UiO	Ecotox sampling (zooplankton /fish)		X	RF2
23	Havalu N. Linoit	010	and helping out in zoo/fish/benthic		^	1112
			labs			
30	Jack Garnett, PhD	Lancaster,	PFOS in ice cores	х		EISPAC,
	ouch ourroll, rind	UK		~		CAO
		on				project
31	Nicolas Sanchez,	NTNU	Trace metals and perhaps DOC	х		RF2
	PD		characterization			
32	Stephen Kohler,	NTNU	Trace metals and perhaps DOC	Х		RF2
	PhD		characterization			
33	Ronald Pedersen	IMR	Acoustics, TS-probe, moorings			RF3
34	Jon Leithe	NPI	Safety, sea ice work training, Sea ice	х	Х	RA-A
			observations, polar bear watch on			
			ice, glider			
35	Christian Morel	France	Photographer (photo, video, drone)	х		RA-D
	Jan Vidar	IMR	Instrument chief KPH			
	Nordstrand					
	Jan Bremnes	IMR	Instrument technician KPH			

Table A1.4. Internship on sea ice.

List of non- or less experienced PhDs and post docs that took part in sea ice-based sampling, handling, data collection and safety duties and achieved competence on methodologies and practical work.

practical work.	
Name	Sea ice work practice
Ane Haarr (UiO)	Core handling, filtered sea water addition on board, polar bear watch
Angela Stippkugel (NTNU)	Drilling hole for under ice sampling, under ice water sampling, polar
	bear watch
Christine Gawinski (UiT)	Ice core note keeper, polar bear watch
Eric Jorda (Nord)	Drilling hole for under ice sampling, under ice water sampling, polar
	bear watch
Håvard N. Liholt (UiO)	Polar bear guard, drilling hole for under ice sampling, polar bear watch
Jack Garnett (Lancaster	Sea ice coring, Melt pond and under ice water sampling, polar bear
Univ.)	watch
Julia Giebichenstein (UiO)	Ice core note keeper, sea ice coring, core cutting, polar bear watch
Karoline Saubrekka (UiO)	Sea ice coring, core handling, polar bear watch, logistics team
	onboard, filtration team
Konrad Karlsson (UNIS)	Sea ice coring, polar bear watch
Márti Amargant (UiT)	Sea ice coring, Melt pond and under ice water sampling, polar bear
	watch
Oliver Müller (UiB)	Sea ice coring, core cutting, polar bear watch
Robynne Nowicki (UNIS)	Polar bear guard, drilling hole for under ice sampling, under ice CTD
	and light, polar bear watch
Siv Hoff (UiO)	Core handling, filtered sea water addition on board, logistics team
	onboard, polar bear watch
Stephen Kohler (NTNU)	Sea ice coring, Melt pond and under ice water sampling
Yasemin Bodur (UiT)	Ice core note keeper, sea ice coring

Working hours 0400-1200,	Working hours 2000-0400,	Cabin
1600-2000	1200-1600	
Marit Reigstad		605
Lasse Olsen	Oliver Müller	419
Leif Chr. Stige	Jon Leithe	421
	Tove Gabrielsen	468
Ronald Pedersen	Jack Garnett	456
Padmini Dalpadado		458
Christian Morel	Márti Amargant	327
Robynne Nowicki	Kasia Dmoc	329
Anna Vader	Miriam Marquardt	330
Eric Jorda	Konrad Karlsson	332
Christine Gawinski	Angela Stippkugel	333
Karoline Saubrekka	Griselda Anglada Ortiz	335
Fekadu Yadetie	Håvard N. Liholt	377
Anette Wold	Bodil Bluhm	379
Siv Hoff	Julia Giebichenstein	380
Nicholas Sanchez	Stephen Kohler	382
Bente Edvardsen	Rita Amundsen	383
Yasemin Bodur	Arunima Sen	385
Nadia Brun	Ane Haarr	386

Lab no.	Name of laboratory	General description	Use on this cruise
102	Clean seawater	Underway survey	Instrument crew
	sample room	measurements	
202	Gravity meter room		Not in use
301	Chilled lab	Mesozooplankton, microbial exp. preparation lab	Angela, Christine, Oliver, Konrad
302	Dry lab common	Sea water filtration, POC, Chl a, virus, bacteria, fluorometer	Miriam, Yasemin, Oliver, Lasse
303	Wet lab common	Meso and macrozooplankton	Anette, Padmini, Kasia D, Rita, Robynne, Griselda
307	Isotopic lab	Production biology	Marti (PP), Lasse, Oliver (BP)
308/309	Wet lab biology	Fish ecotox sampling	Fekadu, Nadja
310	Catch sample room	Fish and benthos sampling/ sea ice equipment	Leif Chr., Siv, Ane, Håvard, Robynne
311	Environmental toxicology lab	Trace metal clean lab	Nicolas, Stephen
316	Filtration lab	DNA, RNA filtration	Anna, Bente, Karoline
317	Education lab	Common use computer work, Microscopes, microtome, sample labeling	Bente, Karoline, Miriam, Anna, all
319	Wet Lab Geology /Benthos	Benthos	Bodil, Arunima, Eric, Jack, Yasemin,
320	Microbiology lab	Ecotox filtration	Julia, Rita
322	Ice Lab	Common use (°C)	Ice core handling
312	Cooler room	Plankton experiments, Plankton wheels (°C)	Angela, Konrad
313	Freezer room	Frozen samples storage	Frozen biological material
314	Cooler room	Benthos exp (Temp+)(°C)	Bodil, Arunima, Eric
315	Cooler room	Benthos exp. (Temp. in situ), storage samples (<4°C)	Bodil, Arunima, Eric, Yasemin, Fekadu, Nadja
323	Cooler room	P-I experiments, ice core melting (°C)	Marti, Oliver, ice work
325	Freezer Ice Samples	For ice samples	Frozen material (non- bio)
701	Observation Central	Common	Instrument engineers, CTD operator, chief scientists
703	Large conference room	Common	Everyone for computer work
	Small conference room	Common	Everyone for computer work
KPH Thermax Fridge 1	303 Wet lab	Zooplankton, temporary storage of fresh samples	Christine

 Table A1.6. Lab-use during the Nansen Legacy Q3 cruise

KPH Thermax Fridge 2	303 Wet lab	Zooplankton, temporary storage of fresh samples	Christine
UiT Thermax Fridge 3	CTD Hangar	Microbial experiments	Lasse and Oli
UiT Thermax Fridge 4	CTD Hangar	Zooplankton production exp.	Christine
UiT Thermax Fridge 5	CTD Hangar	Zooplankton production exp.	Christine

Appendix 2: Blogs

Blogs written by cruise participants in collaboration with the project office and published on the Nansen Legacy Blog at Forskning.no during the Nansen Legacy seasonal Q3 cruise 2019.

No	Title	Author(s)	Status
1	<i>Året rundt i Barentshavet</i> – on the background for the cruise and seasonal studies	0	✓ Publ. 5/8
2	<i>En båt lastet med morgendagens forskere</i> – why we train a new generation Arctic scientists	Lena Seuthe	✓Publ. 13/8
3	<i>Ingen mann over bord</i> – on safety issues in the Arctic	Jon Leithe	✓ Publ. 14/8
4	<i>Når alle er i samme båt</i> – on how a vessel promotes science collaboration	Marit Reigstad	✓ Publ. 30/8.
5	Men jeg venter på is	Jon Leithe	✓ Publ. 19/8
6	Lærlinger på isflak (Internship på havisen)	Marit Reigstad	✓ Publ. 20/8
7	Risikerer vi å kvele havets bunndyr? (A breath of air20,000 leagues under the sea)	Arunima Sen	✓ Publ. 21/8
8	Så hvitt og pent, men ikke rent (Why it's important to study contaminants in the Arctic)	Jack Garnett	✓ Publ. 15/8
9	Å jobbe med det usynlige – eller hvorfor fotografen ikke tar bildet av arbeidet vårt	Oliver Müller and Lasse Olsen	✓ Publ. 23/8
10	Stressmestring – Om kofferter og miljøgifter på avveie. Dealing with stress - On lost luggage and found contaminants	Nadja Brun	✓Publ. 28/8
11	På isen i Nansenbassenget	Tove M. Gabrielsen	✓Publ. 27/8
12	Isarbeid på trygg grunn	Jon Leithe	✓Publ. 29/8

Published on Forskning.no/blogg-Arven etter Nansen, August 2019

Appendix 3 Datasets

Shipmounted datasets

							Relevan	ce to Nansen					i I		
Who		Sample	info	Analy		Analyses	/se s		Legacy		Data				
							Where will	When are					Ask for		
			Intended		Analysis		analyses be	analyses			Sharing within	Publishing	embargo of		
Cruise participant	PI	Sample type	method	Parameter	protocol	Dataset	done	planned for	RF	Task/Subtask	project	data	data?	If yes, why?	Comments
KHP instrumentation	Randi Ingvaldsen					Acoustic data surveying	fish and xoop	lankton, logged	d continu	ously	2019, NIRD	2020			EK80
KHP instrumentation	Tom Arne Rydning	gen				Multibeam mapping					post cruise on NIRD	2020	no		EM302
KHP instrumentation	Øystein Godøy					Air and sea temperature	e (8 m depth), a	air pressure, wi	nd speed	and direction,	post cruise on NIRD	2020			Weather station
KHP instrumentation	Helge Sagen					Temperature, salinity, d	ensity and fluo	prescence at 4r	n, logged	continuously	post cruise on NIRD	2020			Thermosalinograph
KHP instrumentation	Randi Ingvaldsen					Currents in the upper ~5	500 m legged c	ontinuously			post cruise on NIRD	2020			ADCP 150 kHz
KHP instrumentation	Agneta Fransson					pCO2 measured from th	e underway sy	stem, 4 m inta	ke during	the open wate	post cruise on NIRD	2020			pCO2 underway
KHP instrumentation	Marit Reigstad					Temperature, salinity, d	ensity fluores	cence, oxygen p	profiles fr	om NLEG static	post cruise on NIRD	2020	no		CTD

Datasets

1	Who	Sam	ple info			Analyses				to Nansen Legacy mentation plan	1	r	Data		
	WIIO	Sang			1	Anaryses	Where will	When are	mpier	lientation plan			Ask for	1	
					Analysis		analyses be	analyses planned			Sharing within	Publishing	embargo of		
Cruise participant	PI	Sample type	Intended method	Parameter	protocol	Dataset	done	for	RF	Task/Subtask	project	data	data?	If yes, why?	Comments
				Chl a total and >10um											
Anna Vader	Anna Vader	Chlorophyll a		biomass	NL v4 7.11.1	Chl a total and > 10um biomass	Onboard KPH	During cruise	RF3	T3-1.1	Sep-19	Oct-19	No		will be analysed partiv
	Anna Vader/Tove M.	Microbial diversity (DNA and				across season based on rRNA				T3-1.1/T3-1.2/T3-					by PostDoc to be hired
Anna Vader	Gabrielsen	RNA)	rRNA	Protist diversity		metabarcoding	UNIS	2019-20	RF3	1.3/T3.2.1/	2020	2020	No		august 2020
						Metatranscriptomics and									Will be analysed by
	Anna Vader/Tove M.					quantification of gene expression of									PostDoc to be hired
Anna Vader	Gabrielsen	Microbial activity (RNA)	mRNA	Protist activity		select genes across season	UNIS	2020	RF3	T3-2.2	2021	2021	No		august 2020
	Anna Vader/Bodil Bluhm/Camilla Svensen/Kim		64 um plankton sample for	Zooplankton dict/prov		Diversity of small zooplankton									Will be analysed by PhD student to be hired fall
Anna Vader	Præbel	Plankton sample	DNA analysis of diet of small mesozooplankton	Zooplankton diet/prey diversity		prey, possibly also zooplankton genetic identification	UNIS/UIT	2019-21	RF3	T4-4.1	2021	2021	Yes, possibly	PhD project	2019
	Anna Vader/Bodil	r lankton sample	Benthos sample from box core	arversity		Diversity of zoobenthos prey,	01115/011	2015 21	1115	14 4.2	2021	2021	103, possiony	r no project	Sample type not found
	Bluhm/Camilla Svensen/Kim		for DNA analysis of benthic			possibly also genetic identification									in log sheet, should be
Bodil Bluhm	Præbel		diets and prey based on DNA	Benthos diet/prey diversity		of benthis species	UNIS/UIT	2019-21	RF3	T4-4.1	2021	2021	Yes, possibly	PhD project	added
		Bile (of polar cod, capelin,		concentration of PAH											
		atlantic cod and american	quantification of PAH	metabolites from individual		concentration of PAH metabolites									will be analysed by
Ane Haarr	Ketil Hylland	plaice)	metabolites	fish		from individual fish	UiO/NIVA	2019-2022	RF2	T2-2.3	2020-2022	2020-2022			PostDoc to be hired
		Blood (of polar cod, capelin,													
		atlantic cod and american	quantification of DNA strand	percent DNA damage in		percent DNA damage in individual									will be analysed by
Ane Haarr	Ketil Hylland	plaice) Tissue (of capalin, polar cod	breaks Genomic analysis (individual	individual fish		11511	UiO	2019-2022	RF2	T2-2.3	2020-2022	2020-2022		+	PostDoc to be hired
Siv Hoff, Leif Chr. Stige	Sissel Jentoft	Tissue (of capelin, polar cod and cod)	Genomic analysis (individual level)	De novo genome assembly		Whole-genome sequences	UiO	2019-2022	RF2	T2-3.1	2020-2022	2020-2022	Yes, possibly	PhD project	
Siv non, cen em: stige	or source of the test of t		icreij	Population-genetic data		Whole-genome sequences	0.0	2013-2022	111 2	12-3.1	2020-2022	2020-2022	103, possibly	. no project	1
		Tissue (of capelin, polar cod	Genomic analysis (population	(diversity) along climate			1			1	1				
Siv Hoff, Leif Chr. Stige	Sissel Jentoft	and cod)	level)	gradient in two seasons		Whole-genome sequences	UiO	2019-2022	RF2	T2-3.1	2020-2022	2020-2022	Yes, possibly	PhD project	
				Population-genetic data											
				(linked to function) along											
		Tissue (of capelin, polar cod	Investigation of candidate	climate gradient in two											
	Sissel Jentoft	and cod)	genes	seasons		Population-genomic statistics	UiO	2019-2022	RF2	T2-3.1	2020-2022	2020-2022	Yes, possibly	PhD project	
Bodil Bluhm, Arunima				mg Chl a / m2, mg											
Sen, Eric Jorda	Paul Renaud	Sediment pigment	Fluorometric analysis	phaeopigment / m2	(10.3.18)	Sediment pigments	APN	2019-2021	RF3	T3-1.2	2020	2020-2022	No		
				sediment grain size fractions,		sediment grain size fractions,									
			Laser Diffraction Particle Size	sediment total organic carbon		sediment total organic carbon									
Bodil Bluhm, Arunima	Elisabeth Alve & PhD student		Analyzer (grain size); combustion in muffle furnace	(TOC, %), sediment total nitrogen (TN, %), d13C (per		(TOC, %), sediment total nitrogen (TN, %), d13C (per mil), d15N (per								PhD project (foraminifera	
	to be hired	Grain size	(TOC, TN), IRMS (d13C/d15N)	mil), d15N (per mil)	(10.3.3)	mil)	UIO/UK	2020-2022	RF1, RF3	RF1?, RF3 T3-1.2	2021-2023	2021-2023	possibly)	
			()		(/	,	UiO						p = = = = = ;	ľ.	
	Elisabeth Alve & PhD student					Foraminifera abundance, diversity	(Foraminifera),								
	to be hired (Foraminifera),					and composition; metazoan	UIT/IOPAS								
Bodil Bluhm, Arunima	Bodil Bluhm (metazoan		Sorting and morphological			meiofauna abundance, diversisty	(metazoan								
Sen, Eric Jorda	meiofauna)	Meiofauna abundance	identification	number of (taxon) / cm2	(10.3.5)	and composition	meiofauna)	2020-2022	RF1, RF3		2021-2023	2021-2023	possibly	PhD project	
Bodil Bluhm, Arunima												_		PhD project	
Sen, Eric Jorda	Paul Renaud	Sediment pigments	HPLC	mg pigment type / m2	(10.3.1)	sediment pigments HPLC	UK (?)	?	RF3, CAO		?	?	yes	(vert flux)	
						Macrofauna abundance, diversity			1			1	1		
						and composition; metazoan			1			1	1		
Eric Jorda, Arunima	Eric Jorda. Arunima Sen.	Macrofauna diversity and	Sorting and morphological	number of (taxon) / cm2, diversity indexes, community	10.3.6	macrofauna abundance, diversisty and composition, community	1			T3-1.1, T3-1.2, T3-					
	Henning Reiss, Paul Renaud	abundance	identification	analysis	/10.3.7	analysis	Nord/IOPAN	2019-2020	RF3	1.3	2021-2023	2021-2023			
							,						1	1	1
					l	Key organims, e.g. Euphausiids and amphipods, Map spatial	1				1				
						distribution, taxonomic	1			1	1				
			Sorting and morphological			compostion and biomass indices,			1			1	1		
			identification, isotopic	taxonomic composition,	NL v4	temporal and spatial variation in	1				1				
Padmini Dalpadado	Espen Bagøien, Post Doc	Macrozooplankton	analysis	biomass	7.12.19	abundance, biomass, diveristy	IMR	2019-2021	RF3	T3-1.1; T3-2.1	2019-2022	2020-2022	No		
						Microbial eukaryote diversity in			1			1	1		
Bodil Bluhm, Arunima	1	Microbial diversity		taxonomic composition,		sediment across season based on		2010 2021		T3-1.1, T3-1.2, T3-		_			
Sen, Eric Jorda	Lise Øvreås	(sediment)	Metabarcoding	abundance and distribution	L	metabarcoding	UIB	2019-2021	RF3	1.3, T3-4.1	2021	ſ	Unsure		
			Francisco and standard and	Francisco and and a state of the second		Seasonal variation in	1			1	1				
	Øvetein Varne, Katrine borga		Energetics analysis using bomb calorimetry and pollutant	Energy content; pollutant		macrozooplankton and fish energy content; Seasonal remobilization of			1			1	1		
	Øystein Varpe, Katrine borga, Geir Wing Gabrielsen	Macrozooplankton and fish	remobilization analysis	concentration of polar cod brain		pollutants in polar cod	UiT/UNIS/UiO	2020-2021	RF2	T2-2.5	2021	2021-2022	Unsure	PhD project	
	Sec. Wing Good Clack	Mesozooplankton			1	Mesozooplankton abundance	211/01/01/010	2020-2021			2021	-021-2022		. no project	1
		taxonomy; Small	Species identification &	ind/m3 & mg dry mass/m3	l	(ind/m3), biomass (mg dry	1				1				
Anette Wold; Kasia	Janne Søreide & Camilla	mesozooplankton	counts using a	using species-specific dry mass		mass/m3) and species composition			1	T3-1.1 & 2.1		1	1		
Dmoch	Svensen	taxonomy	stereomicroscope.	values from published sources		(species list)	IOPAS	2020	RF3	T3-2.1 & 2.2	2021-2022	2021-2022	1		
		Mesozooplankton biomass;													
Anette Wold; Konrad		Small mesozooplankton	Dry total sample at 60 C &	Total biomass (mg dry	1		1	1	l	T3-1.1 & 2.1	1	1	1	1	1
Karlsoon	Janne Søreide	biomass	weight	weight/m3)		Total biomass of mesozoopankton	UNIS	2019	RF3	T3-2.1 & 2.2	2021-2022	2021-2022			

															Gelatinous zooplankton
														'	were picked out from
														'	the standard MIK net,
															each taxa was counted,
															weighted (wet weight)
							Counts and volume								and measured volume. A
							voiume measurments								picture was tken of each taxa. Individuals were
							done onboard;								picked out and stored
							Species								on ethanol when time
						Gelatinous zooplankton abundance	identification							'	permit. Sample type not
Anette Wold; Kasia			Species identification &			(ind/m3), volume & species	NTNU (Sanna			T3-1.1 & 2.1					found in log sheet,
Dmoch	Camilla Svensen	Gelatinous zooplankton	counts	ind/m3; ml/m3		composition (species list)	Majaneva)	2020	RF3	T3-2.1 & 2.2	2021-2022	2021-2022			should be added.
														,	
														'	
															Stable isotopes & fatty
															acid samples have been taken of the same taxa of
															mesozooplankton,
															macrozooplankton &
															fish. These two datasets
															will be shared between
														'	Julia Giebichenstein,
1															Robynne Nowicki &
															Doreen Kohlbach. Stable
1															isotopes have been
															sampled by Julia
A															Giebichenstein and will
Anette Wold; Kasia	Philipp Accmur Daaraa					Stable isotopes of POMi-									be analysed at UiO. Fatty
Dmoch; Julia Giebichenstein	Philipp Assmy; Doreen Kohlbach	Stable isotopes		d13C; d14N (species specific?)		Stable isotopes of POM, main zooplankton taxa & fish	UiΩ	2020	RF3	T3-1.3	2021-2022	2021-2022			acids will be analysed by NPI (Doreen Kohlbach)
Grebicitenstern	Konfbdcff	stable isotopes		a100, u14W (species specific?)		200pidliktoli taxa & IISII	0.0	2020	nr3	15-1.3	2021-2022	2021-2022			
															Dataset shared with
							AWI (in								Ecotox group (see comment for Stable
							collaboration								istope)to be finalised by
Anette Wold; Kasia	Philipp Assmy; Doreen		Fatty acid of total lipid (or			Fatty acids of POM, main	with Martin								Philipp Assmy & Doreen
Dmoch	Kohlbach	Fatty acids	specific lipid classes?)	Relative amount of fatty acid		zooplankton taxa & fish	Graeve)	2020	RF3	T3-1.3	2021-2022	2021-2022			Kohlbach
Anette Wold; Kasia	Philipp Assmy; Doreen					HBI of POM, main zooplankton taxa									
Dmoch	Kohlbach	HBIS				& fish	?	2020	RF3	T3-1.3	2021-2022	2021-2022		'	
Anette Wold	Philipp Assmy; Pedro Duarte	Particulate absorbtion													
			Gene experession analysis											'	
			(RNA-seq, qPCR), proteomics,												
		Liver tissue (of capelin, polar				Transcriptomics and quantification								'	
Fekadu Yadetie, Nadja		cod and cod, long rough	viability, possibly chemical			of selected genes and proteins									
Brun	Anders Goksoyr	dab)	analysis	Gene expression		across species	UiB	2019-2020	RF2	T2-2.4	2020	2020	No		
		Calanus spp (C.				Transcriptomics and quantification								'	
Fekadu Yadetie, Nadja		finmarchicus, C.	Gene experession analysis			of selected genes and proteins	LIIR							'	
Brun	Anders Goksoyr	hyperboreus, C. glacialis)	(RNA-seq, qPCR)	Gene expression		across species	UIB	2019-2020	RF2	T2-2.4	2020	2020	No	ļ/	
Bente Edvardsen;						Protist diversity, proportional									
Karoline Saubrekka, Anna Vader	Bente Edvardsen; Anna Vader; Tove M. Gabrielsen	Microbial diversity (DNA and RNA)								TO 1 1 TO 1 O				1	
	I GAG INI, GODITEISEIT			Protist diversity	1	abundance, seasonal dynamics and	LIiO and LINIC	2019-2021	RED	T3.1.1, T3.1.2, T3.2.1	2020	2020-2021	/es		Part of Karoline Saubrekkas thesis
		nina)	metabarcoding using rDNA	Protist diversity		abundance, seasonal dynamics and distribution	UiO and UNIS	2019-2021	RF3	T3.1.1, T3.1.2, T3.2.1	2020	2020-2021	(es		Part of Karoline Saubrekkas thesis
Rente Edvardsen:	Bente Edvardsen, Karoline		metabarcoding using rDNA			abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed)	UiO and UNIS	2019-2021	RF3	T3.2.1	2020	2020-2021 \	/es		Saubrekkas thesis
Bente Edvardsen; Karoline Saubrekka	Bente Edvardsen, Karoline Edvardsen, Luka Supraha	Protist diversity (net hauls and Vivaflow)		Protist diversity taxonomic composition and distribution		abundance, seasonal dynamics and distribution	UiO and UNIS UiO	2019-2021	RF3		2020		/es	PhD-project	Saubrekkas thesis Part of Karoline
		Protist diversity (net hauls	Microscopy	taxonomic composition and		abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions				T3.2.1 T3.1.1, T3.1.2,	2020		/es /es, possibly	PhD-project	Saubrekkas thesis
		Protist diversity (net hauls		taxonomic composition and		abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions Microalgal strains, morphologcal				T3.2.1 T3.1.1, T3.1.2,	2020		/es /es, possibly	PhD-project	Saubrekkas thesis Part of Karoline
		Protist diversity (net hauls		taxonomic composition and distribution		abundance, seasonal dynamics and distribution LLM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions Microalgal strains, morphologcal and genetic (rDNA operon)				T3.2.1 T3.1.1, T3.1.2,	2020		(es	PhD-project	Saubrekkas thesis Part of Karoline
		Protist diversity (net hauls		taxonomic composition and		abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions Microalgal strains, morphologcal				T3.2.1 T3.1.1, T3.1.2,	2020		(es	PhD-project	Saubrekkas thesis Part of Karoline
		Protist diversity (net hauls		taxonomic composition and distribution Taxonomy and phylogeny,		abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions Microalgal strains, morphologcal and genetic (rDNA operon) descriptions, phylogenetic and				T3.2.1 T3.1.1, T3.1.2,	2020		res	PhD-project	Saubrekkas thesis Part of Karoline
Karoline Saubrekka	Edvardsen, Luka Supraha	Protist diversity (net hauls and Vivaflow)	Microscopy	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNA reference		abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions Microalgal strains, morphologcal and genetic (rDNA operon) descriptions, phylogenetic and physiological characterisation.				T3.2.1 T3.1.1, T3.1.2, T3.2.1	2020	2021-2022	· · · ·	PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka Karoline Saubrekka,	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline	Protist diversity (net hauls and Vivaflow) Microalgal diversity by	Microscopy Culture isolation and charcterisation Scanning electron	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNA reference sequence database of protists in the Arctic taxonomic composition,		abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions Microalgal strains, morphologcal and genetic (IPNA operon) descriptions, phylogenetic and physiological characterisation. Contribution to reference sequence	UiO	2019-2020 2019-2020	RF3	T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2,	2020	2021-2022 Y	/es, possibly	PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures	Microscopy Culture isolation and charcterisation	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNA:reference sequence database of protists in the Arctic		abundance, seasonal dynamics and distribution Micrographs of protists. Taxonomic descriptions Microalgal strains, morphologcal and genetic (rDNA operon) descriptions, phylogenetic and physiological characterisation. Contribution to reference sequence databases.	UiO	2019-2020	RF3	T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1	2020	2021-2022 Y	· · · ·	PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka Karoline Saubrekka,	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures Coccolithophores on PC	Microscopy Culture isolation and charcterisation Scanning electron	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNA reference sequence database of protists in the Arctic taxonomic composition,		abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions Microalgal strains, morphologcal and genetic (rDNA operon) descriptions, phylogenetic and physiological characterisation. Contribution to reference sequence databases. Coccolithophore diversity,	UiO	2019-2020 2019-2020	RF3	T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2,	2020	2021-2022 Y	/es, possibly	PhD-project PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka Karoline Saubrekka,	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures Coccolithophores on PC	Microscopy Culture isolation and charcterisation Scanning electron	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNA reference sequence database of protists in the Arctic taxonomic composition,		abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions Microalgal strains, morphologcal and genetic (rDNA operon) descriptions, phylogenetic and physiological characterisation. Contribution to reference sequence databases. Coccolithophore diversity,	UiO	2019-2020 2019-2020	RF3	T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2,	2020	2021-2022 Y	/es, possibly	PhD-project PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka Karoline Saubrekka,	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures Coccolithophores on PC	Microscopy Culture isolation and charcterisation Scanning electron	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNA reference sequence database of protists in the Arctic taxonomic composition,		abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions Microalgal strains, morphologcal and genetic (rDNA operon) descriptions, phylogenetic and physiological characterisation. Contribution to reference sequence databases. Coccolithophore diversity,	UiO	2019-2020 2019-2020	RF3	T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2,	2020	2021-2022 ¥ 2021-2022 ¥	/es, possibly	PhD-project PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis We would like to
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka Karoline Saubrekka, Bente Edvardsen Karoline Saubrekka,	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline Saubrekka	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures Coccolithophores on PC filters Fixed water samples from	Microscopy Culture isolation and charcterisation Scanning electron microscoppy (SEM)	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNA reference sequence database of protists in the Arctic taxonomic composition, abundance and distribution		abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions Microalgal strains, morphologcal and genetic (rDNA operon) descriptions, phylogenetic and physiological characterisation. Contribution to reference sequence databases. Coccolithophore diversity,	UiO	2019-2020 2019-2020	RF3	T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2,	2020	2021-2022 ¥ 2021-2022 ¥	/es, possibly	PhD-project PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis We would like to compare metabarcoding results with micoscopical cell counts
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka, Bente Edvardsen Karoline Saubrekka, Bente Edvardsen,	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline Saubrekka Philipp Assmy, Rolf Gradinger,	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures Coccolithophores on PC filters Fixed water samples from Niskin bottles 6 depths and	Microscopy Culture isolation and charcterisation Scanning electron microscoppy (SEM) Utermöhl cell counts under	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNA reference sequence database of protists in the Arctic taxonomic composition, abundance and distribution		abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions Microalgal strains, morphologcal and genetic (rDNA operon) descriptions, phylogenetic and physiological characterisation. Contribution to reference sequence databases. Coccolithophore diversity, dynamics and distribution	UIO UIO UIO	2019-2020 2019-2020 2019-2020	RF3 RF3 RF3	T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.2.1 T3.2.1 T3.2.1 T3.2.1 T3.2.1 T3.2.1	2020	2021-2022 Y 2021-2022 Y 2021 Y	/es, possibly	PhD-project PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis We would like to compare metabarcoding results with micoscopical cell counts in Karoline Saubrekkas
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka Karoline Saubrekka, Bente Edvardsen Karoline Saubrekka,	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline Saubrekka	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures Coccolithophores on PC filters Fixed water samples from	Microscopy Culture isolation and charcterisation Scanning electron microscoppy (SEM)	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNA reference sequence database of protists in the Arctic taxonomic composition, abundance and distribution		abundance, seasonal dynamics and distribution Micrographs of protists. Taxonomic descriptions Microalgal strains, morphologcal and genetic (rDNA operon) descriptions, phylogenetic and physiological characterisation. Contribution to reference sequence diabases. Coccolithophore diversity, dynamics and distribution Phytoplankton/protist abundance	UiO	2019-2020 2019-2020	RF3	T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2,	2020	2021-2022 ¥ 2021-2022 ¥	/es, possibly	PhD-project PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis We would like to compare metabarcoding results with micoscopical cell counts
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka, Bente Edvardsen Karoline Saubrekka, Bente Edvardsen,	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline Saubrekka Philipp Assmy, Rolf Gradinger,	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures Coccolithophores on PC filters Fixed water samples from Niskin bottles 6 depths and ice stations	Microscopy Culture isolation and charcterisation Scanning electron microscoppy (SEM) Utermöhl cell counts under the microscope	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNA reference sequence database of protists in the Arctic taxonomic composition, abundance and distribution Cell abundances of protists > 10 µm		abundance, seasonal dynamics and distribution LM (live), SEW, TEM (fixed) micrographs of protists. Taxonomic descriptions Microalgal strains, morphologcal and genetic (rDNA operon) descriptions, phylogenetic and physiological characterisation. Contribution to reference sequence databases. Coccolithophore diversity, dynamics and distribution Phytoplankton/protist abundance. Vertical profiles of primary	UIO UIO UIO	2019-2020 2019-2020 2019-2020	RF3 RF3 RF3	T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1	2020	2021-2022 Y 2021-2022 Y 2021 Y	/es, possibly	PhD-project PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis We would like to compare metabarcoding results with micoscopical cell counts in Karoline Saubrekkas
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka, Bente Edvardsen Karoline Saubrekka, Bente Edvardsen, Anette Wold	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline Saubrekka Philipp Assmy, Rolf Gradinger, Bente Edvardsen	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures Coccolithophores on PC filters Fixed water samples from Niskin bottles 6 depths and ice stations Radioactively labelled algae	Microscopy Culture isolation and charcterisation Scanning electron microscoppy (SEM) Utermöhl cell counts under the microscope Primary production in situ	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNAreference sequence database of protists in the Arctic taxonomic composition, abundance and distribution Cell abundances of protists > 10 µm Primary production rate (14C		abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions, Phylogenetic and physiological characterisation. Contribution to reference sequence databases. Coccolithophore diversity, dynamics and distribution Phytoplankton/protist abundance Vertical profiles of primary production across latitude and	UIO UIO UIO	2019-2020 2019-2020 2019-2020 2019-2020	RF3 RF3 RF3	T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1 T3.1.1		2021-2022 Y 2021-2022 Y 2021 V 2022 Y	/es, possibly	PhD-project PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis We would like to compare metabarcoding results with micoscopical cell counts in Karoline Saubrekkas
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka, Bente Edvardsen Karoline Saubrekka, Bente Edvardsen,	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline Saubrekka Philipp Assmy, Rolf Gradinger, Bente Edvardsen	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures Coccolithophores on PC filters Fixed water samples from Niskin bottles 6 depths and ice stations Radioactively labelled algae on GF/F filters	Microscopy Culture isolation and charcterisation Scanning electron microscoppy (SEM) Utermöhl cell counts under the microscope Primary production in situ incubations	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNAreference sequence database of protists in the Arctic taxonomic composition, abundance and distribution Cell abundances of protists > 10 µm Primary production rate (14C uptake)		abundance, seasonal dynamics and distribution LM (live), SEW, TEM (fixed) micrographs of protists. Taxonomic descriptions. Microalgal strains, morphologcal and genetic (rDNA operon) descriptions, phylogenetic and physiological characterisation. Contribution to reference sequence databases. Coccolithophore diversity, dynamics and distribution Phytoplankton/protist abundance Vertical profiles of primary production across latitude and seasons	UIO UIO UIO	2019-2020 2019-2020 2019-2020	RF3 RF3 RF3	T3.2.1 T3.1.1, T3.1.2, T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1 T3.1.1 T3.1.1 T3.1.1 T3.1.2/T3.2.1/	2020	2021-2022 Y 2021-2022 Y 2021 Y	/es, possibly	PhD-project PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis We would like to compare metabarcoding results with micoscopical cell counts in Karoline Saubrekkas
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka Karoline Saubrekka, Bente Edvardsen Karoline Saubrekka, Bente Edvardsen, Anette Wold Martí Amargant-Arumí	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline Saubrekka Philipp Assmy, Rolf Gradinger, Bente Edvardsen Rolf Gradinger	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures Coccolithophores on PC filters Fixed water samples from Niskin bottles 6 depths and ice stations Radioactively labelled algae on GF/F filters	Microscopy Culture isolation and charcterisation Scanning electron microscoppy (SEM) Utermöhl cell counts under the microscope Primary production in situ incubations Light intensity vs.	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNA reference sequence database of protists in the Arctic taxonomic composition, abundance and distribution Cell abundances of protists > 10 µm Primary production rate (14C uptake) Primary production rate (14C		abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions, Phylogenetic and physiological characterisation. Contribution to reference sequence databases. Coccolithophore diversity, dynamics and distribution Phytoplankton/protist abundance Vertical profiles of primary production across latitude and seasons.	UIO UIO UIO IOPAS	2019-2020 2019-2020 2019-2020 2019-2020 2019-2020	RF3 RF3 RF3 RF3 RF3	T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1 T3.2.1 T3.2.1 T3.1.1 T3.1.1 T3.1.1	2020	2021-2022 Y 2021-2022 Y 2021 V 2021 Y 2022 Y 2022 Y	/es, possibly	PhD-project PhD-project PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis We would like to compare metabarcoding results with micoscopical cell counts in Karoline Saubrekkas
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka Karoline Saubrekka, Bente Edvardsen Karoline Saubrekka, Bente Edvardsen, Anette Wold Martí Amargant-Arumí	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline Saubrekka Philipp Assmy, Rolf Gradinger, Bente Edvardsen Rolf Gradinger	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures Coccolithophores on PC filters Fixed water samples from Niskin bottles 6 depths and ice stations Radioactively labelled algae on GF/F filters	Microscopy Culture isolation and charcterisation Scanning electron microscoppy (SEM) Utermöhl cell counts under the microscope Primary production in situ incubations	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNAreference sequence database of protists in the Arctic taxonomic composition, abundance and distribution Cell abundances of protists > 10 µm Primary production rate (14C uptake)		abundance, seasonal dynamics and distribution (In(ive), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions, Phylogenetic and physiological characterisation. Contribution to reference sequence databases. Coccolithophore diversity, dynamics and distribution Phytoplankton/protist abundance Vertical profiles of primary production across latitude and seasons Primary production response to various light intensitites	UIO UIO UIO	2019-2020 2019-2020 2019-2020 2019-2020	RF3 RF3 RF3	T3.2.1 T3.1.1, T3.1.2, T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1 T3.1.1 T3.1.1 T3.1.1 T3.1.2/T3.2.1/		2021-2022 Y 2021-2022 Y 2021 V 2022 Y	/es, possibly	PhD-project PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis We would like to compare metabarcoding results with micoscopical cell counts in Karoline Saubrekkas
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka Karoline Saubrekka, Bente Edvardsen Karoline Saubrekka, Bente Edvardsen, Anette Wold Martí Amargant-Arumí	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline Saubrekka Philipp Assmy, Rolf Gradinger, Bente Edvardsen Rolf Gradinger	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures Coccolithophores on PC filters Fixed water samples from Niskin bottles 6 depths and ice stations Radioactively labelled algae on GF/F filters	Microscopy Culture isolation and charcterisation Scanning electron microscoppy (SEM) Utermöhl cell counts under the microscope Primary production in situ incubations Light intensity vs.	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNA reference sequence database of protists in the Arctic taxonomic composition, abundance and distribution Cell abundances of protists > 10 µm Primary production rate (14C uptake) Primary production rate (14C		abundance, seasonal dynamics and distribution LM (live), SEW, TEM (fixed) micrographs of protists. Taxonomic descriptions. Microalgal strains, morphologcal and genetic (rDNA operon) descriptions, phylogenetic and physiological characterisation. Contribution to reference sequence databases. Coccolithophore diversity, dynamics and distribution Phytoplankton/protist abundance Vertical profiles of primary production across latitude and seasons Primary production response to various light intensitites	UIO UIO UIO IOPAS	2019-2020 2019-2020 2019-2020 2019-2020 2019-2020	RF3 RF3 RF3 RF3 RF3	T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1 T3.2.1 T3.2.1 T3.1.1 T3.1.1 T3.1.1	2020	2021-2022 Y 2021-2022 Y 2021 V 2021 Y 2022 Y 2022 Y	/es, possibly	PhD-project PhD-project PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis We would like to compare metabarcoding results with micoscopical cell counts in Karoline Saubrekkas
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka Karoline Saubrekka, Bente Edvardsen Karoline Saubrekka, Bente Edvardsen, Anette Wold Martí Amargant-Arumí	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline Saubrekka Philipp Assmy, Rolf Gradinger, Bente Edvardsen Rolf Gradinger	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures Coccolithophores on PC filters Fixed water samples from Niskin bottles 6 depths and ice stations Radioactively labelled algae on GF/F filters	Microscopy Culture isolation and charcterisation Scanning electron microscoppy (SEM) Utermöhl cell counts under the microscope Primary production in situ incubations Light intensity vs. Photosynthesis curves	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNA reference sequence database of protists in the Arctic taxonomic composition, abundance and distribution Cell abundances of protists > 10 µm Primary production rate (14C uptake) Primary production rate (14C		abundance, seasonal dynamics and distribution LM (live), SEM, TEM (fixed) micrographs of protists. Taxonomic descriptions, Phylogenetic and physiological characterisation. Contribution to reference sequence databases. Coccolithophore diversity, dynamics and distribution Phytoplankton/protist abundance Vertical profiles of primary production across latitude and seasons Primary production response to various light intensitites Ratios of Carbon and Nitrogen stable isotopes before and after	UIO UIO UIO IOPAS	2019-2020 2019-2020 2019-2020 2019-2020 2019-2020	RF3 RF3 RF3 RF3 RF3	T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1 T3.1.1/T3.1.2/T3- 1.3/T3.2.1/	2020	2021-2022 Y 2021-2022 Y 2021 V 2021 Y 2022 Y 2022 Y	/es, possibly	PhD-project PhD-project PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis We would like to compare metabarcoding results with micoscopical cell counts in Karoline Saubrekkas
Karoline Saubrekka Bente Edvardsen, Karoline Saubrekka Karoline Saubrekka, Bente Edvardsen Karoline Saubrekka, Bente Edvardsen, Anette Wold Marti Amargant-Arumí	Edvardsen, Luka Supraha Bente Edvardsen, Karoline Saubrekka Luka Supraha, Karoline Saubrekka Philipp Assmy, Rolf Gradinger, Bente Edvardsen Rolf Gradinger Rolf Gradinger	Protist diversity (net hauls and Vivaflow) Microalgal diversity by cultures Coccolithophores on PC filters Fixed water samples from Niskin bottles 6 depths and ice stations Radioactively labelled algae on GF/F filters	Microscopy Culture isolation and charcterisation Scanning electron microscoppy (SEM) Utermöhl cell counts under the microscope Primary production in situ incubations Light intensity vs.	taxonomic composition and distribution Taxonomy and phylogeny, improved rDNA reference sequence database of protists in the Arctic taxonomic composition, abundance and distribution Cell abundances of protists > 10 µm Primary production rate (14C uptake) Primary production rate (14C		abundance, seasonal dynamics and distribution LM (live), SEW, TEM (fixed) micrographs of protists. Taxonomic descriptions. Microalgal strains, morphologcal and genetic (rDNA operon) descriptions, phylogenetic and physiological characterisation. Contribution to reference sequence databases. Coccolithophore diversity, dynamics and distribution Phytoplankton/protist abundance Vertical profiles of primary production across latitude and seasons Primary production response to various light intensitites	UIO UIO UIO IOPAS	2019-2020 2019-2020 2019-2020 2019-2020 2019-2020	RF3 RF3 RF3 RF3 RF3	T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.1.1, T3.1.2, T3.2.1 T3.1.1, T3.1.2, T3.2.1 T3.1.1 T3.2.1 T3.2.1 T3.1.1 T3.1.1 T3.1.1	2020	2021-2022 Y 2021-2022 Y 2021 V 2021 Y 2022 Y 2022 Y	res, possibly res, possibly res res	PhD-project PhD-project PhD-project PhD-project PhD-project	Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis Part of Karoline Saubrekkas thesis We would like to compare metabarcoding results with micoscopical cell counts in Karoline Saubrekkas

			1				-								
		Single states and the set	Reciprocal transplant		1	Protist DNA sequences,					'		1		1
		Fixed water samples and Sterivex filters from	experiments on the primary producers community of	Community composition, cell	1	phylogenetic positions and corresponding abundances linked				T3-1.1/T3-1.2/T3-			1	1 ¹	1
Martí Amargant-Arumí	RolfGradinger	experimental bottles	Atlantic and Arctic waters	abundances		to environmental conditions	UIT	2019-2020	RF3	1.3/T3.2.1/	2020	2021	Yes	PhD-project	i i
Arunima Sen, Eric		Sediment community	Sediment community oxygen												ſ
Jorda, Bodil Bluhm	Paul Renaud	incubations	uptake experiments	oxygen uptake mmol / h		oxygen uptake	onboard	2019-2020	RF3	T3-4.3	2019-2020	2020-2021	no	<u> </u>	T. I
Bodil Bluhm, Arunima Sen, Eric Jorda	Torstein Pedersen	Megafauna, macrofauna	determined carbon content using combustion	carbon content of benthic invertebrates		carbon content of benthic invertebrates	UIT	2019-2020	RF4	RF4 T4-4	2020	2022?	No		To be confirmed by Torstein Pedersen
Sen, Enerorad	Torstein redeisen	incgalaana, macronaana	using compuscion	Taxonomic voucher inventory		intercebrates	011	2013 2020	10.4		2020	2022.		+	Museum archival
Bodil Bluhm, Arunima	Bodil Bluhm, Andreas			of Nansen Legacy fauna		Taxonomic voucher inventory of								!	timeline tbd by new
Sen, Eric Jorda	Altenburger	Megafauna taxonomy	Museum archival	collected		Nansen Legacy fauna collected	UiT Museum	2020-2023	RF3	T3-3.1	n/a	n/a	No	!	collection employee
		1420 (1451)					UiO (Nansen								i i
Bodil Bluhm, Arunima Sen, Eric Jorda	Bodil Bluhm, Lis Jørgensen	d13C / d15N organisms (mostly benthic)	IRMS coupled to C/N analyser	d13C, d15N		Carbon and nitrogen stable isotope composition	Legacy agreement?)	2021-2023	RF3	T3-3.4	2022-2023	2023	possibly	Post doc project	i i
		(Uptake of isotopically			-8.00.001						p = === ; ;		
Arunima Sen, Eric	Elisabeth Alve, Paul Renaud,			enriched algae in respiration		Carbon and nitrogen stable isotope									i i
Jorda, Bodil Bluhm	Henning Reiss	d13C/d15N	IRMS coupled to C/N analyser	incubation experiment		composition after incubation	?	2021-2023	RF3	T3-3.4	2021-2023	2021-2023	possibly	PhD-project	ļ
														!	i i
Arunima Sen, Eric		Nutrient concentrations in		Macronutrient concentrations in bottom water before and		Macronutrient concentrations in bottom water before and after								!	i i
Jorda, Bodil Bluhm	Paul Renaud, Henning Reiss	incubations	nutrient analyzer	after incubation		incubation	APN	2019-2020	RF3	T3-3.4	2021-2023	2021-2023	no	!	i i
							Mediterranean							1	ſ
							Institute of							!	i i
			Cold vapor atomic				Oceanography							!	i i
Stephen Kohler,	Murat V. Ardelan, Stephen	Total mercury and	fluorescence spectrometry (CVAFS) for THg and MeHg, or			Total mercury and methylmercury	(MiO) in Marseille,							!	Stephen Kohler PhD
Nicolas Sanchez	Kohler	methylmercury	GC-SF-IR-ICPMS for MeHg	THg, MeHg in pM		transect profile	France	2019	RF2	T2-2.2	2020-2021	2021	VPS	PhD project	
		, ,		0 0 1		Relative and absolute abundance of	CAGE-UIT								
			Carbonate contribution (from			marine calcifiers on the water	(Tromsø), ICTA-							!	i i
			the abundances of marine			column and their contribution to	UAB							. · ·	i i
Griselda Anglada-Ortiz		Plankton sample	calcifiers)	mg CaCO3/m3, (% and #/m3)		the carbonate pump	(Barcelona)	2020	RF2	T2-1.4	2021	2021	yes	PhD project	i
Griselda Anglada-Ortiz	Melissa Chierici and Agneta Fransson	Water samples from the CTD	Carbonate chemistry and chemical parameters			DIC/Alkalinity, d180 and nutrients	IMR and NPI		RF2	T2-1.1				!	i i
					Versien A				=						
					Version 4 Nansen									!	i i
					Legacy									!	i i
					Sampling									!	i i
					Protocol,									!	i i
	Marit Reigstad, Gunnar				chapter 7.4 - needs									!	i i
Miriam Marquardt	Bratbak	POC/PON	CN analyses	μg/L	updates!!!	POC/PON	UIT/UIB	2020-2023	RF3	T3 1.2	2020-2023	2021-23	yes	PhD-project	i i
		Nutrients from sea ice													1
	Miriam Marquardt, Rolf	cores/meltponds/under ice												!	i i
Miriam Marquardt	Gradinger	water	Nutrient analyzer	μg/L		Nutrients	UIT	2020-2023	RF3		2020-2023		L	ļ'	l
Miriam Marquardt	Miriam Marquardt, Rolf Gradinger, Bodil Bluhm	lce meiofauna abundance/taxonomy	Microscopy	Ind/m3; ml/m3		Ice meiofauna abundance/taxonomy	UIT	2020-2023	RF3		2020-2023			!	i i
Minuminarquarac	orduniger, boun brunn	Bacterial activity	inicioscopy	Bacterial production rate		abandance/taxonomy	011	2020 2025	111.5		2020 2025			+	
Oliver Müller, Lasse		(Radioactively labelled	Bacterial production of	([2,3,4-3H] leucine) in μgC L-1-										!	i i
Mørk Olsen	Gunnar Bratbak	bacteria)	carbon biomass	d-1		Bacterial production rate	UiB	2019-2020	RF3	T3-2.3/T3-3.1/	2020	2021	No	<u> </u>	Confirm with the PI
Oliver Müller, Lasse			51				UiB	2040 2020	RF3	T3.1.1, T3.1.2,	2020	2024		!	C. C
Mørk Olsen Oliver Müller, Lasse	Gunnar Bratbak, Aud Larsen	Microbial abundance	Flow cytometry Scanning electron	Planktonic cell per ml Qualitative analysis of		Abundance tables Plankton diversity, dynamics and	UIB	2019-2020	RF3	T3.2.1 T3.1.1, T3.1.2,	2020	2021	NO	╉────┦	Confirm with the PI
Mørk Olsen	Gunnar Bratbak	SEM filter	microscoppy (SEM)	small plankton		distribution	UiB	2019-2020	RF3	T3.2.1	2020	2021	No	!	Confirm with the PI
						Concentration of total particulate								1	1
Oliver Müller, Lasse	Gunnar Bratbak, Jorun K. Egge,			Concentration of total		O, P, Na, Mg, Si, S, Ca, Mn, Fe, Zn				T3.1.1, T3.1.2,	1		1	'	1
Mørk Olsen	Tatiana Tsagaraki	XRF filter	X-Ray Fluorescence (XRF)	particulate elements in µM	l	(μM)	UiB	2019-2020	RF3	T3.2.1	2020	2021	No	↓ ′	Confirm with the PI
Oliver Müller, Lasss	Gunnar Brathak, Buth Apr-		Recover viruses from natural		1	Virus diversity across soaron based				T2 1 1 T2 1 2	1		1	1 ¹	1
Oliver Müller, Lasse Mørk Olsen	Gunnar Bratbak, Ruth-Anne Sandaa	Virus diversity	waters via iron chloride precipitation	Virus diversity	1	Virus diversity across season based on metabarcoding	UiB	2019-2020	RF3	T3.1.1, T3.1.2, T3.2.1	2020	2021	No	1 ¹	Confirm with the PI
			Bacterial production, Flow	Bacterial production, Flow	1	, v	1							1	(
			Cytometry, microbial	Cytometry, microbial	1						1		1		1
Oliver Müller, Lasse	Gunnar Bratbak, Oliver Müller,		diversity, nutrient analysis,	diversity, nutrient analysis,		Dynamics of lower trophic level	l				'		l. –		
Mørk Olsen	Lasse Mørk Olsen	Grazer exclusion experiment	microzooplankton diversity	microzooplankton diversity		food web structure	UiB	2019-2020	RF3	T3-4.1	2020	2021	No	───′	Confirm with the PI
Nicolas Sanchez, Stephen Kohler	Murat V. Ardelan	Total trace elements and dissolved trace elements	Preconcentration via SeaFAST and ICP-MS	Concentration of elements in nM	1	Total and dissolved trace elements transect profile	NTNU	2019-2020	RF2	T2-2.2	2020	2021	Need to ask PI	1 ¹	Confirm with the PI
	, we conserved to			i		Variation, composition, and	NTNU (DOM				2020		,	<u>†</u> ───┤	
					Nansen	distribution of DOM and TOC, with	characterizatio				1		1		1
Nicolas Sanchez,		Dissolved organic matter		Type and composition of	Legacy v4	ancillary POC and DOC	n) and UCSB				1		1		Maria Digernes PhD
Stephen Kohler	Murat V. Ardelan	characterization, TOC	HPLC-MS and TOC-L	DOM, TOC	7.5 & 7.6	measurements	(TOC)	2019-2020	RF2	T2-2.2	2020	2021	yes	phd project	project
Yasemin Bodur,			fractionated algal pigments, filtered through GF/F filters		NL v4						1		1		1
Miriam Marguardt	Marit Reigstad, Yasemin Bodur	Chlorophyll a	from sediment trap samples	Chl a total	chapter 8	Chlorophyll a	Onboard KPH	During cruise	RF3	T3 4.4	2020	2021	ves	PhD-project	1
					1 10 10 10		1		-				ſ .	1	
			fractionated algal pigments.												
			fractionated algal pigments, filtered through												
Yasemin Bodur, Miriam Marquardt	Marit Reigstad, Yasemin Bodur			Chl a >10µm	NL v4 chapter 8	Chlorophyll a >10µm	Onboard KPH	2019-21	RF3	T3 4.4	2020	2021		PhD-project	

