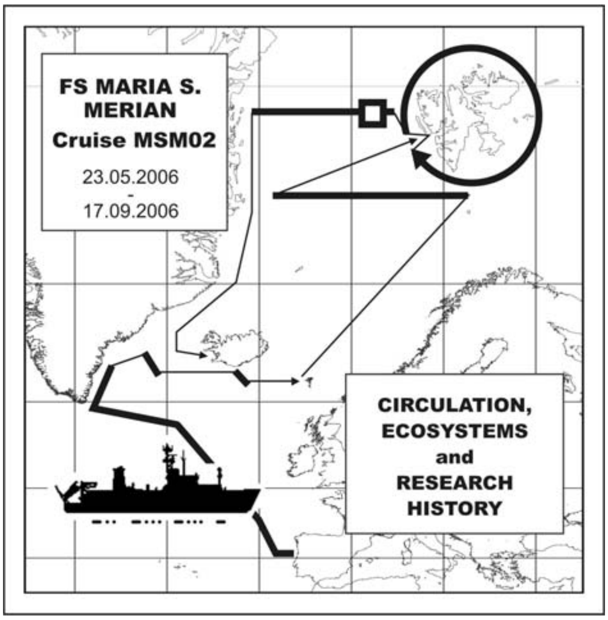
MARIA S. MERIAN-Berichte

Circulation and Ecosytems in the Subpolar and Polar North Atlantic

Part 2

Cruise No. 2, Leg 2

July 2 to July 26, 2006
Thorshavn - Longyearbyen



Jens Meincke, Gereon Budéus, Katrin Latarius

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2.1 Participants

Tab. 2.1 List of Participants on Leg MSM02/2 and Abbreviations

Name	**Discipline**	**Institute**
Meincke, Jens	Fahrtleitung/Chief Scientist	IFMH
Budéus, Gereon	Scientist	AWI
Devis, Andrea	Scientist	AWI
Drübbisch, Ulrich	Technician	IFMH
Latarius, Katrin	Scientist	IFMH
Majer, Claudia	Student	IFMH
Marnela, Marika	Scientist	FIMR
Monsees, Matthias	Technician	Optimare
Plugge, Rainer	Technician	AWI
Ronski, Stephanie	Scientist	AWI
Verch, Norbert	Technician	IFMH
Renault, Alice	Scientist	GUIB

Participating Institutions

AWI Alfred-Wegener-Institut für Polar- und Meeresforschung, Am Handelshafen 12, 27570 Bremerhaven, Germany

IFMH Institut für Meereskunde der Universität Hamburg, Bundesstr. 53, 20146 Hamburg

Optimare Optimare Sensorsysteme, Am Luneort 15a, 27572 Bremerhaven, Germany

GUIB Geophysical Institute, University of Bergen, Allégata 55, 5007 Bergen, Norway

Fig. 2.1: Scientific Party of RV Maria S. Merian Cruise MSM02-2

2.2 Objectives

There were three scientific components (i) Deployment of a bottom current meter at the sill of the Jan Mayen Channel for our colleagues at the Geophysical Institute of the University of Bergen/Norway; (ii) Hydrographic section and recovery/redeployment of moored current meters on the shelf and the slope off Eastgreenland near 74° N for the University of Hamburg and (iii) Hydrographic sections and recovery/redeployment of moored profiling CTDs along 75° N from the shelf off Eastgreenland to the shelf north of Bear Island for the Alfred-Wegener-Institute for Polar and Marine Research in Bremerhaven.

2.3 Narrative of the cruise

The vessel left Torshavn on 2nd July and headed for the Jan Mayen Channel. This deep connection between the Greenland Sea base and the Lofoten basin is an import conduct for deep water exchange in the Nordic Seas, which is monitored by time series measurements of colleagues at the Geophysical Institute in Bergen. Following a short multibeam bathymetric survey in the night from July 3/4 for the exact location of the sill the mooring was deployed in the morning of July 4th in fine weather. The ship proceeded to the eastward end of the hydrographic section at 74° N, working its way to the Eastgreenland slope and shelf with CTD-stations and mooring work. The sea ice border was crossed on July 6th and the section could be worked westward until the fast ice edge at 17° W. All moorings were recovered except the one at 18° W, which was under fast ice and was recovered during the cruise leg MSM 02/4 in August 2006. The program 74° N was finished on July 8th. The vessel left the ice and turned northward to 75° N. To start the hydrographic work along 75° N, a most westward position on the shelf was reached at 14° W in heavy ice. From then on the course was eastward with 10 nm station spacing. In the central Greenland Sea Basis 5 moorings were successfully recovered and 3 redeployed.