						1		1		1	r		1		
Yasemin Bodur, Miriam Marquardt	Marit Reigstad, Yasemin Bodur	ΡΟΓ/ΡΟΝ	CN analyses from sediment trap samples	11 0 /1	NL v4 chapter 8	POC/PON	UIT	2019-21	RF3	T3 4.4	2020	2021	Ves	PhD-project	
Yasemin Bodur,	Mant Heigstaa, Taseinin Boaan	1 00/1 011	trup sumpres	р <u>ы</u> -	NL v4			2013 21		15 4.4			100	r no projece	
Miriam Marquardt	Marit Reigstad, Yasemin Bodur	stable isotopes	from sediment trap samples	d13C; d14N	chapter 8	stable isotopes	UIT?	2019-21	RF3	T3 4.4	2020	2021	yes	PhD-project	
Yasemin Bodur, Miriam Marquardt	Marit Reigstad, Paul Renaud, Yasemin Bodur	water column pigments	HPLC from sediment trap samples	mg pigment type / m2	NL v4 chapter 8	HPLC	APN?	2019-21	RF3	T3 4.4	2020	2021	100	PhD-project	
Yasemin Bodur,	Marit Reigstad, Paul Renaud,	water corumn pigments	IP25 from sediment trap and	ing pigment type/ inz	NL v4	hrte	AFIN:	2019-21	KF3	13 4.4	2020	2021	yes	PID-project	
Miriam Marquardt	Yasemin Bodur	sea ice algae proxy	boxcore samples	mg pigment type / m2	chapter 8	IP25	not clear	2019-21	RF3	T3 4.4	2020	2021	yes	PhD-project	
Yasemin Bodur,		phytoplankton		community composition and	NL v4										
Miriam Marquardt Yasemin Bodur,	Marit Reigstad, Yasemin Bodur	communities	from sediment trap samples	counts	chapter 8 NL v4	phytoplankton communities	UIT	2019-21	RF3	T3 4.4	2020	2021	yes	PhD-project	
Miriam Marquardt	Marit Reigstad, Yasemin Bodur	fecal pellets	from sediment trap samples	fecal pellet types and counts	chapter 8	fecal pellets	UIT	2019-21	RF3	T3 4.4	2020	2021	yes	PhD-project	
Yasemin Bodur,			DNA/RNA from sediment trap	biological diversity & activity	not										
Miriam Marquardt	Marit Reigstad, Yasemin Bodur	Metatranscriptomics	samples	on particles	established	Metatranscriptomics	UIT?	2019-21	RF3	T3 4.4	2020	2021	yes	PhD-project	
			indidivuals stored at -20C or in	whole animals for stable											
			formaldehyde from Campelen	isotopes, fatty acids extraction	not	fatty acids, stable isotoes, gut									
Yasemin Bodur	Paul Renaud, Yasemin Bodur	Pandalus borealis	trawl	and gut content analyses	established	content	APN?	2019-21	RF3		2020	2021	yes?	PhD-project	
Angela Stippkugel	Nicole Aberle-Malzahn	Two point dilution	Flow Cytometry, nutrient	Flow Cytometry, nutrient		Dynamics of lower trophic level	NTNU	2018 - 2021	RF3	T3-3.1, T3-4.2	2021	2021	Yes, possibly	PhD project	PhD position was now
Christine Gawinski	Camilla Svensen	Productivity of Oithona	Egg hatching experiment	egg production rate, weight specific egg production rate	not established	specific egg production rate as estimate for copepod production	UIT	2019 - 2021	RE3	T3-2.2	2020	2021	VPS	PhD project	
cirristine oddiniski	cumin oversen	rioducentry of official	255 natering experiment	specific egg production face	cstabilistica		011	2015 2021	10.5	10 1.12	2020	2021	10	r no project	Hg and SI analyses will
															be done at UiO, fatty
															acid analyses by post-
Håvard N. Liholt, Ane		frozen (-20C) whole and	stable isotopes, mercury,												doc at NP, if she needs this data. Organic
Havard N. Linoit, Ane Haarr, Julia		dissected fishes: muscle,	persistent organic pollutants, emerging contaminants, fatty	food web contaminant		food web contaminant									pollutants will be
Giebichensten	Katrine Borgå	otoliths, stomach	acid analyses	biomagnification	NL V4	biomagnification	UIO/NP/NILU	2019-2021	RF2	T2-2.1	2021	2022	yes	PhD project	anbalysed at NILU
															Hg and SI analyses will
															be done at UiO, fatty
			stable isotopes, mercury,												acid analyses by post- doc at NP, if she needs
			persistent organic pollutants analyses, emerging												this data. Organic
Julia Giebichenstein,		Meso- and	contaminants, fatty acid	food web contaminant		food web contaminant									pollutants will be
Rita Amundsen	Katrine Borgå	Macrozooplankton	analyses	biomagnification	NL V4	biomagnification	UIO/NILU/NP	2019-2021	RF2	T2-2.1	2021	2022	yes	PhD project	anbalysed at NILU
Julia Giebichenstein, Rita Amundsen	Katrine Borgå	In-situ filtration pump	persistent organic pollutant analyses	food web contaminant biomagnification	NL V4	food web contaminant biomagnification	UIO/NILU	2019-2021	RF2	T2-2.1	2021	2022	VPS	PhD project	
													,	p,	
				food web contaminant		food web contaminant									
Julia Giebichenstein	Katrine Borgå	PFAS water samples	PFAS analyses	food web contaminant biomagnification	NL V4	food web contaminant biomagnification	UiO	2019-2022	RF2	T2-2.1	2022	2022	yes	PhD project	
	Katrine Borgå	PFAS water samples			Nansen	biomagnification	UIO	2019-2022	RF2	T2-2.1	2022	2022	yes	PhD project	
Julia Giebichenstein Stephen Kohler, Nicolas Sanchez	Katrine Borgå Murat V. Ardelan		PFAS analyses Sequential extraction for trace elements	biomagnification			UIO NTNU		RF2				yes maybe, check with Pl	PhD project	
Stephen Kohler,		PFAS water samples Sediment samples	Sequential extraction for trace		Nansen Legacy v4	biomagnification Distribution of trace elements in sediments		2019-2022 2019-2020		T2-2.1 T2-2.2	2022 2021			PhD project	
Stephen Kohler,			Sequential extraction for trace	biomagnification	Nansen Legacy v4	biomagnification Distribution of trace elements in								PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski,		Sediment samples	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial	Nansen Legacy v4 10.4 Samples will	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison								PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse	Murat V. Ardelan	Sediment samples Grazing experiment of	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microzooplankton	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton	Nansen Legacy v4 10.4 Samples will be analyzed	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding		2019-2020	RF2	T2-2.2	2021	2021	with PI		
Stephen Kohler, Nicolas Sanchez Christine Gawinski,		Sediment samples	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial	Nansen Legacy v4 10.4 Samples will	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison		2019-2020 2019-2020	RF2 RF3		2021	2021 2021	with PI	PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse	Murat V. Ardelan	Sediment samples Grazing experiment of Oithona and Calanus	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microzooplankton	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity	Nansen Legacy v4 10.4 Samples will be analyzed at UiB	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies		2019-2020	RF2	T2-2.2	2021	2021	with PI		
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Mørk Olsen	Murat V. Ardelan Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity Determine weight specific egg	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity	Nansen Legacy v4 10.4 Samples will be analyzed at UiB not established	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod	NTNU	2019-2020 2019-2020	RF2 RF3	T2-2.2 T3-4.1	2021	2021 2021	with PI	PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Mørk Olsen	Murat V. Ardelan Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity Determine weight specific egg	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity	Nansen Legacy v4 10.4 Samples will be analyzed at UiB not established samples will	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod	NTNU	2019-2020 2019-2020	RF2 RF3	T2-2.2 T3-4.1	2021	2021 2021	with PI	PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Mørk Olsen	Murat V. Ardelan Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity Determine weight specific egg	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity	Nansen Legacy v4 10.4 Samples will be analyzed at UiB not established	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod	NTNU	2019-2020 2019-2020	RF2 RF3	T2-2.2 T3-4.1	2021	2021 2021	with PI	PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Merk Olsen Christine Gawinski	Murat V. Ardelan Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity Determine weight specific egg	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity	Nansen Legacy v4 10.4 Samples will be analyzed at UiB not established samples will be analysed	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019	NTNU	2019-2020 2019-2020	RF2 RF3	T2-2.2 T3-4.1	2021	2021 2021	with PI	PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Mørk Olsen Christine Gawinski Julia Giebichenstein,	Murat V. Ardelan Camilla Svensen Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity Determine weight specific egg production rate	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity weight specific egg production rate	Nansen Legacy v4 10.4 Samples will be analyzed at UIB not established samples will be analysed by Julia Giebichstein samples will	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of	NTNU UIB UIT	2019-2020 2019-2020 2019-2021	RF2 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020	2021 2021 2021	with PI	PhD project PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Mørk Olsen Christine Gawinski Julia Giebichenstein,	Murat V. Ardelan Camilla Svensen Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity Determine weight specific egg production rate	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity weight specific egg production rate	Nansen Legacy v4 10.4 Samples will be analyzed at UiB not established samples will be analysed by Julia Giebichstein samples will be analysed	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona	NTNU UIB UIT	2019-2020 2019-2020 2019-2021	RF2 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020	2021 2021 2021	with PI	PhD project PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Mørk Olsen Christine Gawinski Julia Giebichenstein,	Murat V. Ardelan Camilla Svensen Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity Determine weight specific egg production rate	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity weight specific egg production rate	Nansen Legacy v4 10.4 Samples will be analyzed at UIB not established samples will be analysed by Julia Giebichstein samples will	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of	NTNU UIB UIT	2019-2020 2019-2020 2019-2021	RF2 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020	2021 2021 2021	yes yes yes	PhD project PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Merk Olsen Christine Gawinski Julia Giebichenstein, Christine Gawinski	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microboankton diversity Determine weight specific egg production rate from Oithona	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at Ui8 not established samples will be analysed by Julia Giebichstein samples will be analysed by Julia	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of	NTNU UIB UIT UIO	2019-2020 2019-2020 2019-2021 2019-2021	RF2 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020	2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Merk Olsen Christine Gawinski Julia Giebichenstein, Christine Gawinski	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microboankton diversity Determine weight specific egg production rate from Oithona	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at UiB not established samples will be analysed by Julia Giebichstein samples will be analysed by Doreen Kohlbach	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of	NTNU UIB UIT UIO	2019-2020 2019-2020 2019-2021 2019-2021	RF2 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020	2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Merk Olsen Christine Gawinski Julia Giebichenstein, Christine Gawinski	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microboankton diversity Determine weight specific egg production rate from Oithona	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at Ui8 not established samples will be analysed by Julia Giebichstein samples will be analysed by Julia	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of	NTNU UIB UIT UIO	2019-2020 2019-2020 2019-2021 2019-2021	RF2 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020	2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Merk Olsen Christine Gawinski Julia Giebichenstein, Christine Gawinski	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microboankton diversity Determine weight specific egg production rate from Oithona	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at UiB not established samples will be analysed by Julia Giebichstein Samples will be analysed by Doreen Kohlbach Genetically determine prev of	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of	NTNU UIB UIT UIO	2019-2020 2019-2020 2019-2021 2019-2021	RF2 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020	2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Merk Olsen Christine Gawinski Julia Giebichenstein, Christine Gawinski	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microboankton diversity Determine weight specific egg production rate from Oithona	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at Ui8 not established samples will Geibichstein Samples will be analysed by Julia Geibichstein Samples will Genetically determine prey of Otithona and	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of	NTNU UIB UIT UIO	2019-2020 2019-2020 2019-2021 2019-2021	RF2 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020	2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Merk Olsen Christine Gawinski Julia Giebichenstein, Christine Gawinski	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microboankton diversity Determine weight specific egg production rate from Oithona	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at UiB not established samples will be analysed by Julia Giebichstein Samples will be analysed by Julia Giebichstein Samples will be analysed by Julia Giebichstein Genetically determine prey of Oithona and Calanus	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of	NTNU UIB UIT UIO	2019-2020 2019-2020 2019-2021 2019-2021	RF2 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020	2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Merk Olsen Christine Gawinski Julia Giebichenstein, Christine Gawinski	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microboankton diversity Determine weight specific egg production rate from Oithona	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at Ui8 not established samples will Geibichstein Samples will be analysed by Julia Geibichstein Samples will Genetically determine prey of Otithona and	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of	NTNU UIB UIT UIO	2019-2020 2019-2020 2019-2021 2019-2021	RF2 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020	2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Merk Olsen Christine Gawinski Julia Giebichenstein, Christine Gawinski	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microboankton diversity Determine weight specific egg production rate from Oithona	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at Ui8 not established samples will be analysed by Julia Giebichstein Samples will be analysed by Doreen Kohlbach Genetically determine prev of Oithona and Calanus from feeding experiment and	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of	NTNU UIB UIT UIO	2019-2020 2019-2020 2019-2021 2019-2021	RF2 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020	2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Mark Olsen Christine Gawinski Christine Gawinski Christine Gawinski	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes fatty acids	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microboankton diversity Determine weight specific egg production rate from Oithona	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at UiB not established samples will be analysed by Julia Giebichstein samples will be analysed by Joreen Kohlbach Genetically determine prey of Oithona and Calanus from feeding experiment and compare to	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of	NTNU UIB UIT UIO	2019-2020 2019-2020 2019-2021 2019-2021	RF2 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020	2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project	
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Mørk Olsen Christine Gawinski Julia Giebichenstein, Christine Gawinski Christine Gawinski	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microboankton diversity Determine weight specific egg production rate from Oithona	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at Ui8 not established samples will be analysed by Julia Giebichstein Samples will be analysed by Doreen Kohlbach Genetically determine prev of Oithona and Calanus from feeding experiment and	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of	NTNU UIB UIT UIO	2019-2020 2019-2020 2019-2021 2019-2021	RF2 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020	2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project	Analyses to be done by Snorre Flo as part of PhD
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Mark Olsen Christine Gawinski Christine Gawinski Christine Gawinski	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes fatty acids Experimental animals of	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microboal diversity Determine weight specific egg production rate from Oithona	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at UiB not established samples will be analysed by Julia Giebichstein Genetically dietermine prey of Othona and Calanus from feeding experiment and compare to flow	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of	NTNU UIB UIT UIO	2019-2020 2019-2020 2019-2021 2019-2021	RF2 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020	2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project	Analyses to be done by Snorreflo as part of PhD project
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Merk Olsen Christine Gawinski Christine Gawinski Christine Gawinski Anna Vader, Bodil	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen Doreen Kohlbach	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes fatty acids Experimental animals of Oithona and calanus grazing experiment Sea ice	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microzooplankon diversity Determine weight specific egg production rate from Olthona from Olthona from Olthona metabarcoding of prey items Analysis of PFAS (dissolved &	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at UiB not established samples will be analysed by Julia Giebichstein Samples will be analysed by Joreen Kohlbach Genetically determine prev of Oithona and Canon ceding experiment and compare to flow	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of Oithona in different seasons	NTNU UIB UIT UIO NPI	2019-2020 2019-2020 2019-2021 2019-2021 2019-2021	RF3 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020 2020	2021 2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project	Snorre Flo as part of PhD project
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Mørk Olsen Christine Gawinski Christine Gawinski Christine Gawinski Christine Gawinski Anna Vader, Bodil Bluhm	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen Doreen Kohlbach	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes fatty acids Experimental animals of Oithona and calanus grazing experiment Sea ice cores/meltponds/under ice	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity Determine weight specific egg production rate from Oithona from Oithona from Oithona metabarcoding of prey items Analysis of PFAS (dissolved & particulate, salinity, stable	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at UiB not established samples will be analysed by Julia Giebichstein Samples will be analysed by Joreen Kohlbach Genetically determine prev of Oithona and Canon ceding experiment and compare to flow	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of Oithona in different seasons Diet of Calanus and Oithona	NTNU UIB UIT UIO NPI	2019-2020 2019-2020 2019-2021 2019-2021 2019-2021 2019-2021	RF3 RF3 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020 2020	2021 2021 2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project PhD project	Snorre Flo as part of PhD project Project outside Nansen
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Merk Olsen Christine Gawinski Christine Gawinski Christine Gawinski Anna Vader, Bodil	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen Doreen Kohlbach	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes fatty acids Experimental animals of Oithona and calanus grazing experiment Sea ice	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microzooplankon diversity Determine weight specific egg production rate from Olthona from Olthona from Olthona metabarcoding of prey items Analysis of PFAS (dissolved &	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at UiB not established samples will be analysed by Julia Giebichstein Samples will be analysed by Joreen Kohlbach Genetically determine prev of Oithona and Canon ceding experiment and compare to flow	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of Oithona in different seasons	NTNU UIB UIT UIO NPI	2019-2020 2019-2020 2019-2021 2019-2021 2019-2021	RF3 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020 2020	2021 2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project	Snorre Flo as part of PhD project
Stephen Kohler, Nicolas Sanchez Christine Gawinski, Oliver Müller, Lasse Mørk Olsen Christine Gawinski Christine Gawinski Christine Gawinski Christine Gawinski Anna Vader, Bodil Bluhm	Murat V. Ardelan Camilla Svensen Camilla Svensen Camilla Svensen Doreen Kohlbach	Sediment samples Grazing experiment of Oithona and Calanus Carbon samples of Oithona females and egg sacks stable isotopes fatty acids Experimental animals of Oithona and calanus grazing experiment Sea ice cores/meltponds/under ice	Sequential extraction for trace elements Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity Determine weight specific egg production rate from Oithona from Oithona from Oithona metabarcoding of prey items Analysis of PFAS (dissolved & particulate, salinity, stable	biomagnification Trace element concentrations Bacterial production, Flow Cytometry, microbial diversity, microzooplankton diversity, weight specific egg production rate d13C; d14N (species specific?)	Nansen Legacy v4 10.4 Samples will be analyzed at UiB not established samples will be analysed by Julia Giebichstein Samples will be analysed by Joreen Kohlbach Genetically determine prev of Oithona and Canon ceding experiment and compare to flow	biomagnification Distribution of trace elements in sediments Influence of Oithona and Calanus on the microbial food web (top down control?), comparison between the two different feeding strategies Estimation of the copepod production during August 2019 Determine trophic position of Oithona determine the quality of food of Oithona in different seasons Diet of Calanus and Oithona	NTNU UIB UIT UIO NPI	2019-2020 2019-2020 2019-2021 2019-2021 2019-2021 2019-2021	RF3 RF3 RF3 RF3 RF3	T2-2.2 T3-4.1	2021 2020 2020 2020 2020	2021 2021 2021 2021 2021 2021	yes yes yes	PhD project PhD project PhD project PhD project	Snorre Flo as part of PhD project Project outside Nansen Legacy

Gear ID with metadata

	Gear Type	Date	Time Cruise (UTC) number	Station Name	Latitude	ongitude Bottom	Local (m) Station ID	Depth Ma	aximum Minimum pth(m) depth (m)	Start Date	End Date	Event Remarks	Sampling protocol	Data filename	Serial Number	Recorded By	Principal investigator (PI)	PI email	PI institution
ID Event ID			(UIC) number			- Depth (m) Station ID	(m) de	ptn(m) deptn (m)							-			
ef09b3b3-b5ec-11e9-acd1-a0481c9e7d26	EK80		2019706							2019-08-05	27/08/2019	9		KHFL2019706-D2019MMDD-THHMMSS.new, 2019MMDDHHMMSS.idx		Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
e109b3b4-b5ec-11e9-acd1-a0481c9e7d26 ef09b3b4-b5ec-11e9-acd1-a0481c9e7d26 ef09b3b5-b5ec-11e9-acd1-a0481c9e7d26 ef09b3b6-b5ec-11e9-acd1-a0481c9e7d26	EM302		2019706							2019-08-05		Multibeam mapping NW Vaisala AWS430. Data		INCOMENTATION DEVICES IN A REPORT OF A REPORT	105	5 Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
ef09b3b5-b5ec-11e9-acd1-a0481c9e7d26 ef09b3b6-b5ec-11e9-acd1-a0481c9e7d26	Thermosalinograph		2019706							2019-08-05	2019-08-14	Valsala AVVS430. Data		AWS430_SMSAWS_Date.txt Date-number-4m.cnv		Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad	marit.reigstad@uit.no marit.reigstad@uit.no	UiT The Arctic University of Norway UiT The Arctic University of Norway
			2019706							2019-08-05				KHDateFL number 0000.*		Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
ef09b3b8-b5ec-11e9-acd1-a0481c9e7d26	pCO2 underway		2019706							2019-08-05				pco2 data ext Date.*		Tove M. Gabrielsen	Marit Reigstad	marit.reiostad@uit.no	UiT The Arctic University of Norway
															See data file for				
													Nansen Legacy Sampling Protocols v4		instrument serial numbers. Note change				
												Samples collected as part	July 12 2019; 6.2 CTD;		og temperature sensor				
157 8135fec6-b7fe-11e9-8f48-000c29fb4a96	CTD w/bottles	2019-08-05	16:13 2019706	IsA	78.2609	15.5353 86.5	145	75				of other projects, not AeN	One salinity sample	Sta0145	before cast 192.	Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
															See data file for				
													Nansen Legacy Sampling Protocols v4		instrument serial numbers. Note change				
												Water for preparation of	July 12 2019; 6.2 CTD;		og temperature sensor				
158 2158eef8-b8f5-11e9-8f49-000c29fb4a96	CTD w/bottles	2019-08-06	07:34 2019706	W of Sørkapp	76.4165	13.9047 1050.2	8 146	500				sediment traps	One salinity sample	Sta0146	before cast 192.	Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
150 2158cof0 b9f5 11c0 9f40 000c20fb4c06		2019-08-06	09:53 2019706	W of Sarkoop	76.4165	13.9046 1050.2	• 42			2019-08-06		Glider 1, to be picked up outside Isfjorden				Town M. Cabrinkon	Marit Rejected/liker For	marit.reigstad@uit.no	LIT The Arctic Linkersity of Nenway
159 2158eef9-b8f5-11e9-8f49-000c29fb4a96		2013-00-00	09.33 2019/00	W of Sørkapp		31.0345 327.52				2013-00-00		Glider 2, picked up by KV				Tove W. Gabrielsen	Marit Reigstad/liker Fer	mancreigstaugguichto	UIT The Arctic University of Norway
160 23b9599c-b91f-11e9-8f49-000c29fb4a96		2019-08-07	13:40 2019706	P1 vicinity			43			2019-08-07	2019-08-23	Andenæs				Tove M. Gabrielsen	Marit Reigstad/Ilker Fer	marit.reigstad@uit.no	UIT The Arctic University of Norway
					76.0068	31.0313 328.17									See data file for				
													Nansen Legacy Sampling Protocols v4		instrument serial numbers. Note change				
												Water for benthic	July 12 2019; 6.2 CTD;		og temperature sensor				
161 23b9599d-b91f-11e9-8f49-000c29fb4a96	CTD w/bottles	2019-08-07	14:04 2019706	P1 vicinity			147	320				experiments	One salinity sample	Sta0147	before cast 192.	Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
					1 T			[See data file for				
							1						Nansen Legacy		instrument serial	1			
							1						Sampling Protocols v4 July 12 2019; 6.2 CTD;		numbers. Note change og temperature sensor	1			
162 ef09b276-b5ec-11e9-acd1-a0481c9e7d26	CTD w/bottles	2019-08-07	16:58 2019706	P1	76.0000								One salinity sample	Sta0148	before cast 192.	Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
163 ef09b277-b5ec-11e9-acd1-a0481c9e7d26	WP3 1000 um	2019-08-07	17:48 2019706 18:24 2019706	P1	76.0000	31.2199 325.62	12	\vdash	70 0							Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
164 ef09b278-b5ec-11e9-acd1-a0481c9e7d26 165 ef09b279-b5ec-11e9-acd1-a0481c9e7d26	WP3 1000 um	2019-08-07 2019-08-07	18:24 2019706 19:17 2019706	P1		31.2198 325.69 31.2198 325.73	13		315 0							Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway UiT The Arctic University of Norway
166 ef09b27a-b5ec-11e9-acd1-a0481c9e7d26	WP2 90 um	2019-08-07	19:32 2019706	P1	76.0000	31.2198 325.58	15		70 0							Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
167 ef09b27b-b5ec-11e9-acd1-a0481c9e7d26	WP2 90 um	2019-08-07	19:51 2019706	P1	76.0000	31.2198 325.73	16		315 0			D II 04 1400				Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
168 ef09b27c-b5ec-11e9-acd1-a0481c9e7d26	Bongonet 64 um	2019-08-07	20:31 2019706	P1	76.0000	31.2198 325.41	17		315 0			Both 64 um and 180 um mounted				Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
												Both 64 um and 180 um							
169 ef09b27d-b5ec-11e9-acd1-a0481c9e7d26	Bongonet 180 um	2019-08-07	21:06 2019706	P1	76.0000	31.2198 325.52	18		315 0			mounted				Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
170 ef09b27e-b5ec-11e9-acd1-a0481c9e7d26	Codiment term (object term)	2019-08-07	22:19 2019706	P1	76.0000	31.2198 324.99				2010 08 03	2010 00 00	Retrieved 23:48 (Cruise				Taura M. Cabaialana	Marit Dejected		UIT The Arctic University of Norway
171 ef09b27f-b5ec-11e9-acd1-a0481c9e7d26	Sediment trap (short term) GO-FLO	2019-08-07				31.2198 324.99	44			2019-08-07	2019-08-08	bilogger)				Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
172 9acda646-b9dd-11e9-8f49-000c29fb4a96	CTD w/bottles	2019-08-08	00:46 2019706	P1	76.0000	31.2194 325.44	45 149					WHS300-I-UG502; SN	Sampling Protocols v4	Sta0149		Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
													Nansen Legacy						
													Sampling protocols v4 July 12 2019, 9.3.5 MIK						
												V-haul; heaving speed acc	pet manual: heaving						
												to protocol found too fast,	speed similar to						
174 9acda647-b9dd-11e9-8f49-000c29fb4a96	MIK-net 1500 um	2019-08-08	03:24 2019706	P1	76.0196	31.2897 330.8	20		320 0			adjusted	deploying			Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
													Nansen Legacy						
													Sampling protocols v4 July 12 2019, 9.3.5 MIK	c					
												V-haul; heaving speed acc	net manual; heaving						
	MIK-net 1500 um	2019-08-08	04:09 2019706	P1	76.0057	31.2396 325.41						to protocol found too fast, adjusted	speed similar to						
175 b5c4ffa8-b9dd-11e9-8f49-000c29fb4a96	MIK-net 1500 um	2019-08-08	04:09 2019706	P1	/6.005/	31.2396 325.41	21		320 0			adjusted	deploying			Tove M. Gabrielsen	Marit Reigstad	marit.reigstad(@ult.no	UiT The Arctic University of Norway
													Nansen Legacy Sampling protocols v4						
													July 12 2019, 9.3.5 MIK	c .					
												V-haul; heaving speed acc							
176 9acda648-b9dd-11e9-8f49-000c29fb4a96	MIK-net 1500 um	2019-08-08	04:57 2019706	P1	75.9915	31.1894 323.19	22		320 0			to protocol found too fast, adjusted	deploying			Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
													Nansen Legacy						
													Sampling protocols v4						
177 b5c4ffa9-b9dd-11e9-8f49-000c29fb4a96	Campelen trawl	2019-08-08	06:48 2019706	P1	76.0479	31 0987 333 37	101						July 12 2019, 10.2.3; bottom time 45 min		172/	Tove M. Gabrielsen	Marit Rejected	marit reinstad@uit no	UIT The Arctic University of Norway
177 0304185-0300-1165-0143-000023104850	Campelen nawi	2013-00-00	00.40 2013/00	F1	70.0473	31.0807 333.37	101								172	Tove M. Gabrielsen	Marit Neigstau	mancreigstautgattito	on the Arcac Oniversity of Norway
													Nansen Legacy Sampling protocols v4			1	1	1	
													July 12 2019 9.1			1	1	1	
													Phytoplankton net-haul sampling; adjusted			1	1	1	
							1						sampling depth to 50-			1			
178 9acda649-b9dd-11e9-8f49-000c29fb4a96	Phytoplankton net 10 um	2019-08-08	08:48 2019706	P1	76.0033	31.2137 326.21	23		50 0	l			0m			Tove M. Gabrielsen	Marit Reigstad	marit.reiostad@uit.no	UiT The Arctic University of Norway
													Nansen Legacy						
													Sampling protocols v4 July 12 2019 9.1						
													Phytoplankton net-haul						
													sampling; adjusted						
179 a82ebb72-b9dd-11e9-8f49-000c29fb4a96	Phytoplankton net 10 um	2019-08-08	09:01 2019706	P1	76.0033	31.2137 326.14	24		50 0				sampling depth to 50- 0m			Tove M. Gabrielsen	Marit Reinstad	marit reinstad@uit.no	UiT The Arctic University of Norway
	Thy optimition not To unit	2010 00 00	2010/00		10.0000	71.2107 020.14	2.1						UIII		See data file for	Tore III. Odditelden	munt riolgoldu	indiration of the second of th	on mental on relay
													Nansen Legacy		instrument serial	1	1	1	
													Sampling Protocols v4	.]	numbers. Note change	1	1	1	
180 b5c4ffaa-b9dd-11e9-8f49-000c29fb4a96	CTD w/bottles	2019-08-08	09:21 2019706	P1	76.0031	31.2141 325.86	150						July 12 2019; 6.2 CTD; One salinity sample	Sta0150	og temperature sensor before cast 192.	Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
182 b5c4ffab-b9dd-11e9-8f49-000c29fb4a96	CTD w/bottles Multinet 64 um	2019-08-08	11:35 2019706		76.0000	31.2201 325.53			290 0				a carry sumpe			Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
183 a82ebb74-b9dd-11e9-8f49-000c29fb4a96	Multinet 64 um	2019-08-08	12:17 2019706 12:55 2019706	P1 P1	76.0000	31.2201 322.75	26	$- \top$	290 0							Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
184 c82a2d3a-b9dd-11e9-8f49-000c29fb4a96 185 7063be80-ba42-11e9-8f49-000c29fb4a96	Multinet 180 um Bongonet 64 um	2019-08-08 2019-08-08	12:55 2019706	P1 P1	76.0000	31.2200 325.37 31.2200 321.15			290 C 300 C	1				1		Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway UIT The Arctic University of Norway
186 7d56ebe4-ba42-11e9-8f49-000c29fb4a96	Bongonet 64 um	2019-08-08		P1	76.0000	31.2200 324.16	29		300 0							Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
187 7063be81-ba42-11e9-8f49-000c29fb4a96	Bongonet 180 um	2019-08-08			76.0000	31.2201 322.25	30	\vdash	300 0							Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
188 7d56ebe6-ba42-11e9-8f49-000c29fb4a96 189 7063be82-ba42-11e9-8f49-000c29fb4a96	Macroplankton trawl Harstad trawl	2019-08-08 2019-08-08	17:21 2019706 19:34 2019706		76.0361	31.0716 332.48 31.0876 337.22	102							1	1723	Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad	marit.reigstad@uit.no marit.reigstad@uit.no	UiT The Arctic University of Norway UiT The Arctic University of Norway
		0	2010/00				.03							1	See data file for			and any	in the start of th
													Nansen Legacy		instrument serial	1	1	1	
												With LADCP; Model	Sampling Protocols v4	.]	numbers. Note change	1	1	1	
190 8d667d06-ba42-11e9-8f49-000c29fb4a96	CTD w/bottles	2019-08-08	20:50 2019706	P1	75.9986	31.2265 325.61	151					WHS300-I-UG502; SN 24474 & SN 24472	July 12 2019; 6.2 CTD; One salinity sample	Sta0151	og temperature sensor before cast 192.	Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
		00000	2010/00			040.01					•			1 · · · · · · · ·				and any	and a starty of Horway

191 7063be83-ba42-11e9-8f49-000c29fb4a96	GO-FLO	2019-08-08	22:14	2019706	P1	75.9986	31.2265	325.11	47							Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
	Box core													Nansen Legacy					
														Sampling Protocols v4					
192 8ef92198-bbe9-11e9-8f49-000c29fb4a96		2019-08-09	01-27	2019706	D1	75 0007	31.2153	226 11	0					July 12 2019; 10.2.2 Box corer		Tove M. Gabrielsen	Marit Rejected	morit reinstad@uit no	UiT The Arctic University of Norway
132 06132 130-0063-1163-0143-000023104330	Box core	2013-00-03	01.27	2013/00	F1	13.3351	31.2133	520.11	3							Tove W. Gabrielsen	i Marit Kelgstau	Ind it. i divotavite vit. Ity	on the Arcac onversity of Norway
														Nansen Legacy Sampling Protocols v4					
														July 12 2019; 10.2.2					
193 8ef92199-bbe9-11e9-8f49-000c29fb4a96		2019-08-09	03:46	2019706	P1	75.9998	31.2154	325.9	10					Box corer		Tove M. Gabrielser	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
	Box core													Nansen Legacy					
														Sampling Protocols v4					
														July 12 2019; 10.2.2					
194 8ef9219a-bbe9-11e9-8f49-000c29fb4a96		2019-08-09		2019706	P1	75.9997	31.2154	324.81	11					Box corer	172	0 Tove M. Gabrielser	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
195 8ef9219b-bbe9-11e9-8f49-000c29fb4a96	Harstad trawl	2019-08-09	09:46	2019706 Betw	P1 and NLEG	276.2095	31.2316	315.83	104							Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
						77.0803	35.0381	145.56	48				Mooring M5 N 77 04,516 E 35 02 168					marit rejected@uit.no.	
199 caf30396-bc46-11e9-8f49-000c29fb4a96	Mooring	2019-08-11	05:38	2019706	M5	77.0005	35.0578	147.18	10							Tove M. Gabrielsen	Marit Reigstad	marit.reiostad@uit.no	UIT The Arctic University of Norway
			05:46	0040700		77.0825	35.0578	147.18	49				Mooring M5 bloac 77 04.947n 035 03.487e					marit reinstad@uit no	1177 TO 1 10 10 10 10 10 10
200 caf30397-bc46-11e9-8f49-000c29fb4a96	Mooring	2019-08-11	05:46	2019706	M5 bioac			_					 Test MoonPool betw M5 &			Tove M. Gabrielsen	Marit Reigstad	marit.reigstadi@uit.no	UIT The Arctic University of Norway
													P2		See data file for				
													12	Nansen Legacy	instrument serial				
														Sampling Protocols v4 July 12 2019; 6.2 CTD;	numbers. Note change og temperature sensor				
201 caf30398-bc46-11e9-8f49-000c29fb4a96	СТD	2019-08-11	08:21	2019706 Ber	tw M5 and P2	77 3252	34 4502	158 54	154					One salinity sample Sta0154	before cast 192.	Tove M. Gabrielsen	Marit Reigstad	marit reinstad@uit.no	UIT The Arctic University of Norway
															See data file for				, , , , , , , , , , , , , , , , , , , ,
														Nansen Lenacy	instrument serial				
														Nansen Legacy Sampling Protocols v4	numbers. Note change				
														July 12 2019; 6.2 CTD;	og temperature sensor				
202 caf30399-bc46-11e9-8f49-000c29fb4a96	CTD w/bottles	2019-08-11	10:56	2019706	P2	77.4986	34.0011	188.66	155					One salinity sample Sta0155	before cast 192.	Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
															See data file for				
				1				1						Nansen Legacy	instrument serial	1	1		
				1		1	1	1			1		With LADCP; Model	Sampling Protocols v4	numbers. Note change	1	1		
				1		1	1	1			1		WHS300-I-UG502; SN	July 12 2019; 6.2 CTD;	og temperature sensor	1	1		
203 dd2da098-bc46-11e9-8f49-000c29fb4a96	CTD w/bottles	2019-08-11	11:59	2019706	P2	77.4987	34.0012	188.87	156	178			 24474 & SN 24472	One salinity sample Sta0156	before cast 192.	Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
				1				1						Nansen Legacy		1	1		
				1				1						Sampling protocols v4		1	1		
				1				1						July 12 2019 9.1		1	1		
														Phytoplankton net-haul					
														sampling; adjusted					
	St. 1. 1. 1. 1. 1. 1.	0040.00.44	12:43	0040700	P2	77.4986	34 0012	188.84			100			sampling depth to 100-					1777 A 17 11 1 1 14
204 dd2da099-bc46-11e9-8f49-000c29fb4a96	Phytoplankton net 10 um	2019-08-11	12:43	2019706	PZ	77.4986	34.0012	188.84	31		100	U		UM		Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
														Nansen Legacy					
														Sampling protocols v4					
														July 12 2019 9.1					
														Phytoplankton net-haul					
														sampling; adjusted sampling depth to 100-					
205 dd2da09a-bc46-11e9-8f49-000c29fb4a96 207 dd2da09b-bc46-11e9-8f49-000c29fb4a96	Phytoplankton net 10 um	2019-08-11	13:02	2019706	P2	77 4985	34 0005	187 97	32		100	0		Om		Tove M. Gabrielsen	Marit Reigstad	marit reinstad@uit.no	UiT The Arctic University of Norway
207 dd2da00b ba46 11a0 9f40 000a20fb4a06		2019-08-11			P2	77.4986	34.0008	188.57	34		150	0				Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
	WP3 1000 um																		
208 2f3eab06-bcbb-11e9-8f49-000c29fb4a96	WP3 1000 um WP3 1000 um	2019-08-11	14:42:00		P2	77.4986	34.0007	188.34	35		150	0				Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
208 2f3eab06-bcbb-11e9-8f49-000c29fb4a96	WP3 1000 um WP3 1000 um		14:42:00		P2	77.4986	34.0007	188.34	35		150	0	 Missing from cruise			Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
208 2f3eab06-bcbb-11e9-8f49-000c29fb4a96	WP3 1000 um	2019-08-11		2019706			34.0007	188.34	35		150	0	Missing from cruise logger; Position and depth			Tove M. Gabrielsen			
208 2/3eab0-bcbb-11e9-8/49-000c29/b496 2/3eab07-bcbb-11e9-8/49-000c29/b496	WP3 1000 um WP3 1000 um WP3 1000 um				P2 P2		34.0007	188.34	35		150	0	Missing from cruise logger; Position and depth taken from ID208			Tove M. Gabrielsen			UIT The Arctic University of Norway
208 2f3eab06-bcbb-11e9-8f49-000c29fb4a96	WP3 1000 um	2019-08-11		2019706			34.0007	188.34	35		150 150	0	Missing from cruise logger; Position and depth taken from ID208	Nansen Legacy		Tove M. Gabrielsen			
208 2f3eab06-bcbb-11e9-8f49-000c29fb4a96	WP3 1000 um	2019-08-11		2019706			34.0007	188.34	35		150 150	0	Missing from cruise logger; Position and depth taken from ID208	Nansen Legacy Sampling protocols v4		Tove M. Gabrielsen			
208 2/3eab06-bcbb-11e9-8/49-000c29/b4a96 2/3eab07-bcbb-11e9-8/49-000c29/b4a96	WP3 1000 um	2019-08-11 2019-08-11		2019706	P2	77.4986	34.0007 34.0007	188.34	35		150	0	Missing from cruise logger; Position and depth taken from ID208	Sampling protocols v4 July 12 2019, 10.2.3;		Tove M. Gabrielser	Marit Reigstad	marit.reiqstad@uit.no	UIT The Arctic University of Norway
208 2f3eab06-bcbb-11e9-8f49-000c29fb4a96	WP3 1000 um	2019-08-11		2019706		77.4986	34.0007	188.34	35		150	0	Missing from cruise logger; Position and depth taken from ID208	Sampling protocols v4	172	Tove M. Gabrielsen	Marit Reigstad	marit.reiqstad@uit.no	
208 2/3eab06-bcbb-11e9-8/49-000c29/b4a96 2/3eab07-bcbb-11e9-8/49-000c29/b4a96	WP3 1000 um	2019-08-11 2019-08-11		2019706	P2	77.4986	34.0007 34.0007	188.34	35 105		150	0	Missing from cruise logger, Position and depth taken from ID208	Sampling protocols v4 July 12 2019, 10.2.3; bottom time 30 min	172	Tove M. Gabrielser	Marit Reigstad	marit.reiqstad@uit.no	UIT The Arctic University of Norway
208 2/3eab06-bcbb-11e9-8/49-000c29/b4a96 2/3eab07-bcbb-11e9-8/49-000c29/b4a96	WP3 1000 um	2019-08-11 2019-08-11		2019706	P2	77.4986	34.0007 34.0007	188.34	35		150	0	Missing from cruise logger: Position and depth taken from ID208	Sampling protocols v4 July 12 2019, 10.2.3; bottom time 30 min Nansen Legacy Sampling protocols v4	172	Tove M. Gabrielser	Marit Reigstad	marit.reiqstad@uit.no	UIT The Arctic University of Norway
208 2/3eab06-bcbb-11e9-8/49-000c29/b4a96 2/3eab07-bcbb-11e9-8/49-000c29/b4a96	WP3 1000 um	2019-08-11 2019-08-11		2019706	P2	77.4986	34.0007 34.0007	188.34	35		150	0	taken from ID208	Sampling protocols v4 July 12 2018, 10.2.3; bottom time 30 min Nansen Legacy Sampling protocols v4 July 12 2019, 3.5 MHK	172	Tove M. Gabrielser	Marit Reigstad	marit.reiqstad@uit.no	UIT The Arctic University of Norway
208 2/3eab06-bcbb-11e9-8/49-000c29/b4a96 2/3eab07-bcbb-11e9-8/49-000c29/b4a96	WP3 1000 um	2019-08-11 2019-08-11		2019706	P2	77.4986	34.0007 34.0007	188.34	35		150	0	taken from ID208	Sampling protocols v4 July 12 2019, 10.2.3; bottom time 30 min Nansen Legacy Sampling protocols v4 July 12 2019, 9.3.5 MiK net manual; heaving	172	Tove M. Gabrielser	Marit Reigstad	marit.reiqstad@uit.no	UIT The Arctic University of Norway
208 279ab06-bcb-11e9-849-000c297b498 273ab07-bcbb-11e9-849-000c297b4s96 209 273ab07-bcbb-11e9-849-000c297b4s96 209 273ab08-bcbb-11e9-849-000c297b4s96	WP3 1000 um WP3 1000 um Campelen trawi	2019-08-11 2019-08-11 2019-08-11	15:18:00	2019706 2019706 2019706	P2 P2	77.4986	34.0007 34.0007 33.9343	188.34 188.34 186.95	105		150	0	taken from ID208	Sampling protocole v4 July 12 2016; JL 23; bottom time 30 min Nansen Lagocy Sampling protocole v4 July 12 2019; gJ. 35 MIK net manaxi, heaving speed similar to	172	Tove M. Gabrielser	Marit Reigstad	marit.reigstad@uit.no marit.reigstad@uit.no	UIT The Arctic University of Norway
208 2/3eab06-bcbb-11e9-8/49-000c29/b4a96 2/3eab07-bcbb-11e9-8/49-000c29/b4a96	WP3 1000 um WP3 1000 um Campelen trawi	2019-08-11 2019-08-11	15:18:00	2019706 2019706 2019706	P2	77.4986	34.0007 34.0007	188.34	35 105 36		150	0	taken from ID208	Sampling protocols v4 July 12 2019, 102.3; bottom time 30 min Namean Legacy July 12 2019, 9.3.5 MiK July 12 2019, 9.3.5 MiK July 12 2019, 9.3.5 MiK new manuak, heaving speed similar to deploying	172	Tove M. Gabrielser	Marit Reigstad	marit.reigstad@uit.no marit.reigstad@uit.no	UIT The Arctic University of Norway
208 273eab06-bcbb-1149-8449-000c297b4a96 273eab07-bcbb-1149-8449-000c297b4a96 209 273eab08-bcbb-1149-8449-000c297b4a96	WP3 1000 um WP3 1000 um Campelen trawi	2019-08-11 2019-08-11 2019-08-11	15:18:00	2019706 2019706 2019706	P2 P2	77.4986	34.0007 34.0007 33.9343	188.34 188.34 186.95	35 105 36		150 150 160	0	taken from ID208	Sampling protocole v4 July 12 2019, 102 3; bottom time 30 min Nansen Lagocy Sampling protocole v4 July 12 2019, 9,35 MIX net manauk, heaving speed similar to deploying Nansen Lagocy	172	Tove M. Gabrielser	Marit Reigstad	marit.reigstad@uit.no marit.reigstad@uit.no	UIT The Arctic University of Norway
208 273eab06-bcbb-1149-8449-000c297b4a96 273eab07-bcbb-1149-8449-000c297b4a96 209 273eab08-bcbb-1149-8449-000c297b4a96	WP3 1000 um WP3 1000 um Campelen trawi	2019-08-11 2019-08-11 2019-08-11	15:18:00	2019706 2019706 2019706	P2 P2	77.4986	34.0007 34.0007 33.9343	188.34 188.34 186.95	35 105 36		150 150 160	0	taken from ID208	Sampling protocols v4 July 12 2016 (J. 2.3; bottom time 30 mm Namsen Lagacy Sampling protocols v4 July 12 2016 (J. 3.5 MK July 12 2016 (J. 3.5 MK apped similar time deploying Namsen Lagacy Sampling protocols v4	172	Tove M. Gabrielser	Marit Reigstad	marit.reigstad@uit.no marit.reigstad@uit.no	UIT The Arctic University of Norway
208 273eab06-bcbb-1149-8449-000c297b4a96 273eab07-bcbb-1149-8449-000c297b4a96 209 273eab08-bcbb-1149-8449-000c297b4a96	WP3 1000 um WP3 1000 um Campelen trawi	2019-08-11 2019-08-11 2019-08-11	15:18:00	2019706 2019706 2019706	P2 P2	77.4986	34.0007 34.0007 33.9343	188.34 188.34 186.95	35 105 36		150	0	taken from ID208	Sampling protocols v4 July 12 2019, 12 02, 3; bottom times 30 min Nansen Lagocy Sampling protocols v4 July 12 2019, 9, 35 MiX Sampling protocols v4 July 12 2019, 9, 35 MiX Sampling protocols v4 July 12 2019, 9, 35 MiX Sampling protocols v4 July 12 2019, 9, 35 MiX Sampling protocols v4 July 12 2019, 9, 35 MiX Sampling protocols v4 July 12 2019, 9, 35 MiX Sampling protocols v4 July 12 2019, 9, 35 MiX Sampling protocols v4 July 12 2019, 9, 35 MiX July 12 2019, 9, 35 MiX <td>172</td> <td>Tove M. Gabrielser</td> <td>Marit Reigstad</td> <td>marit.reigstad@uit.no marit.reigstad@uit.no</td> <td>UIT The Arctic University of Norway</td>	172	Tove M. Gabrielser	Marit Reigstad	marit.reigstad@uit.no marit.reigstad@uit.no	UIT The Arctic University of Norway
208 273eab06-bcbb-1149-8449-000c297b4a96 273eab07-bcbb-1149-8449-000c297b4a96 209 273eab08-bcbb-1149-8449-000c297b4a96	WP3 1000 um WP3 1000 um Campelen trawi	2019-08-11 2019-08-11 2019-08-11	15:18:00	2019706 2019706 2019706	P2 P2	77.4986	34.0007 34.0007 33.9343	188.34 188.34 186.95	35 105 36		150	0	taken from ID208 V-haut, heaving speed acc to protocol found too fast, adjusted V-haut, heaving speed acc	Sampling protocols v4 July 12 2019, 10.2.3; bottom time 30 min Nansen Legacy Sampling protocols v4 July 12 2019, 9.3.6 MK mel manual; beaving deploying Mansen Legacy Sampling protocols v4 July 12 2019, 9.3.5 MK net manual; heaving	172	Tove M. Gabrielser	Marit Reigstad	marit.reigstad@uit.no marit.reigstad@uit.no	UIT The Arctic University of Norway
208 273eab06-bcb-11e9-8449-000c297b4a96 273eab07-bcbb-11e9-8449-000c297b4a96 209 273eab08-bcbb-11e9-8449-000c297b4a96 210 273eab08-bcbb-11e9-8449-000c297b4a96	WP3 1000 um WP3 1000 um Campelen travi	2019-08-11 2019-08-11 2019-08-11	15:18:00 16:42:00	2019706 2019706 2019706 2019706	P2 P2	77.4986 77.5156 77.5010 77.4990	34.0007 34.0007 33.9343 33.9502 33.9955	188.34 188.34 186.95 186.73	35 105 36 37		150 150 160	0	taken from ID208	Sampling protocole v4 July 12 2019, 12 0.2, bottom time 30 min Nansen Lagocy Sampling protocole v4 July 12 2019, 9.3 M IX net manuak, heaving speed similar to deploying Nansen Lagocy Sampling protocole v4 July 12 2019, 9.3 M IX ent manuak, heaving speed similar to	172	Tove M. Gabrielser	Marit Reigstad Marit Reigstad	mart reigstadi@ut.no mart reisstadi@ut.no mart reigstadi@ut.no	UIT The Arctic University of Norway UIT The Arctic University of Norway UIT The Arctic University of Norway
208 273eab06-bcb-11e9-849-000c297b4a96 273eab07-bcbb-11e9-849-000c297b4a96 209 273eab08-bcbb-11e9-849-000c297b4a96 210 273eab09-bcbb-11e9-849-000c297b4a96 211 444911a-bcbb-11e9-849-000c297b4a96 212 444911b-bcbb-11e9-849-000c297b4a96	WP3 1000 um WP3 1000 um Campelen trawl MiK-net 1500 um MiK-net 1500 um	2019-08-11 2019-08-11 2019-08-11 2019-08-11	15:18:00 16:42:00 17:30:00	2019706 2019706 2019706 2019706 2019706	P2 P2 P2	77.4986 77.5156 77.5010 77.4990 77.5085	34.0007 34.0007 33.9343 33.9502 33.9965 33.9965	188.34 188.34 186.95 186.73 188.18 190.79	35 105 36 37 38		150 150 160 160	0	taken from ID208 V-haut, heaving speed acc to protocol found too fast, adjusted V-haut, heaving speed acc	Sampling protocols v4 July 12 2019, 10.2.3; bottom time 30 min Nansen Legacy Sampling protocols v4 July 12 2019, 9.3.6 MK mel manual; beaving deploying Mansen Legacy Sampling protocols v4 July 12 2019, 9.3.5 MK net manual; heaving	172	Tove M. Gabrielser	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	meri negatadiku no meri negatadiku no meri negatadiku no mari negatadiku no mari negatadiku no	UIT The Arctic University of Norway, UIT The Arctic University of Norway, UIT The Arctic University of Norway, UIT The Arctic University of Norway,
208 273eab06-bcb-11e9-849-000c297b4a96 273eab07-bcbb-11e9-849-000c297b4a96 209 273eab08-bcbb-11e9-849-000c297b4a96 210 273eab09-bcbb-11e9-849-000c297b4a96 211 444911a-bcbb-11e9-849-000c297b4a96 212 444911b-bcbb-11e9-849-000c297b4a96	WP3 1000 um WP3 1000 um Campelen trawl MiK-net 1500 um MiK-net 1500 um	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11	15:18:00 16:42:00 17:30:00 18:03:00	2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2	77.4986 77.5156 77.5010 77.5010 77.5085 77.5085	34.0007 34.0007 33.9343 33.9502 33.9655 33.9661 33.9865	188.34 188.34 186.95 186.73 186.73 188.18 190.79 186.15	35 105 36 37 38 50		150	0	taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted	Sampling protocole v4 July 12 2019, 12 0.2, bottom time 30 min Nansen Lagocy Sampling protocole v4 July 12 2019, 9.3 M IX net manuak, heaving speed similar to deploying Nansen Lagocy Sampling protocole v4 July 12 2019, 9.3 M IX ent manuak, heaving speed similar to	172	Tove M. Gabrielser	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mert migstadf2ut no mert migstadf2ut no mart migstadf2ut no mart migstadf2ut no mart migstadf2ut no mart migstadf2ut no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 273eab06-bcb-11e9-8449-000c297b4a96 273eab07-bcbb-11e9-8449-000c297b4a96 209 273eab08-bcbb-11e9-8449-000c297b4a96 210 273eab09-bcbb-11e9-8449-000c297b4a96 211 444911a-bcbb-11e9-8449-000c297b4a96 212 444911b-bcbb-11e9-849-000c297b4a96 213 444911b-bcbb-11e9-849-000c297b4a96 213 444911b-bcbb-11e9-849-000c297b4a96 213 444911b-bcbb-11e9-849-000c297b4a96	WP3 1000 um WP3 1000 um Campelen trawl MIK-net 1500 um MIK-net 1500 um O-FL0 Active water sampler	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 20:47:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9502 33.9965 33.9965 33.9965 33.9864	188.34 188.34 186.95 186.73 186.73 188.18 190.79 186.15 186.05	35 105 36 37 38 50 51		150	0	taken from ID208 V-haul, heaving speed acc b protocol found too fast, adjusted V-haul, heaving speed acc b protocol found too fast, adjusted Vertical haul Filtration pump	Sampling protocole v4 July 12 2019, 12 0.2, bottom time 30 min Nansen Lagocy Sampling protocole v4 July 12 2019, 9.3 M IX net manuak, heaving speed similar to deploying Nansen Lagocy Sampling protocole v4 July 12 2019, 9.3 M IX ent manuak, heaving speed similar to	172	Tove M. Gabrielser	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mark reigstad Rut no mark reigstad Rut no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 273aab06-bcb-11e9-8749-000c297b4a98 273aab06-bcbb-11e9-8749-000c297b4a98 209 273aab08-bcbb-11e9-8749-000c297b4a98 209 273aab08-bcbb-11e9-8749-000c297b4a98 210 273aab09-bcbb-11e9-8749-000c297b4a98 211 2444911a-bcbb-11e9-8749-000c297b4a98 213 2443911b-bcbb-11e9-8749-000c297b4a98 213 2443911b-bcbb-11e9-8749-000c297b4a98	WP3 1000 um WP3 1000 um Campelen trawl MIK-net 1500 um MIK-net 1500 um O-FL0 Active water sampler	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 20:47:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9502 33.9655 33.9661 33.9865	188.34 188.34 186.95 186.73 186.73 188.18 190.79 186.15 186.05	35 105 36 37 38 50 51 1		150	0	taken from ID208	Sampling protocole v4 July 12 2019, 12 0.2, bottom time 30 min Nansen Lagocy Sampling protocole v4 July 12 2019, 9.3 M IX net manuak, heaving speed similar to deploying Nansen Lagocy Sampling protocole v4 July 12 2019, 9.3 M IX ent manuak, heaving speed similar to	172	Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mark reigstad Rut no mark reigstad Rut no	UIT The Arctic University of Norway.
208 273aab06-bcb-11e9-8149-000c297b4a98 273aab07-bcbb-11e9-8149-000c297b4a98 209 273aab08-bcbb-11e9-8149-000c297b4a98 200 273aab08-bcbb-11e9-8149-000c297b4a98 210 273aab09-bcbb-11e9-8149-000c297b4a98 211 4449111a-bcbb-11e9-8149-000c297b4a98 212 4449111a-bcbb-11e9-8149-000c297b4a98 213 4449111a-bcbb-11e9-8149-000c297b4a98 213 4449111a-bcbb-11e9-8149-000c297b4a98 214 4449111a-bcbb-11e9-8149-000c297b4a98	WP3 1000 um WP3 1000 um Campelen trawl MIK-net 1500 um MIK-net 1500 um O-FL0 Active water sampler	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 20:47:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9502 33.9965 33.9965 33.9965 33.9864	188.34 188.34 186.95 186.73 186.73 188.18 190.79 186.15 186.05	35 105 36 37 38 50 51 1		150	0	taken from ID208 V-haul, heaving speed acc b protocol found too fast, adjusted V-haul, heaving speed acc b protocol found too fast, adjusted Vertical haul Filtration pump	Sampling protocole v4 July 12 2019, 12 02, 3; bottom time 30 min Nansen Lagocy Sampling protocole v4 July 12 2019, 9, 35 MIX net manuak, heaving speed similar to deploying Nansen Lagocy Sampling protocole v4 July 12 2019, 9, 35 MIX net manuak, heaving speed similar to deploying		Tove M. Gabrielser	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mark reigstad Rut no mark reigstad Rut no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 273eab06-bcb-11e9-8449-000c297b4a96 273eab07-bcbb-11e9-8449-000c297b4a96 209 273eab08-bcbb-11e9-8449-000c297b4a96 210 273eab09-bcbb-11e9-8449-000c297b4a96 211 444911a-bcbb-11e9-8449-000c297b4a96 212 444911b-bcbb-11e9-849-000c297b4a96 213 444911b-bcbb-11e9-849-000c297b4a96 213 444911b-bcbb-11e9-849-000c297b4a96 213 444911b-bcbb-11e9-849-000c297b4a96	WP3 1000 um WP3 1000 um Campelen trawl MIK-net 1500 um MIK-net 1500 um O-FL0 Active water sampler	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 20:47:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9502 33.9965 33.9965 33.9965 33.9864	188.34 188.34 186.95 186.73 186.73 188.18 190.79 186.15 186.05	35 105 36 37 38 50 51 1		150	0	taken from ID208 V-haul, heaving speed acc to protocol found too fast, adjusted V-haul, heaving speed acc to protocol found too fast, adjusted Filtration pump TS probe	Sampling protocole v4 July 12 2019, 12 02, 3; bottom time 30 min Nansen Lagocy Sampling protocole v4 July 12 2019, 9, 35 MIX net manuak, heaving speed similar to deploying Nansen Lagocy Sampling protocole v4 July 12 2019, 9, 35 MIX net manuak, heaving speed similar to deploying	See data file for instrument serial	Tove M. Gabrielser	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mark reigstad Rut no mark reigstad Rut no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 273eab06-bcb-11e9-8449-000c297b4a96 273eab07-bcbb-11e9-8449-000c297b4a96 209 273eab08-bcbb-11e9-8449-000c297b4a96 210 273eab09-bcbb-11e9-8449-000c297b4a96 211 444911a-bcbb-11e9-8449-000c297b4a96 212 444911b-bcbb-11e9-849-000c297b4a96 213 444911b-bcbb-11e9-849-000c297b4a96 213 444911b-bcbb-11e9-849-000c297b4a96 213 444911b-bcbb-11e9-849-000c297b4a96	WP3 1000 um WP3 1000 um Campelen trawl MIK-net 1500 um MIK-net 1500 um O-FL0 Active water sampler	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 20:47:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9502 33.9965 33.9965 33.9965 33.9864	188.34 188.34 186.95 186.73 186.73 188.18 190.79 186.15 186.05	35 105 36 37 38 50 51 1		150	0	taken from ID208 V-haul: heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted Vertical haul TB probe With LADCP; Model	Sampling protocols v4 July 12 2016, 102.3; bottom time 30 mm Namsen Lagacy Sampling protocols v4 July 12 2019, 9.3.5 MK mediation 12 3019 mediation 12 3019	See data file for instrument serial numbers. Note change	Tove M. Gabrielser	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mark reigstad Rut no mark reigstad Rut no	UIT The Arctic University of Norway.
208 273eab06-bcb-11e9-5849-000c297b4a96 273eab06-bcbb-11e9-5849-000c297b4a96 209 273eab08-bcbb-11e9-5849-000c297b4a96 210 273eab09-bcbb-11e9-5849-000c297b4a96 211 243eab09-bcbb-11e9-5849-000c297b4a96 212 244e3011a-bcbb-11e9-5849-000c297b4a96 213 244e3011a-bcbb-11e9-5849-000c297b4a96 214 24449111a-bcbb-11e9-5849-000c297b4a96 213 24449111a-bcbb-11e9-5849-000c297b4a96 214 24449111a-bcbb-11e9-5849-000c297b4a96 215 Geo0028-bcbb-11e9-5849-000c297b4a96	WP3 1000 um WP3 1000 um Campelen trawl MIK-net 1500 um MIK-net 1500 um MIK-net 1500 um TG-FL0 Active reater sampler TS probe	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 20:47:00 01:14:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9502 33.9655 33.9661 33.9865 33.9864	188.34 188.34 186.95 186.73 186.73 188.18 190.79 186.05 186.03 186.33	1		150	0	taken from ID208 V-haul; heaving speed acc b protocol found too fast, adjusted V-haul; heaving speed acc b protocol found too fast, adjusted I filt altion pump ITS probe With LADCP; Model With LADCP; Model	Sampling protocols v4 Luly 12 2019, 12 0.2, bottom time 30 mm Nansen Lugacy Sampling protocols v4 Luly 12 2019, 9.3 S MiK enet manuak, heaving speed similar to deploying Nansen Lugacy Sampling protocols v4 Luly 12 2019, 9.3 S MiK up 12 2019, 9.3 S MiK speed similar to deploying speed similar to deploying speed similar to deploying speed similar to deploying to sampling Protocols v4 July 12 2019, 6.2 CTC;	See data file for instrument serial numbers. Note change og temperature sensor	Tove M. Gabrielser	Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad	mert reigstadibut no mert reigstadibut no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 278aab06-bcbb-11e9-8449-000c297b4a98 278aab07-bcbb-11e9-8449-000c297b4a98 209 278aab07-bcbb-11e9-8449-000c297b4a98 209 278aab09-bcbb-11a9-8449-000c297b4a98 210 278aab09-bcbb-11a9-8449-000c297b4a98 211 243eab19-bcbb-11a9-8449-000c297b4a98 212 248aab11-bcbb-11a9-8449-000c297b4a98 213 4449111-bcbb-11a9-849-000c297b4a98 214 4449111-bcbb-11a9-849-000c297b4a98 214 4449111-bcbb-11a9-849-000c297b4a98 214 4449111-bcbb-11a9-849-000c297b4a98 215 5ec60626-bcbb-11a9-849-000c297b4a98 216 5ec60629-bcbb-11a9-849-000c297b4a98 216 5ec60629-bcbb-11a9-849-000c297b4a98	WP3 1000 um WP3 1000 um Campelen trawl Campelen trawl MIK-net 1500 um MIK-net 1500 um MIK-net 1500 um CO-FL0 Active varies sampler TS probe CTD wrbottles	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12	15:18:00 16:42:00 17:30:00 19:10:00 20:47:00 01:14:00 02:11:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9602 33.9661 33.9664 33.9664 33.9664	188.34 188.34 186.95 186.73 186.73 186.73 186.15 186.08 186.33	1		150 160 160		taken from ID208 V-haul: heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted Vertical haul TB probe With LADCP; Model	Sampling protocols v4 July 12 2016, 102.3; bottom time 30 mm Namsen Lagacy Sampling protocols v4 July 12 2019, 9.3.5 MK mediation 12 3019 mediation 12 3019	See data file for instrument serial numbers. Note change	Tove M. Gabrieker Tove M. Gabrieker	Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad	mert reigstadf2ut no mart reigstadf2ut no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 273eab06-bcb-11e9-849-000c297b4a96 273eab06-bcb-11e9-849-000c297b4a96 273eab06-bcb-11e9-849-000c297b4a96 209 273eab08-bcbb-11e9-849-000c297b4a96 210 273eab08-bcbb-11e9-849-000c297b4a96 211 2446911b-bcbb-11e9-849-000c297b4a96 212 2446911b-bcbb-11e9-849-000c297b4a96 213 2446911b-bcbb-11e9-849-000c297b4a96 214 2446911b-bcbb-11e9-849-000c297b4a96 215 5ec60829-bcbb-11e9-849-000c297b4a96 215 5ec60829-bcbb-11e9-849-000c297b4a96 216 5ec60829-bcbb-11e9-849-000c297b4a96 216 5ec60829-bcbb-11e9-849-000c297b4a96 216 5ec60829-bcbb-11e9-849-000c297b4a96	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MIK-net 1500 um MIK-net 1500 um MIK-net 1500 um CO-PLO Active weiter sampler T5 probe CTD wrbottles Mutited 180 um	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 01:14:00 01:14:00 02:11:00 03:19:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9955 33.965 33.9661 33.9665 33.9665 33.9665	188.34 188.34 188.34 186.95 186.73 186.73 186.05 186.05 186.03 186.3	1 157 39		150 160 160 170	0	taken from ID208 V-haul; heaving speed acc b protocol found too fast, adjusted V-haul; heaving speed acc b protocol found too fast, adjusted I filt altion pump ITS probe With LADCP; Model With LADCP; Model	Sampling protocols v4 Luly 12 2019, 12 0.2, bottom time 30 mm Nansen Lugacy Sampling protocols v4 Luly 12 2019, 9.3 S MiK enet manuak, heaving speed similar to deploying Nansen Lugacy Sampling protocols v4 Luly 12 2019, 9.3 S MiK up 12 2019, 9.3 S MiK speed similar to deploying speed similar to deploying speed similar to deploying speed similar to deploying to sampling Protocols v4 July 12 2019, 6.2 CTC;	See data file for instrument serial numbers. Note change og temperature sensor	Tove M. Gabrieker Tove M. Gabrieker	Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad	mert misstadižut no mert misstadižut no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 273eab06-bcb-11e9-8449-000c297b4a98 273eab06-bcbb-11e9-8449-000c297b4a98 273eab06-bcbb-11e9-8449-000c297b4a98 209 273eab08-bcbb-11e9-8449-000c297b4a98 210 273eab09-bcbb-11e9-8449-000c297b4a98 211 243eab09-bcbb-11e9-8449-000c297b4a98 212 273eab09-bcbb-11e9-8449-000c297b4a98 213 444911b-bcbb-11e9-8449-000c297b4a98 214 444911b-bcbb-11e9-8449-000c297b4a98 214 444911b-bcbb-11e9-8449-000c297b4a98 214 444911b-bcbb-11e9-8449-000c297b4a98 214 444911b-bcbb-11e9-8449-000c297b4a98 215 5ec60629-bcbb-11e9-8449-000c297b4a98 216 5ec60627-bcbb-11e9-8449-000c297b4a98 217 5ec60627-bcbb-11e9-8449-000c297b4a98	WP3 1000 um WP3 1000 um WP3 1000 um Campelen trawl Campelen trawl MIK-net 1500 um MIK-net 1500 um CO-FL0 Active sampler TS probe CTD wrbottles Multimet 150 um Multimet 150 um	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 20:47:00 01:14:00 01:14:00 02:11:00 03:59:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4986 77.5156 77.5010 77.5005 77.5006 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9602 33.965 33.9661 33.9665 33.9664 33.9665 33.9665	188.34 188.34 188.34 186.95 186.73 186.73 186.15 186.08 186.33 186.3 186.36 186.36	1 157 39 40	175	150 160 160	0 0 0 0 0 0 0 0 0 0 0 0 0	taken from ID208 V-haul; heaving speed acc b protocol found too fast, adjusted V-haul; heaving speed acc b protocol found too fast, adjusted I filt altion pump ITS probe With LADCP; Model With LADCP; Model	Sampling protocols v4 Luly 12 2019, 12 0.2, bottom time 30 mm Nansen Lugacy Sampling protocols v4 Luly 12 2019, 9.3 S MiK enet manuak, heaving speed similar to deploying Nansen Lugacy Sampling protocols v4 Luly 12 2019, 9.3 S MiK up 12 2019, 9.3 S MiK speed similar to deploying speed similar to deploying speed similar to deploying speed similar to deploying to sampling Protocols v4 July 12 2019, 6.2 CTC;	See data file for instrument serial numbers. Note change og temperature sensor	Tove M. Gabrielser	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mert reigstadf2ut no mart reigstadf2ut no mart reigstadf2ut no mert reigstadf2ut no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 273eab06-bcb-11e9-849-000c297b4a96 273eab06-bcb-11e9-849-000c297b4a96 273eab06-bcb-11e9-849-000c297b4a96 209 273eab08-bcbb-11e9-849-000c297b4a96 210 273eab08-bcbb-11e9-849-000c297b4a96 211 2446911b-bcbb-11e9-849-000c297b4a96 212 2446911b-bcbb-11e9-849-000c297b4a96 213 2446911b-bcbb-11e9-849-000c297b4a96 214 2446911b-bcbb-11e9-849-000c297b4a96 215 5ec60829-bcbb-11e9-849-000c297b4a96 216 5ec60829-bcbb-11e9-849-000c297b4a96 217 5ec60829-bcbb-11e9-849-000c297b4a96 218 5ec60829-bcbb-11e9-849-000c297b4a96 219 5ec60829-bcbb-11e9-849-000c297b4a96	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MIK-net 1500 um MIK-net 1500 um MIK-net 1500 um CTD whottes CTD whottes Multimet 40 um Multimet 64 um	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 01:14:	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9502 33.9655 33.9661 33.9665 33.9665 33.9665 33.9665 33.9665	188.34 188.34 188.34 188.95 188.95 186.73 188.18 190.79 186.15 186.06 186.33 186.3 186.43	1 157 39 40 41	175	150 160 160 170	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	taken from ID208 V-haul; heaving speed acc b protocol found too fast, adjusted V-haul; heaving speed acc b protocol found too fast, adjusted I filt altion pump ITS probe With LADCP; Model With LADCP; Model	Sampling protocols v4 Luly 12 2019, 12 0.2, bottom time 30 mm Nansen Lugacy Sampling protocols v4 Luly 12 2019, 9.3 S MiK enet manuak, heaving speed similar to deploying Nansen Lugacy Sampling protocols v4 Luly 12 2019, 9.3 S MiK up 12 2019, 9.3 S MiK speed similar to deploying speed similar to deploying speed similar to deploying speed similar to deploying to sampling Protocols v4 July 12 2019, 6.2 CTC;	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad	mert reisstadizut no mert reisstadizut no mert reisstadizut no mert reisstadizut no mert reisstadizut no mert resptadizut no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 273aab06-bcb-11e9-8149-000c297b4a98 273aab06-bcbb-11e9-8149-000c297b4a98 273aab08-bcbb-11e9-8149-000c297b4a98 209 273aab08-bcbb-11e9-8149-000c297b4a98 210 273aab08-bcbb-11e9-8149-000c297b4a98 210 273aab09-bcbb-11e9-8149-000c297b4a98 211 444911b-bcbb-11e9-8849-000c297b4a98 213 444911b-bcbb-11e9-8849-000c297b4a98 214 444911b-bcbb-11e9-8849-000c297b4a98 214 444911b-bcbb-11e9-8849-000c297b4a98 215 5ec60629-bcbb-11e9-8849-000c297b4a98 216 5ec60629-bcbb-11e9-8849-000c297b4a98 217 5ec60629-bcbb-11e9-8849-000c297b4a98 218 5ec60627-bcbb-11e9-8849-000c297b4a98	WP3 1000 um WP3 1000 um WP3 1000 um Campelen trawl Campelen trawl MIK-net 1500 um MIK-net 1500 um CO-FL0 Active sampler TS probe CTD wrbottles Multimet 150 um Multimet 150 um	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 01:14:	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9343 33.9655 33.9661 33.9661 33.9665 33.9665 33.9665 33.9665 33.9665 33.9665	188.34 188.34 188.34 186.95 186.73 186.73 186.75 186.06 186.33 186.36 186.36 186.38 186.47 193.53	1 157 39 40	175	150 160 160 170		taken from ID208 V-haul; heaving speed acc b protocol found too fast, adjusted V-haul; heaving speed acc b protocol found too fast, adjusted I filt altion pump ITS probe With LADCP; Model With LADCP; Model	Sampling protocols v4 July 12 2019, 10.2 3; bottom time 30 min Nansen Lagacy Bampling protocols v4 July 12 2019, 9.3 MK deploying Mansen Lagacy Sampling protocols v4 July 12 2019, 9.3 MK Hansen Lagacy Speed similar to deploying Speed similar to deploying Nansen Lagacy Speed Similar to deploying Nansen Lagacy Stanistics Status Nansen Lagacy Status Sta	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad	mert reisstadizut no mert reisstadizut no mert reisstadizut no mert reisstadizut no mert reisstadizut no mert resptadizut no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 273eab06-bcb-11e9-849-000c297b4a98 273eab07-bcbb-11e9-849-000c297b4a98 209 273eab07-bcbb-11e9-849-000c297b4a98 200 273eab09-bcbb-11e9-849-000c297b4a98 210 273eab09-bcbb-11e9-849-000c297b4a98 211 4448d11a-bcbb-11e9-849-000c297b4a98 212 24448d11a-bcbb-11e9-849-000c297b4a98 213 24448d11a-bcbb-11e9-849-000c297b4a98 214 24448d11a-bcbb-11e9-849-000c297b4a98 215 5ec60829-bcbb-11e9-849-000c297b4a98 215 5ec60829-bcbb-11e9-849-000c297b4a98 216 5ec60829-bcbb-11e9-849-000c297b4a98 217 5ec60829-bcbb-11e9-849-000c297b4a98 218 5ec60829-bcbb-11e9-849-000c297b4a98 219 5ec60828-bcbb-11e9-849-000c297b4a98	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MIK-net 1500 um MIK-net 1500 um MIK-net 1500 um CTD whottes CTD whottes Multimet 40 um Multimet 64 um	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 01:14:	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9343 33.9655 33.9661 33.9661 33.9665 33.9665 33.9665 33.9665 33.9665 33.9665	188.34 188.34 188.34 186.95 186.73 186.73 186.75 186.06 186.33 186.36 186.36 186.38 186.47 193.53	1 157 39 40 41	175	150 160 160 170	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	taken from ID208 V-haul; heaving speed acc b protocol found too fast, adjusted V-haul; heaving speed acc b protocol found too fast, adjusted I filt altion pump ITS probe With LADCP; Model With LADCP; Model	Sampling protocols v4 July 12 2019, 10.2 3; bottom time 30 min Nansen Lagacy Bampling protocols v4 July 12 2019, 9.3 MK deploying Mansen Lagacy Sampling protocols v4 July 12 2019, 9.3 MK Hansen Lagacy Speed similar to deploying Speed similar to deploying Nansen Lagacy Speed Similar to deploying Nansen Lagacy Stanistics Status Nansen Lagacy Status Sta	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad	mert reisstadizut no mert reisstadizut no mert reisstadizut no mert reisstadizut no mert reisstadizut no mert resptadizut no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 273eab06-bcb-11e9-849-000c297b4a98 273eab07-bcbb-11e9-849-000c297b4a98 209 273eab07-bcbb-11e9-849-000c297b4a98 200 273eab09-bcbb-11e9-849-000c297b4a98 210 273eab09-bcbb-11e9-849-000c297b4a98 211 4448d11a-bcbb-11e9-849-000c297b4a98 212 24448d11a-bcbb-11e9-849-000c297b4a98 213 24448d11a-bcbb-11e9-849-000c297b4a98 214 24448d11a-bcbb-11e9-849-000c297b4a98 215 5ec60829-bcbb-11e9-849-000c297b4a98 215 5ec60829-bcbb-11e9-849-000c297b4a98 216 5ec60829-bcbb-11e9-849-000c297b4a98 217 5ec60829-bcbb-11e9-849-000c297b4a98 218 5ec60829-bcbb-11e9-849-000c297b4a98 219 5ec60828-bcbb-11e9-849-000c297b4a98	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MIK-net 1500 um MIK-net 1500 um MIK-net 1500 um CTD whottes CTD whottes Multimet 40 um Multimet 64 um	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 01:14:	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9343 33.9655 33.9661 33.9661 33.9665 33.9665 33.9665 33.9665 33.9665 33.9665	188.34 188.34 188.34 186.95 186.73 186.73 186.75 186.06 186.33 186.36 186.36 186.38 186.47 193.53	1 157 39 40 41	175	150 160 160 170		taken from ID208 V-haul; heaving speed acc b protocol found too fast, adjusted V-haul; heaving speed acc b protocol found too fast, adjusted I filt altion pump ITS probe With LADCP; Model With LADCP; Model	Sampling protocols v4 July 12 2016, 102.3; bottom time 30 min Nansen Logacy Sampling protocols v4 July 12 2019, 9.3.6 MK min manual, heaving deploying Mansen Lugacy Alan et al. July 12 2019, 9.3.6 MK manufall, protocols v4 July 12 2019, 9.3.5 MK manual, basing Sampling Protocols v4 July 12 2019, 8.2.00157	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad Mart Reigstad	mert reisstadizut no mert reisstadizut no mert reisstadizut no mert reisstadizut no mert reisstadizut no mert resptadizut no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 273xxb06-bcb-11x9-8449-000c297b4a96 273xxb06-bcbb-11x9-8449-000c297b4a96 209 273xxb08-bcbb-11x9-8449-000c297b4a96 200 273xxb09-bcbb-11x9-8449-000c297b4a96 210 273xxb09-bcbb-11x9-8449-000c297b4a96 211 4448911x-bcbb-11x9-8449-000c297b4a96 212 4448911x-bcbb-11x9-8489-000c297b4a96 213 4448911x-bcbb-11x9-8489-000c297b4a96 214 4448911x-bcbb-11x9-8489-000c297b4a96 215 5xe60529-bcbb-11x9-8489-000c297b4a96 216 5xe60529-bcbb-11x9-8489-000c297b4a96 217 5xe60529-bcbb-11x9-8489-000c297b4a96 218 5xe60529-bcbb-11x9-8489-000c297b4a96 219 0001x11x4-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MiK-net 1500 um MiK-net 1500 um MiK-net 1500 um GG-FLO Active water sampler TS probe CTD whottes Multimet 180 um Multimet 64 um Matercoplankton trawl	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 01:14:	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019705 2019705 2019705 2019705	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9343 33.9655 33.9661 33.9661 33.9665 33.9665 33.9665 33.9665 33.9665 33.9665	188.34 188.34 188.34 186.95 186.73 186.73 186.75 186.06 186.33 186.36 186.36 186.38 186.47 193.53	1 157 39 40 41	175	150 160 160 170	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	taken from ID208 V-haul; heaving speed acc b protocol found too fast, adjusted V-haul; heaving speed acc b protocol found too fast, adjusted I filt altion pump ITS probe With LADCP; Model With LADCP; Model	Sampling protocole v4 July 12 2019, 102 3; bottom time 30 min Namsen Lagacy Sampling protocole v4 July 12 2019, 9.3 MIK net manuk heaving speed similar to deploying Namsen Lagacy Sampling protocole v4 July 12 2019, 9.3 MIK net manuk, heaving speed similar to deploying Sampling Protocole v4 July 12 2019, 9.3 MIK net manuk, heaving speed similar to deploying Sampling Protocole v4 July 12 2019, 9.2 CTC; One satisfy sample Namsen Lagacy Sampling Protocole v4 July 12 2019, 9.2 CTC; One satisfy sample Namsen Lagacy Sampling Protocole v4 July 12 2019, 9.2 CTC; One satisfy sample Namsen Lagacy Sampling Protocole v4 July 12 2019, 9.2 CTC; One satisfy sample Namsen Lagacy Sampling Protocole v4 July 12 2019, 9.2 CTC; Namsen Lagacy Sampling Protocole v4 July 12 2019, 9.2 CTC; Sampling Protocole v4 July 12 CTC; Sampling Protocole v4	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Marit Reigstad Marit Reigstad	mark reigstad Ruit no mark reigstad Ruit no	UIT The Arctic University of Norway.
208 273eab06-bcb-11e9-849-000c297b4a98 273eab07-bcbb-11e9-849-000c297b4a98 209 273eab07-bcbb-11e9-849-000c297b4a98 200 273eab09-bcbb-11e9-849-000c297b4a98 210 273eab09-bcbb-11e9-849-000c297b4a98 211 4448d11a-bcbb-11e9-849-000c297b4a98 212 24448d11a-bcbb-11e9-849-000c297b4a98 213 24448d11a-bcbb-11e9-849-000c297b4a98 214 24448d11a-bcbb-11e9-849-000c297b4a98 215 5ec60829-bcbb-11e9-849-000c297b4a98 215 5ec60829-bcbb-11e9-849-000c297b4a98 216 5ec60829-bcbb-11e9-849-000c297b4a98 217 5ec60829-bcbb-11e9-849-000c297b4a98 218 5ec60829-bcbb-11e9-849-000c297b4a98 219 5ec60828-bcbb-11e9-849-000c297b4a98	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MIK-net 1500 um MIK-net 1500 um MIK-net 1500 um CTD whottes CTD whottes Multimet 40 um Multimet 64 um	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 01:14:	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019705 2019705 2019705 2019705	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9343 33.9655 33.9661 33.9661 33.9665 33.9665 33.9665 33.9665 33.9665 33.9665	188.34 188.34 188.34 186.95 186.73 186.73 186.75 186.06 186.33 186.36 186.36 186.38 186.47 193.53	1 157 39 40 41	175	150 160 160 170		taken from ID208 V-haul; heaving speed acc b protocol found too fast, adjusted V-haul; heaving speed acc b protocol found too fast, adjusted I filt altion pump ITS probe With LADCP; Model With LADCP; Model	Sampling protocols v4 July 12 2019, 10.2 3; bottom time 30 min Nansen Logacy Bampling protocols v4 July 12 2019, 9.3 k MK mel manual, theaving deploying Nansen Logacy Sampling protocols v4 July 12 2019, 9.3 k MK net manual: heaving speed similar to deploying Nansen Logacy Sampling Protocols v4 July 12 2019, 6.3 c 2010; Ore salishy sample Nansen Legacy Sampling Protocols v4 July 12 2019, 6.2 c 2010; Ore salishy sample Nansen Legacy Sampling Protocols v4 July 12 2019; 6.2 c 2010; Nansen Legacy Nansen Legacy Sampling Protocols v4 July 12 2019; f0.2 c Sampling Protocols v4 July 12 2019; f0.2 c Sampling Protocols v4 July 12 2019; f0.2 c Box corer	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Marit Reigstad Marit Reigstad	mark reigstad Ruit no mark reigstad Ruit no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 273xxb06-bcb-11x9-8449-000c297b4a96 273xxb06-bcbb-11x9-8449-000c297b4a96 209 273xxb08-bcbb-11x9-8449-000c297b4a96 200 273xxb08-bcbb-11x9-8449-000c297b4a96 210 273xxb09-bcbb-11x9-8449-000c297b4a96 211 4448911x-bcbb-11x9-8449-000c297b4a96 212 4448911x-bcbb-11x9-8489-000c297b4a96 213 4448911x-bcbb-11x9-8489-000c297b4a96 214 4448911x-bcbb-11x9-8489-000c297b4a96 215 5xe60529-bcbb-11x9-8489-000c297b4a96 216 5xe60529-bcbb-11x9-8489-000c297b4a96 217 5xe60529-bcbb-11x9-8489-000c297b4a96 218 5xe60529-bcbb-11x9-8489-000c297b4a96 219 0001x11x4-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 221 0x747bd-bd98-11x8-8449-000c297b4a96	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MiK-net 1500 um MiK-net 1500 um MiK-net 1500 um GG-FLO Active water sampler TS probe CTD whottes Multimet 180 um Multimet 64 um Matercoplankton trawl	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 01:14:	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019705 2019705 2019705 2019705	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9343 33.9655 33.9661 33.9661 33.9665 33.9665 33.9665 33.9665 33.9665 33.9665	188.34 188.34 188.34 186.95 186.73 186.73 186.75 186.06 186.33 186.36 186.36 186.38 186.47 193.53	1 157 39 40 41	175	150 160 160 170	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	taken from ID208 V-haul; heaving speed acc b protocol found too fast, adjusted V-haul; heaving speed acc b protocol found too fast, adjusted I filt altion pump ITS probe With LADCP; Model With LADCP; Model	Sampling protocole v4 July 12 2019, 10 23, bottom time 30 mm Sampling protocole v4 July 12 2019, 93.5 MK net manuk heaving speed similar to deploying Nansen Legacy Sampling protocole v4 July 12 2019, 93.6 MK net manua, heaving speed similar to deploying served similar to deploying Sampling Protocole v4 July 12 2019, 93.6 MK net manua, heaving speed similar to deploying Sampling Protocole v4 July 12 2019, 92.6 CTC; One salinity sample Sta0157 Nansen Legacy Sampling Protocole v4 July 12 2019, 92.6 CTC; One salinity sample Sampling Protocole v4 July 12 2019, 92.6 CTC; One salinity sample Sampling Protocole v4 July 12 2019, 92.6 CTC; Sampling Protocole v4 July 1	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Marit Reigstad Marit Reigstad	mark reigstad Ruit no mark reigstad Ruit no	UIT The Arctic University of Norway.
208 273xxb06-bcb-11x9-8449-000c297b4a96 273xxb06-bcbb-11x9-8449-000c297b4a96 209 273xxb08-bcbb-11x9-8449-000c297b4a96 200 273xxb08-bcbb-11x9-8449-000c297b4a96 210 273xxb09-bcbb-11x9-8449-000c297b4a96 211 4448911x-bcbb-11x9-8449-000c297b4a96 212 4448911x-bcbb-11x9-8489-000c297b4a96 213 4448911x-bcbb-11x9-8489-000c297b4a96 214 4448911x-bcbb-11x9-8489-000c297b4a96 215 5xe60529-bcbb-11x9-8489-000c297b4a96 216 5xe60529-bcbb-11x9-8489-000c297b4a96 217 5xe60529-bcbb-11x9-8489-000c297b4a96 218 5xe60529-bcbb-11x9-8489-000c297b4a96 219 0001x11x4-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 219 0001x14-05a8-11x8-8489-000c297b4a96 221 0x747bd-bd98-11x8-8449-000c297b4a96	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MiK-net 1500 um MiK-net 1500 um MiK-net 1500 um GG-FLO Active water sampler TS probe CTD whottes Multimet 180 um Multimet 64 um Matercoplankton trawl	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:03:00 20:47:00 00:11:40 00:53:00 00:53:00 00:58:00 08:38:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4986 77.5156 77.5010 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9343 33.9655 33.9661 33.9661 33.9665 33.9665 33.9665 33.9665 33.9665 33.9665	188.34 188.34 188.34 186.95 186.73 186.73 186.75 186.06 186.33 186.36 186.36 186.38 186.47 193.53	1 157 39 40 41	175	150 160 160 170		taken from ID208 V-haul; heaving speed acc b protocol found too fast, adjusted V-haul; heaving speed acc b protocol found too fast, adjusted I filt altion pump ITS probe With LADCP; Model With LADCP; Model	Sampling Protocols v4 July 12 2019, 10.2 3; beform time 30 min Namean Lagacy Sampling Protocols v4 July 12 2019, 9.3 MIK July 12 2019, 9.3 MIK July 12 2019, 9.3 MIK July 12 2019, 9.3 MIK July 12 2019, 9.3 MIK Internant, provide Sampling Protocols v4 July 12 2019, 9.3 MIK Internant, provide Sampling Protocols v4 July 12 2019, 6.2 CT July 12 201	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Marit Reigstad Marit Reigstad	mart reigstadfbut no mart reigstadfbut no	UIT The Arctic University of Norway.
208 273eab06-bcb-11e9-849-000c297b4a96 273eab06-bcbb-11e9-849-000c297b4a96 209 209 273eab08-bcbb-11e9-849-000c297b4a96 210 273eab09-bcbb-11e9-849-000c297b4a96 211 4449011a-bcbb-11e9-849-000c297b4a96 212 24449011a-bcbb-11e9-849-000c297b4a96 213 4449011a-bcbb-11e9-849-000c297b4a96 214 4449111-bcbb-11e9-849-000c297b4a96 214 4449111-bcbb-11e9-849-000c297b4a96 215 5ec60529-bcbb-11e9-849-000c297b4a96 216 5ec60529-bcbb-11e9-849-000c297b4a96 217 5ec60529-bcbb-11e9-849-000c297b4a96 218 5ec60529-bcbb-11e9-849-000c297b4a96 219 000114-bcba9-11e9-849-000c297b4a96 219 000114-bcba9-11e9-849-000c297b4a96 219 000114-bcba9-11e9-849-000c297b4a96 219 000114-bcb9-11e9-849-000c297b4a96 219 000114-bc98-11e9-849-000c297b4a96 219 000114-bc98-11e9-849-000c297b4a96 219 000114-bc98-11e9-849-000c297b4a96	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MiK-net 1500 um MiK-net 1500 um MiK-net 1500 um GG-FLO Active water sampler TS probe CTD whottes Multimet 180 um Multimet 64 um Matercoplankton trawl	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:03:00 20:47:00 00:11:40 00:53:00 00:53:00 00:58:00 08:38:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4986 77.5156 77.5010 77.5010 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006	34.0007 34.0007 33.9343 33.9343 33.9655 33.9661 33.9661 33.9665 33.9665 33.9665 33.9665 33.9665 33.9665	188.34 188.34 188.34 186.95 186.73 186.73 186.75 186.06 186.33 186.36 186.36 186.38 186.47 193.53	1 157 39 40 41	175	150 160 160 170		taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted I efficient of the second second too fast, I efficient on pumpor TS probe With LADCP; Model With LADCP; Model	Sampling protocole v4 July 12 2019, 10 23, bottom time 30 mm Sampling protocole v4 July 12 2019, 93.5 MK net manuk heaving speed similar to deploying Nansen Legacy Sampling protocole v4 July 12 2019, 93.6 MK net manua, heaving speed similar to deploying served similar to deploying Sampling Protocole v4 July 12 2019, 93.6 MK net manua, heaving speed similar to deploying Sampling Protocole v4 July 12 2019, 92.6 CTC; One salinity sample Sta0157 Nansen Legacy Sampling Protocole v4 July 12 2019, 92.6 CTC; One salinity sample Sampling Protocole v4 July 12 2019, 92.6 CTC; One salinity sample Sampling Protocole v4 July 12 2019, 92.6 CTC; Sampling Protocole v4 July 1	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Mart Reigstad Mart Reigstad	mart reigstadfbut no mart reigstadfbut no	UIT The Arctic University of Norway.
208 273xxb06-bcb-11x9-8449-000c297b4a96 273xxb06-bcbb-11x9-8449-000c297b4a96 273xxb07-bcbb-11x9-8449-000c297b4a96 209 273xxb07-bcbb-11x9-8449-000c297b4a96 210 273xxb09-bcbb-11x9-8449-000c297b4a96 211 444g11a-bcbb-11x9-8449-000c297b4a96 212 444g11a-bcbb-11x9-8449-000c297b4a96 213 444g11a-bcbb-11x9-8449-000c297b4a96 214 444g111-bcbbb-11x9-8489-000c297b4a96 215 5xxx60829-bcbb-11x9-8489-000c297b4a96 216 5xxxx60829-bcbb-11x9-8489-000c297b4a96 217 5xxxx50829-11x9-8489-000c297b4a96 218 5xxx50829-11x9-8489-000c297b4a96 219 5xxx11x9-8489-000c297b4a96 210 5xx11x9-8489-000c297b4a96 211 5xx11x9-8489-000c297b4a96 212 5x71xx11x9-838-11x9-8489-000c	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen travi MiK-net 1500 um MiK-net 1500 um MiK-net 1500 um MiK-net 1500 um GO-FLO Active water sampler TS probe CTD whottes Multimet 180 um Multimet 64 um	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:03:00 20:47:00 00:11:40 00:53:00 00:53:00 00:58:00 08:38:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4986 77.5156 77.5010 77.5010 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006	34.0007 33.9045 33.9055 33.9055 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065	188.34 188.34 186.05 186.73 186.73 186.8 186.33 186.33 186.34 186.34 186.35 186.34 186.44	1 157 39 40 41	175	150 160 160 170		taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted I efficient of the second second too fast, I efficient on pumpor TS probe With LADCP; Model With LADCP; Model	Sampling Protocols v4 July 12 2019, 10.2 3; bottom time 30 min Namean Lagacy Sampling Protocols v4 July 12 2019, 9.3 MIK July 12 2019, 9.3 MIK July 12 2019, 9.3 MIK July 12 2019, 9.3 MIK July 12 2019, 9.3 MIK Internan Lagacols v4 July 12 2019, 9.3 MIK Internan Lagacol Sampling Protocols v4 July 12 2019, 9.3 MIK Internan Lagacol Sampling Protocols v4 July 12 2019, 9.3 MIK Internan Lagacol Namean Lagacol Namean Lagacol Sampling Protocols v4 July 12 2019, 10.2 Bool 157	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Mart Reigstad Mart Reigstad	mart reigstadfbut no mart reigstadfbut no	UIT The Arctic University of Norway.
208 273eab06-bcb-11e9-849-000c297b4a96 273eab06-bcbb-11e9-849-000c297b4a96 273eab06-bcbb-11e9-849-000c297b4a96 209 273eab08-bcbb-11e9-849-000c297b4a96 210 273eab08-bcbb-11e9-849-000c297b4a96 211 444911a-bcbb-11e9-849-000c297b4a96 212 273eab08-bcbb-11e9-849-000c297b4a96 213 444911b-bcbb-11e9-849-000c297b4a96 214 444911b-bcbb-11e9-849-000c297b4a96 215 5ec60828-bcbb-11e9-849-000c297b4a96 216 5ec60828-bcbb-11e9-84	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen travi MiK-net 1500 um MiK-net 1500 um MiK-net 1500 um MiK-net 1500 um GO-FLO Active water sampler TS probe CTD whottes Multimet 180 um Multimet 64 um	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:03:00 20:47:00 00:11:40 00:53:00 00:53:00 00:58:00 08:38:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4986 77.5156 77.5010 77.5010 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006	34.0007 33.9045 33.9055 33.9055 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065	188.34 188.34 186.05 186.73 186.73 186.8 186.33 186.33 186.34 186.34 186.35 186.34 186.44	1 157 39 40 41	175	150 160 160 170		taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted I efficient of the second second too fast, I efficient on pumpor TS probe With LADCP; Model With LADCP; Model	Sampling Protocols v4 July 12 2019, 10.2.3; bottom time 30 mm Nansen Lagacy Sampling Protocols v4 July 12 2019, 9.3.6 MK end manual; heaving speed similar to deploying Nansen Lagacy Sampling Protocols XMK end manual; heaving speed similar to deploying Nansen Lagacy Sampling Protocols v4 July 12 2019, 6.2.2 Discontinue Nansen Lagacy Sampling Protocols v4 July 12 2019, 6.2.2 Nansen Lagacy Nansen Lagacy Sampling Protocols v4 July 12 2019, 6.2.2 Nansen Lagacy Nansen Lagacy Nansen Lagacy Nansen Lagacy Sampling Protocols v4 July 12 2019, 6.2.2 Nansen Lagacy Nansen Lagacy	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Mart Reigstad Mart Reigstad	mart reigstadfbut no mart reigstadfbut no	UIT The Arctic University of Norway.
208 273eab06-bcb-11e9-849-000c29h4a96 273eab06-bcb-11e9-849-000c29h4a96 273eab06-bcb-11e9-849-000c29h4a96 209 273eab08-bcbb-11e9-849-000c29h4a96 210 273eab08-bcbb-11e9-849-000c29h4a96 211 444911a-bcbb-11e9-849-000c29h4a96 212 2444911b-bcbb-11e9-849-000c29h4a96 213 444911b-bcbb-11e9-849-000c29h4a96 214 444911b-bcbb-11e9-849-000c29h4a96 215 5ec60629-bcbb-11e9-849-000c29h4a96 216 5ec60629-bcbb-11e9-849-000c29h4a96 217 Sec60629-bcbb-11e9-849-000c29h4a96 218 5ec60629-bcbb-11e9-849-000c29h4a96 219 00te1b14-bd8-11e9-849-000c29h4a96 219 00te1b14-bd8-11e9-849-000c29h4a96 221 0c/47Dd+5d8-11e9-849-000c29h4a96 221 0c/47Dd+5d8-11e9-849-000c29h4a96 222 0c/47Dd+5d8-11e9-849-000c29h4a96 223 0c/47Dd+5d8-11e9-849-000c29h4a96 224 00fe1b15-bd8-11e9-849-000c29h4a96 225 0c/47Dde-bd8-11e9-849-000c29h4a96	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen travi MiK-net 1500 um MiK-net 1500 um MiK-net 1500 um MiK-net 1500 um GO-FLO Active water sampler TS probe CTD whottes Multimet 180 um Multimet 64 um	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:30 18:03:00 19:10:30 00:14:00 00:14:00 00:14:00 00:58:00 00:58:00 11:01:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4996 77.5156 77.5010 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006 77.5006	34.0007 33.9943 33.9943 33.9965 33.9965 33.9964 33.9964 33.9964 33.9964 33.9964 33.9964 33.9964 33.9964 33.9964 33.9964 33.9964 33.9965 33.9964	188.34 188.34 186.95 186.73 186.73 186.4 187.	1 157 39 40 41	175	150 160 160 170		taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted I efficient of the second second too fast, I efficient on pumpor TS probe With LADCP; Model With LADCP; Model	Sampling Protocols v4 July 12 2019, 10.2 3; bottom time 30 min Nameen Lagacy Genolyma Martane Lagacy Sampling protocols v4 July 12 2019, 9.3 MK Martane Lagacy Sampling protocols v4 July 12 2019, 9.3 MK Martane Lagacy Speed similar to deploying Martane Lagacy Sampling Protocols v4 July 12 2019, 9.2 CTD; One salihity sample Stao157 Martane Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salihity sample Stao157 Martane Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salihity sample Stao157	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Mart Reigstad Mart Reigstad	mark reigstadfeld ro mark reigstadfeld ro	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 278±8068-bcbb-1149-8449-000c297b4a98 278±8068-bcbb-1149-8449-000c297b4a98 278±8068-bcbb-1149-8449-000c297b4a98 210 278±8068-bcbb-1149-8449-000c297b4a98 210 278±8069-bcbb-1149-8449-000c297b4a98 211 2448dr118-bcbb-1149-8449-000c297b4a98 212 2448dr118-bcbb-1149-8449-000c297b4a98 213 4448dr118-bcbb-1149-8449-000c297b4a98 214 4448dr118-bcbb-1149-8449-000c297b4a98 215 5ec60629-bcbb-1149-8449-000c297b4a98 216 5ec60629-bcbb-1149-8449-000c297b4a98 216 5ec60629-bcbb-1149-8449-000c297b4a98 216 5ec60629-bcbb-1149-8449-000c297b4a98 216 5ec60628-bcbb-1149-8449-000c297b4a98 216 5ec60628-bcbb-1149-8449-000c297b4a98 216 5ec60628-bcbb-1149-8449-000c297b4a98 221 00fe1b15-bd8a-1149-8449-000c297b4a98 224 00fe1b15-bd8a-1149-8449-000c297b4a98 225 0c7477bdF-bd8a-1149-8449-000c297b4a98 225 0c7477bdF-bd8a-1149-8449-000c297b4a98 225 0c7477bdF-bd8a-1149-8449-000c297b4a98	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MIK-net 1500 um GO-FLO Active water sampler T5 probe CTD wrbottles Mutitet 48 um Mutitet 44 um Mu	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 00:14:00 00:14:00 00:14:00 00:56:00 06:56:00 06:56:00 06:56:00 11:01:00 11:01:00 12:57:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2	77.4996 77.5156 77.5010 77.5010 77.5006	34.0007 33.9043 33.9043 33.9055 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 33.9065 34.0007	188.34 188.34 186.05 196.05 196.73 196.73 196.3 196.3 196.3 196.3 196.3 196.3 196.3 196.3 196.3 196.47 196.3 196.47 196.57 198.58 198.78 198.78	1 157 39 400 411 106 12 13 13	175	150 160 160 170		taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted I efficient of the second second too fast, I efficient on pumpor TS probe With LADCP; Model With LADCP; Model	Sampling protocols v4 July 12 2019, 01 23; bottom time 30 mm Nameen Lagacy Sampling protocols v4 July 12 2019, 9.3 5 MK deploying Nameen Lagacy Sampling protocols v4 July 12 2019, 9.3 5 MK endpolying Nameen Lagacy Sampling protocols v4 July 12 2019, 9.3 5 MK endpolying Nameen Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One sakitly sample Stud157 Nameen Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One sakitly sample Sampling Protocols v4 July 12 2019, 6.2 CTD; One sakitly sample Sampling Protocols v4 July 12 2019, 6.2 CTD; One sakitly sample Nameen Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One sakitly sample Sampling Protocols v4 July 12 2019, 6.2 CTD; Sampling Protocols v4 Jul	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Marit Reigstad Marit Reigstad	mert reigstadf2ut.no mert reigstadf2ut.no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 278xab06-bcb-11e9-849-000c297b4a96 278xab06-bcb-11e9-849-000c297b4a96 278xab07-bcbb-11e9-849-000c297b4a96 209 278xab08-bcbb-11e9-849-000c297b4a96 210 278xab09-bcbb-11e9-849-000c297b4a96 211 2448d011a-bcbb-11e9-849-000c297b4a96 212 2448d011a-bcbb-11e9-849-000c297b4a96 213 2448d011a-bcbb-11e9-849-000c297b4a96 214 2448d011a-bcbb-11e9-849-000c297b4a96 215 5ec60829-bcbb-11e9-849-000c297b4a96 216 5ec60829-bcbb-11e9-849-000c297b4a96 221 5ec747bd5-bd8a-11e9-849-000c297b4a96 222 5ec747bd5-bd8a-11e9-849-000c297b4a96 225 5ec747bd5-bd8a-11e9-849-000c297b4a96 225 5ec747bd5-bd8a-11e9-849-000c297b4a96	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MIK-net 1500 um GO-FLO Active water sampler T5 probe CTD wrbottles Mutitet 48 um Mutitet 44 um Mu	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:10:00 00:14:00 00:14:00 00:14:00 00:56:00 06:56:00 06:56:00 06:56:00 11:01:00 11:01:00 12:57:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4996 77.5156 77.5010 77.5006	34.0007 34.0007 33.9943 33.9955 33.9965 33.9965 33.9964 33.9964 33.9965 33.9964 33.9964 33.9965 33.9964 33.9965 34.0007 34.	188.34 188.34 188.35 186.73 186.73 186.73 186.73 186.3 186.3 186.3 186.3 186.3 186.45 188.45 188.45	1 157 39 40 41	175	150 160 160 170		taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted I efficient of the second second too fast, I efficient on pumpor TS probe With LADCP; Model With LADCP; Model	Sampling Protocols v4 July 12 2019, 10.2 3; bottom time 30 min Nameen Lagacy Genolyma Martane Lagacy Sampling protocols v4 July 12 2019, 9.3 MK Martane Lagacy Sampling protocols v4 July 12 2019, 9.3 MK Martane Lagacy Speed similar to deploying Martane Lagacy Sampling Protocols v4 July 12 2019, 9.2 CTD; One salihity sample Stao157 Martane Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salihity sample Stao157 Martane Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salihity sample Stao157	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Marit Reigstad Marit Reigstad	mert reigstadf2ut.no mert reigstadf2ut.no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 273xx8068-bcbb-11x89-8849-000c297b4a98 273xx8078-bcbb-11x89-8849-000c297b4a98 273xx8078-bcbb-11x89-8849-000c297b4a98 209 273xx8088-bcbb-11x89-8849-000c297b4a98 210 273xx8098-bcbb-11x89-8849-000c297b4a98 211 4448911x8-bcbb-11x89-8849-000c297b4a98 212 24448911x8-bcbb-11x89-8849-000c297b4a98 213 24448911x8-bcbb-11x89-8849-000c297b4a98 214 24449111x8-bcbb-11x89-8849-000c297b4a98 215 5xx60528-bcbb-11x89-8849-000c297b4a98 216 5xxx60528-bcbb-11x89-8849-000c297b4a98 216 5xxx60528-bcbb-11x89-8849-000c297b4a98 217 5xxx60528-bcbb-11x89-8849-000c297b4a98 218 5xxxx60528-bcbb-11x89-8849-000c297b4a98 219 5xxx1x89-11x89-8849-000c297b4a98 219 5xxx1x89-11x89-8849-000c297b4a98 221 5xxx1x89-11x89-8849-000c297b4a98 222 5xxx1x89-11x89-8849-000c297b4a98 223 5xxx1x89-11x89-8849-000c297b4a98 224 5xx1x89-11x89-8849-000c297b4a98 225 5xx1x89-11x89-8849-000c297b4a98 225 5xx1x89-11x89-8849-000c297b4a98 225 <td< td=""><td>WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl Gampelen trawl MiK-net 1500 um MiK-net 1500 um MiK-net 1500 um GO-FL0 Active water sampler TS probe CTD whottles CTD whottles GTD whottles Box core Box core Box core Box core Box core Box core</td><td>2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12</td><td>15:18:00 16:42:00 17:30:00 18:03:00 19:10:30 00:14:00 00:14:00 00:14:00 00:58:00 00:58:00 11:01:00 11:01:00 12:57:00 13:28:00</td><td>2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706</td><td>P2 P2 P2 P2 P2 P2 P2 P2 P2 P2</td><td>77.4996 77.5156 77.5010 77.5016 77.5006</td><td>34.0007 34.0007 33.9043 33.9045 33.9065 34.0007 34.0008 34.0007 34.0008 34.0007 34.</td><td>188.34 188.34 188.34 196.05 196.73 196.73 196.73 196.35 196.3 196.3 196.34</td><td>1 157 399 400 411 106 12 13 13 14 45 46</td><td>175</td><td>150 160 170 170 170 150</td><td></td><td>taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted I efficient of the second second too fast, I efficient on pumpor TS probe With LADCP; Model With LADCP; Model</td><td>Sampling Protocols v4 July 12 2019, 10.2 3; bottom time 30 min Nameen Lagacy Genolyma Martane Lagacy Sampling protocols v4 July 12 2019, 9.3 MK Martane Lagacy Sampling protocols v4 July 12 2019, 9.3 MK Martane Lagacy Speed similar to deploying Martane Lagacy Sampling Protocols v4 July 12 2019, 9.2 CTD; One salihity sample Stao157 Martane Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salihity sample Stao157 Martane Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salihity sample Stao157</td><td>See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.</td><td>Tove M. Gabrielser Tove M. Gabrielser</td><td>Mart Reigstad Mart Reigstad</td><td>mark reigstadiku no mark reigstadiku no</td><td>UIT The Arctic University of Norway UIT The Arctic University of Norway</td></td<>	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl Gampelen trawl MiK-net 1500 um MiK-net 1500 um MiK-net 1500 um GO-FL0 Active water sampler TS probe CTD whottles CTD whottles GTD whottles Box core Box core Box core Box core Box core Box core	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 19:10:30 00:14:00 00:14:00 00:14:00 00:58:00 00:58:00 11:01:00 11:01:00 12:57:00 13:28:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2	77.4996 77.5156 77.5010 77.5016 77.5006	34.0007 34.0007 33.9043 33.9045 33.9065 34.0007 34.0008 34.0007 34.0008 34.0007 34.	188.34 188.34 188.34 196.05 196.73 196.73 196.73 196.35 196.3 196.3 196.34	1 157 399 400 411 106 12 13 13 14 45 46	175	150 160 170 170 170 150		taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted I efficient of the second second too fast, I efficient on pumpor TS probe With LADCP; Model With LADCP; Model	Sampling Protocols v4 July 12 2019, 10.2 3; bottom time 30 min Nameen Lagacy Genolyma Martane Lagacy Sampling protocols v4 July 12 2019, 9.3 MK Martane Lagacy Sampling protocols v4 July 12 2019, 9.3 MK Martane Lagacy Speed similar to deploying Martane Lagacy Sampling Protocols v4 July 12 2019, 9.2 CTD; One salihity sample Stao157 Martane Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salihity sample Stao157 Martane Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salihity sample Stao157	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Mart Reigstad	mark reigstadiku no mark reigstadiku no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 278xab06-bcb-11e9-849-000c297b4a96 278xab06-bcb-11e9-849-000c297b4a96 278xab07-bcbb-11e9-849-000c297b4a96 209 278xab08-bcbb-11e9-849-000c297b4a96 210 278xab09-bcbb-11e9-849-000c297b4a96 211 2448d011a-bcbb-11e9-849-000c297b4a96 212 2448d011a-bcbb-11e9-849-000c297b4a96 213 2448d011a-bcbb-11e9-849-000c297b4a96 214 2448d011a-bcbb-11e9-849-000c297b4a96 215 5ec60829-bcbb-11e9-849-000c297b4a96 216 5ec60829-bcbb-11e9-849-000c297b4a96 221 5ec747bd5-bd8a-11e9-849-000c297b4a96 222 5ec747bd5-bd8a-11e9-849-000c297b4a96 225 5ec747bd5-bd8a-11e9-849-000c297b4a96 225 5ec747bd5-bd8a-11e9-849-000c297b4a96	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MK-net 1500 um GO-FLO Active water sampler T5 probe CTD wrbotties Mutited 54 um Materceptenkton trawl Box core Box core Box core Box core Box core Box nore Box	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 20:47:00 01:14:00 05:53:00 06:58:00 06:58:00 06:58:00 06:38:00 11:01:00 06:38:00 11:01:00 12:57:00 13:28:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P2 P	77.4996 77.5156 77.5010 77.5016 77.5006	34.0007 34.0007 33.9943 33.9955 33.9965 33.9965 33.9964 33.9964 33.9965 33.9964 33.9964 33.9965 33.9964 33.9965 34.0007 34.	188.34 188.34 188.34 196.05 196.73 196.73 196.73 196.35 196.3 196.3 196.34	1 157 39 40 0 41 106 12 12 13 13	175	150 160 170 170 170 150		taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted I efficient of the second second too fast, I efficient on pumpor TS probe With LADCP; Model With LADCP; Model	Sampling Protocols v4 July 12 2019, 10.2 3; bottom time 30 min Nameen Lagacy Genolyma Martane Lagacy Sampling protocols v4 July 12 2019, 9.3 MK Martane Lagacy Sampling protocols v4 July 12 2019, 9.3 MK Martane Lagacy Speed similar to deploying Martane Lagacy Sampling Protocols v4 July 12 2019, 9.2 CTD; One salihity sample Stao157 Martane Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salihity sample Stao157 Martane Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salihity sample Stao157	See data file for instrument serial numbers. Note change og lømperature sensor bøføre cast 192.	Tove M. Gabrielser	Marit Reigstad Marit	mark reigstadgeut og mark reigstadgeut og	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 278±8068-bcbb-1149-8449-000c297b4a98 278±8078-bcbb-1149-8449-000c297b4a98 278±8078-bcbb-1149-8449-000c297b4a98 209 278±8078-bcbb-1149-8449-000c297b4a98 210 278±8098-bcbb-1149-8449-000c297b4a98 211 244547118-bcbb-1149-8449-000c297b4a98 212 244547118-bcbb-1149-8449-000c297b4a98 213 244547118-bcbb-1149-8449-000c297b4a98 214 244547118-bcbb-1149-8449-000c297b4a98 215 5ec60529-bcbb-1149-8449-000c297b4a98 216 5ec60529-bcbb-1149-8449-000c297b4a98 216 5ec60529-bcbb-1149-8449-000c297b4a98 217 5ec60529-bcbb-1149-8449-000c297b4a98 218 5ec60529-bcbb-1149-8449-000c297b4a98 219 0016114-bd5a-1149-8449-000c297b4a98 221 0x747bdf-bd5a-1149-8449-000c297b4a98 222 0x747bdf-bd5a-1149-8449-000c297b4a98 223 0x747bdf-bd5a-1149-8449-000c297b4a98 224 0016115-bd5a-1149-8449-000c297b4a98 225 0x747bdf-bd5a-1149-8449-000c297b4a98 226 0016115-bd5a-1149-8449-000c297b4a98 226 0016115-bd5a-1149-849-000c297b4a98 226	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MK-net 1500 um GO-FLO Active water sampler T5 probe CTD wrbotties Mutited 54 um Materceptenkton trawl Box core Box core Box core Box core Box core Box nore Box	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 20:47:00 01:14:00 05:53:00 06:58:00 06:58:00 06:58:00 06:38:00 11:01:00 06:38:00 11:01:00 12:57:00 13:28:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2	77.4996 77.5156 77.5010 77.5016 77.5006	34.0007 34.0007 33.9043 33.9045 33.9065 34.0007 34.0008 34.0007 34.0008 34.0007 34.	188.34 188.34 188.34 196.05 196.73 196.73 196.73 196.35 196.3 196.3 196.34	1 157 399 400 411 106 12 13 13 14 45 46	175	150 160 170 170 170 150		taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted I efficient of the second second too fast, I efficient on pumpor TS probe With LADCP; Model With LADCP; Model	Sampling Protocols v4 July 12 2019, 10.2 3; bottom time 30 min Nameen Lagacy Genolyma Martane Lagacy Sampling protocols v4 July 12 2019, 9.3 MK Martane Lagacy Sampling protocols v4 July 12 2019, 9.3 MK Martane Lagacy Speed similar to deploying Martane Lagacy Sampling Protocols v4 July 12 2019, 9.2 CTD; One salihity sample Stao157 Martane Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salihity sample Stao157 Martane Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salihity sample Stao157	See data file for instrument serial numbers. Note change og temperature sensor before cast 102. 172	Tove M. Gabrieker	Marit Reigstad Marit	mark reigstadgeut og mark reigstadgeut og	UIT The Arctic University of Norway.
208 278±8068-bcbb-1149-8449-000c297b4a98 278±8078-bcbb-1149-8449-000c297b4a98 278±8078-bcbb-1149-8449-000c297b4a98 209 278±8078-bcbb-1149-8449-000c297b4a98 210 278±8098-bcbb-1149-8449-000c297b4a98 211 244547118-bcbb-1149-8449-000c297b4a98 212 244547118-bcbb-1149-8449-000c297b4a98 213 244547118-bcbb-1149-8449-000c297b4a98 214 244547118-bcbb-1149-8449-000c297b4a98 215 5ec60529-bcbb-1149-8449-000c297b4a98 216 5ec60529-bcbb-1149-8449-000c297b4a98 216 5ec60529-bcbb-1149-8449-000c297b4a98 217 5ec60529-bcbb-1149-8449-000c297b4a98 218 5ec60529-bcbb-1149-8449-000c297b4a98 219 0016114-bd5a-1149-8449-000c297b4a98 221 0x747bdf-bd5a-1149-8449-000c297b4a98 222 0x747bdf-bd5a-1149-8449-000c297b4a98 223 0x747bdf-bd5a-1149-8449-000c297b4a98 224 0016115-bd5a-1149-8449-000c297b4a98 225 0x747bdf-bd5a-1149-8449-000c297b4a98 226 0016115-bd5a-1149-8449-000c297b4a98 226 0016115-bd5a-1149-849-000c297b4a98 226	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MK-net 1500 um GO-FLO Active water sampler T5 probe CTD wrbotties Mutited 54 um Materceptenkton trawl Box core Box core Box core Box core Box core Box nore Box	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 20:47:00 01:14:00 05:53:00 06:58:00 06:58:00 06:58:00 06:38:00 11:01:00 06:38:00 11:01:00 12:57:00 13:28:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2	77.4996 77.5156 77.5010 77.5016 77.5006	34.0007 34.0007 33.9043 33.9045 33.9065 34.0007 34.0008 34.0007 34.0008 34.0007 34.	188.34 188.34 188.34 196.05 196.73 196.73 196.73 196.35 196.3 196.3 196.34	1 157 399 400 411 106 12 13 13 14 45 46	175	150 160 170 170 170 150		taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted I efficient of the second second too fast, I efficient on pumpor TS probe With LADCP; Model With LADCP; Model	Sampling Protocols v4 July 12 2019, 10.2.3; bottom time 30 mm Nansen Lagacy Sampling Protocols v4 July 12 2019, 9.3.6 MK end manual; heaving speed similar to deploying Nansen Lagacy Sampling Protocols v4 July 12 2019, 9.2.2 CTD Sampling Protocols v4 July 12 2019, 9.2.2 EX0157 One salmly sample Nansen Lagacy Sampling Protocols v4 July 12 2019, 10.2.2 Box corer Nansen Lagacy Nansen Lagacy Nansen Lagacy Nansen Lagacy Nansen Lagacy Nansen Lagacy Nansen Lagacy Nansen Lagacy Nansen Lagacy Nansen Lagacy Sampling Protocols v4 July 12 2019, 10.2.2 Box corer Nansen Lagacy Nansen	See data file for instrument serial numbers. Note change o lamperature sensor before casi 102. 172	Tove M. Gabrieker	Marit Reigstad Marit	mark reigstadgeut og mark reigstadgeut og	UIT The Arctic University of Norway.
208 278±8068-bcbb-1149-8449-000c297b4a98 278±8078-bcbb-1149-8449-000c297b4a98 278±8078-bcbb-1149-8449-000c297b4a98 209 278±8078-bcbb-1149-8449-000c297b4a98 210 278±8098-bcbb-1149-8449-000c297b4a98 211 244547118-bcbb-1149-8449-000c297b4a98 212 244547118-bcbb-1149-8449-000c297b4a98 213 244547118-bcbb-1149-8449-000c297b4a98 214 244547118-bcbb-1149-8449-000c297b4a98 215 5ec60529-bcbb-1149-8449-000c297b4a98 216 5ec60529-bcbb-1149-8449-000c297b4a98 216 5ec60529-bcbb-1149-8449-000c297b4a98 217 5ec60529-bcbb-1149-8449-000c297b4a98 218 5ec60529-bcbb-1149-8449-000c297b4a98 219 0016114-bd5a-1149-8449-000c297b4a98 221 0x747bdf-bd5a-1149-8449-000c297b4a98 222 0x747bdf-bd5a-1149-8449-000c297b4a98 223 0x747bdf-bd5a-1149-8449-000c297b4a98 224 0016115-bd5a-1149-8449-000c297b4a98 225 0x747bdf-bd5a-1149-8449-000c297b4a98 226 0016115-bd5a-1149-8449-000c297b4a98 226 0016115-bd5a-1149-849-000c297b4a98 226	WP3 1000 um WP3 1000 um WP3 1000 um Gampelen trawl MK-net 1500 um GO-FLO Active water sampler T5 probe CTD wrbotties Mutinet 64 um Mutinet 64 um Mutinet 64 um Materoplanikton trawl Box core Box core Box core Box core Box nore Box n	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 20:47:00 01:14:00 05:53:00 06:58:00 06:58:00 06:58:00 06:38:00 11:01:00 06:38:00 11:01:00 12:57:00 13:28:00	2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706 2019706	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2	77.4996 77.5156 77.5010 77.5016 77.5006	34.0007 34.0007 33.9043 33.9045 33.9065 34.0007 34.0008 34.0007 34.0008 34.0007 34.	188.34 188.34 188.34 196.05 196.73 196.73 196.73 196.35 196.3 196.3 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.35 196.34	1 157 399 400 411 106 12 13 13 14 45 46	175	150 160 170 170 170 150		taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted I efficient of the second second too fast, I efficient on pumpor TS probe With LADCP; Model With LADCP; Model	Sampling Protocols v4 July 12 2019, 10 23; bottom time 30 min Nameen Lagacy Sampling protocols v4 July 12 2019, 9.3 S MK deploying Nameen Lagacy Sampling protocols v4 July 12 2019, 9.3 S MK endploying Nameen Lagacy Sampling Protocols v4 July 12 2019, 9.3 S MK endploying Nameen Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salinity samplie Studies Nameen Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salinity samplie Studies Sampling Protocols v4 July 12 2019, 6.2 CTD; One salinity samplie Studies Sampling Protocols v4 July 12 2019, 6.2 CTD; One salinity radies Sampling Protocols v4 July 12 2019, 6.2 CTD; One salinity radies Sampling Protocols v4 July 12 2019, f.0 2 Box Corer Nameen Lagacy Sampling Protocols v4	See data file for instrument serial numbers. Note change og temperature sensor before cast 102. 172 172 560 data file for instrument serial	Tove M. Gabrieker	Marit Reigstad Marit	mark reigstadgeut og mark reigstadgeut og	UIT The Arctic University of Norway.
208 273eab06-bcb-11e9-849-000c29h4a96 278eab07-bcbb-11e9-849-000c29h4a96 278eab07-bcbb-11e9-849-000c29h4a96 209 278eab08-bcbb-11e9-849-000c29h4a96 210 278eab08-bcbb-11e9-849-000c29h4a96 211 4440411e-bcbb-11e9-849-000c29h4a96 212 4440411e-bcbb-11e9-849-000c29h4a96 213 4440411e-bcbb-11e9-849-000c29h4a96 214 4440411e-bcbb-11e9-849-000c29h4a96 215 5ec60628-bcbb-11e9-849-000c29h4a96 216 Sec60628-bcbb-11e9-849-000c29h4a96 217 Sec60628-bcbb-11e9-849-000c29h4a96 218 Sec60628-bcbb-11e9-849-000c29h4a96 219 Othe1b-bcbas-11e9-849-000c29h4a96 219 Sec60628-bcbb-11e9-849-000c29h4a96 210 Cr47hde-bd8a-11e9-849-000c29h4a96 221 Cr47hde-bd8a-11e9-849-000c29h4a96 222 0016-1b1-bd8a-11e9-849-000c29h4a96 223 0016-1b1-bd8a-11e9-849-000c29h4a96 224 0016-1b1-bd8a-11e9-849-000c29h4a96 225 0c747hdc-bd8a-11e9-849-000c29h4a96 220 0016-1b1-bd8a-11e9-849-000c29h4a96 222 0016-1b1-bd8a+11e9-849-000c29h4a96	WP3 1000 um WP3 1000 um WP3 1000 um Campelen travi Campelen travi MiK-net 1500 um MiK-net 150 um Boccore Boc core Boc	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 20:47:00 01:14:00 06:58:00 06:58:00 06:58:00 06:58:00 06:58:00 11:01:00 12:57:00 13:58:00 14:19:00	2019706 201	P2 P2	77.4996 77.5156 77.5010 77.5016 77.5006	34.0007 34.0007 33.9043 33.9045 33.9065 34.0007 34.0008 34.0007 34.0008 34.0007 34.	188.34 188.34 188.34 196.05 196.73 196.73 196.73 196.35 196.3 196.3 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.35 196.34	1 157 399 400 411 106 12 13 13 14 45 46	175	150 160 170 170 170 150		taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted I efficient of the second second too fast, I efficient on pumpor TS probe With LADCP; Model With LADCP; Model	Sampling Protocols v4 July 12 2019, 10.2 3; bottom time 30 min Namean Lagacy and manual, teaving deploying Nampling protocols v4 July 12 2019, 9.3 MK enderbying Manual, teaving speed simular to deploying Namean Lagacy Sampling Protocols v4 July 12 2019, 9.3 MK enderbying Namean Lagacy Sampling Protocols v4 July 12 2019, 10.2 MK Sampling Protocols v4 July 12 2019, 10.2 MK	See data fie for instrument serial numbers. Note change of temperature sensor before cast 192. 172 See data fie for instrument serial numbers. Note change og temperature sensor	Tove M. Gabrieker	Mart Reigstad Ma	mark reigstadiget no mark reigstadiget no	UIT The Arctic University of Norway UIT The Arctic University of Norway
208 278xab06-bcb-11e9-849-000c297b4a96 278xab06-bcb-11e9-849-000c297b4a96 278xab07-bcbb-11e9-849-000c297b4a96 209 278xab08-bcbb-11e9-849-000c297b4a96 210 278xab09-bcbb-11e9-849-000c297b4a96 211 2448dp11e-bcbb-11e9-849-000c297b4a96 212 2448dp11e-bcbb-11e9-849-000c297b4a96 213 2448dp11e-bcbb-11e9-849-000c297b4a96 214 2448dp11e-bcbb-11e9-849-000c297b4a96 215 5ec60829-bcbb-11e9-849-000c297b4a96 216 5ec60829-bcbb-11e9-849-000c297b4a96 226 506/e115-bd8a-11e9-849-000c297b4a96 226 506/e115-bd8a-11e9-849-000c297b4a96 226 506/e115-bd8a-11e9-849-000c297b4a96 226 506/e115-bd8a-1	WP3 1000 um WP3 1000 um WP3 1000 um Campelen travi Campelen travi MiK-net 1500 um MiK-net 150 um Boccore Boc core Boc	2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-11 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12 2019-08-12	15:18:00 16:42:00 17:30:00 18:03:00 20:47:00 01:14:00 06:58:00 06:58:00 06:58:00 06:58:00 06:58:00 11:01:00 12:57:00 13:58:00 14:19:00	2019706 201	P2 P2 P2 P2 P2 P2 P2 P2 P2 P2	77.4996 77.5156 77.5010 77.5016 77.5006	34.0007 34.0007 33.9043 33.9045 33.9065 34.0007 34.0008 34.0007 34.0008 34.0007 34.	188.34 188.34 188.34 196.05 196.73 196.73 196.73 196.35 196.3 196.3 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.34 196.35 196.34	1 157 399 400 411 106 12 13 13 14 45 46	175	150 160 170 170 170 150		taken from ID208 V-haul; heaving speed acc to protocol found too fast, adjusted V-haul; heaving speed acc to protocol found too fast, adjusted I efficient of the second second too fast, I efficient on pumpor TS probe With LADCP; Model With LADCP; Model	Sampling Protocols v4 July 12 2019, 10 23; bottom time 30 min Nameen Lagacy Sampling protocols v4 July 12 2019, 9.3 S MK deploying Nameen Lagacy Sampling protocols v4 July 12 2019, 9.3 S MK endploying Nameen Lagacy Sampling Protocols v4 July 12 2019, 9.3 S MK endploying Nameen Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salinity samplie Studies Nameen Lagacy Sampling Protocols v4 July 12 2019, 6.2 CTD; One salinity samplie Studies Sampling Protocols v4 July 12 2019, 6.2 CTD; One salinity samplie Studies Sampling Protocols v4 July 12 2019, 6.2 CTD; One salinity radies Sampling Protocols v4 July 12 2019, 6.2 CTD; One salinity radies Sampling Protocols v4 July 12 2019, f.0 2 Box Corer Nameen Lagacy Sampling Protocols v4	See data file for instrument serial numbers. Note change of lemperature sensor before cash 192. 172 172 See data file for instrument serial numbers. Note change	Tove M. Gabrieker	Mart Reigstad Ma	mark reigstadiget no mark reigstadiget no	UIT The Arctic University of Norway.