An interrupt of the planned program was caused by a mooring in the Fram Strait, which had broken loose and was drifting SW-wards along the Eastgreenland ice edge. It was decided to recover it and use the route to and from the position near 77° N, 11° W for two additional CTD-sections. The drifting mooring was successfully found and recovered, but unfortunately it consisted of the satellite beacon only. Upon return to the central Greenland Sea at 75° N a deep reaching eddy was detected from one of the CTD-stations. Since time was available, a 12 hour small-scale hydrographic survey was added to the program, before the section work towards the shelf north of Bear Island resumed. The scientific activities ended on 24th of July north of Bear Island. The vessel headed northward and reached Longyearbyen two days ahead of the scheduled arrival, in order to allow a German shipyard-crew to handle repairs and guarantee items on the new vessel, before it leaves for the next cruise leg.

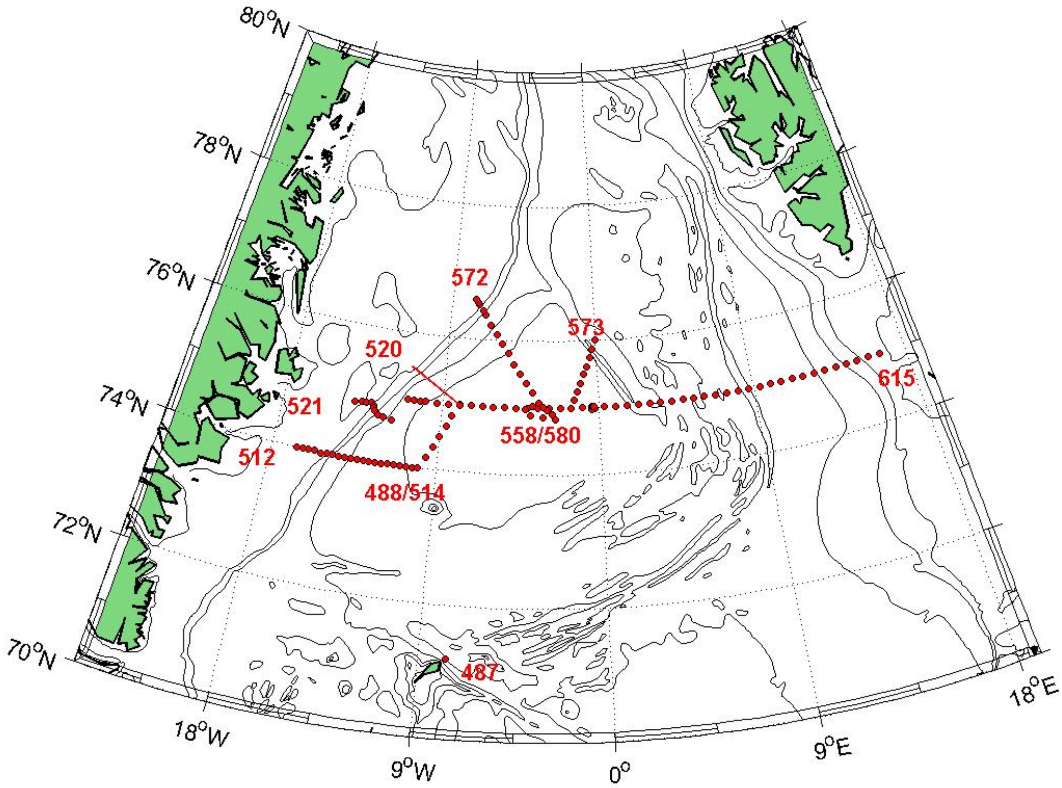


Fig. 2.2: Ship track of RV Maria S. Merian cruise MSM02-2 with locations of moorings and CTD casts