					1							r		1	1	1	1	1		
231 0c747bdd-bd6a-11e9-8f49-000c29fb4a96	Mooring	2019-08-12 2	1:22:00 2019706	M5	78.3478	34.7624	241.23	52					Rigg M6 - N 78 20 869 E				Tove M. Gabrielsen	n Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
													At mooring site; With	Nansen Legacy		See data file for instrument serial				
													LADCP; Model WHS300-I-	Sampling Protocols v4		numbers. Note change				
													UG502; SN 24474 & SN	July 12 2019; 6.2 CTD;		og temperature sensor				
232 20db6cac-bd6a-11e9-8f49-000c29fb4a96	CID	2019-08-12 2	1:30:00 2019706	M5	78.3498	34.7751	246.96	159					24472	One salinity sample	Sta0159	before cast 192.	Tove M. Gabrielsen	n Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
														Nansen Legacy		See data file for instrument serial				
														Sampling Protocols v4		numbers. Note change				
														July 12 2019; 6.2 CTD;		og temperature sensor				
233 20db6cad-bd6a-11e9-8f49-000c29fb4a96	CTD w/bottles	2019-08-12 23	3:41:00 2019706	NLEG6	78.5000	34.0004	179.89	160	170					One salinity sample	Sta0160	before cast 192.	Tove M. Gabrielsen	n Marit Reigstad	marit.reiostad@uit.no	UIT The Arctic University of Norway
														Nansen Legacy						
														Sampling protocols v4 July 12 2019, 10.2.3;						
														bottom time 15 min, with	1					
234 ef09b280-b5ec-11e9-acd1-a0481c9e7d26	Campelen trawl	2019-08-13	02:11 2019706	P3	78.7318	34.0098	307.25	107						fish líft			3 Tove M. Gabrielsen	n Marit Reigstad	marit.reiostad@uit.no	UIT The Arctic University of Norway
																See data file for				
													With LADCP; Model			instrument serial numbers. Note change				
													WHS300-I-UG502; SN			og temperature sensor				
235 ef09b281-b5ec-11e9-acd1-a0481c9e7d26	CTD w/bottles	2019-08-13	03:27 2019706	P3	78.7498	34.0008	306.99	161	300				24474 & SN 24472		Sta0161	before cast 192.	Tove M. Gabrielser	Marit Reigstad	marit.reiostad@uit.no	UIT The Arctic University of Norway
236 ef09b282-b5ec-11e9-acd1-a0481c9e7d26	GO-FLO	2019-08-13	04:12 2019706	P3	78.7498	34.0006	306.98	53									Tove M. Gabrielsen	n Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
														Nansen Legacy						
														Sampling protocols v4 July 12 2019, 9.3.5 MIK						
														net manual: heaving						
														speed similar to						
237 ef09b283-b5ec-11e9-acd1-a0481c9e7d26	MIK-net 1500 um	2019-08-13	05:10 2019706	P3	78.7502	34.0004	307.11	48					V-haul	deploying			Tove M. Gabrielsen	n Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
239 ef09b284-b5ec-11e9-acd1-a0481c9e7d26	Multinet 180 um		06:20 2019706		78.7500 78.7500		306.8	50		280 280	0)					Tove M. Gabrielsen	n Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
240 ef09b285-b5ec-11e9-acd1-a0481c9e7d26	Multinet 64 um	2019-08-13	06:58 2019706	P3	76.7500	34.0000	300.77	51		280	U						Tove M. Gabrielsen	n Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
1	1						1				1		1	Nansen Legacy Sampling protocols v4	1		1	1		
													1	Sampling protocols v4 July 12 2019 9.1						
													1	Phytoplankton net-haul						
													1	sampling; adjusted						
241 ef09b286-b5ec-11e9-acd1-a0481c9e7d26	Phytoplankton net 10 um	2019-08-13	07:29 2019706	P3	78.7500	34 0000	306 71	60		100				sampling depth to 100-	1		Tove M. Gabrielsen	Marit Rojecta	marit reinstad@uit.no	UIT The Arctic University of Norway
2/411 eluab200-bbec-11ea-acu1-au481098/026	r nysopiankton net ro um	2018-00-13	01.29 2019/06	۳۵	10.1000	Jr4.0000	300.71	32		100		1		UIII	1	Canadata B. 1	TOVE M. Gabrielsen	manic relystad	<u>เทลาเ.ายนุรเลย(Quit.no</u>	on the Arciic University of NofWay
	1						1				1		1	Nansen Legacy	1	See data file for instrument serial	1	1		
														Sampling Protocols v4		numbers. Note change				
														July 12 2019; 6.2 CTD;		og temperature sensor				
242 ef09b287-b5ec-11e9-acd1-a0481c9e7d26	CTD w/bottles	2019-08-13	09:40 2019706	NLEG08	79.0003	33.9997	269.57	162	260					One salinity sample	Sta0162	before cast 192.	Tove M. Gabrielsen	n Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
																See data file for				
														Nansen Legacy Sampling Protocols v4		instrument serial numbers. Note change				
														July 12 2019; 6.2 CTD;		og temperature sensor				
243 ef09b288-b5ec-11e9-acd1-a0481c9e7d26	CTD w/bottles	2019-08-13	12:12 2019706	NLEG09	79.2492	34.0018	215.73	163	205					One salinity sample	Sta0163	before cast 192.	Tove M. Gabrielsen	n Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
																See data file for				
														Nansen Legacy Sampling Protocols v4		instrument serial				
														Sampling Protocols v4 July 12 2019: 6.2 CTD:		numbers. Note change og temperature sensor				
244 ef09b289-b5ec-11e9-acd1-a0481c9e7d26	CTD w/bottles	2019-08-13	14:26 2019706	NLEG10	79.5002	33.9966	300.18	164	290					One salinity sample	Sta0164	before cast 192.	Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
																See data file for				
														Nansen Legacy		instrument serial				
														Sampling Protocols v4		numbers. Note change				
245 ef09b28a-b5ec-11e9-acd1-a0481c9e7d26	CTD w/bottles	2019-08-13	17:46 2019706	D4	70 7404	33 0071	338.30	105	205					July 12 2019; 6.2 CTD; One salinity sample	Sta0165	og temperature sensor before cast 192.	Tove M. Gabrielsen	Marit Reigstad		LIT The Apple University of Newson
246 ef09b28b-b5ec-11e9-acd1-a0481c9e7d26			18:31 2019706	F4	79.7494		338.83	53	323	100	0			One saimly sample	5140165	Delote cast 192.	Tove M. Gabrielsen		mant reinstad@uit.no	UIT The Arctic University of Norway UIT The Arctic University of Norway
247 ef09b28c-b5ec-11e9-acd1-a0481c9e7d26	WP2 90 um	2019-08-13	18:49 2019706	P4	79.7476	33.9853	338.43	54		70	0						Tove M. Gabrielsen	n Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
248 ef09b28d-b5ec-11e9-acd1-a0481c9e7d26	WP2 90 um	2019-08-13	19:01 2019706	P4	79.7477		338.11	55		70	0)					Tove M. Gabrielsen	n Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
249 ef09b28e-b5ec-11e9-acd1-a0481c9e7d26		2019-08-13	19:12 2019706		79.7478		337.72	56		300	0)					Tove M. Gabrielsen		marit.reiostad@uit.no	UIT The Arctic University of Norway
250 ef09b28f-b5ec-11e9-acd1-a0481c9e7d26 251 ef09b290-b5ec-11e9-acd1-a0481c9e7d26			19:33 2019706 20:14 2019706		79.7485		337.7 336.24	57		300	0						Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway UIT The Arctic University of Norway
251 el09b290-b5ec-11e9-acd1-a0481c9e7d26 252 ef09b291-b5ec-11e9-acd1-a0481c9e7d26			21:40 2019706	P4	79.7578		329.89	54		300	U U	2019-08-13 2019-08-14	1				Tove M. Gabrielsen	Marit Reigstad		UIT The Arctic University of Norway
	oconnent rup (short term)	2010 00 10	21.40 2010/00									2010 00 10 2010 00 1		Neese Lease			TOTO IN: OUDIDID	i munit i toigotata	maneragatableacho	on meridie oniversity of Norway
														Nansen Legacy Sampling protocols v4						
													1	July 12 2019 9.1						
													1	Phytoplankton net-haul						
													1	sampling; adjusted						
253 ef09b292-b5ec-11e9-acd1-a0481c9e7d26	Phytoplankton net 10 um	2019-08-13	21:51 2019706	P4	79.7584	33.9733	330.05	59		100			1	sampling depth to 100- 0m	1		Tove M. Gabrielser	Marit Reinsted	marit reiostad@uit no	UiT The Arctic University of Norway
253 ef09b292-b5ec-11e9-acd1-a0481c9e7d26 254 ef09b293-b5ec-11e9-acd1-a0481c9e7d26	Active water sampler	2019-08-13	23:35 2019706	P4	79.7584 79.7343	34.0766	326.97	55			ľ ľ		In situ filtration pump	To be included in v5			Tove M. Gabrielsen	n Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
255 ef09b294-b5ec-11e9-acd1-a0481c9e7d26	GO-FLO	2019-08-14	02:19 2019706	P4	79.7343	34.2372	344.53	56									Tove M. Gabrielsen	n Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
					79.7077	34.2833	351.99	60					1	Nansen Legacu						
	1						1				1		1	Sampling Protocols v4 July 12 2019 9.3.5. Mik	1		1	1		
257 ef09b295-b5ec-11e9-acd1-a0481c9e7d26	MIK-net 1500 um	2019-08-14	04:26 2019706	P4									Vertical haul	net manual;			Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
													1	Nansen Legacu		1				,,
1	1						1				1		1	Sampling Protocols v4	1		1	1		
	1						1				1		1	July 12 2019 9.3.5. Mik	1		1	1		
1	1						1				1		1	net manual; adjusted haul speed to ca 0.25	1		1	1		
258 ef09b296-b5ec-11e9-acd1-a0481c9e7d26	MIK-net 1500 um	2019-08-14	05:03 2019706	P4	79.7026	34.2815	354.2	61		320			Vertical haul	haul speed to ca 0.25 m/s because no weight			Tove M. Gabrielser	Marit Reinsted	marit reiostad@uit no	UiT The Arctic University of Norway
								51						Nansen Legacu						,
													1	Sampling Protocols v4						
													1	July 12 2019 9.3.5. Mik						
													1	net manual; adjusted						
259 ef09b297-b5ec-11e9-acd1-a0481c9e7d26	MIK-net 1500 um	2019-08-14	05:51 2019706	P4	79.6941	34.2683	356.7	62		220			Vertical haul	haul speed to ca 0.25 m/s because no weight			Tove M. Gabrielser	Marit Rejected	marit reinstad@u# no	UIT The Arctic University of Norway
200 01000201 000011100-0001-00401098/020	and the rood unit	2010 00-14	2010/00	14	10.0041	- /.2000		02		520						1	. oro m. Gaureiser		man all anyo rauge all. 110	
1	1						1				1		1	Nansen Legacu Sampling Protocols v4	1		1	1		
1	1						1				1		1	July 12 2019 9.3.5. Mik	1		1	1		
1	1						1				1		1	net manual; adjusted	1		1	1		
260 ef09b298-b5ec-11e9-acd1-a0481c9e7d26	MIK-net 1500 um	2019-08-14	06:43 2019706	P4	79.6931	34.2520	255.24	00		200			Vertical baul	haul speed to ca 0.25			Tawa M. Cabriel	Marit Rainata	mort	UIT The Arctic University of Norway
200 eluabzao-baec-1169-acd1-a0481c9e7d26	wink-tier rood um	2019-08-14	00.43 2019/06	P4	19.0931	JH.232U	355.31	63		320	0	1	Vertical haul	m/s because no weight	1	Casa dada Ba faa	Tove M. Gabrielsen	want reigstad	mani.reigstad@uit.no	on the Arcac University of Norway
1	1						1				1		1	1	1	See data file for instrument serial	1	1		
1	1						1				1		With LADCP; Model	1	1	numbers. Note change	1	1		
201 201 202 1 5	070	0040			70.0000		0.50.07				1		WHS300-I-UG502; SN	1		og temperature sensor			· · · · · -	
261 ef09b299-b5ec-11e9-acd1-a0481c9e7d26	CTD w/bottles		07:24 2019706 08:33 2019706	P4 P4	79.6932 79.6964	34.2300	352.99	166	340	205			24474 & SN 24472		Sta0166	before cast 192.	Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
262 ef09b29a-b5ec-11e9-acd1-a0481c9e7d26	ividiarier too dm	2018-08-14	00.001 2019/06	P4	10.0304	UH.2240	540.00	04		325	. 0	4 1	1	I	+	4	Tove M. Gabrielsen	unviani religistad	mani.reigstad@ult.no	UIT The Arctic University of Norway

263 ef09b29b-b5ec-11e9-acd1-a0481c9e7d26 Multinet 64 um			70 7000 04 0007	0.44.7	05			1 1 1		1			
264 ef09b29c-b5ec-11e9-acd1-a0481c9e7d26 Multinet 64 um	2019-08-14 09:13 201970 2019-08-14 10:10 201970	06 P4 06 P4	79.7002 34.2237 79.7073 34.2281	341.7 342.63	65	280	0 0				Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad	marit.reigstad@uit.no UIT The Arctic University of Norway marit.reigstad@uit.no UIT The Arctic University of Norway
						-	-			See data file for			
									Nansen Legacy	instrument serial			
									Sampling Protocols v4 July 12 2019; 6.2 CTD;	numbers. Note change og temperature sensor			
266 ef09b29e-b5ec-11e9-acd1-a0481c9e7d26 CTD w/bottles	2019-08-14 11:06 201970	J6 P4	79.7140 34.2664	341.28	167 33'	.0			One salinity sample Sta0167	before cast 192.	Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no UIT The Arctic University of Norway
267 ef09b29f-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 180 um	2019-08-14 11:43 201970	06 P4		343.08	67	330					Tove M. Gabrielsen	Marit Reigstad	marit_reigstad@uit.no UiT The Arctic University of Norway
268 ef09b2a0-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 64 um	2019-08-14 12:12 201970 2019-08-14 12:41 201970		79.7203 34.3065 79.7211 34.3182	343.78 341.63	68	330					Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
269 ef09b2a1-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 64 um	2019-08-14 12:41 201970	<u>/b P4</u>	/9./211 34.3102	341.03	69	33(3 0			0.11.0.6	Tove M. Gabrielsen	Marit Reigstad	marit.reiostad@uit.no UIT The Arctic University of Norway
									Nansen Legacy	See data file for instrument serial			
									Sampling Protocols v4	numbers. Note change			
									July 12 2019; 6.2 CTD;	og temperature sensor			
270 ef09b2a2-b5ec-11e9-acd1-a0481c9e7d26 CTD w/bottles 271 ef09b2a3-b5ec-11e9-acd1-a0481c9e7d26 CTD	2019-08-14 13:15 201970 2019-08-14 13:52 201970	06 P4 06 P4	79.7226 34.3311 79.7233 34.3442	338.9	168 325	29 50	0	SAIV CTD	One salinity sample Sta0168 Sta0169	before cast 192.	Tove M. Gabrielsen 2 Tove M. Gabrielsen	Marit Reigstad Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway marit.reigstad@uit.no UiT The Arctic University of Norway
272 ef09b2a4-b5ec-11e9-acd1-a0481c9e7d26 GO-FLO	2019-08-14 14:11 201970	06 P4	79.7230 34.3530		58		-	arr orb	000105	01.	Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
273 ef09b2a5-b5ec-11e9-acd1-a0481c9e7d26 TS probe	2019-08-14 16:13 201970	06 P4	79.7111 34.3772	338.16	3						Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
									Nansen Legacy				
									Sampling protocols v4 July 12 2019, 10.2.3;				
									bottom time 15 min, with				
274 ef09b2a6-b5ec-11e9-acd1-a0481c9e7d26 Campelen trawl	2019-08-14 19:50 201970		79.5518 34.5686	328.4	108				fish lift	172	4 Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no UIT The Arctic University of Norway
275 ef09b2a7-b5ec-11e9-acd1-a0481c9e7d26 Macroplankton traw	2019-08-14 20:56 201970	06 P4	79.4983 34.6344	304.77	109					172	3 Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no UIT The Arctic University of Norway
									Nansen Legacy Sampling Protocols v4				
									July 12 2019; 10.2.2				
276 ef09b2a8-b5ec-11e9-acd1-a0481c9e7d26 Box core	2019-08-15 01:37 201970	06 P4	79.7457 34.0169	333.83	15				Box corer		Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no UIT The Arctic University of Norway
									Nansen Legacy				
		1							Sampling Protocols v4 July 12 2019; 10.2.2		1		
277 ef09b2a9-b5ec-11e9-acd1-a0481c9e7d26 Box core	2019-08-15 03:10 201970	06 P4	79.7434 33.9961	332.7	16				July 12 2019; 10.2.2 Box corer		Tove M. Gabrielsen	Marit Reinsted	marit.reigstad@uit.no UiT The Arctic University of Norwa
	2010 00 10 00.10 20101			-		+	+		Nansen Legacy	1	Contraction of the second seco		on nerveus surveys on versity of Norwa
									Sampling Protocols v4				
			70 7540	004.07	_				July 12 2019; 10.2.2				
278 ef09b2ce-b5ec-11e9-acd1-a0481c9e7d26 Box core	2019-08-15 04:51 201970	06 P4	79.7518 34.0282	331.05	17				Box corer		Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no UIT The Arctic University of Norway
		1				1	1		Nancan Langer	See data file for	1		
								With LADCP;	Nansen Legacy Model Sampling Protocols v4	instrument serial numbers. Note change			
								WHS300-I-U0	G502; SN July 12 2019; 6.2 CTD;	og temperature sensor			
279 ef09b2cf-b5ec-11e9-acd1-a0481c9e7d26 CTD w/bottles	2019-08-15 08:22 201970	06 NLEG12	79.9982 33.9961	211.8	170 204	4		24474 & SN 2	24472 One salinity sample Sta0170	before cast 192.	Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
										See data file for			
								With LADCP;	Nansen Legacy Model Sampling Protocols v4	instrument serial numbers. Note change			
								WHS300-I-U0	G502: SN July 12 2019: 6.2 CTD:	og temperature sensor			
280 ef09b2d0-b5ec-11e9-acd1-a0481c9e7d26 CTD w/bottles	2019-08-15 17:03 201970			162.71	171 150	0	_	24474 & SN 2	24472 One salinity sample Sta0171	before cast 192.	Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no UIT The Arctic University of Norway
281 ef09b2d1-b5ec-11e9-acd1-a0481c9e7d26 CTD 282 ef09b2d2-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 180 um	2019-08-15 17:44 201970 2019-08-15 17:55 201970	06 P5	80.4951 33.9678 80.4949 33.9620	159.36	172		<u> </u>	SAIV CTD	Sta0172	61	2 Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no UIT The Arctic University of Norway marit.reigstad@uit.no UIT The Arctic University of Norway
283 ef09b2d3-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 180 um 283 ef09b2d3-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 180 um	2019-08-15 17:55 201970		80.4949 33.9620	159.3	70	140	0 0				Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway marit.reigstad@uit.no UiT The Arctic University of Norway
									Nansen Legacy				
									Sampling protocols v4				
									July 12 2019 9.1				
									Phytoplankton net-haul sampling; adjusted				
									sampling; adjusted sampling depth to 100-				
284 ef09b2d4-b5ec-11e9-acd1-a0481c9e7d26 Phytoplankton net 1	um 2019-08-15 18:31 201970	J6 P5	80.4954 33.9424	159.12	72	14	0 O.		Om		Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norwa
									Nansen Legacy				
									Sampling protocols v4				
									July 12 2019 9.1				
									Phytoplankton net-haul sampling; adjusted				
									sampling depth to 100-				
285 ef09b2d5-b5ec-11e9-acd1-a0481c9e7d26 Phytoplankton net 10 286 ef09b2d6-b5ec-11e9-acd1-a0481c9e7d26 Sediment trap (short	um 2019-08-15 18:47 201970		80.4957 33.9353	160.85									
286 ef09b2d6-b5ec-11e9-acd1-a0481c9e7d26 Sediment trap (short 287 ef09b2d7-b5ec-11e9-acd1-a0481c9e7d26 MIK-net 1500 um	term) 2019-08-15 20:32 201970 2019-08-15 21:05 201970	06 P5			73	10	0 0		Om		Tove M. Gabrielsen	Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norwa
288 ef09b2d8-b5ec-11e9-acd1-a0481c9e7d26 MIK-net 1500 um			80.5006 33.8810		73 59 74	100	0 0 0 0	2019-08-15 2019-08-16	0m		Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway marit.reigstad@uit.no UIT The Arctic University of Norway morit reigntad@uit.no UIT The Arctic University of Norway
		06 P5	80.5092 33.8602	162.19	73 59 74 75	100			0m		Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad	
289 ef09b2d9-b5ec-11e9-acd1-a0481c9e7d26 MIK-net 1500 um	2019-08-15 21:16 201970 2019-08-15 21:35 201970	06 P5 06 P5 06 P5	80.5092 33.8602 80.5117 33.8545 80.5163 33.8551	162.19 168.54 169.2	73 59 74 75 76	140	10 0 10 0	2019-08-15 2019-08-16 Vertical haul Vertical haul	0m		Tove M. Gabrielsen Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad	
289 ef09b2d9-b5ec-11e9-acd1-a0481c9e7d26 MIK-net 1500 um 290 ef09b2da-b5ec-11e9-acd1-a0481c9e7d26 GO-FLO	2019-08-15 21:16 201970	06 P5 06 P5 06 P5	80.5092 33.8602 80.5117 33.8545 80.5163 33.8551	162.19 168.54	73 59 74 75 76 60	14(10 0 10 0	Vertical haul	0m		Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad	
289 ef09b2d9-b5ec-11e9-acd1-a0481c9e7d26 MIK-net 1500 um 290 ef09b2da-b5ec-11e9-acd1-a0481c9e7d26 GO-FLO	2019-08-15 21:16 201970 2019-08-15 21:35 201970	06 P5 06 P5 06 P5	80.5092 33.8602 80.5117 33.8545 80.5163 33.8551	162.19 168.54 169.2	73 59 74 75 76 60	140	10 0 10 0	Vertical haul	Om 	See data file for	Tove M. Gabrielsen Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad	
289 ef09b2d9-b5ec-11e9-acd1-a0481c9e7d26 MIK-net 1500 um 290 ef09b2da-b5ec-11e0-acd1-a0481c9e7d26 GO-FLO	2019-08-15 21:16 201970 2019-08-15 21:35 201970	06 P5 06 P5 06 P5	80.5092 33.8602 80.5117 33.8545 80.5163 33.8551	162.19 168.54 169.2	73 59 74 75 76 60	140	10 0 10 0	Vertical haul	0m	instrument serial	Tove M. Gabrielsen Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad	
289 ef09b2d9-b5ec-11e9-acd1-a0481c9e7d26 MIK-net 1500 um 280 ef09b2da-b5ec-11e9-acd1-a0481c9e7d26 GO-FLO	2019-08-15 21:16 201970 2019-08-15 21:35 201970	06 P5 06 P5 06 P5	80.5092 33.8602 80.5117 33.8545 80.5163 33.8551	162.19 168.54 169.2	73 59 74 75 76 60	140	10 0 10 0	Vertical haul	Om	instrument serial numbers. Note change	Tove M. Gabrielsen Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad	
200 ef09b2da-b5ec-11e9-acd1-a0481c9e7426 GO-FLO	2019-08-15 21:16 20197 2019-08-15 21:35 20197 2019-08-15 22:41 20197 2019-08-16 00:23 201970	06 P5 06 P5 06 P5 06 P5 06 P5	80.5092 33.8602 80.5117 33.8545 80.5163 33.8551 80.5245 33.8928 80.5249 33.9602	162.19 168.54 169.2 171.81	73 59 74 75 76 60 173	140	10 0 10 0	Vertical haul	0m	instrument serial	Tove M. Gabrielsen Tove M. Gabrielsen Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mart.registad@ut.nu UIT The Arctic University of Norwa mart.registad@ut.nu UIT The Arctic University of Norwa mart.registad@ut.nu UIT The Arctic University of Norwa mart.registad@ut.nu UIT The Arctic University of Norwa
290]ef09b2da-b5ec-11e9-acd1-a0481c9e7d26GO-FLO	2019-08-15 21:16 201970 2019-08-15 21:35 201970 2019-08-15 22:41 201970	06 P5 06 P5 06 P5 06 P5 06 P5	80.5092 33.8602 80.5117 33.8545 80.5163 33.8551 80.5245 33.8928	162.19 168.54 169.2 171.81	73 59 74 75 60 60 173 4	140	10 0 10 0	Vertical haul	0m Nansen Legacy Sampling Protocols v4 July 12 2016; 6 2 CTD; One salinity sample Sta0173	instrument serial numbers. Note change og temperature sensor	Tove M. Gabrielsen Tove M. Gabrielsen Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mart.registad@ut.nu UIT The Arctic University of Norwa mart.registad@ut.nu UIT The Arctic University of Norwa mart.registad@ut.nu UIT The Arctic University of Norwa mart.registad@ut.nu UIT The Arctic University of Norwa
230 #098b2ds-b5ec-11e9-acd1-a0481c9e7d26 QO-FLO 231 #098b2ds-b5ec-11e9-acd1-a0481c9e7d26 CTD whotles 232 #098b2ds-b5ec-11e9-acd1-a0481c9e7d26 TS probe	2019-08-15 21:16 20197 2019-08-15 21:35 20197 2019-08-15 22:41 20197 2019-08-16 00-23 20197 2019-08-16 00-23 20197 2019-08-16 00-55 20197	06 P5 06 P5 06 P5 06 P5 06 P5 06 P5 06 P5	80.5092 33.8602 80.5117 33.8545 80.5163 33.8551 80.5245 33.8928 80.5289 33.9602 80.5273 33.9844	162.19 168.54 169.2 171.81	73 59 74 75 60 4 173 4	140	10 0 10 0	Vertical haul Vertical haul Vertical haul Vertical haul Scanmar did	Om	instrument serial numbers. Note change og temperature sensor	Tove M. Gabrielsen Tove M. Gabrielsen Tove M. Gabrielsen Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mart.registad@ut.no UIT he Arctic University of Norway mart.registad@ut.no UIT he Arctic University of Norway mart.registad@ut.no UIT The Arctic University of Norway mart.registad@ut.no UIT The Arctic University of Norway mart.registad@ut.no UIT The Arctic University of Norway
200 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 QO-FLO 201 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 CTD whotles 202 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 CTD whotles 203 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 TS mote 203 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 White 18 hours	2019-08-15 21:16 20197 2019-08-15 21:35 20197 2019-08-15 22:41 20197 2019-08-16 00:23 201970	06 P5 06 P5 06 P5 06 P5 06 P5 06 P5 06 P5	80.5092 33.8602 80.5117 33.8545 80.5163 33.8551 80.5245 33.8928 80.5249 33.9602	162.19 168.54 169.2 171.81 169.77 174.35 162.0	73 59 74 76 60 173 4 77 78	140		Vertical haul	Om	instrument serial numbers. Note change og temperature sensor	Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mart.registad@ut.o UIT he Arctic University of Norway mart.registad@ut.o UIT he Arctic University of Norway mart.registad@ut.o UIT The Arctic University of Norway
200 #008b2da-b5ec-11e9-acd1-a0481c9a7d26 QO-FLO 201 #008b2da-b5ec-11e9-acd1-a0481c9a7d26 CTD whottles 202 #008b2da-b5ec-11e9-acd1-a0481c9a7d26 CTD whottles 203 #008b2da-b5ec-11e9-acd1-a0481c9a7d26 CTD whottles 203 #008b2da-b5ec-11e9-acd1-a0481c9a7d26 Multime 169 um 204 #008b2da-b5ec-11e9-acd1-a0481c9a7d26 Multime 169 um 204 #008b2da-b5ec-11e9-acd1-a0481c9a7d26 Multime 169 um 204 #008b2da-b5ec-11e9-acd1-a0481c9a7d26 Multime 64 um 204 #008b2da-b5ec-11e9-acd1-a0481c9a7d26 Multime 64 um	2019-08-16 21:16 20177 2019-08-15 21:35 20197 2019-08-15 22:34 20197 2019-08-16 00.23 20197 2019-08-16 00.23 20197 2019-08-16 00.25 20197 2019-08-16 04:12 20197 2019-08-16 04:16 20197	06 P5 06 P5 06 P5 06 P5 06 P5 06 P5 06 P5 06 P5 06 P5 06 P5	00.5002 33.8602 80.5117 33.8545 80.5163 33.8551 80.5245 33.8521 80.5245 33.8928 80.5229 33.9602 80.5273 33.9644 80.4652 34.0860 80.4771 34.0669	162.19 168.54 169.2 171.81 169.77 174.35 162.0 159.99 157.25	73 59 74 75 76 60 4 173 4 77 78 78 79	140 140 140		Vertical haul Vertical haul Vertical haul Vertical haul Scanmar did	Om	instrument serial numbers. Note change og temperature sensor	Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mark.registad@ut.no UIT the Actic University of Norwa mark.registad@ut.no UIT The Actic University of Norwa
230 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 GO-FLO 231 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whotles 232 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 TS probe 233 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 80 um 234 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 80 um 234 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 236 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 236 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 236 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um	2019-08-16 21:16 2017 2019-08-16 21:35 20197 2019-08-16 21:35 20197 2019-08-16 20:32 20197 2019-08-16 00:23 20197 2019-08-16 00:55 20197 2019-08-16 04:12 20177 2019-08-16 04:19 20197 2019-08-16 04:19 20197	06 P5 06 P5	80.5092 33.8602 80.5117 33.8545 80.5163 38.851 80.5245 33.8651 80.5245 33.8928 80.5226 33.9602 80.5223 39.9844 80.4952 34.0860 80.4864 34.0835 80.4743 34.0661	162.19 168.54 169.2 171.81 169.77 174.35 162.0 159.99 157.25 155.24	73 59 74 76 60 60 4 77 78 78 78 80	14(14(14(14(14(14(14(Vertical haul Vertical haul Vertical haul Vertical haul Scanmar did	Om	instrument serial numbers. Note change og temperature sensor	Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mart.registad@ut.no UIT he Arctic University of Norway mart.registad@ut.no UIT he Arctic University of Norway mart.registad@ut.no UIT The Arctic University of Norway
200 ef/09b2db-b5ec-11e9-acd1-a0481c9e7d26 GO-FLO 201 ef/09b2db-b5ec-11e9-acd1-a0481c9e7d26 GTD wrbottles 202 ef/09b2db-b5ec-11e9-acd1-a0481c9e7d26 GTD wrbottles 203 eff05b2db-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 unn 204 eff05b2db-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 unn 206 eff05b2db-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 unn 207 eff05b2b-b5ec-11e9-acd1-a0481c9e7d26 Bongmett 610 unn 207 eff05b2b-b5ec-11e9-acd1-a0481c9e7d26 Bongmett 610 unn	2019-08-16 21:16 20177 2019-08-15 21:35 20197 2019-08-15 21:35 20197 2019-08-15 22:41 20197 2019-08-16 00:23 20197 2019-08-16 00:55 20197 2019-08-16 01:55 20197 2019-08-16 01:56 20197 2019-08-16 01:56 20197 2019-08-16 07:09 20197	06 P5 06 P5	00.5002 33.8602 00.5117 33.8545 00.5123 33.8551 00.5245 33.8928 00.5245 33.8902 00.5226 33.9802 00.5273 33.9804 00.4925 34.0860 00.4925 34.0860 00.4771 34.0861 00.4774 34.0869 00.4774 34.0861 00.4774 34.0869 00.4774 34.0861 00.4774 34.0861 00.4775 34.0861 00.4776 34.0861	162.19 168.54 169.2 171.81 169.77 174.35 162.0 159.99 157.25 155.24 154.77	73 59 74 75 76 60 173 4 77 78 78 79 80 80 81	14(14(14(14(14(14(14(Vertical haul Vertical haul Vertical haul Vertical haul Scanmar did	Om	instrument serial numbers. Note change og temperature sensor	Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mark.registad@ut.no UIT the Arctic University of Norwa mark.registad@ut.no UIT The Arctic University of Norwa
230 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 GO-FLO 231 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whotles 232 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 TS probe 233 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 80 um 234 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 80 um 234 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 236 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 236 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 236 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um	2019-08-16 21:16 2017 2019-08-16 21:35 20197 2019-08-16 21:35 20197 2019-08-16 20:32 20197 2019-08-16 00:23 20197 2019-08-16 00:55 20197 2019-08-16 04:12 20177 2019-08-16 04:19 20197 2019-08-16 04:19 20197	06 P5 06 P5	80.5092 33.8602 80.5117 33.8545 80.5163 38.851 80.5245 33.8651 80.5245 33.8928 80.5226 33.9602 80.5223 39.9844 80.4952 34.0860 80.4864 34.0835 80.4743 34.0661	162.19 168.54 169.2 171.81 169.77 174.35 162.0 159.99 157.25 155.24 154.77	73 59 74 75 76 76 76 76 77 78 77 78 77 78 80 80 81 82	14(14(14(14(14(14(14(Vertical haul Vertical haul Vertical haul Vertical haul Scanmar did	Om	instrument serial numbers. Note change og temperature sensor beføre cast 192.	Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mart.registad@ut.o UIT the Actic University of Norwa mart.registad@ut.o UIT The Actic University of Norwa
200 ef/09b2db-b5ec-11e9-acd1-a0481c9e7d26 GO-FLO 201 ef/09b2db-b5ec-11e9-acd1-a0481c9e7d26 GTD wrbottles 202 ef/09b2db-b5ec-11e9-acd1-a0481c9e7d26 GTD wrbottles 203 eff05b2db-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 unn 204 eff05b2db-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 unn 206 eff05b2db-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 unn 207 eff05b2b-b5ec-11e9-acd1-a0481c9e7d26 Bongmett 610 unn 207 eff05b2b-b5ec-11e9-acd1-a0481c9e7d26 Bongmett 610 unn	2019-08-16 21:16 20177 2019-08-15 21:35 20197 2019-08-15 21:35 20197 2019-08-15 22:41 20197 2019-08-16 00:23 20197 2019-08-16 00:55 20197 2019-08-16 01:55 20197 2019-08-16 01:56 20197 2019-08-16 01:56 20197 2019-08-16 07:09 20197	06 P5 06 P5	00.5002 33.8602 00.5117 33.8545 00.5123 33.8551 00.5245 33.8928 00.5245 33.8902 00.5226 33.9802 00.5273 33.9804 00.4925 34.0860 00.4925 34.0860 00.4771 34.0861 00.4774 34.0869 00.4774 34.0861 00.4774 34.0869 00.4774 34.0861 00.4774 34.0861 00.4775 34.0861 00.4776 34.0861	162.19 168.54 169.2 171.81 169.77 174.35 162.0 159.99 157.25 155.24 154.77	73 59 74 75 76 60 173 4 77 78 78 79 80 81 82	14(14(14(14(14(14(14(Vertical haul Vertical haul Vertical haul Vertical haul Vertical haul	Om	instrument serial numbers. Note change og temperature sensor beføre cast 192.	Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mart reigistad@ut.o UIT the Actic University of Norwa mart reigistad@ut.o UIT The Actic University of Norwa
200 ef/09b2db-b5ec-11e9-acd1-a0481c9e7d26 GO-FLO 201 ef/09b2db-b5ec-11e9-acd1-a0481c9e7d26 GTD wrbottles 202 ef/09b2db-b5ec-11e9-acd1-a0481c9e7d26 GTD wrbottles 203 eff05b2db-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 unn 204 eff05b2db-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 unn 206 eff05b2db-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 unn 207 eff05b2b-b5ec-11e9-acd1-a0481c9e7d26 Bongmett 610 unn 207 eff05b2b-b5ec-11e9-acd1-a0481c9e7d26 Bongmett 610 unn	2019-08-16 21:16 20177 2019-08-15 21:35 20197 2019-08-15 21:35 20197 2019-08-15 22:41 20197 2019-08-16 00:23 20197 2019-08-16 00:55 20197 2019-08-16 01:55 20197 2019-08-16 01:56 20197 2019-08-16 01:56 20197 2019-08-16 07:09 20197	06 P5 06 P5	00.5002 33.8602 00.5117 33.8545 00.5123 33.8551 00.5245 33.8928 00.5245 33.8902 00.5226 33.9802 00.5273 33.9804 00.4925 34.0860 00.4925 34.0860 00.4771 34.0861 00.4774 34.0869 00.4774 34.0861 00.4774 34.0869 00.4774 34.0861 00.4774 34.0861 00.4775 34.0861 00.4776 34.0861	162.19 168.54 169.2 171.81 169.77 174.35 162.0 159.99 157.25 155.24 154.77	73 74 76 76 76 60 173 4 77 78 79 80 81 82	14(14(14(14(14(14(14(Vertical had Verti	Om O	Instrument serial numbers. Note change og temperature sensor beføre cast 192.	Tove M. Gabrielsen Tove M. Gabrielsen	Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad Marit Reigstad	mart registal@ut.o. UIT the Actic University of Norwa mart registal@ut.o. UIT The Actic University of Norwa
230 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 QO-FLO 231 ef098b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whotites 232 ef098b2da-b5ec-11e9-acd1-a0481c9e7d26 TS probe 233 ef098b2da-b5ec-11e9-acd1-a0481c9e7d26 TS probe 234 ef098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multime 64 um 236 ef08b2da-b5ec-11e9-acd1-a0481c9e7d26 Multime 64 um 236 ef08b2da-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 164 um 237 ef08b2da-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 64 um 238 ef08b2da-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 64 um	2019-08-16 211-6 2017 2019-08-16 2135 20197 2019-08-16 22341 20197 2019-08-16 0023 20197 2019-08-16 0023 20197 2019-08-16 0025 20197 2019-08-16 0412 20197 2019-08-16 0412 20197 2019-08-16 0618 20197 2019-08-16 0639 20197 2019-08-16 0730 20197 2019-08-16 0730 20197	66 P6 66 P6 66 P5 66 P5 68 P5 68 P5 68 P5 68 P5 69 P5 60 P5	00 50002 33.8602 00 5117 33.8645 80 5163 33.8645 80 5246 33.8626 80 5226 33.8626 80 5226 33.8622 80 5226 33.8622 80 5226 34.8622 80 5226 34.0635 80 5226 34.0635 80 5226 34.0635 80 5227 38.864 80.422 34.0635 80.423 34.0635 80.4737 34.0620 80.4736 34.0579	162.19 168.54 169.2 171.81 169.77 174.35 162.0 159.99 157.25 155.24 155.24 152.96	73 59 74 75 76 60 60 173 4 77 78 78 78 79 80 81 82 82	14(14(14(14(14(14(14(Vertical haul Vertical haul Vertical haul Vertical haul Vertical haul Scanmar did botion depth	Om Image: Construction of the second se	instrument serial numbers. Note change og temperature sensor before cast 192.	Tove M. Gabrielsen Tove M. Gabrielsen	Mart Registed Mart Registed Mart Resisted Mart Resisted Mart Resisted Mart Registed Mart Registed Mart Registed Mart Registed Mart Registed Mart Registed Mart Registed	mart registad@ut.no mart registad@ut.no UIT The Arctic University of Norwa mart registad@ut.no UIT The Arctic University of Norwa
200 ef/09b2db-b5ec-11e9-acd1-a0481c9e7d26 GO-FLO 201 ef/09b2db-b5ec-11e9-acd1-a0481c9e7d26 GTD wrbottles 202 ef/09b2db-b5ec-11e9-acd1-a0481c9e7d26 GTD wrbottles 203 eff05b2db-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 unn 204 eff05b2db-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 unn 206 eff05b2db-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 unn 207 eff05b2b-b5ec-11e9-acd1-a0481c9e7d26 Bongmett 610 unn 207 eff05b2b-b5ec-11e9-acd1-a0481c9e7d26 Bongmett 610 unn	2019-08-16 21:16 20177 2019-08-15 21:35 20197 2019-08-15 21:35 20197 2019-08-15 22:41 20197 2019-08-16 00:23 20197 2019-08-16 00:55 20197 2019-08-16 01:55 20197 2019-08-16 01:56 20197 2019-08-16 01:56 20197 2019-08-16 07:09 20197	66 P6 66 P6 66 P5 66 P5 68 P5 68 P5 68 P5 68 P5 69 P5 60 P5	00.5002 33.8602 00.5117 33.8545 00.5123 33.8551 00.5245 33.8928 00.5245 33.8902 00.5273 33.9802 00.5273 33.9804 00.4925 34.0860 00.4925 34.0860 00.4771 34.0861 00.4774 34.0869 00.4774 34.0869 00.4774 34.0869 00.4774 34.0861 00.4775 34.0861	162.19 168.54 169.2 171.81 169.77 174.35 162.0 159.99 157.25 155.24 154.77	73 74 75 76 60 60 77 4 77 78 77 78 79 80 81 82 82 77 4 79 80 81 82	14(14(14(14(14(14(14(Vertical haul Vertical haul Vertical haul Vertical haul Scanmar did bottom depth bottom depth With LADCP; With LADCP; With LADCP; With LADCP; With LADCP;	Om O	Instrument serial numbers. Note change og temperature sensor beføre cast 192.	Tove M. Gabrielsen Tove M. Gabrielsen	Mart Registed Mart Registed Mart Resisted Mart Resisted Mart Resisted Mart Registed Mart Registed Mart Registed Mart Registed Mart Registed Mart Registed Mart Registed	mart registad@ut.no UIT The Arclic University of Norwa mart registad@ut.no UIT The Arclic University of Norwa mart.registad@ut.no UIT The Arclic University of Norwa mart.registad@ut.no UIT The Arclic University of Norwa mart.registad@ut.no UIT The Arclic University of Norwa
230 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 QO-FLO 231 ef098b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whotites 232 ef098b2da-b5ec-11e9-acd1-a0481c9e7d26 TS probe 233 ef098b2da-b5ec-11e9-acd1-a0481c9e7d26 TS probe 234 ef098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multime 64 um 236 ef08b2da-b5ec-11e9-acd1-a0481c9e7d26 Multime 64 um 236 ef08b2da-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 164 um 237 ef08b2da-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 64 um 238 ef08b2da-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 64 um	2019-08-16 211-6 2017 2019-08-16 2135 20197 2019-08-16 22341 20197 2019-08-16 0023 20197 2019-08-16 0023 20197 2019-08-16 0025 20197 2019-08-16 0412 20197 2019-08-16 0412 20197 2019-08-16 0618 20197 2019-08-16 0639 20197 2019-08-16 0730 20197 2019-08-16 0730 20197	66 P5	00 50002 33.8023 00 5117 33.8045 00 5163 33.8051 00 5263 33.8023 00 5200 33.8023 00 5200 33.8023 00 5200 33.8023 00 5203 39.802 00 5203 34.8023 00 5203 34.8023 00 430.4023 34.6023 00 4737 34.6023 00 4737 34.6023 00 4737 34.6023 00 4737 34.6024 00 47.93 34.6023 00 47.93 34.6024 00 47.93 54.6024	162.19 168.54 169.2 171.81 169.77 174.35 162.0 159.99 157.25 155.24 155.24 152.96	73 59 74 75 76 76 60 4 77 78 78 78 78 78 78 80 81 82 82 174 152	14(14(14(14(14(14(14(Vertical haul Vertical haul Vertical haul Vertical haul Vertical haul Scanmar did botion deph With LADCP, WH5300-LU 24474 830 / L	Om Image: Construction of the second se	instrument serial numbers. Note change og temperature sensor before cast 192.	Tove M. Gabrielsen Tove M. Gabrielsen	Mart Registed Mart Registed Mart Resisted Mart Resisted Mart Resisted Mart Registed Mart Registed Mart Registed Mart Registed Mart Registed Mart Registed Mart Registed	mart registad@ut.no mart registad@ut.no UIT The Actic University of Norwa mart registad@ut.no UIT The Actic University of Norwa mart.registad@ut.no UIT The Actic University of Norwa mart.registad@ut.no UIT The Actic University of Norwa mart.registad@ut.no UIT The Actic University of Norwa
230 #098b2da-b5ec-11e9-acd1-a0481c9e7d26 QO-FLO 231 ef098b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whotites 232 ef098b2da-b5ec-11e9-acd1-a0481c9e7d26 TS probe 233 ef098b2da-b5ec-11e9-acd1-a0481c9e7d26 TS probe 234 ef098b2da-b5ec-11e9-acd1-a0481c9e7d26 Multime 64 um 236 ef08b2da-b5ec-11e9-acd1-a0481c9e7d26 Multime 64 um 236 ef08b2da-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 164 um 237 ef08b2da-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 64 um 238 ef08b2da-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 64 um	2019-08-16 211-6 2017 2019-08-16 2135 20197 2019-08-16 22341 20197 2019-08-16 0023 20197 2019-08-16 0023 20197 2019-08-16 0025 20197 2019-08-16 0412 20197 2019-08-16 0412 20197 2019-08-16 0618 20197 2019-08-16 0639 20197 2019-08-16 0730 20197 2019-08-16 0730 20197	66 P5	00 5002 33.8023 00 5117 33.8045 80 5163 33.8045 80 5246 33.8028 80 5226 33.8022 80 5226 33.8022 80 5226 33.8022 80 5226 34.0022 80 5227 33.8044 80.4022 34.0035 80.4035 34.0035 80.4737 34.0020 80.4736 34.0579	162.19 168.54 169.2 171.81 169.77 174.35 162.0 159.99 157.25 155.24 155.24 152.96	73 59 74 75 76 60 173 4 77 78 79 79 79 81 82 82 174 152 61	14(14(14(14(14(14(14(Vertical haul Vertical haul Vertical haul Vertical haul Vertical haul Scanmar did botion deph Vertical haul botion deph Ve	Om Image: Constraint of the second seco	instrument serial numbers. Note change og temperature sensor before cast 192.	Tove M. Gabrielsen Tove M. Gabrielsen	Mart Regeted Mart Regeted	mart.reigistad@ut.ro UIT he Actic University of Norwa mart.reigistad@ut.ro UIT he Actic University of Norwa
200 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 QO-FLO 201 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whottes 202 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 TS probe 203 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 204 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 204 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 203 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Sonypoint 64 um 203 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Bonypoint 64 um 203 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Bonypoint 64 um 209 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whottes 300 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whottes	2019-08-16 2116 20179 2019-08-16 2133 20197 2019-08-16 22341 20197 2019-08-16 2023 20197 2019-08-16 0052 20197 2019-08-16 0055 20197 2019-08-16 0412 20197 2019-08-16 0451 20197 2019-08-16 0651 20197 2019-08-16 0652 20197 2019-08-16 0730 20197 2019-08-16 09:03 20197 2019-08-16 09:03 20197 2019-08-16 09:03 20197 2019-08-16 09:03 20197 2019-08-16 10:08 20197	66 P5	00 32 38.002 00 33.8043 80.5117 33.8043 80.5117 33.8043 80.5183 33.8043 80.5263 33.8023 33.8023 80.5183 80.5263 33.8023 80.5273 33.8044 80.5273 33.8044 80.4783 34.0693 80.4884 40.4952 34.0693 80.4733 34.0620 80.4737 34.0620 80.4773 34.0579 80.4772 34.0514 80.4772 34.0514 34.0577 34.0514 80.4773 34.0514	162.19 168.54 169.2 171.81 169.77 174.35 162.0 155.24 155.24 155.29 155.24 154.64 159.33	73 59 74 75 76 76 78 78 78 78 78 79 80 81 82 174 152 61	14(14(14(14(14(14(14(Vertical hauf Vertical hauf Vertical hauf Vertical hauf Vertical hauf Scammar did bottom depth bottom depth Vertision-tur Vertision-tur Vertision-tur Vertical hauf bottom depth Vertical hauf bottom depth Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf bottom depth Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth	Om Image: Constraint of the second seco	instrument serial numbers. Note change og temperature sensor before cast 192.	Tove M. Gabrielsen Tove M. Gabrielsen	Mart Regeted Mart Regeted	mart.reigista@ut.no UIT he Actic University of Norwa mart.reigista@ut.no UIT he Actic University of Norwa
200 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 QO-FLO 201 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whottles 202 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whottles 203 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 TS probe 204 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 54 un 204 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Brunnet 54 un 204 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Bronpoet 150 un 208 #009b2da-b5ec-11e9-acd1-a0481c9e7d26 Bronpoet 150 un 208 #009b2da-b5ec-11e9-acd1-a0481c9e7d26 Bronpoet 64 un 209 #008b2e3-b5ec-11e9-acd1-a0481c9e7d26 CTD whottles	2019-08-16 21:16 20179 2019-08-16 21:35 20197 2019-08-16 22:41 20197 2019-08-16 00:23 20197 2019-08-16 00:55 20197 2019-08-16 04:52 20197 2019-08-16 04:61 20197 2019-08-16 04:61 20197 2019-08-16 04:61 20197 2019-08-16 07:30 20197 2019-08-16 07:30 20197 2019-08-16 09:03 20197	66 P5	00 50002 33.8023 00 5117 33.8045 00 5163 33.8051 00 5263 33.8023 00 5200 33.8023 00 5200 33.8023 00 5200 33.8023 00 5203 39.802 00 5203 34.8023 00 5203 34.8023 00 430.4023 34.6023 00 4737 34.6023 00 4737 34.6023 00 4737 34.6023 00 4737 34.6024 00 47.93 34.6023 00 47.93 34.6024 00 47.93 54.6024	162.19 168.54 168.2 171.81 169.77 174.35 162.0 155.24 155.24 155.24 155.24 154.77 152.96	73 59 74 75 76 60 173 4 77 78 78 90 91 82 174 152 61	14(14(14(14(14(14(14(Vertical haul Vertical haul Vertical haul Vertical haul Vertical haul Scanmar did botion deph botion deph Vertical haul botion deph Vertical haul Vertical haul botion deph Vertical haul Vertical haul botion deph Vertical haul Vertical hau	Om Image: Constraint of the second	instrument serial numbers. Note change og temperature sensor before cast 192.	Tove M. Gabrielsen Tove M. Gabrielsen	Mart Regeted Mart Regeted	mart.registad@ut.no UT The Actic University of Norway mart.registad@ut.no UT The Actic University of Norway
200 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 QO-FLO 201 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whottes 202 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 TS probe 203 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 204 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 205 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 203 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 203 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 64 um 203 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 64 um 209 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whottes 300 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whottes 300 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 LTD whottes 300 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 LTD whottes 300 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 LTD whottes	2019-08-16 21:16 20179 2019-08-16 21:35 20197 2019-08-16 21:32 20197 2019-08-16 00:23 20197 2019-08-16 00:52 20197 2019-08-16 00:52 20197 2019-08-16 04:12 20197 2019-08-16 04:40 20197 2019-08-16 04:61 20197 2019-08-16 05:52 20197 2019-08-16 09:03 20197 2019-08-16 09:03 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197	66 P5	00 32 32 38023 00 33 88043 80 5117 33 88443 80 5123 33 88243 33 88243 80 5245 33 88243 33 88243 80 52245 33 88243 34 8844 80 52273 33 8944 34 8844 34 8844 34 8844 34	162.19 168.54 169.2 171.81 169.77 174.35 162.0 155.24 155.24 155.29 155.24 154.64 159.33	73 74 76 76 76 60 173 4 77 78 77 78 60 81 62 61 61	14(14(14(14(14(14(14(Vertical hauf Vertical hauf Vertical hauf Vertical hauf Vertical hauf Scanmar did bottom depth bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf bottom depth Vertical hauf bottom depth Vertical hauf Vertical vertical Vertical vertical vertical Vertical vertical vertical Vertical vertical vertical Vertical vertical vertical vertical vertical Vertical vertical vertical Vertical vertical ver	Om Image: Constraint of the second seco	Instrument serial numbers. Note change og temperature sensor before cast 192.	Tove M. Gabrielsen Tove M. Gabrielsen	Mart Regeted Mart Regeted	mark.registad@ut.no UIT The Arctic University of Norway mark.registad@ut.no UIT The Arctic University of No
200 #009b264-b56c-11e9-acd1-a0481c9a726 QO-FLO 201 #009b264-b56c-11e9-acd1-a0481c9a726 CTD whottles 202 #009b264-b56c-11e9-acd1-a0481c9a726 CTD whottles 203 #009b264-b56c-11e9-acd1-a0481c9a726 Multime 64 unn 204 #009b264-b56c-11e9-acd1-a0481c9a726 Bongoett 64 unn 204 #009b264-b56c-11e9-acd1-a0481c9a726 Bongoett 64 unn 208 #009b264-b56c-11e9-acd1-a0481c9a726 Bongoett 64 unn 208 #009b262-b56c-11e9-acd1-a0481c9a726 CTD whottles 300 #009b264-b56c-11e9-acd1-a0481c9a7265 CTD whottles 300 #009b264-b56c-11e9-acd1-a0481c9a7265 CTD whottles 300 #009b264-b56c-11e9-acd1-a0481c9a7265 CTD whottles 300 #009b264-b56c-11e9-acd1-a0481c9a7265 CTD whottles	2019-08-16 2116 20179 2019-08-16 2133 20197 2019-08-16 22341 20197 2019-08-16 2023 20197 2019-08-16 0052 20197 2019-08-16 0055 20197 2019-08-16 0412 20197 2019-08-16 0451 20197 2019-08-16 0651 20197 2019-08-16 0652 20197 2019-08-16 0730 20197 2019-08-16 09:03 20197 2019-08-16 09:03 20197 2019-08-16 09:03 20197 2019-08-16 09:03 20197 2019-08-16 10:08 20197	66 67 68<	00 32 38.002 00 33.8043 80.5117 33.8043 80.5117 33.8043 80.5183 33.8043 80.5263 33.8023 33.8023 80.5183 80.5263 33.8023 80.5273 33.8044 80.5273 33.8044 80.4783 34.0693 80.4884 40.4952 34.0693 80.4733 34.0620 80.4737 34.0620 80.4773 34.0579 80.4772 34.0514 80.4772 34.0514 34.0577 34.0514 80.4773 34.0514	162.19 168.54 169.2 171.81 169.77 174.35 162.0 155.24 155.24 155.29 155.24 154.64 159.33	73 59 74 75 76 60 173 4 77 78 79 60 81 82 82 174 152 61 	14(14(14(14(14(14(14(Vertical haul Vertical haul Vertical haul Vertical haul Vertical haul Scanmar did botion deph botion deph Vertical haul botion deph Vertical haul Vertical haul botion deph Vertical haul Vertical haul botion deph Vertical haul Vertical hau	Om Image: Constraint of the second seco	Instrument serial numbers. Note change og temperature sensor before cast 192.	Tove M. Gabrielsen Tove M. Gabrielsen	Mart Regeted Mart Regeted	mart.reigitad@ut.no UT The Arctic University of Norway mark.registad@ut.no UT The Arc
200 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 QO-FLO 201 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whottes 202 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 TS probe 203 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 204 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 205 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 203 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Multimet 64 um 203 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 64 um 203 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 Bongonet 64 um 209 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whottes 300 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 CTD whottes 300 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 LTD whottes 300 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 LTD whottes 300 #008b2da-b5ec-11e9-acd1-a0481c9e7d26 LTD whottes	2019-08-16 21:16 20177 2019-08-15 21:35 20197 2019-08-15 21:34 20197 2019-08-15 22:41 20197 2019-08-16 00:23 20197 2019-08-16 00:52 20197 2019-08-16 01:40 20197 2019-08-16 01:40 20197 2019-08-16 07:09 20197 2019-08-16 07:09 20197 2019-08-16 07:09 20197 2019-08-16 09:03 20197 2019-08-16 09:03 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197	66 67 68<	00 50002 33.8024 00 50117 33.8045 80.5163 33.8045 33.8028 80.5163 33.8028 33.8028 80.5289 33.8029 33.8028 80.5289 33.8022 33.8028 80.5289 33.8022 33.8024 80.4522 33.8044 80.4652 80.4952 34.0660 80.4777 80.4777 34.0620 80.4779 80.4772 34.0579 80.4779 80.4472 34.0514 34.0575 80.4844 34.0575 80.4846	162.10 168.54 168.54 168.2 171.81 168.77 174.35 162.0 154.64 154.64 159.33 162.0 162.0 162.0	73 74 75 76 76 60 173 4 77 78 79 80 82 174 152 61 19	14(14(14(14(14(14(14(Vertical hauf Vertical hauf Vertical hauf Vertical hauf Vertical hauf Scanmar did bottom depth bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf bottom depth Vertical hauf bottom depth Vertical hauf Vertical vertical Vertical vertical vertical Vertical vertical vertical Vertical vertical vertical Vertical vertical vertical vertical vertical Vertical vertical vertical Vertical vertical ver	Om Image: Constraint of the second seco	Instrument serial numbers. Not change og temperature sensor before cast 192.	Tove M. Gabrielsen Tove M. Gabrielsen	Mart Regeted Mart Regeted	mart.registad@ut.no UT The Accle University of Norway mart.registad@ut.no UT The Accle University of Norway
200 #009b264-b56c-11e9-acd1-a0481c9a726 QO-FLO 201 #009b264-b56c-11e9-acd1-a0481c9a726 CTD whottles 202 #009b264-b56c-11e9-acd1-a0481c9a726 CTD whottles 203 #009b264-b56c-11e9-acd1-a0481c9a726 Multime 64 unn 204 #009b264-b56c-11e9-acd1-a0481c9a726 Bongoett 64 unn 204 #009b264-b56c-11e9-acd1-a0481c9a726 Bongoett 64 unn 208 #009b264-b56c-11e9-acd1-a0481c9a726 Bongoett 64 unn 208 #009b262-b56c-11e9-acd1-a0481c9a726 CTD whottles 300 #009b264-b56c-11e9-acd1-a0481c9a7265 CTD whottles 300 #009b264-b56c-11e9-acd1-a0481c9a7265 CTD whottles 300 #009b264-b56c-11e9-acd1-a0481c9a7265 CTD whottles 300 #009b264-b56c-11e9-acd1-a0481c9a7265 CTD whottles	2019-08-16 21:16 20177 2019-08-15 21:35 20197 2019-08-15 21:34 20197 2019-08-15 22:41 20197 2019-08-16 00:23 20197 2019-08-16 00:52 20197 2019-08-16 01:40 20197 2019-08-16 01:40 20197 2019-08-16 07:09 20197 2019-08-16 07:09 20197 2019-08-16 07:09 20197 2019-08-16 09:03 20197 2019-08-16 09:03 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197	66 67 68<	00 50002 33.8024 00 50117 33.8045 80.5163 33.8045 33.8028 80.5163 33.8028 33.8028 80.5289 33.8029 33.8028 80.5289 33.8022 33.8028 80.5289 33.8022 33.8024 80.4522 33.8044 80.4652 80.4952 34.0660 80.4777 80.4777 34.0620 80.4779 80.4772 34.0579 80.4779 80.4472 34.0514 34.0575 80.4844 34.0575 80.4846	162.10 168.54 168.54 168.2 171.81 168.77 174.35 162.0 154.64 154.64 159.33 162.0 162.0 162.0	73 59 74 75 76 60 4 77 78 78 79 78 79 80 81 82 82 174 152 61 	14(14(14(14(14(14(14(Vertical hauf Vertical hauf Vertical hauf Vertical hauf Vertical hauf Scanmar did bottom depth bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf bottom depth Vertical hauf bottom depth Vertical hauf Vertical vertical Vertical vertical vertical Vertical vertical vertical Vertical vertical vertical Vertical vertical vertical vertical vertical Vertical vertical vertical Vertical vertical ver	Om Image: Constraint of the second seco	Instrument serial numbers. Not change og temperature sensor before cast 192.	Tove M. Gabrielsen Tove M. Gabrielsen	Mart Regeted Mart Regeted	mark.registad@ut.no UIT The Arctic University of Norway mark.registad@ut.no UIT The Arctic University of No
200 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 CO-FLO 201 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 CTD wrbottles 202 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 CTD wrbottles 203 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 Multimer 64 unn 204 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 Multimer 64 unn 205 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 Multimer 64 unn 206 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 Multimer 64 unn 208 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 Bongoest 64 unn 208 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 Bongoest 64 unn 208 #009b2de-b5ec-11e9-acd1-a0481c9e7d26 Bongoest 64 unn 208 #009b2d-b5ec-11e9-acd1-a0481c9e7d26 CTD wrbottles 300 #009b2d-b5ec-11e9-acd1-a0481c9e7d26 CTD wrbottles 300 #009b2d-b5ec-11e9-acd1-a0481c9e7d26 CTD b2d00c5c-c02b-11e9-849-0000-28b4486 CTD	2019-08-16 21:16 20177 2019-08-15 21:35 20197 2019-08-15 21:34 20197 2019-08-15 22:41 20197 2019-08-16 00:23 20197 2019-08-16 00:52 20197 2019-08-16 01:40 20197 2019-08-16 01:40 20197 2019-08-16 07:09 20197 2019-08-16 07:09 20197 2019-08-16 07:09 20197 2019-08-16 09:03 20197 2019-08-16 09:03 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197 2019-08-16 10:08 20197	66 67 68<	00 50002 33.8024 00 50117 33.8045 80.5163 33.8045 33.8028 80.5163 33.8028 33.8028 80.5289 33.8029 33.8028 80.5289 33.8022 33.8028 80.5289 33.8022 33.8024 80.4522 33.8044 80.4652 80.4952 34.0660 80.4777 80.4777 34.0620 80.4779 80.4772 34.0579 80.4779 80.4472 34.0514 34.0575 80.4844 34.0575 80.4846	162.10 168.54 168.54 168.2 171.81 168.77 174.35 162.0 154.64 154.64 159.33 162.0 162.0 162.0	73 59 74 75 76 60 173 4 77 78 78 79 79 81 81 92 92 174 152 61 	14(14(14(14(14(14(14(Vertical hauf Vertical hauf Vertical hauf Vertical hauf Vertical hauf Scanmar did bottom depth bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf Vertical hauf bottom depth Vertical hauf bottom depth Vertical hauf bottom depth Vertical hauf Vertical vertical Vertical vertical vertical Vertical vertical vertical Vertical vertical vertical Vertical vertical vertical vertical vertical Vertical vertical vertical Vertical vertical ver	Om Image: Constraint of the second seco	Instrument serial numbers. Not change og temperature sensor before cast 192.	Tove M. Gabrielsen Tove M. Gabrielsen	Mart Regeted Mart Regeted	mark registed@ut.no UIT The Arctic University of Norway mark registed@ut.no UIT The Arctic University of No