2.4. Technical Information

CTD system

105 CTD casts were completed on this cruise using a Sea-Bird equipment. Together with a 12 bottle rosette frame it was configured in the following way:

SBE 9/11 plus CTD, AWI
SBE 32, 12 position carousel 12 x 2.5 L "Niskin" bottles

The configuration of AWI CTD was:
SBE 9+ underwater unit
SBE 3 temperature primary sensor s/n 1338, calibrated 04-jan-2006
SBE 3 temperature secondary sensor s/n 1491, calibrated 04-jan-2006
SBE 4 Conductivity sensor primary, 1199, calibrated 07-mar-2006, to incl. station 520
SBE 4 Conductivity sensor s/n primary, 1053, calibrated 23-jun-2005 from incl. station 521
SBE 4 Conductivity sensor s/n secondary, 1198, calibrated 04-jan-2006
SBE 43 Oxygen sensor SN: 48, calibrated 14-may-04
Digiquartz temperature compensated pressure sensor s/n 53962

SBE 5T submersible pump
Benthos Altimeter
SBE 32 carousel, 12 position
SBE 11+ deck unit

Casts were initiated and terminated on deck. Between 0 and 4 water samples were taken per cast for calibration of the conductivity sensor at carefully selected locations where in situ calibration is acceptable.

Thanks to the duplicate sensor configuration utilized, it became quickly evident that one of the conductivity sensors showed a small drift (below Autosal accuracy). It was identified that the primary sensor SBE4-1199 was the drifting one. This sensor was applied from the beginning of the cruise to station 520 incl., from station 521 incl. it had been replaced by SBE4-1053. The secondary sensor set has been assigned as the valid set.

ADCP

The Acoustic Doppler Current Profiler (ADCP) had been running almost constantly during the cruise without any problems. The instrument, which has been manufactured by RD Instruments (Poway, Ca., USA), has a working frequency of 75 kHz, ping rate of 0.7 Hz, and is specified for a maximal ship speed of 22 knots.

Thermosalinograph

The Thermosalinograph is permanently flushed by sea water. The manufacturers are Sea & Sun Technology GmbH (salinity sensor, type: CT 48) and Isotech (temperature sensor, type: PT100-1509). These sensors have a working range of 0-65 mS/cm and –3° C to 36° C.

Data Logging

Numerous sensors, which collect scientific relevant data at different locations on the ship, send their data via the ship's network into a central data base with a frequency of 1 Hz. Furthermore, also ship specific data like cruise direction and speed over ground are integrated into the data base. In total, roughly 250 single sensors contribute to the date base, ranging from meteorological data, like air temperature, wind speed and direction, over oceanographic data, like surface water temperature and salinity, to water column thickness data, like echo sounding. The actual hardware hosting the data base is a pair of two SUNFire V.210-Server, which are configured as a fail-over pair working in loadsharing operation.

The data of the data base can be extracted easily through a web interface from all computers attached to the ships network from all cabins or laboratories. The result of guided data base queries are stored as ASCII text files, which can be downloaded after the query has been proceeded. The here described data base service is only a small part of an integrated data collecting, accessing, and storing system, which is called DavisShip (Datensammel-, -verteilungs- und speichersystem).

2.5. Scientific programmes – preliminary results

2.5.1 The East Greenland Current – an indicator for low frequency variability of the outflow from the NordicSeas/Arctic Ocean (SFB 512 – E2)

Katrin Latarius

2.5.1.1 Tube moorings

The major flux of freshwater from the Arctic Ocean to the convective regions in the Nordic Seas and the Northern North Atlantic is linked to the shelf branches of the East Greenland Current (Dickson et al, 2006). This flux is partitioned into a solid (ice) and a liquid phase. Time Series measurements of the liquid component are hard to obtain since the seasonally varying ice cover prevents the use of standard moored instrumentation in the near surface gradient layer where most of the freshwater transport takes place. Using 40m-polyethylene tubes to protect sensors and buoyancy in the upper portion of the moorings and employing a bottom-mounted acoustic Doppler current profiler have yielded the first time series of the upper layer temperatures, salinities and currents for a location at the outer East Greenland shelf at 74°N (Holfort and Meincke, 2005).