													See data file for		
												Nansen Legacy Sampling Protocols v4	instrument serial		
												July 12 2019; 6.2 CTD;	numbers. Note change og temperature sensor		
307 ef09b2e8-b5ec-11e9-acd1-a0481c9e7d2	6 CTD w/bottles	2019-08-17	05:56 2019706	NLEG15	81.3118	31.3503	188.46	176 1	75			One salinity sample	Sta0176 before cast 192.	Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
													See data file for		
												Nansen Legacy	instrument serial		
												Sampling Protocols v4 July 12 2019; 6.2 CTD;	numbers. Note change		
													og temperature sensor		
308 ef09b2e9-b5ec-11e9-acd1-a0481c9e7d2	6 CTD	2019-08-17	07:29 2019706	NLEG16	81.3822	31.2898	186.42	177		_		One salinity sample	Sta0177 before cast 192.	Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UIT The Arctic University of Norway
													See data file for		
												Nansen Legacy Sampling Protocols v4	instrument serial numbers. Note change		
												July 12 2019; 6.2 CTD;	og temperature sensor		
309 ef09b2ea-b5ec-11e9-acd1-a0481c9e7d2	6 CTD	2019-08-17	08:15 2019706	NLEG17	81,4110	31.2455	205.56	178				One salinity sample	Sta0178 before cast 192.	Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UIT The Arctic University of Norway
													See data file for		
												Nansen Legacy	instrument serial		
												Sampling Protocols v4	numbers. Note change		
												July 12 2019; 6.2 CTD;			
310 ef09b2eb-b5ec-11e9-acd1-a0481c9e7d2	6 CTD	2019-08-17	09:13 2019706	i NLEG18	81.4310	31.1448	256.17	179				One salinity sample	Sta0179 before cast 192.	Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
													See data file for		
												Nansen Legacy	instrument serial		
												Sampling Protocols v4	numbers. Note change		
		0040.00.47	10:04 2019706	NLEG19	81.4593	31 0778	496 41	400	~~			July 12 2019; 6.2 CTD;	og temperature sensor Sta0180 before cast 192.		N 1 1 10 N 1077 1 1 1 1 1 1 1 1
311 ef09b2ec-b5ec-11e9-acd1-a0481c9e7d2	6 CTD w/bottles	2019-08-17	10:04 2019706	NLEG19	81.4593	31.0778	496.41	180 5	00			One salinity sample		Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UIT The Arctic University of Norway
													See data file for		
			1	1		1	1			1		Nansen Legacy Sampling Protocols v4	instrument serial numbers. Note change		
			1	1		1	1			1		Sampling Protocols v4 July 12 2019; 6.2 CTD;	numbers. Note change og temperature sensor	1 1	
313 ef09b2ee-b5ec-11e9-acd1-a0481c9e7d2	6 CTD	2019-08-17	11:52 2019706	NLEG20	81.5025	30.9588	693,98	181	1	1		One salinity sample	Sta0181 before cast 192.	Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
ef09b2f0-b5ec-11e9-acd1-a0481c9e7d2	3	2019-08-17	16:30 2019706	P6_lce		30.9684	797.07				P6_Ice station, Ice worl	i julia canada a canada a	build	Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
314 ef09b2ef-b5ec-11e9-acd1-a0481c9e7d2		2019-08-17	18:17 2019706	6 P6		30.9555	789.23	64		1	In situ filtration pump	To be included in v5		Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
315 ef09b2ed-b5ec-11e9-acd1-a0481c9e7d2	6 TS probe	2019-08-17	23:02 2019706	P6	81.5498	30.9588	865.44	5						Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
													See data file for		
			1	1		1	1			1			instrument serial		
			1	1					1	1	With LADCP; Model		numbers. Note change		
			1	1					1	1	WHS300-I-UG502; SN		og temperature sensor		
316 ef09b2c6-b5ec-11e9-acd1-a0481c9e7d2			06:33 2019706		81.5495	31.1605	834.68	182 8	31	1	24474 & SN 24472		Sta0182 before cast 192.	Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
317 ef09b2c7-b5ec-11e9-acd1-a0481c9e7d2	6 MIK-net 1500 um		07:52 2019706			31.1684	839.88	83		60	Vertical haul			Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
318 ef09b2c8-b5ec-11e9-acd1-a0481c9e7d2	6 MIK-net 1500 um	2019-08-18	08:07 2019706	P6	81.5521	31.1700	841.87 844 43	84		i0 i	Vertical haul			Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
319 ef09b2c9-b5ec-11e9-acd1-a0481c9e7d2			08:20 2019706		81.5528		844.43	85	,	· ·	Vertical haul			Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
320 ef09b2ca-b5ec-11e9-acd1-a0481c9e7d2 321 ef09b2cb-b5ec-11e9-acd1-a0481c9e7d2	6 MIK-net 1500 um	2019-08-18 2019-08-18	08:34 2019706 08:48 2019706	P6		31.1716	853.44	00		i0 i	Vertical haul			Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
321 ef09b2cc-b5ec-11e9-acd1-a0481c9e7d2 322 ef09b2cc-b5ec-11e9-acd1-a0481c9e7d2			09:04 2019706				860.71	07	60		Vertical haul			Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway marit.reigstad@uit.no UiT The Arctic University of Norway
322 el0902cc-03ec-11e9-acd1-a0481c9e702	6 Mulunet 180 um	2019-00-10	09.04 2019706	P 10		31.2185	860.71	33	00		Used bottom depth from			Tove M. Gabreisen Marit Reigstau	mancreigstadiguiche En The Arctic Oniversity of Norway
323 ef09b2cd-b5ec-11e9-acd1-a0481c9e7d2	6 Sediment tran (short term)	2019-08-18	11:30 2019706	P6	01.0700	01.2100	000.71	00			2019-08-18 2019-08-19 ID322			Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
	o occument trap (onort term)	2010 00 10	11.00 2010/00	10							2010 00 10 2010 00 10 10022		0.11.0.1	Tore in: Outstation man raights	manaregatal@attro on meridito oniversity of norway
												Nansen Legacy	See data file for instrument serial		
												Sampling Protocols v4	numbers. Note change		
												July 12 2019; 6.2 CTD;	og temperature sensor		
324 ef09b2f1-b5ec-11e9-acd1-a0481c9e7d2	6 CTD w/bottles	2019-08-18	11:49 2019706	De la	81.5720		1166 76	400 0	00					T MOLLI MADILL	
					81.5720	31.2128			.00			One salinity sample	Sta0183 before cast 192.	I ove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway
		2019-08-18		6 P6		31.2128 31.2451	1224.91	66	00			One salinity sample	Sta0183 before cast 192.	Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UIT The Arctic University of Norway marit.reigstad@uit.no UIT The Arctic University of Norway
325 ef09b2f2-b5ec-11e9-acd1-a0481c9e7d2 326 ef09b2f3-b5ec-11e9-acd1-a0481c9e7d2	6 GO-FLO 6 Phytoplankton net 10 um	2019-08-18 2019-08-18	12:30 2019706 13:53 2019706	6 P6	81.5748 81.5762	31.2451 31.3259	1026.46	66 89	00			One salinity sample	Sta0183 before cast 192.	Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway marit.reigstad@uit.no UiT The Arctic University of Norway
325 ef09b2f2-b5ec-11e9-acd1-a0481c9e7d2 326 ef09b2f3-b5ec-11e9-acd1-a0481c9e7d2 327 ef09b2f4-b5ec-11e9-acd1-a0481c9e7d2	GO-FLO Phytoplankton net 10 um MIK-net 1500 um	2019-08-18 2019-08-18 2019-08-18	12:30 2019706 13:53 2019706 14:47 2019706	P6	81.5748 81.5762 81.5765	31.2451 31.3259 31.3874	1026.46 1036.91	66 89 90	100		Vertical haul	One salinity sample	Sta0183 before cast 192.	Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway marit.reigstad@uit.no UiT The Arctic University of Norway marit.reigstad@uit.no UiT The Arctic University of Norway
325 ef09b2f2-b5ec-11e9-acd1-a0481c9e7d2 326 ef09b2f3-b5ec-11e9-acd1-a0481c9e7d2 327 ef09b2f4-b5ec-11e9-acd1-a0481c9e7d2 328 ef09b2f5-b5ec-11e9-acd1-a0481c9e7d2	GO-FLO Phytoplankton net 10 um MIK-net 1500 um MIK-net 1500 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706	i P6 i P6 i P6	81.5748 81.5762 81.5765 81.5638	31.2451 31.3259 31.3874 31.5185	1026.46 1036.91 856.29	66 89 90 91	40	10	Vertical haul Vertical haul	One salinity sample	Sta0183 before cast 192.	Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no UiT The Arctic University of Norway marit.reigstad@uit.no UiT The Arctic University of Norway marit.reigstad@uit.no UiT The Arctic University of Norway marit.reigstad@uit.no UiT The Arctic University of Norway
325 ef09b2f2-b5ec-11e9-acd1-a0481c9e7d2 326 ef09b2f3-b5ec-11e9-acd1-a0481c9e7d2 327 ef09b2f4-b5ec-11e9-acd1-a0481c9e7d2 328 ef09b2f5-b5ec-11e9-acd1-a0481c9e7d2 329 ef09b2f6-b5ec-11e9-acd1-a0481c9e7d2	GO-FLO Phytoplankton net 10 um MIK-net 1500 um MIK-net 1500 um MIK-net 1500 um Multinet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 18:33 2019706	i P6 i P6 i P6 i P6	81.5748 81.5762 81.5765 81.5638	31.2451 31.3259 31.3874 31.5185 31.5260	1026.46 1036.91 856.29 843.73	103 2 66 89 90 91 92	40	i0 i0		One salinity sample	Sta0183 before cast 192.	Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	mart.reigstad@ut.no UIT The Arctic University of Norway mart.reigstad@ut.no UIT The Arctic University of Norway
325 ef09b2f2-b5ec-11e9-acd1-a0481c9e7d2 326 ef09b2f3-b5ec-11e9-acd1-a0481c9e7d2 327 ef09b2f3-b5ec-11e9-acd1-a0481c9e7d2 328 ef09b2f3-b5ec-11e9-acd1-a0481c9e7d2 329 ef09b2f3-b5ec-11e9-acd1-a0481c9e7d2 330 ef09b2f3-b5ec-11e9-acd1-a0481c9e7d2	GO-FLO Phytoplankton net 10 um MiK-net 1500 um MiK-net 1500 um Multinet 180 um Multinet 64 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 18:33 2019706 19:32 2019706	i P6 i P6 i P6 i P6 i P6 i P6	81.5748 81.5762 81.5765 81.5638 81.5612 81.5595	31.2451 31.3259 31.3874 31.5185 31.5260 31.5188	1026.46 1036.91 856.29 843.73 841.06	183 2 66 90 91 92 93	40 75 30	10 10 10		One salinity sample	Sa0183 before cast 192.	Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	mart.reigstad@ut.no UIT The Arctic University of Norway mart.reigstad@ut.no UIT The Arctic University of Norway
325 ef05b275-55ec-1169-acf1-a0415169722 326 ef05b275-55ec-1169-acf1-a0415169722 327 ef05b245-55ec-1169-acf1-a0415169722 328 ef05b275-55ec-1169-acf1-a0415169722 329 ef05b275-55ec-1169-acf1-a0415169722 339 ef05b275-55ec-1169-acf1-a0415169722 339 ef05b275-55ec-1169-acf1-a0415169722	GO-FLO Phytoplankton net 10 um MIK-net 1500 um MIK-net 1500 um Multinet 1500 um Multinet 180 um Multinet 64 um Multinet 64 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 18:33 2019706 19:32 2019706 20:26 2019706	P6 P6 P6 P6 P6 P6 P6	81.5748 81.5762 81.5765 81.5638 81.5638 81.5612 81.5595 81.5604	31.2451 31.3259 31.3874 31.5185 31.5260 31.5188 31.4993	1026.46 1036.91 856.29 843.73 841.06 848.67	66 89 90 91 92 93 94	40 75 30 75	10 10 10		One salinity sample	Sa0183 before cast 192.	Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	mart.reigistad@utno UIT The Arcit: University of Norway, mart.reigistad@utno UIT The Arcit: University of Norway mart.reigistad@utno UIT The Arcit: University of Norway
225/ef09b272-b5ec-11e9-acd1-a0481c9e722 326/ef09b272-b5ec-11e9-acd1-a0481c9e722 327/ef09b274-b5ec-11e9-acd1-a0481c9e722 328/ef09b276-b5ec-11e9-acd1-a0481c9e722 329/ef09b276-b5ec-11e9-acd1-a0481c9e722 330/ef09b277-b5ec-11e9-acd1-a0481c9e72 331/ef09b276-b5ec-11e9-acd1-a0481c9e72 331/ef09b276-b5ec-11e9-acd1-a0481c9e72	GO-FLO GO-FLO S Phyloplankton net 10 um MIK-net 1500 um MIK-net 1500 um MILInet 180 um Multinet 64 um Multinet 64 um Multinet 64 um MIR-net 180 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 18:33 2019706 19:32 2019706 20:26 2019706 21:48 2019706	P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5765 81.5638 81.5638 81.5612 81.5595 81.5604 81.5665	31.2451 31.3259 31.3874 31.5185 31.5260 31.5188 31.4993 31.4724	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92	163 2 66 89 90 91 92 93 94 95 06	40 75 30 75 75	10 60 10 60		One salinity sample	Sa0183 before cast 192.	Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	matr.regista@uho. UI The Arctic University of Norwy matr.regista@uho. UI The Arctic University of Norwy
225 ef09822-b5ec 11e9-act = 40481c0e722 232 ef09822-b5ec 11e9-act = 40481ce72 232 ef09824-b5ec 11e9-act = 40481ce72 232 ef09824-b5ec 11e9-act = 40481c672 232 ef09825-b5ec 11e9-act = 40481c672 233 ef09827-b5ec 11e9-act = 40481c672 234 ef09827-b5ec 11e9-act = 40481c672 235 eff09827-b5ec 11e9-act = 40481c672	GO-FLO Phytoplankton net 10 um MIK-net 1500 um MIK-net 1500 um MIK-net 64 um Multinet 64 um Multinet 64 um Bongonet 180 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 21:48 2019706 22:51 2019706	P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5762 81.5765 81.5638 81.5612 81.5595 81.5604 81.5665 81.5733	31.2451 31.3259 31.3874 31.5185 31.5260 31.5188 31.4993 31.4724 31.4686	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02	103 20 66 89 90 91 92 93 94 95 96 07	40 75 30 75 75 75	10 10 10 10 10 10 10 10		One salinity sample	Sa0183 before cast 192.	Tove M. Gabrielen Mart Reigstad Tove M. Gabrielen Mart Reigstad	mart.reigstaßglution UIT The Arctic University of Norway, mart.reigstaßglution UIT The Arctic University of Norway, mart.reigstaßglution UIT The Arctic University of Norway, mart.reigstaßglution UIT The Arctic University of Norway mart.reigstaßglution UIT The Arctic University of Norway
225/ef09b272-b5ec-11e9-acd1-a0481c9e722 326/ef09b272-b5ec-11e9-acd1-a0481c9e722 327/ef09b274-b5ec-11e9-acd1-a0481c9e722 328/ef09b276-b5ec-11e9-acd1-a0481c9e722 329/ef09b276-b5ec-11e9-acd1-a0481c9e722 330/ef09b277-b5ec-11e9-acd1-a0481c9e72 331/ef09b276-b5ec-11e9-acd1-a0481c9e72 331/ef09b276-b5ec-11e9-acd1-a0481c9e72	GO-FLO Phytoplankton net 10 um MIK-net 1500 um MIK-net 1500 um MIK-net 64 um Multinet 64 um Multinet 64 um Bongonet 180 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 18:33 2019706 19:32 2019706 20:26 2019706 21:48 2019706	P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5762 81.5765 81.5638 81.5612 81.5595 81.5604 81.5665 81.5733	31.2451 31.3259 31.3874 31.5185 31.5260 31.5188 31.4993 31.4724	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92	103 22 66 89 90 91 92 93 94 95 96 97	40 75 30 75 75	10 10 10 10 10 10 10 10		One salinity sample		Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	matr.regista@uh.o. UIT The Arcic University of Norway matr.regista@uh.o. UIT The Arcic University of Norway
225 ef09822-b5ec 11e9-act = 40481c0e722 232 ef09822-b5ec 11e9-act = 40481ce72 232 ef09824-b5ec 11e9-act = 40481ce72 232 ef09824-b5ec 11e9-act = 40481c672 232 ef09825-b5ec 11e9-act = 40481c672 233 ef09827-b5ec 11e9-act = 40481c672 234 ef09827-b5ec 11e9-act = 40481c672 235 eff09827-b5ec 11e9-act = 40481c672	GO-FLO Phytoplankton net 10 um MIK-net 1500 um MIK-net 1500 um MIK-net 64 um Multinet 64 um Multinet 64 um Bongonet 180 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 21:48 2019706 22:51 2019706	P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5762 81.5765 81.5638 81.5612 81.5595 81.5604 81.5665 81.5733	31.2451 31.3259 31.3874 31.5185 31.5260 31.5188 31.4993 31.4724 31.4686	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02	103 20 66 89 90 91 92 93 94 95 96 97	40 75 30 75 75 75	10 10 10 10 10 10 10 10			See data file for	Tove M. Gabrielen Mart Reigstad Tove M. Gabrielen Mart Reigstad	mart.reigstaßglution UIT The Arctic University of Norway, mart.reigstaßglution UIT The Arctic University of Norway, mart.reigstaßglution UIT The Arctic University of Norway, mart.reigstaßglution UIT The Arctic University of Norway mart.reigstaßglution UIT The Arctic University of Norway
225 ef09822-b5ec 11e9-act = 40481c0e722 232 ef09822-b5ec 11e9-act = 40481ce72 232 ef09824-b5ec 11e9-act = 40481ce72 232 ef09824-b5ec 11e9-act = 40481c672 232 ef09825-b5ec 11e9-act = 40481c672 233 ef09827-b5ec 11e9-act = 40481c672 234 ef09827-b5ec 11e9-act = 40481c672 235 eff09827-b5ec 11e9-act = 40481c672	GO-FLO Phytoplankton net 10 um MIK-net 1500 um MIK-net 1500 um MIK-net 64 um Multinet 64 um Multinet 64 um Bongonet 180 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 21:48 2019706 22:51 2019706	P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5762 81.5765 81.5638 81.5612 81.5595 81.5604 81.5665 81.5733	31.2451 31.3259 31.3874 31.5185 31.5260 31.5188 31.4993 31.4724 31.4686	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02	103 02 66 89 90 91 92 93 94 95 96 97	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Vertical haul	Nansen Legacy	See data fie for instrument serial	Tove M. Gabrielen Mart Reigstad Tove M. Gabrielen Mart Reigstad	mart.reigstaßglution UIT The Arctic University of Norway, mart.reigstaßglution UIT The Arctic University of Norway, mart.reigstaßglution UIT The Arctic University of Norway, mart.reigstaßglution UIT The Arctic University of Norway mart.reigstaßglution UIT The Arctic University of Norway
225 ef09822-b5ec 11e9-act = 40481c0e722 232 ef09822-b5ec 11e9-act = 40481ce72 232 ef09824-b5ec 11e9-act = 40481ce72 232 ef09824-b5ec 11e9-act = 40481c672 232 ef09825-b5ec 11e9-act = 40481c672 233 ef09827-b5ec 11e9-act = 40481c672 234 ef09827-b5ec 11e9-act = 40481c672 235 eff09827-b5ec 11e9-act = 40481c672	GO-FLO Phytoplankton net 10 um MIK-net 1500 um MIK-net 1500 um MIK-net 64 um Multinet 64 um Multinet 64 um Bongonet 180 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 21:48 2019706 22:51 2019706	P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5762 81.5765 81.5638 81.5612 81.5595 81.5604 81.5665 81.5733	31.2451 31.3259 31.3874 31.5185 31.5260 31.5188 31.4993 31.4724 31.4686	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02	103 20 66 89 90 91 92 93 94 95 96 97	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Nansen Legacy Sampling Protocols v4	See data file for instrument serial numbers. Note change	Tove M. Gabrielen Mart Reigstad Tove M. Gabrielen Mart Reigstad	mart.reigstaßgutuno UIT The Arctic University of Norway, mart.reigstaßgutuno UIT The Arctic University of Norway mart.reigstaßgutuno UIT The Arctic University of Norway
225 4096276 2566-1149-act1-404516472 2 226 4096276 2566-1149-act1-404516472 2 227 4096276 2566-1149-act1-404516472 2 228 4096276 2566-1149-act1-404516472 2 238 4096276 2566-1149-act1-404516472 2 239 4096276 2566-1149-act1-404516472 2 230 4096276 2566-1149-act1-404516472 2 231 4096276 2566-1149-act1-404516472 2 232 4096276 2566-1149-act1-404516472 2 234 4096276 2566-1149-act1-404516472 2 235 4096276 2566-1149-act1-404516472 2 236 4096276 2566-1149-act1-404516472 2 237 4096276 2566-1149-act1-404516472 2 238 4096276 2566-1149-act1-404516472 2 238 4096276 2566-1149-act1-404516472 2 239 4096276 2566-1149-act1-404516472 2 230 4096276 2566-1149-act1-404516472 2 231 4096276 2566-1149-act1-404516472 2 232 4096276 2566-1149-act1-404516472 2 234 4096276 2566-1149-act1-404516472 2 235 4096276 2566-1149-act1-404516472 2 236 4096276 2566-1149-act1-404516472 2 237 4096276 2566-1149-act1-404516472 2 238 4096276 2566-1149-act1-404516472 2 238 4096276 2566-1149-act1-404516472 2 239 4096276 2566-1149-act1-404516472 2 230 4096276 2566-1149-act1-404516472 2 230 4096276 2566-1149-act1-404516472 2 231 4096276 2566-1149-act1-404516472 2 232 4096276 2566-1149-act1-404516472 2 234 4096276 2566-1149-act1-404516472 2 235 4096276 2566-1149-act1-404516472 2 236 4096276 2566-1149-act1-404516472 2 236 4096276 2567 2 237 4006276 2567 2 238 4096276 2567 2 238 4096276 2567 2 238 4096276 2567 2 238 4096276 2 238 4096276 2 238 4096276 2 238 4096276 2 239 4006276 2 239 4006276 2 230 4006276 2 230 4006276 2 231 4006276	3 GO-FLO 5 Phytoplankton net 10 um 3 MiK-net 1500 um 5 MiK-net 1500 um 5 Mitheret 1500 um 6 Multimet 64 um 5 Multimet 64 um 6 Bongonet 160 um 5 Bongonet 64 um 6 CDD wrhottles	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 17:47 2019706 19:32 2019706 20:26 2019706 20:26 2019706 22:51 2019706 00:08 2019706	P6 P6	81.5748 81.5762 81.5765 81.5638 81.5638 81.5652 81.5655 81.5654 81.5655 81.5733 81.5808	31.2451 31.3259 31.3874 31.5185 31.5260 31.5188 31.4993 31.4724 31.4686 31.4872	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02	183 2 66 89 90 91 92 93 94 95 95 97 97 184 2	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Nansen Legacy Sampling Protocols v4 July 12 2019; 6.2 CTD;	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigstaßgutno UIT The Arctic University of Norwy, mart.reigstaßgutno UIT The Arctic University of Norwy,
325 eff08/221-besc-11el+acd1-ad481cebr22 326 eff08/221-besc-11el+acd1-ad481cebr22 327 eff08/241-besc-11el+acd1-ad481cebr22 328 eff08/241-besc-11el+acd1-ad481cebr22 329 eff08/241-besc-11el+acd1-ad481cebr22 331 eff08/241-besc-11el+acd1-ad481cebr22 332 eff08/241-besc-11el+acd1-ad481cebr22 333 eff08/241-besc-11el+acd1-ad481cebr22 334 eff08/241-besc-11el+acd1-ad481cebr22 335 eff08/241-besc-11el+acd1-ad481cebr22 336 eff08/241-besc-11el+acd1-ad481cebr22 346 eff08/241-besc-11el+acd1-a	GO-FLO Phytoplankton net 10 um Mitcent 1500 um Mitcent 1500 um Mitcent 1500 um Mitcent 1500 um Mitcent 1500 um Mitcent 150 um Multinet 41 um Multinet 41 um Multinet 54 um Multinet 54 um Multinet 54 um Bongonet 180 um Bongonet 64 um Bongonet 64 um Bongonet 64 um Bongonet 64 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 18:33 2019706 18:33 2019706 20:26 2019706 20:26 2019706 20:251 2019706 00:08 2019706 01:07 2019706 02:27 2019706	P6 P6	81.5748 81.5762 81.5762 81.5638 81.5638 81.5695 81.5695 81.5695 81.5733 81.5808 81.5808 81.5850 81.5850	31.2451 31.3259 31.3874 31.5185 31.5260 31.5188 31.4993 31.4724 31.4686 31.4872 31.4872 31.5195 31.5707	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02 1111.65 1099.78 1099.2	163 2 66 89 90 91 92 93 94 95 96 97 184 2 98	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Nansen Legacy Sampling Protocols v4	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigstafglutno UIT The Arctic University of Norway, mart.reigstafglutno UIT The Arctic University of Norway,
225 eff08/276-566-1146-8.ccf1-04811c9/272 226 eff08/276-566-1146-9cf1-04811c9/272 227 eff08/276-566-1146-9cf1-04811c9/272 228 eff08/276-566-1146-9cf1-04811c9/272 239 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 231 eff08/276-566-1146-9cf1-04811c9/272 232 eff08/276-566-1146-9cf1-04811c9/272 233 eff08/276-566-1146-9cf1-04811c9/272 234 eff08/276-566-1146-9cf1-04811c9/272 235 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 237 eff08/276-566-1146-9cf1-04811c9/272 238 eff08/276-566-1146-9cf1-04811c9/272 239 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 231 eff08/276-566-1146-9cf1-04811c9/272 232 eff08/276-566-1146-9cf1-04811c9/272 234 eff08/276-566-1146-9cf1-04811c9/272 235 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 237 eff08/276-566-1146-9cf1-04811c9/272 237 eff08/276 237 eff08/276 238 eff08/276 239 eff08/276 239 eff08/276 230 ef	GO-FLO Phytoplankton net 10 um Mitcnet 1500 um Mitcnet 1500 um Mitcnet 1500 um Mitcnet 1500 um Multimet 64 um Bongonet 180 um Bongonet 180 um CTD wibollies CTD wibollies Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 20:26 2019706 21:48 2019706 21:48 2019706 00:08 2019706 00:08 2019706 01:07 2019706 02:27 2019706	P6 P6	81.5748 81.5765 81.5638 81.5638 81.5612 81.5604 81.5605 81.5604 81.5808 81.5808 81.5865 81.5865 81.5865	31.2451 31.3259 31.3874 31.5185 31.5260 31.5188 31.4993 31.4724 31.4686 31.4872 31.4872 31.5195 31.5707 31.5827	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02 1111.65 1099.78 1099.78 1099.2	183 2 66 2 89 90 91 92 93 94 95 96 97 184 2 98 99	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Nansen Legacy Sampling Protocols v4 July 12 2019; 6.2 CTD;	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigstabilgutino. UIT The Arctic University of Norway mart.reigstabilgutino. UIT The Arctic University of Norway
325 eff08/221-besc-11el+acd1-ad481cebr22 326 eff08/221-besc-11el+acd1-ad481cebr22 327 eff08/241-besc-11el+acd1-ad481cebr22 328 eff08/241-besc-11el+acd1-ad481cebr22 329 eff08/241-besc-11el+acd1-ad481cebr22 331 eff08/241-besc-11el+acd1-ad481cebr22 332 eff08/241-besc-11el+acd1-ad481cebr22 333 eff08/241-besc-11el+acd1-ad481cebr22 334 eff08/241-besc-11el+acd1-ad481cebr22 335 eff08/241-besc-11el+acd1-ad481cebr22 336 eff08/241-besc-11el+acd1-ad481cebr22 346 eff08/241-besc-11el+acd1-a	GO-FLO Phytoplankton net 10 um Mitcnet 1500 um Mitcnet 1500 um Mitcnet 1500 um Mitcnet 1500 um Multimet 64 um Bongonet 180 um Bongonet 180 um CTD wibollies CTD wibollies Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 18:33 2019706 18:33 2019706 20:26 2019706 20:26 2019706 20:251 2019706 00:08 2019706 01:07 2019706 02:27 2019706	P6 P6	81.5748 81.5765 81.5638 81.5638 81.5612 81.5604 81.5605 81.5604 81.5808 81.5808 81.5865 81.5865 81.5865	31.2451 31.3259 31.3874 31.5185 31.5260 31.5188 31.4993 31.4724 31.4686 31.4872 31.4872 31.5195 31.5707 31.5827	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02 1111.65 1099.78 1099.2	163 2 66 89 80 91 92 93 94 95 96 97 1184 2 98 99 6 6	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Nansen Legacy Sampling Protocols v4 July 12 2016, 6.2 CTD; One salinity sample	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigstadButh.o UIT The Arctic University of Norway, mart.reigstadButh.o UIT The Arctic University of Norway.
225 eff08/276-566-1146-8.ccf1-04811c9/272 226 eff08/276-566-1146-9cf1-04811c9/272 227 eff08/276-566-1146-9cf1-04811c9/272 228 eff08/276-566-1146-9cf1-04811c9/272 239 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 231 eff08/276-566-1146-9cf1-04811c9/272 232 eff08/276-566-1146-9cf1-04811c9/272 233 eff08/276-566-1146-9cf1-04811c9/272 234 eff08/276-566-1146-9cf1-04811c9/272 235 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 237 eff08/276-566-1146-9cf1-04811c9/272 238 eff08/276-566-1146-9cf1-04811c9/272 239 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 231 eff08/276-566-1146-9cf1-04811c9/272 232 eff08/276-566-1146-9cf1-04811c9/272 234 eff08/276-566-1146-9cf1-04811c9/272 235 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 237 eff08/276-566-1146-9cf1-04811c9/272 237 eff08/276 237 eff08/276 238 eff08/276 239 eff08/276 239 eff08/276 230 ef	GO-FLO Phytoplankton net 10 um Mitcnet 1500 um Mitcnet 1500 um Mitcnet 1500 um Mitcnet 1500 um Multimet 64 um Bongonet 180 um Bongonet 180 um CTD wibollies CTD wibollies Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 20:26 2019706 21:48 2019706 21:48 2019706 00:08 2019706 00:08 2019706 01:07 2019706 02:27 2019706	P6 P6	81.5748 81.5765 81.5638 81.5638 81.5612 81.5604 81.5605 81.5604 81.5808 81.5808 81.5865 81.5865 81.5865	31.2451 31.3259 31.3874 31.5185 31.5260 31.5188 31.4993 31.4724 31.4686 31.4872 31.4872 31.5195 31.5707 31.5827	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02 1111.65 1099.78 1099.78 1099.2	153 2 66 89 90 91 92 93 94 95 96 97 97 97 184 2 98 99 99 6	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Nansen Legacy Samping Protocols v4 Judy 12 2016 5.2 CTD; One salinky sample	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigstabilgutino. UIT The Arctic University of Norway mart.reigstabilgutino. UIT The Arctic University of Norway
225 eff08/276-566-1146-8.ccf1-04811c9/272 226 eff08/276-566-1146-9cf1-04811c9/272 227 eff08/276-566-1146-9cf1-04811c9/272 228 eff08/276-566-1146-9cf1-04811c9/272 239 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 231 eff08/276-566-1146-9cf1-04811c9/272 232 eff08/276-566-1146-9cf1-04811c9/272 233 eff08/276-566-1146-9cf1-04811c9/272 234 eff08/276-566-1146-9cf1-04811c9/272 235 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 237 eff08/276-566-1146-9cf1-04811c9/272 238 eff08/276-566-1146-9cf1-04811c9/272 239 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 231 eff08/276-566-1146-9cf1-04811c9/272 232 eff08/276-566-1146-9cf1-04811c9/272 234 eff08/276-566-1146-9cf1-04811c9/272 235 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 237 eff08/276-566-1146-9cf1-04811c9/272 237 eff08/276 237 eff08/276 238 eff08/276 239 eff08/276 239 eff08/276 230 ef	GO-FLO Phytoplankton net 10 um Mitcnet 1500 um Mitcnet 1500 um Mitcnet 1500 um Mitcnet 1500 um Multimet 64 um Bongonet 180 um Bongonet 180 um CTD wibollies CTD wibollies Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 20:26 2019706 21:48 2019706 21:48 2019706 00:08 2019706 00:08 2019706 01:07 2019706 02:27 2019706	P6 P6	81.5748 81.5765 81.5638 81.5638 81.5612 81.5604 81.5605 81.5604 81.5808 81.5808 81.5865 81.5865 81.5865	31.2451 31.3259 31.3874 31.5185 31.5260 31.5188 31.4993 31.4724 31.4686 31.4872 31.4872 31.5195 31.5707 31.5827	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02 1111.65 1099.78 1099.78 1099.2	153 2 66 89 900 91 92 93 94 95 96 97 184 2 98 99 99 99 6	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Nansen Legacy Sampling Protocols 4 July 12 2016 & 2 CTD One salinity sample Nansen Legacy Sampling Protocols 44	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigstabilgutino. UIT The Arctic University of Norway mart.reigstabilgutino. UIT The Arctic University of Norway
205_eH08226-bec_11e8-act1-a0481c97c2 206_eH08226-bec_11e8-act1-a0481c97c2 207_eH08274-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2	GO-FLO Phytoplankton net 10 um MKIncet 1500 um MKIncet 1500 um MKIncet 1500 um MKIncet 1500 um Multimet 40 um Multimet 40 um Bongonet 180 um Bongonet 64 um CID whotten Bongonet 80 um Bongonet 180 um Bongonet 180 um Source 100 um Bongonet 180 um Source 180 um Bongonet 180 um Bongonet 180 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:30 2019706 13:53 2019706 13:53 2019706 13:53 2019706 17:47 2019706 19:32 2019706 22:42 2019706 22:45 2019706 01:07 2019706 01:07 2019706 02:27 2019706 02:27 2019706 02:27 2019706 02:27 2019706 02:27 2019706 03:56 2019706	P6 P6	81 5748 81 5748 81 5762 81 5762 81 5563 81 5638 81 5604 81 5605 81 5595 81 5733 81 5808 81 5865 81 5862 81 5862 81 5862	31.2451 31.3259 31.3874 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.4696 31.4672 31.4672 31.5195 31.5707 31.5827 31.6212	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02 1111.65 1099.78 1099.78 1099.2	108 2 08 89 90 91 92 93 94 96 99 6 99 6	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Nansen Legacy Sampling Protocols v4 July 12 2016 8.2 CTD; Ore salinity sample Nansen Legacy Sampling Protocols 4. July 12 2019, 10.2 2	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	matr.reigstaßgut.no UIT The Arctic University of Norwy matr.reigstaßgut.no UIT The Arctic University of Norwy
225 eff08/276-566-1146-8.ccf1-04811c9/272 226 eff08/276-566-1146-9cf1-04811c9/272 227 eff08/276-566-1146-9cf1-04811c9/272 228 eff08/276-566-1146-9cf1-04811c9/272 239 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 231 eff08/276-566-1146-9cf1-04811c9/272 232 eff08/276-566-1146-9cf1-04811c9/272 233 eff08/276-566-1146-9cf1-04811c9/272 234 eff08/276-566-1146-9cf1-04811c9/272 235 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 237 eff08/276-566-1146-9cf1-04811c9/272 238 eff08/276-566-1146-9cf1-04811c9/272 239 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 231 eff08/276-566-1146-9cf1-04811c9/272 232 eff08/276-566-1146-9cf1-04811c9/272 234 eff08/276-566-1146-9cf1-04811c9/272 235 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 236 eff08/276-566-1146-9cf1-04811c9/272 237 eff08/276-566-1146-9cf1-04811c9/272 238 eff08/276-566-1146-9cf1-04811c9/272 239 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276-566-1146-9cf1-04811c9/272 230 eff08/276 231 eff08/276	GO-FLO Phytoplankton net 10 um MKIncet 1500 um MKIncet 1500 um MKIncet 1500 um MKIncet 1500 um Multimet 40 um Multimet 40 um Bongonet 180 um Bongonet 64 um CID whotten Bongonet 80 um Bongonet 180 um Bongonet 180 um Source 100 um Bongonet 180 um Source 180 um Bongonet 180 um Bongonet 180 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:30 2019706 13:53 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 20:26 2019706 21:48 2019706 21:48 2019706 00:08 2019706 00:08 2019706 01:07 2019706 02:27 2019706	P6 P6	81.5748 81.5765 81.5638 81.5638 81.5612 81.5604 81.5605 81.5604 81.5808 81.5808 81.5865 81.5865 81.5865	31.2451 31.3259 31.3874 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.4696 31.4672 31.4672 31.5195 31.5707 31.5827 31.6212	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02 1111.65 1099.78 1099.78 1099.2	166 2 66 2 67 97 98 99 6 6	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Nansen Legacy Samping Protocols 4 July 12 2019. 6 2 CTD; One salinity sample Nansen Legacy Sampling Protocols 4 July 12 2019. 10.2.2 Bix core:	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	matr.reigstabilgutino. UIT The Arctic University of Norway matr.reigstabilgutino. UIT The Arctic University of Norway
205_eH08226-bec_11e8-act1-a0481c97c2 206_eH08226-bec_11e8-act1-a0481c97c2 207_eH08274-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2	GO-FLO Phytoplankton net 10 um MKIncet 1500 um MKIncet 1500 um MKIncet 1500 um MKIncet 1500 um Multimet 40 um Multimet 40 um Bongonet 180 um Bongonet 64 um CID whotten Bongonet 80 um Bongonet 180 um Bongonet 180 um Source 100 um Bongonet 180 um Source 180 um Bongonet 180 um Bongonet 180 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:30 2019706 13:53 2019706 13:53 2019706 13:53 2019706 17:47 2019706 19:32 2019706 20:26 2019706 22:51 2019706 01:07 2019706 02:27 2019706 02:27 2019706 02:27 2019706 02:27 2019706 02:27 2019706 02:27 2019706 03:56 2019706	P6 P6	81 5748 81 5748 81 5762 81 5762 81 5563 81 5638 81 5604 81 5605 81 5595 81 5733 81 5808 81 5865 81 5862 81 5862 81 5862	31.2451 31.3259 31.3874 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.4696 31.4672 31.4672 31.5195 31.5707 31.5827 31.6212	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02 1111.65 1099.78 1099.78 1099.2	166 2 66 30 90 6 90 6 90 6 22 22	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Nansen Legacy Sampling Protocols v4 July 12 2016 6.2 CTD, Ore ealinty sample Nansen Legacy Sampling Protocols v4 July 12 2019 and Nansen Legacy Nansen Legacy	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	matr.reigstaßgut.no UIT The Arctic University of Norwy matr.reigstaßgut.no UIT The Arctic University of Norwy
205_eH08226-bec_11e8-act1-a0481c97c2 206_eH08226-bec_11e8-act1-a0481c97c2 207_eH08274-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2	GO-FLO Phytoplankton net 10 um MKIncet 1500 um MKIncet 1500 um MKIncet 1500 um MKIncet 1500 um Multimet 40 um Multimet 40 um Bongonet 180 um Bongonet 64 um CID whotten Bongonet 80 um Bongonet 180 um Bongonet 180 um Source 100 um Bongonet 180 um Source 180 um Bongonet 180 um Bongonet 180 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:30 2019706 13:53 2019706 13:53 2019706 13:53 2019706 17:47 2019706 19:32 2019706 20:26 2019706 22:51 2019706 01:07 2019706 02:27 2019706 02:27 2019706 02:27 2019706 02:27 2019706 02:27 2019706 02:27 2019706 03:56 2019706	P6 P6	81 5748 81 5748 81 5762 81 5762 81 5563 81 5638 81 5604 81 5605 81 5595 81 5733 81 5808 81 5865 81 5862 81 5862 81 5862	31.2451 31.3259 31.3874 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.4696 31.4672 31.4672 31.5195 31.5707 31.5827 31.6212	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02 1111.65 1099.78 1099.78 1099.2	166 2 66 2 90 01 91 93 94 95 96 97 184 2 99 6 6 22	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Nansen Lagacy Sampling Protocols v4 July 12 2019; 6 2 CTD: Output 12 2019; 6 2 CTD: Output 12 2019; 6 2 CTD: Output 12 2019; 6 2 CTD: Nansen Lagacy Nansen Lagacy Nansen Lagacy Nansen Lagacy Nansen Lagacy	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	matr.reigstaßgut.no UIT The Arctic University of Norwy matr.reigstaßgut.no UIT The Arctic University of Norwy
265 eM08/2014-566-1146-4.cd1-40481c497c2 266 eM08/2014-566-1146-4.cd1-40481c497c2 277 eM08/2014-566-1146-4.cd1-40481c497c2 288 eM08/2014-566-1146-4.cd1-40481c497c2 299 eM08/2014-566-1146-4.cd1-40481c497c2 2014 eM08/2014-566-1146-4.cd1-	GO-FLO Phytoplamiston ent 10 um Milk-ent 1500 um Milk-ent 1500 um Milk-ent 1500 um Milk-ent 1500 um Multimet 80 um Bongonet 180 um Multimet 91 um Bongonet 180 um CTD wibotilies Bongonet 180 um Bongonet 180 um Bongonet 180 um Statumet 180 um Bongonet 180 um Bongonet 180 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:20 2019706 13:53 2019706 14:47 2019706 14:47 2019706 19:32 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 20:26 2019706 00:08 2019706 00:08 2019706 00:08 2019706 00:09 2019706	P6 P6	81.5748 81.5762 81.5762 81.5763 81.5638 81.5638 81.5638 81.5604 81.5664 81.5865 81.5808 81.5865 81.5865 81.5865 81.5842 81.5842	31.2451 31.3254 31.3254 31.5250 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.4724 31.4856 31.4872 31.5195 31.5707 31.58212 31.6212	1026.46 1036.91 856.29 843.73 841.06 848.67 894.92 989.02 1111.65 1099.78 1099.78 1099.2	166 2 06 2 00 01 02 33 04 05 06 07 97 97 184 2 09 6 22 22 23 23	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Nansen Legacy Sampling Protocols 44 July 122016 & 2017) One salinity sample Nansen Legacy Sampling Protocols 42 July 122019 (2022) Nansen Legacy Sampling Protocols 42 July 122019, 10.22	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	matr.reigstaßgutno UIT The Arctic University of Norwy matr.reigstaßgutno UIT The Arctic University of Norwy
205_eH08226-bec_11e8-act1-a0481c97c2 206_eH08226-bec_11e8-act1-a0481c97c2 207_eH08274-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2 208_eH08226-bec_11e8-act1-a0481c97c2	GO-FLO Phytoplamiston ent 10 um Milk-ent 1500 um Milk-ent 1500 um Milk-ent 1500 um Milk-ent 1500 um Multimet 80 um Bongonet 180 um Multimet 91 um Bongonet 180 um CTD wibotilies Bongonet 180 um Bongonet 180 um Bongonet 180 um Statumet 180 um Bongonet 180 um Bongonet 180 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:20 2019706 13:53 2019706 14:47 2019706 14:47 2019706 19:32 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 20:26 2019706 00:08 2019706 00:08 2019706 00:08 2019706 00:09 2019706	P6 P6	81 5748 81 5748 81 5762 81 5762 81 5563 81 5638 81 5604 81 5605 81 5595 81 5733 81 5808 81 5865 81 5862 81 5862 81 5862	31.2451 31.3254 31.3254 31.5260 31.5260 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.4724 31.4656 31.472 31.472 31.477 31.5195 31.5707 31.5212 31.6212	1026.46 1038.91 856.29 843.73 841.06 844.07 894.92 989.02 1111.65 1099.78 1099.2 1099.78 1099.2 979.27	166 2 66 2 90 01 91 92 93 94 96 97 97 97 184 2 98 99 6 6 22 23	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Namen Lagacy Sampling Protocols v4 July 12 2016 6.2 CTD: One sainly sample Namen Legacy Namen Legacy Sampling Protocols v4 July 10.2 21 No. 10.2 2 Namen Legacy Namen Legacy Sampling Protocols v4 July 12 2016; 10.2 2 Sampling Protocols v4 July 12 2016; 10.2 2 Namen Legacy	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	matr.reigstaßgut.no UIT The Arctic University of Norwy matr.reigstaßgut.no UIT The Arctic University of Norwy
265 eM08/2014-566-1146-4.cd1-40481c497c2 266 eM08/2014-566-1146-4.cd1-40481c497c2 277 eM08/2014-566-1146-4.cd1-40481c497c2 288 eM08/2014-566-1146-4.cd1-40481c497c2 298 eM08/2014-566-1146-4.cd1-40481c497c2 209 eM08/2014-566-1146-4.cd1-40481c497c2 2014/2014-566-1146-4.cd1	GO-FLO Phytoplamiston ent 10 um Milk-ent 1500 um Milk-ent 1500 um Milk-ent 1500 um Milk-ent 1500 um Multimet 80 um Bongonet 180 um Multimet 91 um Bongonet 180 um CTD wibotilies Bongonet 180 um Bongonet 180 um Bongonet 180 um Statumet 180 um Bongonet 180 um Bongonet 180 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:20 2019706 13:53 2019706 14:47 2019706 14:47 2019706 19:32 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 20:26 2019706 00:08 2019706 00:08 2019706 00:08 2019706 00:09 2019706	P6 P6	81.5748 81.5762 81.5762 81.5763 81.5638 81.5638 81.5638 81.5604 81.5664 81.5865 81.5808 81.5865 81.5865 81.5865 81.5842 81.5842	31.2451 31.3254 31.3254 31.5250 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.4724 31.4856 31.4872 31.5195 31.5707 31.58212 31.6212	1026.46 1038.91 856.29 843.73 841.06 844.07 894.92 989.02 1111.65 1099.78 1099.2 1099.78 1099.2 979.27	166 2 061 00 001 01 02 03 04 05 06 07 07 07 184 2 08 09 6 6 22 23	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Nansen Legacy Sampling Protocols 44 July 12 2016 6.2 CTD; Cre salinty sample Sampling Protocols 44 July 12 2016 6.2 CTD; Cre salinty sample Sampling Protocols 44 July 12 2019, correr Nansen Legacy Sampling Protocols 22 Box correr Nansen Legacy Sampling Protocols 22 Box correr Nansen Legacy Nansen Legacy	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	matr.reigstaßgutno UIT The Arctic University of Norwy matr.reigstaßgutno UIT The Arctic University of Norwy
265 eM08/2014-566-1146-4.cd1-40481c497c2 266 eM08/2014-566-1146-4.cd1-40481c497c2 277 eM08/2014-566-1146-4.cd1-40481c497c2 288 eM08/2014-566-1146-4.cd1-40481c497c2 298 eM08/2014-566-1146-4.cd1-40481c497c2 209 eM08/2014-566-1146-4.cd1-40481c497c2 2014/2014-566-1146-4.cd1	GO-FLO Phytoplamiston ent 10 um Milk-ent 1500 um Milk-ent 1500 um Milk-ent 1500 um Milk-ent 1500 um Multimet 80 um Bongonet 180 um Multimet 91 um Bongonet 180 um CTD wibotilies Bongonet 180 um Bongonet 180 um Bongonet 180 um Statumet 180 um Bongonet 180 um Bongonet 180 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 18:33 2019706 18:33 2019706 18:33 2019706 2019706 2019706 22:51 2019706 22:51 2019706 22:51 2019706 2019706 2019706 11:22 2019706	P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P	81.5748 81.5765 81.5765 81.5765 81.5638 81.5605 81.5605 81.5605 81.5605 81.5605 81.5808 81.5808 81.5808 81.5862 81.5862 81.5862 81.5842 81.5452 81.5452	31.2451 31.259 31.3274 31.5185 31.5188 31.5188 31.5188 31.5188 31.4695 31.4695 31.4695 31.4695 31.4672 31.4672 31.5195 31.5707 31.5827 31.5275 30.8475 30.8475	1026.46 1038.91 856.29 843.73 841.06 844.07 894.92 989.02 11111.65 1099.78 1099.2 1099.78 1099.2 1099.2 979.27	166 2 66 2 90 91 91 93 94 95 96 97 97 97 184 2 98 99 6 6 22 23	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Namen Lagacy Sampling Protocols v4 July 12 2016 6.2 CTD: One sainly sample Namen Legacy Namen Legacy Sampling Protocols v4 July 10.2 21 No. 10.2 2 Namen Legacy Namen Legacy Sampling Protocols v4 July 12 2016; 10.2 2 Sampling Protocols v4 July 12 2016; 10.2 2 Namen Legacy	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	matr.reigstadigutino UIT The Arctic University of Norway matr.reigstadigutino UIT The Arctic University of Norway
265 eM08/2014-566-1146-4.cd1-40481c497c2 266 eM08/2014-566-1146-4.cd1-40481c497c2 277 eM08/2014-566-1146-4.cd1-40481c497c2 288 eM08/2014-566-1146-4.cd1-40481c497c2 298 eM08/2014-566-1146-4.cd1-40481c497c2 209 eM08/2014-566-1146-4.cd1-40481c497c2 2014/2014-566-1146-4.cd1	QO-FLO Phytoplankton ent 10 um Milk-ent 1500 um Milk-ent 1500 um Milk-ent 1500 um Multimet 80 um Multimet 81 um Bongonet 180 um Songonet 84 um Grup vibrities Bongonet 180 um Bongonet 180 um Songonet 180 um Bongonet 180 um <	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:20 2019706 13:53 2019706 14:47 2019706 14:47 2019706 19:32 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 20:26 2019706 00:08 2019706 00:08 2019706 00:08 2019706 00:09 2019706	P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P	81.5748 81.5765 81.5765 81.5765 81.5638 81.5605 81.5605 81.5605 81.5605 81.5605 81.5808 81.5808 81.5808 81.5862 81.5862 81.5862 81.5842 81.5452 81.5452	31.2451 31.3254 31.3254 31.5250 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.5185 31.4724 31.4856 31.4872 31.5195 31.5707 31.58212 31.6212	1026.46 1038.91 856.29 843.73 841.06 844.07 894.92 989.02 11111.65 1099.78 1099.2 1099.78 1099.2 1099.2 979.27	166 2 00 01 01 02 03 04 05 06 07 07 184 2 08 99 6 22 23 23	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verical haul	Alamon Lagacy Sampling Protocols v4 July 12 2016 6.2 CTD; One safety sample Namenia Protocols v4 July 12 2016 6.2 CTD; One safety sample Namenia Protocols v4 July 12 2016 10.2 Z Bac core: Namenia Lagacy Namenia Lagacy Namenia Lagacy Namenia Lagacy Namenia Lagacy Namenia Lagacy	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	matr.reigstadigutino UIT The Arctic University of Norway matr.reigstadigutino UIT The Arctic University of Norway
225 409620 - beer 14e act 1-4041 (chr2 32 226 409620 - beer 14e act 1-4041 (chr2 32 227 409620 - beer 14e act 1-4041 (chr2 32 228 409620 - beer 14e act 1-4041 (chr2 32 239 409620 - beer 14e act 1-4041 (chr2 32 230 409620 - beer 14e act 1-4041 (chr2 32 231 409620 - beer 14e act 1-4041 (chr2 32 232 409620 - beer 14e act 1-4041 (chr2 32 233 409620 - beer 14e act 1-4041 (chr2 32 234 409620 - beer 14e act 1-4041 (chr2 32 236 409620 - beer 14e act 1-4041 (chr2 32 246 409620 - beer 14e act 1-40	QO-FLO Phytoplankton ent 10 um Milk-ent 1500 um Milk-ent 1500 um Milk-ent 1500 um Multimet 80 um Multimet 81 um Bongonet 180 um Songonet 84 um Grup vibrities Bongonet 180 um Bongonet 180 um Songonet 180 um Bongonet 180 um <	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 18:33 2019706 18:33 2019706 18:33 2019706 2019706 2019706 22:51 2019706 22:51 2019706 22:51 2019706 2019706 2019706 11:22 2019706	P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P	81.5748 81.5765 81.5765 81.5765 81.5638 81.5605 81.5605 81.5605 81.5605 81.5605 81.5808 81.5808 81.5808 81.5862 81.5862 81.5862 81.5842 81.5452 81.5452	31.2451 31.259 31.3274 31.5185 31.5188 31.5188 31.5188 31.5188 31.4695 31.4695 31.4695 31.4695 31.4672 31.4672 31.5195 31.5707 31.5827 31.5275 30.8475 30.8475	1028.46 1036.91 856.29 843.73 841.06 984.92 989.02 1111.65 1099.2 1099.78 1099.2 1099.2 1029.78 1099.2 1029.78 1099.2 1029.78 1029.78 1029.78	166 2 66 2 90 91 92 93 94 95 96 97 97 97 184 2 98 99 6 6 22 23 23 24	40 75 30 75 75 75	10 10 10 10 10 10 10 10 10	Verical haul	Namen Legacy Sampling Protocols v4 July 12 2019; 6 2 CTP; One sality sample Namen Legacy Namen Legacy Namen Legacy Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Bio: corer Namen Legacy Namen Legacy	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	matr.reigstaßgutno UIT The Arctic University of Norwy matr.reigstaßgutno UIT The Arctic University of Norwy
225 409620 - beer 14e act 1-4041 (chr2 32 226 409620 - beer 14e act 1-4041 (chr2 32 227 409620 - beer 14e act 1-4041 (chr2 32 228 409620 - beer 14e act 1-4041 (chr2 32 239 409620 - beer 14e act 1-4041 (chr2 32 230 409620 - beer 14e act 1-4041 (chr2 32 231 409620 - beer 14e act 1-4041 (chr2 32 232 409620 - beer 14e act 1-4041 (chr2 32 233 409620 - beer 14e act 1-4041 (chr2 32 234 409620 - beer 14e act 1-4041 (chr2 32 236 409620 - beer 14e act 1-4041 (chr2 32 246 409620 - beer 14e act 1-40	QO-FLO Phytoplankton ent 10 um Milk-ent 1500 um Milk-ent 1500 um Milk-ent 1500 um Multimet 80 um Multimet 81 um Bongonet 180 um Songonet 84 um Grup vibrities Bongonet 180 um Bongonet 180 um Songonet 180 um Bongonet 180 um <	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 18:33 2019706 18:33 2019706 18:33 2019706 2019706 2019706 22:51 2019706 22:51 2019706 22:51 2019706 2019706 2019706 11:22 2019706	P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P	81.5748 81.5765 81.5765 81.5765 81.5638 81.5605 81.5605 81.5605 81.5605 81.5605 81.5808 81.5808 81.5808 81.5862 81.5862 81.5862 81.5842 81.5452 81.5452	31.2451 31.259 31.3274 31.5185 31.5188 31.5188 31.5188 31.5188 31.4695 31.4695 31.4695 31.4695 31.4672 31.4672 31.5195 31.5707 31.5827 31.5275 30.8475 30.8475	1028.46 1036.91 856.29 843.73 841.06 984.92 989.02 1111.65 1099.2 1099.78 1099.2 1099.2 1029.78 1099.2 1029.78 1099.2 1029.78 1029.78 1029.78	166 2 00 01 01 02 03 04 05 06 07 07 184 2 99 6 22 23 23 24	40 75 30 75 75 75	10 10 10 10 10 10 10 10 10	Verical haul	Nansen Lagacy Sampling Protocols v4 July 15 and 15	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	matr.reigstadigutino UIT The Arctic University of Norway matr.reigstadigutino UIT The Arctic University of Norway
205 #008226-besc-11e8-act1-a0481c8/m22 206 #008226-besc-11e8-act1-a0481c8/m22 207 #008264-besc-11e8-act1-a0481c8/m22 208 #008276-besc-11e8-act1-a0481c8/m22 208 #008276-besc-11e8-act1-a0481c8/m22 <td< td=""><td>GO-FLO Phytoplankton net 10 um Milknet 1500 um Milknet 1500 um Milknet 150 um Multinet 64 um Bongonet 180 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core</td><td>2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19</td><td>12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 18:33 2019706 18:33 2019706 18:32 2019706 2026 2019706 22:51 2019706 22:51 2019706 00:08 2019706 00:56 2019706 00:56 2019706 11:22 2019706 11:22 2019706 11:22 2019706</td><td>P6 P6 P6 P8 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6</td><td>81.5748 81.5722 81.5765 81.5765 81.682 81.5855 81.5855 81.5855 81.5856 81.5856 81.5856 81.5856 81.5866 81.5866 81.5862 81.5842 81.5452 81.5452 81.5400</td><td>31.2451 31.3259 31.3259 31.5185 31.5185 31.5185 31.5185 31.4280 31.5185 31.4280 31.8280 31.8280 31.8280 31.8270 31.8272 30.8475 30.8870</td><td>1026.46 1038.91 1038.91 841.06 841.06 844.87 894.92 989.02 1111.65 1099.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1000000000000000000000000000000000000</td><td>166 2 66 2 90 91 92 93 94 95 96 97 97 97 184 2 98 99 6 6 22 23 24 24</td><td>40 75 30 75 75 75</td><td>10 10 10 10 10 10 10 10 10</td><td>Verical haul</td><td>Nansen Lagacy Sampling Protocola v July 12 2016 6.2 CTD. One salinity sample Nansen Lagacy Nansen Lagacy Sampling Protocola v July 12 2016 0.2 CTD Bio Corter (10.2 Z Bio Corter (10.2 Z</td><td>See data file for instrument serial numbers. Note change og temperature senso</td><td>Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad</td><td>metr.reigital@ut.o. UIT The Arctic University of Norwy metr.reigital@ut.o. UIT metr.clic.University of Norwy metr.reigital@ut.o. UIT The Arctic University of Norwy</td></td<>	GO-FLO Phytoplankton net 10 um Milknet 1500 um Milknet 1500 um Milknet 150 um Multinet 64 um Bongonet 180 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 18:33 2019706 18:33 2019706 18:32 2019706 2026 2019706 22:51 2019706 22:51 2019706 00:08 2019706 00:56 2019706 00:56 2019706 11:22 2019706 11:22 2019706 11:22 2019706	P6 P6 P6 P8 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5722 81.5765 81.5765 81.682 81.5855 81.5855 81.5855 81.5856 81.5856 81.5856 81.5856 81.5866 81.5866 81.5862 81.5842 81.5452 81.5452 81.5400	31.2451 31.3259 31.3259 31.5185 31.5185 31.5185 31.5185 31.4280 31.5185 31.4280 31.8280 31.8280 31.8280 31.8270 31.8272 30.8475 30.8870	1026.46 1038.91 1038.91 841.06 841.06 844.87 894.92 989.02 1111.65 1099.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1000000000000000000000000000000000000	166 2 66 2 90 91 92 93 94 95 96 97 97 97 184 2 98 99 6 6 22 23 24 24	40 75 30 75 75 75	10 10 10 10 10 10 10 10 10	Verical haul	Nansen Lagacy Sampling Protocola v July 12 2016 6.2 CTD. One salinity sample Nansen Lagacy Nansen Lagacy Sampling Protocola v July 12 2016 0.2 CTD Bio Corter (10.2 Z Bio Corter (10.2 Z	See data file for instrument serial numbers. Note change og temperature senso	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	metr.reigital@ut.o. UIT The Arctic University of Norwy metr.reigital@ut.o. UIT metr.clic.University of Norwy metr.reigital@ut.o. UIT The Arctic University of Norwy
225 409620 - beer 14e act 1-4041 (chr2 32 226 409620 - beer 14e act 1-4041 (chr2 32 227 409620 - beer 14e act 1-4041 (chr2 32 228 409620 - beer 14e act 1-4041 (chr2 32 239 409620 - beer 14e act 1-4041 (chr2 32 230 409620 - beer 14e act 1-4041 (chr2 32 231 409620 - beer 14e act 1-4041 (chr2 32 232 409620 - beer 14e act 1-4041 (chr2 32 233 409620 - beer 14e act 1-4041 (chr2 32 234 409620 - beer 14e act 1-4041 (chr2 32 236 409620 - beer 14e act 1-4041 (chr2 32 246 409620 - beer 14e act 1-40	GO-FLO Phytoplankton net 10 um Milknet 1500 um Milknet 1500 um Milknet 150 um Multinet 64 um Bongonet 180 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 1352 2019706 14:47 2019706 14:47 2019706 14:32 2019706 18:33 2019706 18:33 2019706 18:33 2019706 2019706 22:51 2019706 22:51 2019706 22:51 2019706 22:51 2019706 00:00 2019706 11:22 2019706	P6 P6 P6 P8 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5722 81.5765 81.5765 81.682 81.5855 81.5855 81.5855 81.5856 81.5856 81.5856 81.5856 81.5866 81.5866 81.5862 81.5842 81.5452 81.5452 81.5400	31.2451 31.259 31.3274 31.5185 31.5188 31.5188 31.5188 31.5188 31.4695 31.4695 31.4695 31.4695 31.4672 31.4672 31.5195 31.5707 31.5827 31.5275 30.8475 30.8475	1028.46 1036.91 856.29 843.73 841.06 984.92 989.02 1111.65 1099.2 1099.78 1099.2 1099.2 1029.78 1099.2 1029.78 1099.2 1029.78 1029.78 1029.78	166 2 00 01 01 02 03 04 05 06 07 07 184 2 99 6 22 23 23 24 24 25	40 75 30 75 75 75	10 10 10 10 10 10 10 10 10	Verical haul	Nansen Lagacy Sampling Protocols v4 July 15 and 15	Sa0184 sefat 192	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	matr.reigstadigutino UIT The Arctic University of Norway matr.reigstadigutino UIT The Arctic University of Norway
205 #008226-besc-11e8-act1-a0481c8/m22 206 #008226-besc-11e8-act1-a0481c8/m22 207 #008264-besc-11e8-act1-a0481c8/m22 208 #008276-besc-11e8-act1-a0481c8/m22 208 #008276-besc-11e8-act1-a0481c8/m22 <td< td=""><td>GO-FLO Phytoplankton net 10 um Milknet 1500 um Milknet 1500 um Milknet 150 um Multinet 64 um Bongonet 180 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core</td><td>2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19</td><td>12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 18:33 2019706 18:33 2019706 18:32 2019706 2026 2019706 22:51 2019706 22:51 2019706 00:08 2019706 00:56 2019706 00:56 2019706 11:22 2019706 11:22 2019706 11:22 2019706</td><td>P6 P6 P6 P8 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6</td><td>81.5748 81.5722 81.5765 81.5765 81.682 81.5855 81.5855 81.5855 81.5856 81.5856 81.5856 81.5856 81.5866 81.5866 81.5862 81.5842 81.5452 81.5452 81.5400</td><td>31.2451 31.3259 31.3259 31.5185 31.5185 31.5185 31.5185 31.4280 31.5185 31.4280 31.8280 31.8280 31.8280 31.8270 31.8272 30.8475 30.8870</td><td>1026.46 1038.91 1038.91 841.06 841.06 844.87 894.92 989.02 1111.65 1099.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1000000000000000000000000000000000000</td><td>166 2 66 2 90 01 91 92 93 94 95 96 97 97 184 2 98 99 6 6 22 23 24 25</td><td>40 75 30 75 75 75</td><td>10 10 10 10 10 10 10 10 10</td><td>Verical haul</td><td>Nansen Legacy Sampling Protocols 4 July 12 2016 6 2 CTD; Cre salinty sample Sampling Protocols 4 Mansen Legacy Sampling Protocols 4 July 12 2019 (10 2 2 Box corer Nansen Legacy Sampling Protocols 4 July 12 2019 (10 2 2 Box corer Nansen Legacy Sampling Protocols 4 July 12 2019 (10 2 2 Box corer Nansen Legacy Sampling Protocols 4 July 12 2019 (10 2 2 Box corer</td><td>See data fie for instrument serial numbers. Note change og temperature sense before cast 192.</td><td>Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad</td><td>metr.reigital@ut.o. UIT The Arctic University of Norwy metr.reigital@ut.o. UIT metr.clic.University of Norwy metr.reigital@ut.o. UIT The Arctic University of Norwy</td></td<>	GO-FLO Phytoplankton net 10 um Milknet 1500 um Milknet 1500 um Milknet 150 um Multinet 64 um Bongonet 180 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 18:33 2019706 18:33 2019706 18:32 2019706 2026 2019706 22:51 2019706 22:51 2019706 00:08 2019706 00:56 2019706 00:56 2019706 11:22 2019706 11:22 2019706 11:22 2019706	P6 P6 P6 P8 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5722 81.5765 81.5765 81.682 81.5855 81.5855 81.5855 81.5856 81.5856 81.5856 81.5856 81.5866 81.5866 81.5862 81.5842 81.5452 81.5452 81.5400	31.2451 31.3259 31.3259 31.5185 31.5185 31.5185 31.5185 31.4280 31.5185 31.4280 31.8280 31.8280 31.8280 31.8270 31.8272 30.8475 30.8870	1026.46 1038.91 1038.91 841.06 841.06 844.87 894.92 989.02 1111.65 1099.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1000000000000000000000000000000000000	166 2 66 2 90 01 91 92 93 94 95 96 97 97 184 2 98 99 6 6 22 23 24 25	40 75 30 75 75 75	10 10 10 10 10 10 10 10 10	Verical haul	Nansen Legacy Sampling Protocols 4 July 12 2016 6 2 CTD; Cre salinty sample Sampling Protocols 4 Mansen Legacy Sampling Protocols 4 July 12 2019 (10 2 2 Box corer Nansen Legacy Sampling Protocols 4 July 12 2019 (10 2 2 Box corer Nansen Legacy Sampling Protocols 4 July 12 2019 (10 2 2 Box corer Nansen Legacy Sampling Protocols 4 July 12 2019 (10 2 2 Box corer	See data fie for instrument serial numbers. Note change og temperature sense before cast 192.	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	metr.reigital@ut.o. UIT The Arctic University of Norwy metr.reigital@ut.o. UIT metr.clic.University of Norwy metr.reigital@ut.o. UIT The Arctic University of Norwy
205 #008226-besc-11e8-act1-a0481c8/m22 206 #008226-besc-11e8-act1-a0481c8/m22 207 #008264-besc-11e8-act1-a0481c8/m22 208 #008276-besc-11e8-act1-a0481c8/m22 208 #008276-besc-11e8-act1-a0481c8/m22 <td< td=""><td>GO-FLO Phytoplankton net 10 um Milknet 1500 um Milknet 1500 um Milknet 150 um Multinet 64 um Bongonet 180 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core</td><td>2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19</td><td>12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 18:33 2019706 18:33 2019706 18:32 2019706 2026 2019706 22:51 2019706 22:51 2019706 00:08 2019706 00:56 2019706 00:56 2019706 11:22 2019706 11:22 2019706 11:22 2019706</td><td>P6 P6 P6 P8 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6</td><td>81.5748 81.5722 81.5765 81.5765 81.682 81.5855 81.5855 81.5855 81.5856 81.5856 81.5856 81.5856 81.5866 81.5866 81.5862 81.5842 81.5452 81.5452 81.5400</td><td>31.2451 31.3259 31.3259 31.5185 31.5185 31.5185 31.5185 31.4280 31.5185 31.4280 31.8280 31.8280 31.8280 31.8270 31.8272 30.8475 30.8870</td><td>1026.46 1038.91 1038.91 841.06 841.06 844.87 894.92 989.02 1111.65 1099.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1000000000000000000000000000000000000</td><td>166 2 00 01 01 02 03 94 05 06 07 07 184 2 99 6 22 23 23 24 24 25</td><td>40 75 30 75 75 75</td><td>10 10 10 10 10 10 10 10</td><td>Verlical haul</td><td>Nansen Lagacy Sampling Protocols v4 by Ta2019, 62 c TD, Jone salinity sample Nansen Lagacy Sampling Protocols v4 July 12 2019, 10 2.2 Bio corer Nansen Lagacy Sampling Protocols v4 July 12 2019, 10 2.2 Bio corer Nansen Lagacy Sampling Protocols v4 July 12 2019, 10 2.2 Bio corer Nansen Lagacy Nansen Lagacy</td><td>Sa0184 sef data fie for instrument serial numbers. Note change og tamperature sensor 192.</td><td>Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad</td><td>metr.reigital@ut.o. UIT The Arctic University of Norwy metr.reigital@ut.o. UIT metr.clic.University of Norwy metr.reigital@ut.o. UIT The Arctic University of Norwy</td></td<>	GO-FLO Phytoplankton net 10 um Milknet 1500 um Milknet 1500 um Milknet 150 um Multinet 64 um Bongonet 180 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 18:33 2019706 18:33 2019706 18:32 2019706 2026 2019706 22:51 2019706 22:51 2019706 00:08 2019706 00:56 2019706 00:56 2019706 11:22 2019706 11:22 2019706 11:22 2019706	P6 P6 P6 P8 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5722 81.5765 81.5765 81.682 81.5855 81.5855 81.5855 81.5856 81.5856 81.5856 81.5856 81.5866 81.5866 81.5862 81.5842 81.5452 81.5452 81.5400	31.2451 31.3259 31.3259 31.5185 31.5185 31.5185 31.5185 31.4280 31.5185 31.4280 31.8280 31.8280 31.8280 31.8270 31.8272 30.8475 30.8870	1026.46 1038.91 1038.91 841.06 841.06 844.87 894.92 989.02 1111.65 1099.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1000000000000000000000000000000000000	166 2 00 01 01 02 03 94 05 06 07 07 184 2 99 6 22 23 23 24 24 25	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verlical haul	Nansen Lagacy Sampling Protocols v4 by Ta2019, 62 c TD, Jone salinity sample Nansen Lagacy Sampling Protocols v4 July 12 2019, 10 2.2 Bio corer Nansen Lagacy Sampling Protocols v4 July 12 2019, 10 2.2 Bio corer Nansen Lagacy Sampling Protocols v4 July 12 2019, 10 2.2 Bio corer Nansen Lagacy Nansen Lagacy	Sa0184 sef data fie for instrument serial numbers. Note change og tamperature sensor 192.	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	metr.reigital@ut.o. UIT The Arctic University of Norwy metr.reigital@ut.o. UIT metr.clic.University of Norwy metr.reigital@ut.o. UIT The Arctic University of Norwy
205 #008226-besc-11e8-act1-a0481c8/m22 206 #008226-besc-11e8-act1-a0481c8/m22 207 #008276-besc-11e8-act1-a0481c8/m22 208 #008276-besc-11e8-act1-a0481c8/m22 <td< td=""><td>GO-FLO Phytoplankton net 10 um Milknet 1500 um Milknet 1500 um Milknet 150 um Multinet 64 um Bongonet 180 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core</td><td>2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19</td><td>12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 18:33 2019706 18:33 2019706 18:32 2019706 2026 2019706 22:51 2019706 22:51 2019706 00:08 2019706 00:56 2019706 00:56 2019706 11:22 2019706 11:22 2019706 11:22 2019706</td><td>P6 P6 P6 P8 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6</td><td>81.5748 81.5722 81.5765 81.5765 81.682 81.5855 81.5855 81.5855 81.5856 81.5856 81.5856 81.5856 81.5866 81.5866 81.5862 81.5842 81.5452 81.5452 81.5400</td><td>31.2451 31.3259 31.3259 31.5185 31.5185 31.5185 31.5185 31.4280 31.5185 31.4280 31.8280 31.8280 31.8280 31.8270 31.8272 30.8475 30.8870</td><td>1026.46 1038.91 1038.91 841.06 841.06 844.87 894.92 989.02 1111.65 1099.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1000000000000000000000000000000000000</td><td>166 2 66 2 90 91 92 93 94 95 96 6 99 6 6 22 23 23 24 25</td><td>40 75 30 75 75 75</td><td>10 10 10 10 10 10 10 10</td><td>Verlical haul</td><td>Nansen Lagacy Sampling Protocols v4 July 12 2019; 6 2 CTD: Output 12 2019; 6 2 CTD: Nansen Lagacy Nansen Lagacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Nansen Lagacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Nansen Lagacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Nansen Lagacy Nansen Lagacy</td><td>Sao184 See data file for instrument serial Intervent serial Interven</td><td>Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad</td><td>metr.reigital@ut.o. UIT The Arctic University of Norwy metr.reigital@ut.o. UIT metr.clic.University of Norwy metr.reigital@ut.o. UIT The Arctic University of Norwy</td></td<>	GO-FLO Phytoplankton net 10 um Milknet 1500 um Milknet 1500 um Milknet 150 um Multinet 64 um Bongonet 180 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 18:33 2019706 18:33 2019706 18:32 2019706 2026 2019706 22:51 2019706 22:51 2019706 00:08 2019706 00:56 2019706 00:56 2019706 11:22 2019706 11:22 2019706 11:22 2019706	P6 P6 P6 P8 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5722 81.5765 81.5765 81.682 81.5855 81.5855 81.5855 81.5856 81.5856 81.5856 81.5856 81.5866 81.5866 81.5862 81.5842 81.5452 81.5452 81.5400	31.2451 31.3259 31.3259 31.5185 31.5185 31.5185 31.5185 31.4280 31.5185 31.4280 31.8280 31.8280 31.8280 31.8270 31.8272 30.8475 30.8870	1026.46 1038.91 1038.91 841.06 841.06 844.87 894.92 989.02 1111.65 1099.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1000000000000000000000000000000000000	166 2 66 2 90 91 92 93 94 95 96 6 99 6 6 22 23 23 24 25	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verlical haul	Nansen Lagacy Sampling Protocols v4 July 12 2019; 6 2 CTD: Output 12 2019; 6 2 CTD: Nansen Lagacy Nansen Lagacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Nansen Lagacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Nansen Lagacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Nansen Lagacy Nansen Lagacy	Sao184 See data file for instrument serial Intervent serial Interven	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	metr.reigital@ut.o. UIT The Arctic University of Norwy metr.reigital@ut.o. UIT metr.clic.University of Norwy metr.reigital@ut.o. UIT The Arctic University of Norwy
225 4008-202 -besc - 1146 - act - 40481 (cbr2) 226 4008-204 -besc - 1146 - act - 40481 (cbr2) 227 4008-204 -besc - 1146 - act - 40481 (cbr2) 228 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 339 4008-204 -besc - 1146 - act - 40481 (cbr2) 341 4008-204 -besc - 1146 - act - 40481 (cbr2) 342 4008-204 -besc - 1146 - act - 40481 (cbr2) 342 4008-204 -besc - 1146 - act - 40481 (cbr2) 342 4008-204	GO-FLO Phytoplankton ent 10 um Milknent 1500 um Milknent 1500 um Milknent 160 um Multimet 44 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 13:32 2019706 13:32 2019706 13:32 2019706 20:22 2019706 20:22 2019706 20:32 2019706 00:06 2019706 00:06 2019706 00:07 2019706 00:07 2019706 00:07 2019706 11:22 2019706 11:22 2019706 11:22 2019706	P6 P6 P6 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5742 81.5765 81.5765 81.5632 81.5632 81.5642 81.5604 81.5604 81.5605 81.5808 81.5808 81.5808 81.5808 81.5808 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802	31.2451 31.3250 31.3250 31.5185 31.5185 31.5185 31.5185 31.5185 31.4724 31.48686 31.472 31.4872 31.4872 31.4872 31.4872 31.4872 31.4872 31.6212 30.8475 30.8759 30.9570	1026.46 1036.91 1036.91 843.73 841.70 943.73 841.06 944.92 999.02 1111.65 1099.2 1099.78 1099.2 1099.2 1099.2 979.27 856.66 1036.76 829.08 806.3	166 2 00 01 01 02 03 04 05 06 06 07 07 07 104 2 09 6 22 23 23 24 25 105	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Vertical haul	Namen Legacy Sampling Protocols V4 July 122016, 8.2 CTD; Orie sality sample American State State State Sampling Protocols V4 Namen Legacy Sampling Protocols V4 July 122019, 10.2.2 Bio correr Namen Legacy Sampling Protocols V4 July 122019, 10.2.2 Bio correr Namen Legacy Sampling Protocols V4 July 122019, 10.2.2 Bio correr Namen Legacy Sampling Protocols V4 July 12.2019, 6.2 CTD;	See data fie for instrument serial numbers. Note change og tamperature serial before cast 192.	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigstadigutino UIT The Arctic University of Norway mart.reigstadigutino UIT The Arctic University of Norway
205 #008226-besc-11e8-act1-a0481c8/m22 206 #008226-besc-11e8-act1-a0481c8/m22 207 #008276-besc-11e8-act1-a0481c8/m22 208 #008276-besc-11e8-act1-a0481c8/m22 <td< td=""><td>GO-FLO Phytoplankton ent 10 um Milknent 1500 um Milknent 1500 um Milknent 160 um Multimet 44 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core</td><td>2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19</td><td>12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 18:33 2019706 18:33 2019706 18:32 2019706 2026 2019706 22:51 2019706 22:51 2019706 00:08 2019706 00:56 2019706 00:56 2019706 11:22 2019706 11:22 2019706 11:22 2019706</td><td>P6 P6 P6 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6</td><td>81.5748 81.5722 81.5765 81.5765 81.682 81.5855 81.5855 81.5855 81.5856 81.5856 81.5856 81.5856 81.5866 81.5866 81.5862 81.5842 81.5452 81.5452 81.5400</td><td>31.2451 31.3250 31.3250 31.5185 31.5185 31.5185 31.5185 31.5185 31.4724 31.48686 31.472 31.4872 31.4872 31.4872 31.4872 31.4872 31.4872 31.6212 30.8475 30.8759 30.9570</td><td>1026.46 1038.91 1038.91 841.06 841.06 844.87 894.92 989.02 1111.65 1099.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1000000000000000000000000000000000000</td><td>166 2 66 2 90 01 92 03 94 96 97 97 98 09 6 6 22 23 24 25 185 185</td><td>40 75 30 75 75 75</td><td>10 10 10 10 10 10 10 10</td><td>Verlical haul</td><td>Nansen Lagacy Sampling Protocols v4 July 12 2019; 6 2 CTD: Output 12 2019; 6 2 CTD: Nansen Lagacy Nansen Lagacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Nansen Lagacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Nansen Lagacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Nansen Lagacy Nansen Lagacy</td><td>Sa0184 See data file for instrument serial numbers. Note charge og temperature serial</td><td>Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad</td><td>metr.reigital@ut.o. UIT The Arctic University of Norwy metr.reigital@ut.o. UIT metr.clic.University of Norwy metr.reigital@ut.o. UIT The Arctic University of Norwy</td></td<>	GO-FLO Phytoplankton ent 10 um Milknent 1500 um Milknent 1500 um Milknent 160 um Multimet 44 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 18:33 2019706 18:33 2019706 18:32 2019706 2026 2019706 22:51 2019706 22:51 2019706 00:08 2019706 00:56 2019706 00:56 2019706 11:22 2019706 11:22 2019706 11:22 2019706	P6 P6 P6 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5722 81.5765 81.5765 81.682 81.5855 81.5855 81.5855 81.5856 81.5856 81.5856 81.5856 81.5866 81.5866 81.5862 81.5842 81.5452 81.5452 81.5400	31.2451 31.3250 31.3250 31.5185 31.5185 31.5185 31.5185 31.5185 31.4724 31.48686 31.472 31.4872 31.4872 31.4872 31.4872 31.4872 31.4872 31.6212 30.8475 30.8759 30.9570	1026.46 1038.91 1038.91 841.06 841.06 844.87 894.92 989.02 1111.65 1099.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1009.78 1000000000000000000000000000000000000	166 2 66 2 90 01 92 03 94 96 97 97 98 09 6 6 22 23 24 25 185 185	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Verlical haul	Nansen Lagacy Sampling Protocols v4 July 12 2019; 6 2 CTD: Output 12 2019; 6 2 CTD: Nansen Lagacy Nansen Lagacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Nansen Lagacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Nansen Lagacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Nansen Lagacy Nansen Lagacy	Sa0184 See data file for instrument serial numbers. Note charge og temperature serial	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	metr.reigital@ut.o. UIT The Arctic University of Norwy metr.reigital@ut.o. UIT metr.clic.University of Norwy metr.reigital@ut.o. UIT The Arctic University of Norwy
225 4008-202 -besc - 1146 - act - 40481 (cbr2) 226 4008-204 -besc - 1146 - act - 40481 (cbr2) 227 4008-204 -besc - 1146 - act - 40481 (cbr2) 228 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 339 4008-204 -besc - 1146 - act - 40481 (cbr2) 341 4008-204 -besc - 1146 - act - 40481 (cbr2) 342 4008-204 -besc - 1146 - act - 40481 (cbr2) 342 4008-204 -besc - 1146 - act - 40481 (cbr2) 342 4008-204	GO-FLO Phytoplankton ent 10 um Milknent 1500 um Milknent 1500 um Milknent 160 um Multimet 44 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 13:32 2019706 13:32 2019706 13:32 2019706 20:22 2019706 20:22 2019706 20:32 2019706 00:06 2019706 00:06 2019706 00:07 2019706 00:07 2019706 00:07 2019706 11:22 2019706 11:22 2019706 11:22 2019706	P6 P6 P6 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5742 81.5765 81.5765 81.5632 81.5632 81.5642 81.5604 81.5604 81.5605 81.5808 81.5808 81.5808 81.5808 81.5808 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802	31.2451 31.3250 31.3250 31.5185 31.5185 31.5185 31.5185 31.5185 31.4724 31.48686 31.472 31.4872 31.4872 31.4872 31.4872 31.4872 31.4872 31.6212 30.8475 30.8759 30.9570	1026.46 1036.91 1036.91 843.73 841.70 943.73 841.06 944.92 999.02 1111.65 1099.2 1099.78 1099.2 1099.2 1099.2 1099.2 1099.2 1099.2 979.27 856.66 1036.76 829.08	166 2 00 01 01 02 03 04 95 06 06 07 124 22 23 23 24 25 185 185	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Vertical haul	Nansen Legacy Sampling Protocols v4 July 122016 6.2 CTD; Ore animy sample Nansen Legacy Sampling Protocols v4 July 122019, 10.2.2 Bio: corer Nansen Legacy Sampling Protocols v4 July 122019, 10.2.2 Bio: corer Nansen Legacy Sampling Protocols v4 July 122019, 10.2.2 Bio: corer Nansen Legacy Sampling Protocols v4 July 12.2019, 6.2 CTD; Ore salinty sample	Seo data fie for instrument serial numbers. Note change og temperature serial numbers. Note change og temperature serial numbers. Note change second serial numbers. Note change og temperature serial second serial numbers. Note change og temperature serial numbers. Note change og temperature serial Stad tals fe for	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigstadigutino UIT The Arctic University of Norway mart.reigstadigutino UIT The Arctic University of Norway
225 4008-202 -besc - 1146 - act - 40481 (cbr2) 226 4008-204 -besc - 1146 - act - 40481 (cbr2) 227 4008-204 -besc - 1146 - act - 40481 (cbr2) 228 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 339 4008-204 -besc - 1146 - act - 40481 (cbr2) 341 4008-204 -besc - 1146 - act - 40481 (cbr2) 342 4008-204 -besc - 1146 - act - 40481 (cbr2) 342 4008-204 -besc - 1146 - act - 40481 (cbr2) 342 4008-204	GO-FLO Phytoplankton ent 10 um Milknent 1500 um Milknent 1500 um Milknent 160 um Multimet 44 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 13:32 2019706 13:32 2019706 13:32 2019706 20:22 2019706 20:22 2019706 20:32 2019706 00:06 2019706 00:06 2019706 00:07 2019706 00:07 2019706 00:07 2019706 11:22 2019706 11:22 2019706 11:22 2019706	P6 P6 P6 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5742 81.5765 81.5765 81.5632 81.5632 81.5642 81.5604 81.5604 81.5605 81.5808 81.5808 81.5808 81.5808 81.5808 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802	31.2451 31.3250 31.3250 31.5185 31.5185 31.5185 31.5185 31.5185 31.4724 31.48686 31.472 31.4872 31.4872 31.4872 31.4872 31.4872 31.4872 31.6212 30.8475 30.8759 30.9570	1026.46 1036.91 1036.91 843.73 841.70 943.73 841.06 944.92 999.02 1111.65 1099.2 1099.78 1099.2 1099.2 1099.2 1099.2 1099.2 1099.2 979.27 856.66 1036.76 829.08	166 2 66 2 90 01 92 03 94 96 97 97 184 2 98 99 6 6 22 23 24 25 185 185	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Vertical haul Vertical haul	Namen Lagacy Namen Lagacy Namen Lagacy Samphing Protocols v4 July 12 2016; 8.2 CTD: One sainly sample Namen Lagacy Namen Lagacy	Sa0184 See data fle for restrict sons or before cast 192 Sa0185 See data fle for restrict sons or before cast 192 See data fle for restrict sons o	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigstadigutino UIT The Arctic University of Norway mart.reigstadigutino UIT The Arctic University of Norway
225 4008-202 -besc - 1146 - act - 40481 (cbr2) 226 4008-204 -besc - 1146 - act - 40481 (cbr2) 227 4008-204 -besc - 1146 - act - 40481 (cbr2) 228 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 238 4008-204 -besc - 1146 - act - 40481 (cbr2) 339 4008-204 -besc - 1146 - act - 40481 (cbr2) 341 4008-204 -besc - 1146 - act - 40481 (cbr2) 342 4008-204 -besc - 1146 - act - 40481 (cbr2) 342 4008-204 -besc - 1146 - act - 40481 (cbr2) 342 4008-204	GO-FLO Phytoplankton ent 10 um Milknent 1500 um Milknent 1500 um Milknent 160 um Multimet 44 um Bongonet 180 um Songonet 180 um Bongonet 180 um Box core Box core Box core	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 13:32 2019706 13:32 2019706 13:32 2019706 20:22 2019706 20:22 2019706 20:32 2019706 00:06 2019706 00:06 2019706 00:07 2019706 00:07 2019706 00:07 2019706 11:22 2019706 11:22 2019706 11:22 2019706	P6 P6 P6 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5742 81.5765 81.5765 81.5632 81.5632 81.5642 81.5604 81.5604 81.5605 81.5808 81.5808 81.5808 81.5808 81.5808 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802 81.5802	31.2451 31.3250 31.3250 31.5185 31.5185 31.5185 31.5185 31.5185 31.4724 31.48686 31.472 31.4872 31.4872 31.4872 31.4872 31.4872 31.4872 31.6212 30.8475 30.8759 30.9570	1026.46 1036.91 1036.91 843.73 841.70 943.73 841.06 944.92 999.02 1111.65 1099.2 1099.78 1099.2 1099.2 1099.2 1099.2 1099.2 1099.2 979.27 856.66 1036.76 829.08	166 2 00 01 01 02 03 04 95 06 06 07 124 22 23 23 24 25 185 185	40 75 30 75 75 75	10 10 10 10 10 10 10 10	Vertical haul	Nansen Legacy Sampling Protocols 4/4 July 12 2016 6.2 CTp. Orie salitiv sample Nansen Legacy Sampling Protocols 4/4 Valy 12 2019 10.2 2 Bio: Correr Nansen Legacy Sampling Protocols 4/4 July 12 2019 10.2 2 Bio: Correr Nansen Legacy Sampling Protocols 4/4 Valy 12 2019 10.2 2 Bio: Correr Nansen Legacy Sampling Protocols 4/4 Nansen Legacy Nansen Legacy Nansen Legacy Nansen Legacy	Sao185 See data fie for instrument serial numbers. Note change og temperature serial numbers. Note change of temperature serial numbers. Note change og temperature serial numbers. Note change of temperature serial numbers. Note change	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigitadiĝut.no UIT The Arctic University of Norwy, mart.reigitadiĝut.no UIT The Arctic University of Norwy,
225_400x202-b5ec-14e9-act1-a0481cba72 226_400x202-b5ec-14e9-act1-a0481cba72 227_400x204-b5ec-14e9-act1-a0481cba72 228_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 239_400x204-b5ec-14e9-act1-a0481cba72 230_400x204-b5ec-14e9-act1-a0481cba72 231_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72	GO-FLO Phytoplankton net 10 um Mitchest 1500 um Mitchest 1500 um Mitchest 1500 um Multimet 40 um Multimet 64 um Bongenet 80 um <td>2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19</td> <td>12:00 2019706 13:50 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 20:27 2019706 00:68 2019706 00:69 2019706 00:90 1 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:20 2019706</td> <td>P6 P6 P6 P6</td> <td>81.5748 81.5748 81.5765 81.5765 81.5632 81.5632 81.5632 81.5632 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452</td> <td>3 1 2451 3 1 259 3 1 3259 3 1 3259 3 1 5185 3 1 527 3 1 527 5 1 5</td> <td>1028.46 1028.91 865.29 841.03 841.05 844.87 884.87 884.87 894.99 90.02 11111.65 10092 2 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 1000 10092 1000 1000</td> <td>166 2 66 2 90 01 91 02 93 94 96 97 97 97 98 99 6 6 22 23 24 25 185 185</td> <td></td> <td>10 10 10 10 10 10 10 10</td> <td>Vertical haul</td> <td>Namen Legacy Sampling Protocols v4 July 12 2019; 6 2 CTP; Ore sality sample Namen Legacy Sampling Protocols v4 July 12 2019; 6 2 CTP; Ore sality sample Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Namen Legacy Sampling Protocols v4 July 12 2019; 6 2 CTP; Ore sality sample</td> <td>Sa0185 Sa0185 See data file for instrument serial numbers. Note change get get the for instrument serial numbers. Note change get get get the for instrument serial numbers. Note change get get get the for instrument serial numbers. Note change get get get the for instrument serial numbers. Note change get get get the for instrument serial numbers. Note change get get get the for instrument serial numbers. Note change get get get the for instrument serial intervent interve</td> <td>Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad</td> <td>mart.reigital@ut.o. UIT The Arctic University of Norwy, mart.reigital@ut.o. UIT The Arctic University of Norwy,</td>	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 20:27 2019706 00:68 2019706 00:69 2019706 00:90 1 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:20 2019706	P6 P6	81.5748 81.5748 81.5765 81.5765 81.5632 81.5632 81.5632 81.5632 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452	3 1 2451 3 1 259 3 1 3259 3 1 3259 3 1 5185 3 1 527 3 1 527 5 1 5	1028.46 1028.91 865.29 841.03 841.05 844.87 884.87 884.87 894.99 90.02 11111.65 10092 2 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 1000 10092 1000 1000	166 2 66 2 90 01 91 02 93 94 96 97 97 97 98 99 6 6 22 23 24 25 185 185		10 10 10 10 10 10 10 10	Vertical haul	Namen Legacy Sampling Protocols v4 July 12 2019; 6 2 CTP; Ore sality sample Namen Legacy Sampling Protocols v4 July 12 2019; 6 2 CTP; Ore sality sample Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Namen Legacy Sampling Protocols v4 July 12 2019; 10 2 2 Box corer Namen Legacy Sampling Protocols v4 July 12 2019; 6 2 CTP; Ore sality sample	Sa0185 Sa0185 See data file for instrument serial numbers. Note change get get the for instrument serial numbers. Note change get get get the for instrument serial numbers. Note change get get get the for instrument serial numbers. Note change get get get the for instrument serial numbers. Note change get get get the for instrument serial numbers. Note change get get get the for instrument serial numbers. Note change get get get the for instrument serial intervent interve	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigital@ut.o. UIT The Arctic University of Norwy, mart.reigital@ut.o. UIT The Arctic University of Norwy,
225 4008-202 -besc - 1146-act - 40481 (cbr2) 226 4008-204 -besc - 1146-act - 40481 (cbr2) 227 4008-204 -besc - 1146-act - 40481 (cbr2) 228 4008-204 -besc - 1146-act - 40481 (cbr2) 238 4008-204 -besc - 1146-act - 40481 (cbr2) 239 4008-204 -besc - 1146-act - 40481 (cbr2) 239 4008-204 -besc - 1146-act - 40481 (cbr2) 24 4008-204 -besc - 1146-act - 40481 (cbr2) 24 4008-204 -besc - 1146-act - 40481 (cbr2) 24 4008-204 -besc - 1146-act - 40481	GO-FLO Phytoplankton net 10 um Mitchest 1500 um Mitchest 1500 um Mitchest 1500 um Multimet 40 um Multimet 64 um Bongenet 80 um <td>2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19</td> <td>12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 13:32 2019706 13:32 2019706 13:32 2019706 20:22 2019706 20:22 2019706 20:32 2019706 00:06 2019706 00:06 2019706 00:07 2019706 00:07 2019706 00:07 2019706 11:22 2019706 11:22 2019706 11:22 2019706</td> <td>P6 P6 P6 P6</td> <td>81.5748 81.5748 81.5765 81.5765 81.5632 81.5632 81.5632 81.5632 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452</td> <td>3 1 2451 3 1 259 3 1 3259 3 1 3259 3 1 5185 3 1 527 3 1 527 5 1 5</td> <td>1026.46 1036.91 1036.91 843.73 841.70 943.73 841.06 944.92 999.02 1111.65 1099.2 1099.78 1099.2 1099.2 1099.2 1099.2 1099.2 1099.2 979.27 856.66 1036.76 829.08</td> <td>166 2 00 01 01 02 03 04 95 06 06 07 124 08 09 0 01 02 02 03 04 95 06 07 07 07 124 08 09 0 02 23 24 25 185 185 186 19</td> <td></td> <td>10 10 10 10 10 10 10 10</td> <td>Vertical haul</td> <td>Nansen Legacy Sampling Protocols 4/4 July 12 2016 6.2 CTp. Orie salitiv sample Nansen Legacy Sampling Protocols 4/4 Valy 12 2019 10.2 2 Bio: Correr Nansen Legacy Sampling Protocols 4/4 July 12 2019 10.2 2 Bio: Correr Nansen Legacy Sampling Protocols 4/4 Valy 12 2019 10.2 2 Bio: Correr Nansen Legacy Sampling Protocols 4/4 Nansen Legacy Nansen Legacy Nansen Legacy Nansen Legacy</td> <td>Sa0186 before cast 192.</td> <td>Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad</td> <td>mart.reigitadiĝut.no UIT The Arctic University of Norwy, mart.reigitadiĝut.no UIT The Arctic University of Norwy,</td>	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 14:47 2019706 14:32 2019706 13:32 2019706 13:32 2019706 13:32 2019706 20:22 2019706 20:22 2019706 20:32 2019706 00:06 2019706 00:06 2019706 00:07 2019706 00:07 2019706 00:07 2019706 11:22 2019706 11:22 2019706 11:22 2019706	P6 P6	81.5748 81.5748 81.5765 81.5765 81.5632 81.5632 81.5632 81.5632 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452	3 1 2451 3 1 259 3 1 3259 3 1 3259 3 1 5185 3 1 527 3 1 527 5 1 5	1026.46 1036.91 1036.91 843.73 841.70 943.73 841.06 944.92 999.02 1111.65 1099.2 1099.78 1099.2 1099.2 1099.2 1099.2 1099.2 1099.2 979.27 856.66 1036.76 829.08	166 2 00 01 01 02 03 04 95 06 06 07 124 08 09 0 01 02 02 03 04 95 06 07 07 07 124 08 09 0 02 23 24 25 185 185 186 19		10 10 10 10 10 10 10 10	Vertical haul	Nansen Legacy Sampling Protocols 4/4 July 12 2016 6.2 CTp. Orie salitiv sample Nansen Legacy Sampling Protocols 4/4 Valy 12 2019 10.2 2 Bio: Correr Nansen Legacy Sampling Protocols 4/4 July 12 2019 10.2 2 Bio: Correr Nansen Legacy Sampling Protocols 4/4 Valy 12 2019 10.2 2 Bio: Correr Nansen Legacy Sampling Protocols 4/4 Nansen Legacy Nansen Legacy Nansen Legacy Nansen Legacy	Sa0186 before cast 192.	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigitadiĝut.no UIT The Arctic University of Norwy, mart.reigitadiĝut.no UIT The Arctic University of Norwy,
225_400x202-b5ec-14e9-act1-a0481cba72 226_400x202-b5ec-14e9-act1-a0481cba72 227_400x204-b5ec-14e9-act1-a0481cba72 228_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 239_400x204-b5ec-14e9-act1-a0481cba72 230_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72	GO-FLO Phytoplankton net 10 um Mitchest 1500 um Mitchest 1500 um Mitchest 1500 um Multimet 40 um Multimet 64 um Bongenet 80 um <td>2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19</td> <td>12:00 2019706 13:50 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 20:27 2019706 00:68 2019706 00:69 2019706 00:90 1 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:20 2019706</td> <td>P6 P6 P6 P6</td> <td>81.5748 81.5748 81.5765 81.5765 81.5632 81.5632 81.5632 81.5632 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452</td> <td>3 1 2451 3 1 259 3 1 3259 3 1 3259 3 1 5185 3 1 527 3 1 527 5 1 5</td> <td>1028.46 1028.91 865.29 841.03 841.05 844.87 884.87 884.87 894.99 90.02 11111.65 10092 2 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 1000 10092 1000 1000</td> <td>166 2 66 2 90 91 92 93 94 96 97 97 184 2 98 99 6 6 22 23 23 24 25 185 186 19</td> <td></td> <td>10 10 10 10 10 10 10 10</td> <td>Vertical haul</td> <td>Namen Lagacy Samphig Protocols v4 July 12 2016 6.2 CPD One salinity sample Namen Lagacy Samphig Protocols v4 July 12 2016 6.2 CPD One salinity sample Samphig Protocols v4 July 12 2016 6.2 CPD Samphig Protocols v4 July 12 2016 10.2 2 Box core Namen Lagacy Samphig Protocols v4 July 12 2016 10.2 2 Box core Namen Lagacy Samphig Protocols v4 July 12 2016 foctors Namen Lagacy Samphig Protocols v4 July 12 2016 foctors</td> <td>Sa0184 See data file for instrument serial optimizers sta0185 Sa0186 See data file for instrument serial optimizers See data file for instrument serial optimizers See data file for instrument optimizers See data file for instrument optimizers See data file optimizers S</td> <td>Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad</td> <td>mart.reigital@ut.o. UIT The Arctic University of Norwy, mart.reigital@ut.o. UIT The Arctic University of Norwy,</td>	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 20:27 2019706 00:68 2019706 00:69 2019706 00:90 1 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:20 2019706	P6 P6	81.5748 81.5748 81.5765 81.5765 81.5632 81.5632 81.5632 81.5632 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452	3 1 2451 3 1 259 3 1 3259 3 1 3259 3 1 5185 3 1 527 3 1 527 5 1 5	1028.46 1028.91 865.29 841.03 841.05 844.87 884.87 884.87 894.99 90.02 11111.65 10092 2 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 10092 1000 10092 1000 1000	166 2 66 2 90 91 92 93 94 96 97 97 184 2 98 99 6 6 22 23 23 24 25 185 186 19		10 10 10 10 10 10 10 10	Vertical haul	Namen Lagacy Samphig Protocols v4 July 12 2016 6.2 CPD One salinity sample Namen Lagacy Samphig Protocols v4 July 12 2016 6.2 CPD One salinity sample Samphig Protocols v4 July 12 2016 6.2 CPD Samphig Protocols v4 July 12 2016 10.2 2 Box core Namen Lagacy Samphig Protocols v4 July 12 2016 10.2 2 Box core Namen Lagacy Samphig Protocols v4 July 12 2016 foctors Namen Lagacy Samphig Protocols v4 July 12 2016 foctors	Sa0184 See data file for instrument serial optimizers sta0185 Sa0186 See data file for instrument serial optimizers See data file for instrument serial optimizers See data file for instrument optimizers See data file for instrument optimizers See data file optimizers S	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigital@ut.o. UIT The Arctic University of Norwy, mart.reigital@ut.o. UIT The Arctic University of Norwy,
225_400x202-b5ec-14e9-act1-a0481cba72 226_400x202-b5ec-14e9-act1-a0481cba72 227_400x204-b5ec-14e9-act1-a0481cba72 228_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 239_400x204-b5ec-14e9-act1-a0481cba72 230_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72	GO-FLO Phytoplankton net 10 um Mitchest 1500 um Mitchest 1500 um Mitchest 1500 um Multimet 40 um Multimet 64 um Bongenet 80 um <td>2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19</td> <td>12:00 2019706 13:50 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 20:27 2019706 00:68 2019706 00:69 2019706 00:90 1 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:20 2019706</td> <td>P6 P6 P6 P6</td> <td>81.5748 81.5748 81.5765 81.5765 81.5632 81.5632 81.5632 81.5632 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452</td> <td>3 1 2451 3 1 259 3 1 3259 3 1 3259 3 1 5185 3 1 527 3 1 527 5 1 5</td> <td>1028.46 1028.91 866.29 843.73 841.05 844.87 884.87 894.99 90.02 11111.65 10092 21092 11092 21092 21092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10002 10000 10000 10000 10000000000</td> <td>166 2 90 91 92 93 94 95 96 97 184 2 23 24 23 24 24 25 185 185 186 19</td> <td></td> <td>10 10 10 10 10 10 10 10</td> <td>Vertical haul Vertical haul</td> <td>Nansen Legacy Sampling Protocols 44 July 12 2016 6.2 CTD; Ore sailiny sample Nansen Legacy Sampling Protocols 42 Nansen Legacy Sampling Protocols 42 July 12 2019, 10.2 2 Bio, correr Nansen Legacy Sampling Protocols 42 July 12 2019, 10.2 2 Bio, correr Nansen Legacy Sampling Protocols 42 July 12 2019, 6.2 CTD; One sailing Sample</td> <td>Sta0186 See data fie for instrument serial numbers. Note call field in umbers. Note call for instrument serial numbers. Note call for instrument serial series in the second seco</td> <td>Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad</td> <td>mart.reigital@ut.o. UIT The Arctic University of Norwy, mart.reigital@ut.o. UIT The Arctic University of Norwy,</td>	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:00 2019706 13:50 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 20:27 2019706 00:68 2019706 00:69 2019706 00:90 1 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:20 2019706	P6 P6	81.5748 81.5748 81.5765 81.5765 81.5632 81.5632 81.5632 81.5632 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452	3 1 2451 3 1 259 3 1 3259 3 1 3259 3 1 5185 3 1 527 3 1 527 5 1 5	1028.46 1028.91 866.29 843.73 841.05 844.87 884.87 894.99 90.02 11111.65 10092 21092 11092 21092 21092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10002 10000 10000 10000 10000000000	166 2 90 91 92 93 94 95 96 97 184 2 23 24 23 24 24 25 185 185 186 19		10 10 10 10 10 10 10 10	Vertical haul Vertical haul	Nansen Legacy Sampling Protocols 44 July 12 2016 6.2 CTD; Ore sailiny sample Nansen Legacy Sampling Protocols 42 Nansen Legacy Sampling Protocols 42 July 12 2019, 10.2 2 Bio, correr Nansen Legacy Sampling Protocols 42 July 12 2019, 10.2 2 Bio, correr Nansen Legacy Sampling Protocols 42 July 12 2019, 6.2 CTD; One sailing Sample	Sta0186 See data fie for instrument serial numbers. Note call field in umbers. Note call for instrument serial numbers. Note call for instrument serial series in the second seco	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigital@ut.o. UIT The Arctic University of Norwy, mart.reigital@ut.o. UIT The Arctic University of Norwy,
225_400x202-b5ec-14e9-act1-a0481cba72 226_400x202-b5ec-14e9-act1-a0481cba72 227_400x204-b5ec-14e9-act1-a0481cba72 228_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 239_400x204-b5ec-14e9-act1-a0481cba72 230_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72	GO-FLO Phytoplankton net 10 um Mitchest 1500 um Mitchest 1500 um Mitchest 1500 um Multimet 40 um Multimet 64 um Bongenet 80 um <td>2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19</td> <td>12:20 2019706 12:35 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 20:27 2019706 00:68 2019706 00:68 2019706 00:69 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706</td> <td>P6 P6 P6 P6</td> <td>81.5748 81.5748 81.5765 81.5765 81.5632 81.5632 81.5632 81.5632 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452</td> <td>3 1 2451 3 1 259 3 1 3259 3 1 3259 3 1 5185 3 1 527 3 1 527 5 1 5</td> <td>1028.46 1028.91 866.29 843.73 841.05 844.87 884.87 894.99 90.02 11111.65 10092 21092 11092 21092 21092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10002 10000 10000 10000 10000000000</td> <td>166 2 66 2 90 91 92 93 94 96 97 97 184 2 98 99 6 6 22 23 23 24 185 185 186 19</td> <td></td> <td>10 10 10 10 10 10 10 10</td> <td>Vertical haul Vertical haul</td> <td>Namen Lagacy Sampling Protocols v4 July 12 2019; 6.2 CTD One anihy sample Namen Lagacy Sampling Protocols v4 July 12 2019; 6.2 CTD One anihy sample Namen Lagacy Sampling Protocols v4 July 12 2019; 10.2 2 Bio corer Namen Lagacy Sampling Protocols v4 July 12 2019; 10.2 2 Bio core Sampling Protocols v4 July 12 2019; 10.2 2 Bio core Sampling</td> <td>Sao185 Sao185 Sao186 Sa</td> <td>Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad</td> <td>mark.reigitadiğul.no UIT The Arctic University of Norway, mark.reigitadiğul.no UIT The Arctic University of Norway,</td>	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:20 2019706 12:35 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 20:27 2019706 00:68 2019706 00:68 2019706 00:69 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706	P6 P6	81.5748 81.5748 81.5765 81.5765 81.5632 81.5632 81.5632 81.5632 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452	3 1 2451 3 1 259 3 1 3259 3 1 3259 3 1 5185 3 1 527 3 1 527 5 1 5	1028.46 1028.91 866.29 843.73 841.05 844.87 884.87 894.99 90.02 11111.65 10092 21092 11092 21092 21092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10002 10000 10000 10000 10000000000	166 2 66 2 90 91 92 93 94 96 97 97 184 2 98 99 6 6 22 23 23 24 185 185 186 19		10 10 10 10 10 10 10 10	Vertical haul Vertical haul	Namen Lagacy Sampling Protocols v4 July 12 2019; 6.2 CTD One anihy sample Namen Lagacy Sampling Protocols v4 July 12 2019; 6.2 CTD One anihy sample Namen Lagacy Sampling Protocols v4 July 12 2019; 10.2 2 Bio corer Namen Lagacy Sampling Protocols v4 July 12 2019; 10.2 2 Bio core Sampling	Sao185 Sao185 Sao186 Sa	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mark.reigitadiğul.no UIT The Arctic University of Norway, mark.reigitadiğul.no UIT The Arctic University of Norway,
225_400x202-b5ec-14e9-act1-a0481cba72 226_400x202-b5ec-14e9-act1-a0481cba72 227_400x204-b5ec-14e9-act1-a0481cba72 228_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 238_400x204-b5ec-14e9-act1-a0481cba72 239_400x204-b5ec-14e9-act1-a0481cba72 230_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 232_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72 234_400x204-b5ec-14e9-act1-a0481cba72	QO-FLO Phytoplankton net 10 um Mitcent 1500 um Mitcent 1500 um Mitter 150 um Mattinet 64 um Bargeret Mum Borgeret Mum	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:20 2019706 12:35 2019706 14:47 2019706 17:47 2019706 19:32 2019706 19:32 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 20:27 2019706 00:68 2019706 00:68 2019706 00:69 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706	P6 P6 P8 P8 P8 P8 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6 P6	81.5748 81.5742 81.5765 81.5765 81.5612 81.5612 81.5612 81.5602 81.5850 81.5850 81.5862 81.5862 81.5862 81.5862 81.5862 81.5462 81.5462 81.5462 81.5462 81.5462 81.5465 81.	31 1.451 31 2.559 31 327 31 327 31 5.156 31 5.1618 31 5.1619 30 5.0710 30 5.07409 30 5.07409	1028.46 1028.91 866.29 843.73 841.05 844.87 884.87 894.99 90.02 11111.65 10092 21092 11092 21092 21092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10092 21092 10002 10000 10000 10000 10000000000	166 2 66 2 90 91 92 93 94 95 96 6 97 97 184 2 99 6 22 23 23 24 25 185 186 19 187 187		10 10 10 10 10 10 10 10	Vertical haul Vertical haul	Namen Lagacy Samphing Protocols 44 July 12 2019; 6.2 CTD: Oraclastic standard standard standard Samphing Protocols 44 July 12 2019; 6.2 CTD: Oraclastic standard standard Samphing Protocols 44 July 12 2019; 6.1 CTD: Samphing Protocols 44 July 12 2019; 10.2 2 Box corer Namen Lagacy Samphing Protocols 44 July 12 2019; 10.2 2 Box corer Namen Lagacy Samphing Protocols 44 July 12 2019; 10.2 2 Box corer Namen Lagacy Samphing Protocols 44 July 12 2019; 6.2 CTD: Orae sainty sample	See data file for instrument serial numbers. Note change get generative sensor before can 192.	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mark.reigitaldjutno UT The Arctic University of Norwy, mark.reigitaldjutno UT The Arctic University of Norwy,
225 4008/20-856-1146-40-404110-872 236 4008/20-856-1146-40-404810-872 237 4008/20-856-1146-40-404810-872 238 4008/20-856-1146-40-404810-872 238 4008/20-856-1146-40-404810-872 238 4008/20-856-1146-40-404810-872 238 4008/20-856-1146-40-404810-872 238 4008/20-856-1146-40-404810-872 238 4008/20-856-1146-40-404810-872 238 4008/20-856-1146-40-404810-872 238 4008/20-856-1146-40-404810-872 238 4008/20-856-1146-40-404810-872 238 4008/20-856-1146-401-404810-872 238 4008/20-856-1146-401-404810-872 239 4008/20-856-1146-401-404810-872 239 4008/20-856-1146-401-404810-872 241 4008/20-856-1146-401-404810-872 241 4008/20-856-1146-401-404810-872 242 4008/20-856-1146-401-404810-872 342 4008/20-856-1146-401-404810-872 344 4008/20-856-1146-401-404810-872 344 4008/20-856-1146-401-404810-872 344 4008/20-856-1146-4041-404810-872	0 0-CFLO Phytoplankton net 10 um Milk-net 1500 um Milk-net 1500 um Milk-net 1500 um Multimé 44 um Multimé 44 um Bongonet 180 um	2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-18 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19 2019-08-19	12:20 2019706 12:30 2019706 14:47 2019706 14:47 2019706 14:32 2019706 19:32 2019706 19:32 2019706 19:32 2019706 20:26 2019706 20:26 2019706 20:26 2019706 20:26 2019706 20:27 2019706 20:27 2019706 20:27 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706 11:22 2019706	P6 P6 P6 P6	81.5346 81.5763 81.5765 81.5765 81.5634 81.5632 81.5634 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5452 81.5455	31 1.451 31 2.559 31 327 31 327 31 5.156 31 5.1618 31 5.1619 30 5.0710 30 5.07409 30 5.07409	1028.46 1028.91 866.29 843.73 841.06 848.67 844.67	166 2 00 01 02 33 04 05 06 07 184 2 22 23 23 24 22 23 24 25 185 185 187 100		10 10 10 10 10 10 10 10	Vertical haul Vertical haul	Namen Lagacy Sampling Protocols v4 July 12 2019; 6.2 CTD One anihy sample Namen Lagacy Sampling Protocols v4 July 12 2019; 6.2 CTD One anihy sample Namen Lagacy Sampling Protocols v4 July 12 2019; 10.2 2 Bio corer Namen Lagacy Sampling Protocols v4 July 12 2019; 10.2 2 Bio core Sampling	See data file for instrument serial numbers. Note change get generative sensor before can 192.	Tove M. Gabrielsen Mart Reigstad Tove M. Gabrielsen Mart Reigstad	mart.reigital@ut.o. UIT The Arctic University of Norwy, mart.reigital@ut.o. UIT The Arctic University of Norwy,

				·											1				
	348 ef09b30a-b5ec-11e9-acd1-a0481c9e7d26	Bongonet 180 um	2019-08-20			P7	81.9836	29.9695	3269.47	101							Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
		Active water sampler								68			In situ filtration pump	To be included in v5			Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
													Ice station				Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
	351 ef09b30d-b5ec-11e9-acd1-a0481c9e7d26	MIK-net 1500 um	2019-08-20	12:54	2019706	P7	81.9819	29.7942	3290.87	102	1250) (0 Vertical haul				Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
J. J													Vertical haul; Bottom d	pth					
	352 ef09b30e-b5ec-11e9-acd1-a0481c9e7d26	MIK-net 1500 um	2019-08-20	14:58	2019706	P7	81.9811	29.7287	3290.87	103	2000) (0 taken from ID351				Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
																See data file for			
														Napsen Lenacy					
													With LADCP: Model	Sampling Protocols v4					
														Luke 42 2040: 6 2 CTD					
	050 000 000 1 5 44 0 14 0404 0 7 100	070 4 44	0040 00 00	10.00	0040700			00.0047	0000.05	400 07			WH3300-I-0G302, 3P			og temperature sensor	T N A N N A		1077 The A. 17 11 1 1 1 1 1 1
	353 ef09D30F-D5eC-11e9-acd1-a0481C9e7d26	CTD w/bottles		18:08	2019706	P/	81.9693		3293.25	188 32	280		244/4 & SN 244/2	One salinity sample	Stau188	Detore cast 192.	Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
	354 etu9b310-b5ec-11e9-acd1-au481c9e/d26	WP2 90 um				P/					70		J					marit.reigstad@uit.no	UIT The Arctic University of Norway
						P7					70) (0				Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
Bit State Bit State <t< td=""><td>356 et09b312-b5ec-11e9-acd1-a0481c9e7d26</td><td>Bongonet 180 um</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0</td><td></td><td></td><td></td><td>Tove M. Gabrielsen Marit Reigstad</td><td>marit.reigstad@uit.no</td><td>UIT The Arctic University of Norway</td></t<>	356 et09b312-b5ec-11e9-acd1-a0481c9e7d26	Bongonet 180 um											0				Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
Autors										107	100) (0 Vertical haul				Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
Autors	359 ef09b314-b5ec-11e9-acd1-a0481c9e7d26	Sediment trap (short term)	2019-08-21	03:03	2019706	P7				70			2019-08-21 2019-08-22				Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
Autors	360 ef09b315-b5ec-11e9-acd1-a0481c9e7d26	MIK-net 1500 um	2019-08-21	03:30	2019706	P7	81.9283	29.1460	3301.77	109	100) (Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
Normal Normal<																Son data filo for			
Image: state Image: state<														Nanson Logacy					
B B																nsoument senar			
Image Image <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Sampling Protocols V4</td><td></td><td>numbers. Note issues</td><td></td><td></td><td></td></th<>														Sampling Protocols V4		numbers. Note issues			
	361 etu90316-05ec-11e9-acd1-au481c9e/d26	CTD w/bottles	2019-08-21	03:43	2019/06	P/	81.9262	29.1396	3299.7	189 33	300			One salinity sample	Stau189	sensors.	Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
										110				Nansen Legacy					
														Sampling protocols v4					
Image: Problem in the state of the														July 12 2019 9 1					
B B		1	I I		. 1		1	1	1 1			1				1		1	1
Schedicking		1			. 1		1	1	1 1	1	1	1				1			1
Biological Link and Link Link Link Link Link Link Link Link	200 -600-247 FE 44-0	Division landstan and 40	2010 00 01	04-22	2040706	07	04.040*	20 4454	2200.40			1		samping depth to 100-	1	1	Taua M. Cabaialana Marit Daianta I	- Obstanting and	UT The Applie University of M
Biological Link and Link Link Link Link Link Link Link Link	302 etu90317-05ec-11e9-acd1-a0481c9e7d26	mytoplankton net 10 um	2019-08-21	04:28	2019/06	P/	61.9184	29.1151	3289.48	444	4000			um		1	Towe M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
Bit Control Object of a contro Object of a control <																	Tove M. Gabrielsen Marit Reigstad	marit.reigstad@ult.no	Un The Arctic University of Norway
	364 etu9b319-b5ec-11e9-acd1-a0481c9e7d26	Mutthet 180 um		06:34	2019706		81.8948	29.0291	3254.08					_			I ove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UII The Arctic University of Norway
	365 et09b31a-b5ec-11e9-acd1-a0481c9e7d26	Multinet 64 um					81.8826	28.9682	3233.46	113			0				Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
	366 et09b31b-b5ec-11e9-acd1-a0481c9e7d26	Multinet 64 um	2019-08-21	09:52	2019706	P7	81.8654	28.8577	3136.7	114	300) (0				Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
Image: Proper transmission Image: Proper transmission <th< td=""><td></td><td>1</td><td></td><td></td><td>. 1</td><td></td><td>1</td><td>1</td><td>1 1</td><td>190</td><td>1</td><td>1</td><td></td><td>1</td><td>1</td><td>See data file for</td><td></td><td></td><td>1</td></th<>		1			. 1		1	1	1 1	190	1	1		1	1	See data file for			1
I Output Dial Dial <thd< td=""><td></td><td>1</td><td></td><td></td><td>. 1</td><td></td><td>1</td><td>1</td><td>1 1</td><td>1</td><td>1</td><td>1</td><td></td><td>Nansen Legecy</td><td></td><td></td><td></td><td></td><td>1</td></thd<>		1			. 1		1	1	1 1	1	1	1		Nansen Legecy					1
B B													With LADCP: Model	Sampling Protocols v4		numbers. Note issues			
Image: Sec: Sec: Sec: Sec: Sec: Sec: Sec: Se														July 12 2010: 6 2 CTD					
Production Description Description <thdescription< th=""> <thdescription< th=""></thdescription<></thdescription<>	268 -f00b214 bE 11-0 11 -0101-0-7426	CTD/battles	2010 00 21	44.44	2010706	07	04 0570	00.0005	2420.7	24	100						Taux M. Cabrielese Mark Dejected	and a similar to the second	LET The Aretic Lieburgeity of Manuary
	308 elugus ru-bsec-11eg-acu1-au48 rc/9e/ 028	CTD W/bottles					01.03/0	20.0003			120	-	244/4 & 3N 244/2	One salinity sample	3180190	sensors.	Tove M. Gabrielsen Marit Reigstad	manicreigstad@uicno	Off The Arctic University of Norway
	369 ef09D31e-b5ec-11e9-acd1-a0481c9e/d26	Bongonet 180 um					81.8542	28.7927	3116.7								Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
Image: Proper biol in the state of	370 et09b31t-b5ec-11e9-acd1-a0481c9e7d26	Bongonet 64 um		13:06	2019706		81.8462	28.7856	3068.87								Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UII The Arctic University of Norway
Image: series and ser	371 ef09b320-b5ec-11e9-acd1-a0481c9e7d26	Bongonet 64 um	2019-08-21	14:40	2019706	P7	81.8291	28.8017	2993.82								Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
Image: state in the set of balance in the s										191						See data file for			
10 1000000000000000000000000000000000000														Nansen Lenacy					
Display Display <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																			
17 2000000000000000000000000000000000000																			
2) 2000000000000000000000000000000000000	070 001 001 15 11 0 11 0101 0 7 100	070 4 44	0040 00 04	17.00	0040700		04 7000	00 7040	0007.05										
J. 75 description Descripion Description	372 et09b321-b5ec-11e9-acd1-a0481c9e7d26	CTD w/bottles							2897.95	28	830			One salinity sample	Sta0191	sensors.	Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
J. 75 description Descripion Description	373 et09b322-b5ec-11e9-acd1-a0481c9e7d26	TS probe		19:55	2019706		81.7591	28.7037	2767.68	7							Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
J. 72 description State Less Less <thless< th=""> <thless< th=""> Less</thless<></thless<>	374 ef09b323-b5ec-11e9-acd1-a0481c9e7d26	GO-FLO	2019-08-22	00:48	2019706	P7	81.7371	28.6367	2725.78	72							Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
Normal participant Normal										26				Nansen Legacy					
100 2010424.00000000000000000000000000000000																			
171 4001064/200 Koron 171 me M. Garcelee Market (barcele) The M. Bagisted mark registed[juito UT The Artic (barcele) Market (barcele) Ma																			
-77 absolution absolution <td>275 of00b224 b5op 11c0 pod1 p0491c0o7d26</td> <td>Box core</td> <td>2010 08 22</td> <td>02-12</td> <td>2010706</td> <td>D7</td> <td>91 7276</td> <td>29 6712</td> <td>2649.01</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Tours M. Cabriokon Marit Poinstad</td> <td>marit raigstad@uit po</td> <td>LIT The Aretic Liniversity of Nerway</td>	275 of00b224 b5op 11c0 pod1 p0491c0o7d26	Box core	2010 08 22	02-12	2010706	D7	91 7276	29 6712	2649.01								Tours M. Cabriokon Marit Poinstad	marit raigstad@uit po	LIT The Aretic Liniversity of Nerway
J J	5/5/6/030524-0360-1165-80401056/020	DOX COLO	2018-00-22	02.12	2013/00	F7	01.7270	20.0712	2040.51	07	-						rove w. Gabrielsen want Neigstau	mancreigstau@ut.no	on the Arctic oniversity of Norway
1/2 2000/2005/doc 11-00 activated 14/01/200 00.000 700 40/00.000 100 700										21				Nansen Legacy					
171 dbb2556c 112 0000 P7 0157 22.00														Sampling Protocols v4					
Process Process <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>July 12 2019; 10.2.2</td><td></td><td></td><td></td><td></td><td></td></t<>														July 12 2019; 10.2.2					
Image: state in the sect and bits bits for the sect and bits for the sect and bits bits for the sect and bits for the	376 ef09b325-b5ec-11e9-acd1-a0481c9e7d26	Box core	2019-08-22	08:34	2019706	P7	81.6707	28.7890	2349.31					Box corer			Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
Image: second										28				Napsen Lenacy					
132 2016 2016 2017 277 1680 281 282.0 0 0 All 2012 0 0 All All 0 All A																			
173 40000027-bdc 1100000000000000000000000000000000000																			
38 405029-55e-1169-act1-a0481/c9/726 0.019705 SICE4 81.992 4.4732 359.77 1 0 cearing edit Names Lagger Barging Protocol v Barging Protocol v Ba	070 00715 44.0 14 0404.0 7 00													July 12 2010: 10 2 2					
38 405029-55e-1169-act1-a0481/c9/726 0.019705 SICE4 81.992 4.4732 359.77 1 0 cearing edit Names Lagger Barging Protocol v Barging Protocol v Ba		Box coro	2010 08 22	12:40	2010706	D7	91 6692	20 0110	2220.02					July 12 2019; 10.2.2			Toyo M. Gabriahan Marit Rejected	marit rejected@:	LIT The Aretic Linkersity of Name
388 2019-08-28 0.91 2019-08-28 0.91 2019-08-28 0.91 219705 SICE4 81784 24.722 3989.76 1 1 Names Lgas Names Names Lgas Names	3/8 ef09b327-b5ec-11e9-acd1-a0481c9e/d26	Box core	2019-08-22	12:49	2019706				2329.02	0				July 12 2019; 10.2.2			Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UIT The Arctic University of Norway
381 ef096324-b5ec-1149-acd1a0481cle/r268 Box core 2019/06-22 1018 2019/06 SIGE4 81 985 24 501 3003 7 101 2019/06	378 ef09b327-b5ec-11e9-acd1-a0481c9e7d26 379 ef09b328-b5ec-11e9-acd1-a0481c9e7d26	Box core TS probe	2019-08-22 2019-08-23	12:49 01:07	2019706 2019706				2329.02 3603.33	8				July 12 2019; 10.2.2			Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no marit.reigstad@uit.no	UiT The Arctic University of Norway UiT The Arctic University of Norway
- 38 deploy22-55c-:1149-act1-a0431c3ar/226 Box core 2019-08-23 10-18 2019/06 SIGE4 81.957 A 501 300.75 A 500 Signature 2019/06/20 Signature 2019/20 Sig	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d26	Box core TS probe	2019-08-23	01:07	2019706	SICE4	81.9809	24.2938	3603.33	8 74			Ice work (coring, under	July 12 2019; 10.2.2			Tove M. Gabrielsen Marit Reigstad		
- 38 deploy22-55c-:1149-act1-a0431c3ar/226 Box core 2019-08-23 10-18 2019/06 SIGE4 81.957 A 501 300.75 A 500 Signature 2019/06/20 Signature 2019/20 Sig	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d26	Box core TS probe	2019-08-23	01:07	2019706	SICE4	81.9809	24.2938	3603.33	8 74			Ice work (coring, unde ice sampling etc)	July 12 2019; 10.2.2			Tove M. Gabrielsen Marit Reigstad		
B PORS22-bSec-11e9-act1-a0481c9a7262 Core 2019-08-22 101 201708 81.987 45.90 300.75 - 10.7 - - <td>379 ef09b328-b5ec-11e9-acd1-a0481c9e7d26</td> <td>Box core TS probe</td> <td>2019-08-23</td> <td>01:07</td> <td>2019706</td> <td>SICE4</td> <td>81.9809</td> <td>24.2938</td> <td>3603.33</td> <td>8 74 29</td> <td></td> <td></td> <td>Ice work (coring, unde</td> <td>July 12 2019; 10.2.2 Box corer</td> <td></td> <td></td> <td>Tove M. Gabrielsen Marit Reigstad</td> <td></td> <td></td>	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d26	Box core TS probe	2019-08-23	01:07	2019706	SICE4	81.9809	24.2938	3603.33	8 74 29			Ice work (coring, unde	July 12 2019; 10.2.2 Box corer			Tove M. Gabrielsen Marit Reigstad		
38 400532a-bdec-11e9-act1-a048(1c97-268 Box core 2019-06-23 10.18 201700 SICE4 81.985 24.501 9000.75 0 0 Box core Box core Type M. Gabrielen Mart Reigated mart reigated@utu or UT The Arclis University of Ne 384 400532a-bdec-11e9-act1-a048(1c97-268 Box core 2019-06-23 16.55 2019705 SICE4 81.988 24.788 3903.75 - - - Box core Box core Type M. Gabrielen Mart Reigated mart reigated@utu or UT The Arclis University of Ne 384 400532a-bdec-11e9-act1-a048(1c97-268 Box core 2019-06-23 2019-06-23 2019-06-23 2019-06-23 2019-06-23 2019-06-23 2019-06-23 2019-06-23 2019-06-23 2019-06-23 2019-06-23 2019-06-23 2019-06-23 2019-06-23 2019-06-23 2019-06-24 3005 4000 4000 4000 4000-06-04 3000 300-06-04 3000 300-06-04 3000-06-04 3000-06-04 3000-06-04 3000-06-04 3000-06-04 3000-06-04 3000-06-04 3000-06-04 3000-06-04 3000-06-04 3000-06-04 3000-06-04 3000-06-04	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d26	Box core TS probe	2019-08-23	01:07	2019706	SICE4	81.9809	24.2938	3603.33	8 74 29			Ice work (coring, unde ice sampling etc)	July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4			Tove M. Gabrielsen Marit Reigstad		
384 40985324-b5ec-11e9-acd1-a0481cle7d28 Box core 2019-08-23 165 201706 SICE4 81.988 24.788 3903.75 Dotom deph taken from by 12 2019; 12 2019; 12 2019; Sice 4 If The Arctic University of No 388 4098532-b5ec-11e9-acd1-a0481cle7d28 Box core 2019-08-23 20.12 2019706 SICE4 81.988 24.398 32 SICE4	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d26	Box core TS probe	2019-08-23	01:07	2019706	SICE4	81.9809	24.2938	3603.33	8 74 29			Ice work (coring, und ice sampling etc)	July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4			Tove M. Gabrielsen Marit Reigstad		
381 Applicable	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d26 380 ef09b329-b5ec-11e9-acd1-a0481c9e7d26	TS probe	2019-08-23 2019-08-23	01:07	2019706	SICE4 SICE4	81.9809 81.9784	24.2938 24.4732	3603.33 3599.76	8 74 29			lce work (coring, unde	July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2			Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
Bar Concert State Bar Concert State Bar Concert Dots Bar	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d26 380 ef09b329-b5ec-11e9-acd1-a0481c9e7d26	TS probe	2019-08-23 2019-08-23	01:07	2019706	SICE4 SICE4	81.9809 81.9784	24.2938 24.4732	3603.33 3599.76	8 74 29			lee work (coring, und ice sampling etc)	July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer			Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
384 4078-324 505 2017/06 SICE 81.888 24.788 900.75 C	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d26 380 ef09b329-b5ec-11e9-acd1-a0481c9e7d26	TS probe	2019-08-23 2019-08-23	01:07	2019706	SICE4 SICE4	81.9809 81.9784	24.2938 24.4732	3603.33 3599.76	8 74 29 31			lce work (coring, und be sampling etc)	July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legacy			Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
show show <td>379 ef09b328-b5ec-11e9-acd1-a0481c9e7d26 380 ef09b329-b5ec-11e9-acd1-a0481c9e7d26</td> <td>TS probe</td> <td>2019-08-23 2019-08-23</td> <td>01:07</td> <td>2019706</td> <td>SICE4 SICE4</td> <td>81.9809 81.9784</td> <td>24.2938 24.4732</td> <td>3603.33 3599.76</td> <td>8 74 29 31</td> <td></td> <td></td> <td>ice sampling etc)</td> <td>July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4</td> <td></td> <td></td> <td>Tove M. Gabrielsen Marit Reigstad</td> <td>marit.reigstad@uit.no</td> <td>UiT The Arctic University of Norway</td>	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d26 380 ef09b329-b5ec-11e9-acd1-a0481c9e7d26	TS probe	2019-08-23 2019-08-23	01:07	2019706	SICE4 SICE4	81.9809 81.9784	24.2938 24.4732	3603.33 3599.76	8 74 29 31			ice sampling etc)	July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4			Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no	UiT The Arctic University of Norway
38 605331-b5ec-11e9-acd1-a0481cle97d26 Box core 2019-06-23 2019-06-23 2019-06-23 2019-07 Since 4 1 <td>379 ef096328-b5ec-11e9-acd1-a0481c9e7d28 380 ef096328-b5ec-11e9-acd1-a0481c9e7d28 381 ef096328-b5ec-11e9-acd1-a0481c9e7d28</td> <td>TS probe Box core</td> <td>2019-08-23 2019-08-23 2019-08-23</td> <td>01:07</td> <td>2019706 2019706 2019706</td> <td>SICE4 SICE4 SICE4</td> <td>81.9809 81.9784 81.9851</td> <td>24.2938 24.4732 24.5301</td> <td>3603.33 3599.76 3603.75</td> <td>8 74 29 31</td> <td></td> <td></td> <td>ice sampling etc)</td> <td>July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2</td> <td></td> <td></td> <td>Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad</td> <td>marit.reigstad@uit.no marit.reigstad@uit.no</td> <td>UIT The Arctic University of Norway</td>	379 ef096328-b5ec-11e9-acd1-a0481c9e7d28 380 ef096328-b5ec-11e9-acd1-a0481c9e7d28 381 ef096328-b5ec-11e9-acd1-a0481c9e7d28	TS probe Box core	2019-08-23 2019-08-23 2019-08-23	01:07	2019706 2019706 2019706	SICE4 SICE4 SICE4	81.9809 81.9784 81.9851	24.2938 24.4732 24.5301	3603.33 3599.76 3603.75	8 74 29 31			ice sampling etc)	July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2			Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no marit.reigstad@uit.no	UIT The Arctic University of Norway
388 absolute 1100000000000000000000000000000000000	379 ef096328-b5ec-11e9-acd1-a0481c9e7d28 380 ef096328-b5ec-11e9-acd1-a0481c9e7d28 381 ef096328-b5ec-11e9-acd1-a0481c9e7d28	TS probe Box core	2019-08-23 2019-08-23 2019-08-23	01:07	2019706 2019706 2019706	SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9888	24.2938 24.4732 24.5301 24.7358	3603.33 3599.76 3603.75 3603.75	8 74 29 31			ice sampling etc)	July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2			Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no marit.reigstad@uit.no	UIT The Arctic University of Norway
B B Core 2019-08-23 2012 2017 SICE4 V	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 380 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 381 ef09b328-b5ec-11e9-acd1-a0481c9e7d28	TS probe Box core	2019-08-23 2019-08-23 2019-08-23	01:07	2019706 2019706 2019706	SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9888	24.2938 24.4732 24.5301 24.7358	3603.33 3599.76 3603.75 3603.75	8 74 29 31 32			ice sampling etc)	July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer			Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no marit.reigstad@uit.no	UIT The Arctic University of Norway
388 4098331-b5ec-11e9-acd1-a0481cle97d3 50x core 2019-06-23 2012 201705 SIC24 -	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 380 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 381 ef09b328-b5ec-11e9-acd1-a0481c9e7d28	TS probe Box core	2019-08-23 2019-08-23 2019-08-23	01:07	2019706 2019706 2019706	SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9888	24.2938 24.4732 24.5301 24.7358	3603.33 3599.76 3603.75 3603.75	8 74 29 31 32			ice sampling etc)	July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legacy Barging Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legacy			Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no marit.reigstad@uit.no	UIT The Arctic University of Norway
ask Bit September Single of September Single of September Septem September Septem <td>379 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 380 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 381 ef09b328-b5ec-11e9-acd1-a0481c9e7d28</td> <td>TS probe Box core</td> <td>2019-08-23 2019-08-23 2019-08-23</td> <td>01:07</td> <td>2019706 2019706 2019706</td> <td>SICE4 SICE4 SICE4</td> <td>81.9809 81.9784 81.9851 81.9888</td> <td>24.2938 24.4732 24.5301 24.7358</td> <td>3603.33 3599.76 3603.75 3603.75</td> <td>8 74 29 31 32</td> <td></td> <td></td> <td>ice sampling etc)</td> <td>July 12 2019; 10.2.2 Box corer Namsen Legacy Sampling Protocols v July 12 2019; 10.2.2 Box corer Namsen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Namsen Legacy Sampling Protocols v4</td> <td></td> <td></td> <td>Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad</td> <td>marit.reigstad@uit.no marit.reigstad@uit.no</td> <td>UIT The Arctic University of Norway</td>	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 380 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 381 ef09b328-b5ec-11e9-acd1-a0481c9e7d28	TS probe Box core	2019-08-23 2019-08-23 2019-08-23	01:07	2019706 2019706 2019706	SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9888	24.2938 24.4732 24.5301 24.7358	3603.33 3599.76 3603.75 3603.75	8 74 29 31 32			ice sampling etc)	July 12 2019; 10.2.2 Box corer Namsen Legacy Sampling Protocols v July 12 2019; 10.2.2 Box corer Namsen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Namsen Legacy Sampling Protocols v4			Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad Tove M. Gabrielsen Marit Reigstad	marit.reigstad@uit.no marit.reigstad@uit.no	UIT The Arctic University of Norway
all all <td>379 ef096328-b5ec-11e9-acd1-a0481c9e7d28 380 ef096328-b5ec-11e9-acd1-a0481c9e7d28 381 ef09632a-b5ec-11e9-acd1-a0481c9e7d28 384 ef096324-b5ec-11e9-acd1-a0481c9e7d28</td> <td>TS probe Box core Box core</td> <td>2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23</td> <td>01:07 08:10 10:18 16:55</td> <td>2019706 2019706 2019706 2019706 2019706</td> <td>SICE4 SICE4 SICE4 SICE4</td> <td>81.9809 81.9784 81.9851 81.9888</td> <td>24.2938 24.4732 24.5301 24.7358</td> <td>3603.33 3599.76 3603.75 3603.75</td> <td>8 74 29 31 32</td> <td></td> <td></td> <td>ice sampling etc)</td> <td>July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2</td> <td></td> <td></td> <td>Tore M. Gabrielsen Marit Reigetad Tore M. Gabrielsen Marit Reigetad Tore M. Gabrielsen Marit Reigetad Tore M. Gabrielsen Marit Reigetad</td> <td>marit.reigstad@ut.no marit.reigstad@ut.no marit.reigstad@ut.no</td> <td>UIT The Arctic University of Norway UIT The Arctic University of Norway UIT The Arctic University of Norway</td>	379 ef096328-b5ec-11e9-acd1-a0481c9e7d28 380 ef096328-b5ec-11e9-acd1-a0481c9e7d28 381 ef09632a-b5ec-11e9-acd1-a0481c9e7d28 384 ef096324-b5ec-11e9-acd1-a0481c9e7d28	TS probe Box core Box core	2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23	01:07 08:10 10:18 16:55	2019706 2019706 2019706 2019706 2019706	SICE4 SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9888	24.2938 24.4732 24.5301 24.7358	3603.33 3599.76 3603.75 3603.75	8 74 29 31 32			ice sampling etc)	July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legacy Sampling Protocols v4 July 12 2019; 10.2.2			Tore M. Gabrielsen Marit Reigetad	marit.reigstad@ut.no marit.reigstad@ut.no marit.reigstad@ut.no	UIT The Arctic University of Norway UIT The Arctic University of Norway UIT The Arctic University of Norway
all bit with the second stable (see 7 dB) c To whoteles 2019-06-25 Sign (see 7 dB) Sign (s	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 380 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 381 ef09b32a-b5ec-11e9-acd1-a0481c9e7d28 384 ef09b32a-b5ec-11e9-acd1-a0481c9e7d28	TS probe Box core Box core	2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23	01:07 08:10 10:18 16:55	2019706 2019706 2019706 2019706 2019706	SICE4 SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9888 81.9888 81.9858	24.2938 24.4732 24.5301 24.7358 24.8045	3603.33 3599.76 3603.75 3603.75 3604.08	8 74 29 31 32			ice sampling etc)	July 12 2019; 10.2.2 Box corer Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Namsen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Namsen Legacy Samsen Legacy Samsen Legacy Samsen Legacy Box corer Namsen Legacy Box corer Distribution (10.2.2) Box corer			Tore M. Gabrielsen Marit Reigetad	marit.reigstad@ut.no marit.reigstad@ut.no marit.reigstad@ut.no	UIT The Arctic University of Norway UIT The Arctic University of Norway UIT The Arctic University of Norway
388 030803252-56c-1149-acd1-a0481(she7d26 CTD whothes 2019-08-24 0.02 2017/08 ICE 4 ICE 4 <th< td=""><td>379 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 380 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 381 ef09b32a-b5ec-11e9-acd1-a0481c9e7d28 384 ef09b32a-b5ec-11e9-acd1-a0481c9e7d28</td><td>TS probe Box core Box core</td><td>2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23</td><td>01:07 08:10 10:18 16:55</td><td>2019706 2019706 2019706 2019706 2019706</td><td>SICE4 SICE4 SICE4 SICE4</td><td>81.9809 81.9784 81.9851 81.9888 81.9888 81.9858</td><td>24.2938 24.4732 24.5301 24.7358 24.8045</td><td>3603.33 3599.76 3603.75 3603.75 3604.08</td><td>8 74 29 31 32 192</td><td></td><td></td><td>bottom depth taken frc</td><td>July 12 2019; 10.2.2 Box corer Nansen Legiacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legiacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legiacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legiacy Nansen Legiacy Nansen Legiacy Nansen Legiacy</td><td></td><td></td><td>Tore M. Gabrielsen Marit Reigetad Tore M. Gabrielsen Marit Reigetad Tore M. Gabrielsen Marit Reigetad Tore M. Gabrielsen Marit Reigetad</td><td>marit.reigstad@ut.no marit.reigstad@ut.no marit.reigstad@ut.no</td><td>UIT The Arctic University of Norway UIT The Arctic University of Norway UIT The Arctic University of Norway</td></th<>	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 380 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 381 ef09b32a-b5ec-11e9-acd1-a0481c9e7d28 384 ef09b32a-b5ec-11e9-acd1-a0481c9e7d28	TS probe Box core Box core	2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23	01:07 08:10 10:18 16:55	2019706 2019706 2019706 2019706 2019706	SICE4 SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9888 81.9888 81.9858	24.2938 24.4732 24.5301 24.7358 24.8045	3603.33 3599.76 3603.75 3603.75 3604.08	8 74 29 31 32 192			bottom depth taken frc	July 12 2019; 10.2.2 Box corer Nansen Legiacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legiacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legiacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Nansen Legiacy Nansen Legiacy Nansen Legiacy Nansen Legiacy			Tore M. Gabrielsen Marit Reigetad	marit.reigstad@ut.no marit.reigstad@ut.no marit.reigstad@ut.no	UIT The Arctic University of Norway UIT The Arctic University of Norway UIT The Arctic University of Norway
387 ef80380 12.07 NaN 76 Multibeam Survey EM302 Cover M. Gabrielen Mart Reigstad Mart Reigstad mart reigstad@ut.no UT The Arctic University of Ne 388 ef80536-b5ec-11e9-acd1-a0481c9e7d26 C TD whotles 2019-06-25 13.52 01950 Wo of Spatebargen 19.57 198 L/DPROFIL See data file for instrument serial numbers. Note Film participated@ut.no UT The Arctic University of Ne 388 ef805361-b5ec-11e9-acd1-a0481c9e7d26 C TD whotles 2019-06-25 13.52 01904 Void Spatebargen Void Spatebargen Nat Provide Nat Provide Nat Provide Nat Provide Nat Provide Nat Provide Nat Nat Provide Nat Provide Nat N	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 380 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 381 ef09b32a-b5ec-11e9-acd1-a0481c9e7d28 384 ef09b32a-b5ec-11e9-acd1-a0481c9e7d28	TS probe Box core Box core	2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23	01:07 08:10 10:18 16:55	2019706 2019706 2019706 2019706 2019706	SICE4 SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9888 81.9888 81.9858	24.2938 24.4732 24.5301 24.7358 24.8045	3603.33 3599.76 3603.75 3603.75 3604.08	8 74 29 31 32 192			better depth taken fro	July 12 2019; 10.2.2 Box corer Namsen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Namsen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Namsen Legacy Sampling Protocols v4 July 12 2019; 10.2.2 Box corer Namsen Legacy Sampling Protocols v4		instrument serial	Tore M. Gabrielsen Marit Reigetad	marit.reigstad@ut.no marit.reigstad@ut.no marit.reigstad@ut.no	UIT The Arctic University of Norway UIT The Arctic University of Norway UIT The Arctic University of Norway
387 ef80380 12.07 NaN 76 Multibeam Survey EM302 Cover M. Gabrielen Mart Reigstad Mart Reigstad mart reigstad@ut.no UT The Arctic University of Ne 388 ef80536-b5ec-11e9-acd1-a0481c9e7d26 C TD whotles 2019-06-25 13.52 01950 Wo of Spatebargen 19.57 198 L/DPROFIL See data file for instrument serial numbers. Note Film participated@ut.no UT The Arctic University of Ne 388 ef805361-b5ec-11e9-acd1-a0481c9e7d26 C TD whotles 2019-06-25 13.52 01904 Void Spatebargen Void Spatebargen Nat Provide Nat Provide Nat Provide Nat Provide Nat Provide Nat Provide Nat Nat Provide Nat Provide Nat N	379 ef09b328.b5ec.11e9.acd1.a0481c9e7d28 380 ef09b328.b5ec.11e9.acd1.a0481c9e7d28 381 ef09b32a.b5ec.11e9.acd1.a0481c9e7d28 384 ef09b32d.b5ec.11e9.acd1.a0481c9e7d28 385 ef09b331.b5ec.11e9.acd1.a0481c9e7d28	TS probe Box core Box core Box core Box core	2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23	01:07 08:10 10:18 16:55 20:12	2019706 2019706 2019706 2019706 2019706	SICE4 SICE4 SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9888 81.9888 81.9858	24.2938 24.4732 24.5301 24.7358 24.8045	3603.33 3599.76 3603.75 3603.75 3604.08				bottom depth taken frc ID381 With LADCP; Model With Sator-UGS02_59	July 12 2019: 10.2.2 Box corer Sampling Protocols v4 July 12 2019: 10.2.2 Box corer Nansen Lagacy Sampling Protocols v4 July 12 2019: 2019 Nansen Lagacy Sampling Protocols v4 July 12 2019: 2019 Nansen Lagacy Sampling Protocols v4 July 12 2019: 2019 Nansen Lagacy Sampling Protocols v4 July 12 2019: 60.6.2 v4 July 12 2019: 60.6.2 v4		instrument serial numbers. Note Temp	Tore M. Gabrielsen Marit Reigstad Tore M. Gabrielsen Marit Reigstad Tore M. Gabrielsen Marit Reigstad Tore M. Gabrielsen Marit Reigstad Tore M. Gabrielsen Marit Reigstad	marit.reigstad@ut.no marit.reigstad@ut.no marit.reigstad@ut.no marit.reigstad@ut.no	UIT The Arctic University of Norway UIT The Arctic University of Norway UIT The Arctic University of Norway UIT The Arctic University of Norway
387 ef36350-b56c-11e9-acd1=a0481c9e7d26 C1D whodles 2019-06-25 11.0 2019700 NW of Spatabargan Image: Control of the standard of the st	379 ef09b328.b5ec.11e9.acd1.a0481c9e7d28 380 ef09b328.b5ec.11e9.acd1.a0481c9e7d28 381 ef09b32a.b5ec.11e9.acd1.a0481c9e7d28 384 ef09b32d.b5ec.11e9.acd1.a0481c9e7d28 385 ef09b331.b5ec.11e9.acd1.a0481c9e7d28	TS probe Box core Box core Box core Box core	2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23	01:07 08:10 10:18 16:55 20:12	2019706 2019706 2019706 2019706 2019706	SICE4 SICE4 SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9888 81.9888 81.9858	24.2938 24.4732 24.5301 24.7358 24.8045	3603.33 3599.76 3603.75 3603.75 3604.08		195		bottom depth taken frc ID381 With LADCP; Model With Sator-UGS02_59	July 12 2019: 10.2.2 Box corer Sampling Protocols v4 July 12 2019: 10.2.2 Box corer Nansen Lagacy Sampling Protocols v4 July 12 2019: 2019 Nansen Lagacy Sampling Protocols v4 July 12 2019: 2019 Nansen Lagacy Sampling Protocols v4 July 12 2019: 2019 Nansen Lagacy Sampling Protocols v4 July 12 2019: 60.6.2 v4 July 12 2019: 60.6.2 v4		instrument serial numbers. Note Temp	Tore M. Gabrielsen Marit Reigstad Tore M. Gabrielsen Marit Reigstad Tore M. Gabrielsen Marit Reigstad Tore M. Gabrielsen Marit Reigstad Tore M. Gabrielsen Marit Reigstad	marit.reigstad@ut.no marit.reigstad@ut.no marit.reigstad@ut.no marit.reigstad@ut.no	UIT The Arctic University of Norway UIT The Arctic University of Norway UIT The Arctic University of Norway UIT The Arctic University of Norway
Starting	379 e000x22b.55ec.11e9.acd1.a0481c9e7d28 380 e000x32a.b5ec.11e9.acd1.a0481c9e7d28 381 e000x32a.b5ec.11e9.acd1.a0481c9e7d28 384 e000x32a.b5ec.11e9.acd1.a0481c9e7d28 385 e000x31.b5ec.11e9.acd1.a0481c9e7d28	TS probe Box core Box core Box core Box core	2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23	01:07 08:10 10:18 16:55 20:12	2019706 2019706 2019706 2019706 2019706	SICE4 SICE4 SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9858 81.9858 81.9858	24.2938 24.4732 24.5301 24.7358 24.8045 24.9952	3603.33 3599.76 3603.75 3604.08 3657.19		195		bottom depth taken fro ID361 With LADCP; Model WithS300-1-UG5025 24744 58 V24472	July 12 2019; 10.2.2 Box correr Nansen Lagacy Munt 2019; 10.2.2 Box correr Nansen Lagacy Nansen Lagacy		instrument serial numbers. Note Temp	Tore M. Gabrielsen Marit Reigstad Tore M. Gabrielsen Marit Reigstad Tore M. Gabrielsen Marit Reigstad Tore M. Gabrielsen Marit Reigstad Tore M. Gabrielsen Marit Reigstad	marit.reigstad@ut.no marit.reigstad@ut.no marit.reigstad@ut.no marit.reigstad@ut.no	UIT The Arctic University of Norway UIT The Arctic University of Norway UIT The Arctic University of Norway UIT The Arctic University of Norway
38 d00b351-b5ec-11e9-acd1-a0481c1e97c226 CTD whotles 2019-02-25 13:5 2019706 World Spatement and a constraint of the state	379 e000522.b5ec.11e9.acd1.a0481c9e7d28 380 e000532.b5ec.11e9.acd1.a0481c9e7d28 381 e000532.b5ec.11e9.acd1.a0481c9e7d28 384 e000532.b5ec.11e9.acd1.a0481c9e7d28 385 e0005331.b5ec.11e9.acd1.a0481c9e7d28 386 e000532.b5ec.11e9.acd1.a0481c9e7d28	TS probe Box core Box core Box core Box core	2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-24	01:07 08:10 10:18 16:55 20:12 03:02	2019706 2019706 2019706 2019706 2019706 2019706	SICE4 SICE4 SICE4 SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9858 81.9858 81.9858	24.2938 24.4732 24.5301 24.7358 24.8045 24.9952	3603.33 3599.76 3603.75 3604.08 3657.19		195		bottom depth taken frc ID381 With LADCP; Model WHS300-I-UG502; Sh 24/17 & Sh 24/17 Mutiteam Survey EM	July 12 2019; 10.2.2 Box correr Nansen Lagacy Munt 2019; 10.2.2 Box correr Nansen Lagacy Nansen Lagacy		instrument serial numbers. Note Temp	Tore M. Gabrielsen Marit Reigstad	marit reigstad@ut.no marit reigstad@ut.no marit reigstad@ut.no marit reigstad@ut.no marit reigstad@ut.no	UIT The Arctic University of Norway UIT The Arctic University of Norway
388 ef090351-b5ec-11e9-acd1-aC481c9e7d26 CTD whotles 2019-08-25 13.52 2019706 NW of Spitsbergen Image: Constraint of the spitsbergen of t	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 380 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 381 ef09b32a-b5ec-11e9-acd1-a0481c9e7d28 384 ef09b32a-b5ec-11e9-acd1-a0481c9e7d28 385 ef09b331-b5ec-11e9-acd1-a0481c9e7d28 386 ef09b331-b5ec-11e9-acd1-a0481c9e7d28	TS probe Box core Box core Box core Box core	2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-24	01:07 08:10 10:18 16:55 20:12 03:02	2019706 2019706 2019706 2019706 2019706 2019706	SICE4 SICE4 SICE4 SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9858 81.9858 81.9957 80.3806	24.2938 24.4732 24.5301 24.5301 24.7358 24.8045 24.9952 12.1674	3603.33 3599.76 3603.75 3604.08 3657.19 NaN	76	195		bottom depth taken frc D0381 With LADCP, Model WHS300-1-U53025 2474 & 8X24472 Multibaem Survey EM	July 12 2019; 10.2.2 Box correr Nansen Lagacy Munt 2019; 10.2.2 Box correr Nansen Lagacy Nansen Lagacy		instrument serial numbers. Note Temp sensor changed.	Tore M. Gabrielsen Marit Reigstad	marit reigstad@ut.no marit reigstad@ut.no marit reigstad@ut.no marit reigstad@ut.no marit reigstad@ut.no	UIT The Arctic University of Norway UIT The Arctic University of Norway
388 0090351-b5ec-11e9-acd1-a0481cle9/268 CTD whothes 2019/06-25 13:52 20197/06 W/or 5/patabergoin Image: The field of the f	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 380 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 381 ef09b32a-b5ec-11e9-acd1-a0481c9e7d28 384 ef09b32a-b5ec-11e9-acd1-a0481c9e7d28 385 ef09b331-b5ec-11e9-acd1-a0481c9e7d28 386 ef09b331-b5ec-11e9-acd1-a0481c9e7d28	TS probe Box core Box core Box core Box core	2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-24	01:07 08:10 10:18 16:55 20:12 03:02	2019706 2019706 2019706 2019706 2019706 2019706	SICE4 SICE4 SICE4 SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9858 81.9858 81.9957 80.3806	24.2938 24.4732 24.5301 24.5301 24.7358 24.8045 24.9952 12.1674	3603.33 3599.76 3603.75 3604.08 3657.19 NaN	76	195		bottom depth taken frc D0381 With LADCP, Model WHS300-1-U53025 2474 & 8X24472 Multibaem Survey EM	July 12 2019; 10.2.2 Box correr Nansen Lagacy Munt 2019; 10.2.2 Box correr Nansen Lagacy Nansen Lagacy		Instrument serial numbers. Note Temp sensor changed. See data file for	Tore M. Gabrielsen Marit Reigstad	marit reigstad@ut.no marit reigstad@ut.no marit reigstad@ut.no marit reigstad@ut.no marit reigstad@ut.no	UIT The Arctic University of Norway UIT The Arctic University of Norway
80.5944 12.0526 NaN 77 Multibeam Survey EM302	379 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 380 ef09b328-b5ec-11e9-acd1-a0481c9e7d28 381 ef09b32a-b5ec-11e9-acd1-a0481c9e7d28 384 ef09b32a-b5ec-11e9-acd1-a0481c9e7d28 385 ef09b331-b5ec-11e9-acd1-a0481c9e7d28 386 ef09b331-b5ec-11e9-acd1-a0481c9e7d28	TS probe Box core Box core Box core Box core	2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-24	01:07 08:10 10:18 16:55 20:12 03:02	2019706 2019706 2019706 2019706 2019706 2019706	SICE4 SICE4 SICE4 SICE4 SICE4 SICE4	81.9809 81.9784 81.9851 81.9858 81.9858 81.9957 80.3806	24.2938 24.4732 24.5301 24.5301 24.7358 24.8045 24.9952 12.1674	3603.33 3599.76 3603.75 3604.08 3657.19 NaN	76	195		bottom depth taken frc D0381 With LADCP, Model WHS300-1-U53025 2474 & 8X24472 Multibaem Survey EM	July 12 2019; 10.2.2 Box correr Nansen Lagacy Munt 2019; 10.2.2 Box correr Nansen Lagacy Nansen Lagacy		instrument serial numbers. Note Temp sensor changed. See data file for instrument serial	Tore M. Gabrielsen Marit Reigstad	marit reigstad@ut.no marit reigstad@ut.no marit reigstad@ut.no marit reigstad@ut.no marit reigstad@ut.no	UIT The Arctic University of Norway UIT The Arctic University of Norway
80.5944 12.0526 NaN 77 Multibeam Survey EM302	379 ef09b328-b5ec-11e9-acd1-a0481c9e7c26 380 ef09b328-b5ec-11e9-acd1-a0481c9e7c26 381 ef09b328-b5ec-11e9-acd1-a0481c9e7c26 384 ef09b328-b5ec-11e9-acd1-a0481c9e7c26 385 ef09b331-b5ec-11e9-acd1-a0481c9e7c26 385 ef09b332-b5ec-11e9-acd1-a0481c9e7c26 385 ef09b332-b5ec-11e9-acd1-a0481c9e7c26 385 ef09b332-b5ec-11e9-acd1-a0481c9e7c26 387 ef09b332-b5ec-11e9-acd1-a0481c9e7c26	TS probe Box core Box core CTD w/bottles	2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-24 2019-08-25	01:07 08:10 10:18 16:55 20:12 03:02 11:30	2019706 2019706 2019706 2019706 2019706 2019706 2019706 NW	SICE4 SICE4 SICE4 SICE4 SICE4 SICE4 SICE4 V of Spitsbergen	81.9809 81.9784 81.9851 81.9858 81.9858 81.9957 80.3806	24.2938 24.4732 24.5301 24.5301 24.7358 24.8045 24.9952 12.1674	3603.33 3599.76 3603.75 3604.08 3657.19 NaN	76	195		bottom depth taken frc D0381 With LADCP, Model WHS300-1-U53025 2474 & 8X24472 Multibaem Survey EM	July 12 2019; 10.2.2 Box correr Nansen Lagacy Munt 2019; 10.2.2 Box correr Nansen Lagacy Nansen Lagacy	Sta0192	Instrument serial numbers. Note Temp sensor changed. See data file for instrument serial numbers. Note Temp	Tove M. Gabrielsen Marit Reigstad	mark regstad@uk.no mark regstad@uk.no mark regstad@uk.no mark regstad@uk.no mark regstad@uk.no	UIT The Arctic University of Norway, UIT The Arctic University of Norway,
	379 ef09b328-b5ec-11e9-acd1-a0481c9e7c26 380 ef09b328-b5ec-11e9-acd1-a0481c9e7c26 381 ef09b328-b5ec-11e9-acd1-a0481c9e7c26 384 ef09b328-b5ec-11e9-acd1-a0481c9e7c26 385 ef09b331-b5ec-11e9-acd1-a0481c9e7c26 385 ef09b332-b5ec-11e9-acd1-a0481c9e7c26 385 ef09b332-b5ec-11e9-acd1-a0481c9e7c26 385 ef09b332-b5ec-11e9-acd1-a0481c9e7c26 387 ef09b332-b5ec-11e9-acd1-a0481c9e7c26	TS probe Box core Box core CTD w/bottles	2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-24 2019-08-25	01:07 08:10 10:18 16:55 20:12 03:02 11:30	2019706 2019706 2019706 2019706 2019706 2019706 2019706 NW	SICE4 SICE4 SICE4 SICE4 SICE4 SICE4 SICE4 V of Spitsbergen	81.9809 81.9784 81.9851 81.9858 81.9858 81.9957 80.3806 80.5890	24.2938 24.4732 24.5301 24.7358 24.8045 24.9952 12.1674 12.0545	3603.33 3599.76 3603.75 3604.08 3657.19 NaN	76	195		Lice sampling etc)	July 12 2019; 10.2.2 Box corer Sampling Protocols 4 Varing Protocols 4 July 12 2019; 10.2.2 Box corer Namen Lagacy July 12 2019; 10.2.2 Box corer Namen Lagacy Namen Lagacy Na	Sta0192	Instrument serial numbers. Note Temp sensor changed. See data file for instrument serial numbers. Note Temp	Tove M. Gabrielsen Marit Reigstad	mark regstad@uk.no mark regstad@uk.no mark regstad@uk.no mark regstad@uk.no mark regstad@uk.no	UIT The Arctic University of Norway, UIT The Arctic University of Norway,
	279 ef00e328-b5ec-11e9-acd1-a0481c9e7c26 380 ef00e328-b5ec-11e9-acd1-a0481c9e7c26 381 ef00e328-b5ec-11e9-acd1-a0481c9e7c26 384 ef00e328-b5ec-11e9-acd1-a0481c9e7c26 385 ef00e331-b5ec-11e9-acd1-a0481c9e7c26 385 ef00e331-b5ec-11e9-acd1-a0481c9e7c26 385 ef00e332-b5ec-11e9-acd1-a0481c9e7c26 385 ef00e332-b5ec-11e9-acd1-a0481c9e7c26 385 ef00e332-b5ec-11e9-acd1-a0481c9e7c26 387 ef00e332-b5ec-11e9-acd1-a0481c9e7c26	TS probe Box core Box core CTD w/bottles	2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-23 2019-08-24 2019-08-25	01:07 08:10 10:18 16:55 20:12 03:02 11:30	2019706 2019706 2019706 2019706 2019706 2019706 2019706 NW	SICE4 SICE4 SICE4 SICE4 SICE4 SICE4 SICE4 V of Spitsbergen	81.9809 81.9784 81.9851 81.9858 81.9858 81.9957 80.3806 80.5890	24.2938 24.4732 24.5301 24.7358 24.8045 24.9952 12.1674 12.0545	3603.33 3599.76 3603.75 3604.08 3657.19 NaN	76	195		Lice sampling etc)	July 12 2019; 10.2.2 Box corer Sampling Protocols 4 Varing Protocols 4 July 12 2019; 10.2.2 Box corer Namen Lagacy July 12 2019; 10.2.2 Box corer Namen Lagacy Namen Lagacy Na	Sta0192	Instrument serial numbers. Note Temp sensor changed. See data file for instrument serial numbers. Note Temp	Tove M. Gabrielsen Marit Reigstad	mark regstad@uk.no mark regstad@uk.no mark regstad@uk.no mark regstad@uk.no mark regstad@uk.no	UIT The Arctic University of Norway, UIT The Arctic University of Norway,

The Nansen Legacy in numbers

6 years

The Nansen Legacy is a six-year project, running from 2018 to 2023.

1 400 000 km² of sea

The Nansen Legacy investigates the physical and biological environment of the northern Barents Sea and adjacent Arctic Ocean.



280 people

There are about 230 researchers working with the Nansen Legacy, of which 73 are early career scientists. In addition, 50 persons are involved as technicians, project coordinators, communication advisers and board members.

10 institutions

The Nansen Legacy unites the complimentary scientific expertise of ten Norwegian institutions dedicated to Arctic research.



>10 fields

The Nansen Legacy includes scientists from the fields of biology, chemistry, climate research, ecosystem modelling, ecotoxicology, geology, ice physics, meteorology, observational technology, and physical oceanography.

>350 days at sea

The Nansen Legacy will conduct 15 scientific cruises and spend more than 350 days in the northern Barents Sea and adjacent Arctic Ocean between 2018 and 2022. Most of these cruises are conducted on the new Norwegian research icebreaker RV *Kronprins Haakon*.





nansenlegacy

nansenlegacy@uit.no

50/50 financing

The Nansen Legacy has a total budget of 740 million NOK. Half the budget comes from the consortiums' own funding, while the other half is provided by the Research Council of Norway and the Ministry of Education and Research.



Norwegian Ministry of Education and Research