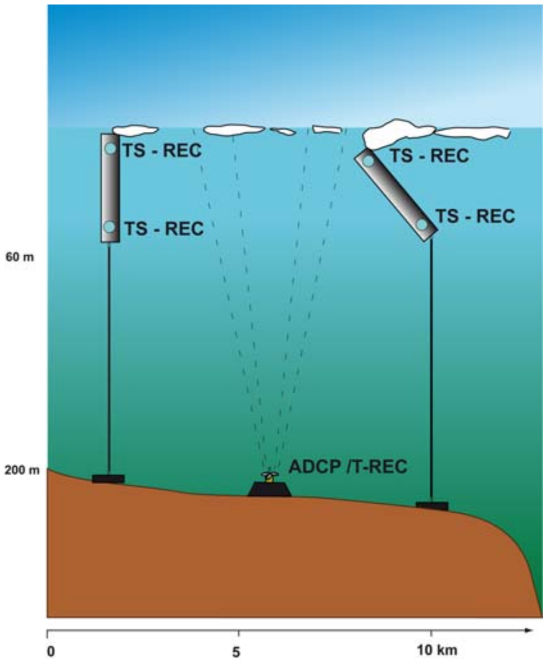


Fig. 2.3: Schematic figure of an array of tube moorings and bottom-mounted ADCP at 74° N over the Eastgreenland Shelf

The mooring array was deployed for the first time summer 2000 and from then onward recovered/deployed every summer. During the MSM02-2 it was recovered successfully for the seventh time and after servicing and data retrieval redeployed again. In the future this mooring area will be financed by the EU-project DAMOCLES.

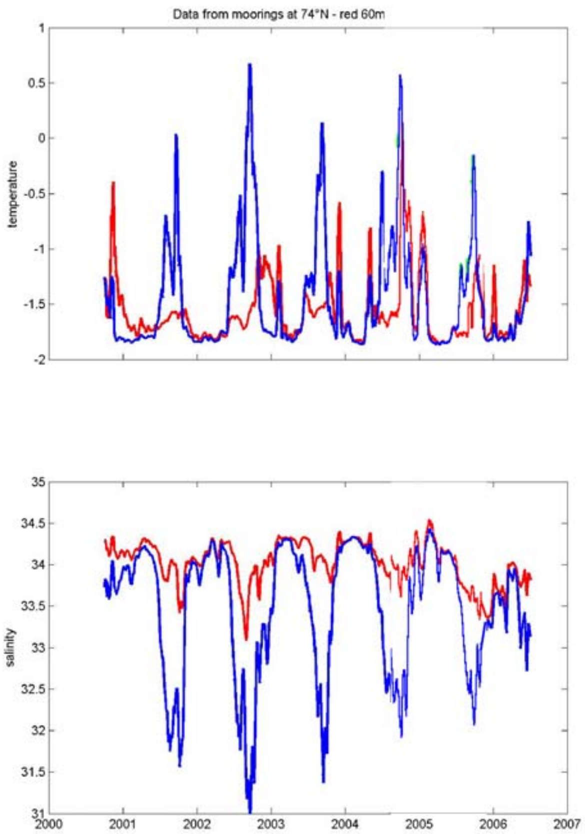


Fig. 2.4: Measurements from the Tube mooring at 74°02N and 15°31W in the nominal depth of ~16m (blue) and ~46m (red). Top: temperature, bottom: salinity

Figure 2.4 shows the longest continuous time series existing from the near surface Polar Water (PW) on the East Greenland shelf. The data from the last year are read out and preliminary processed during the cruise.

Obviously water properties near the surface (blue curve) developed towards lower temperature and higher salinity since the extreme values in autumn 2002, indicative for changing conditions in the arctic or shift in the source area as already mentioned in the cruise report Lance 18/2005 (IFM-Hamburg).

2.5.1.2 CTC section 74°N

The CTD section along 74°N from the rim of the Greenland Sea Basin to the East Greenland continental slope and shelf was repeated together with the mooring service every summer since 2000. For the figure shown here the state of the data is the same as described at the beginning of the next section.

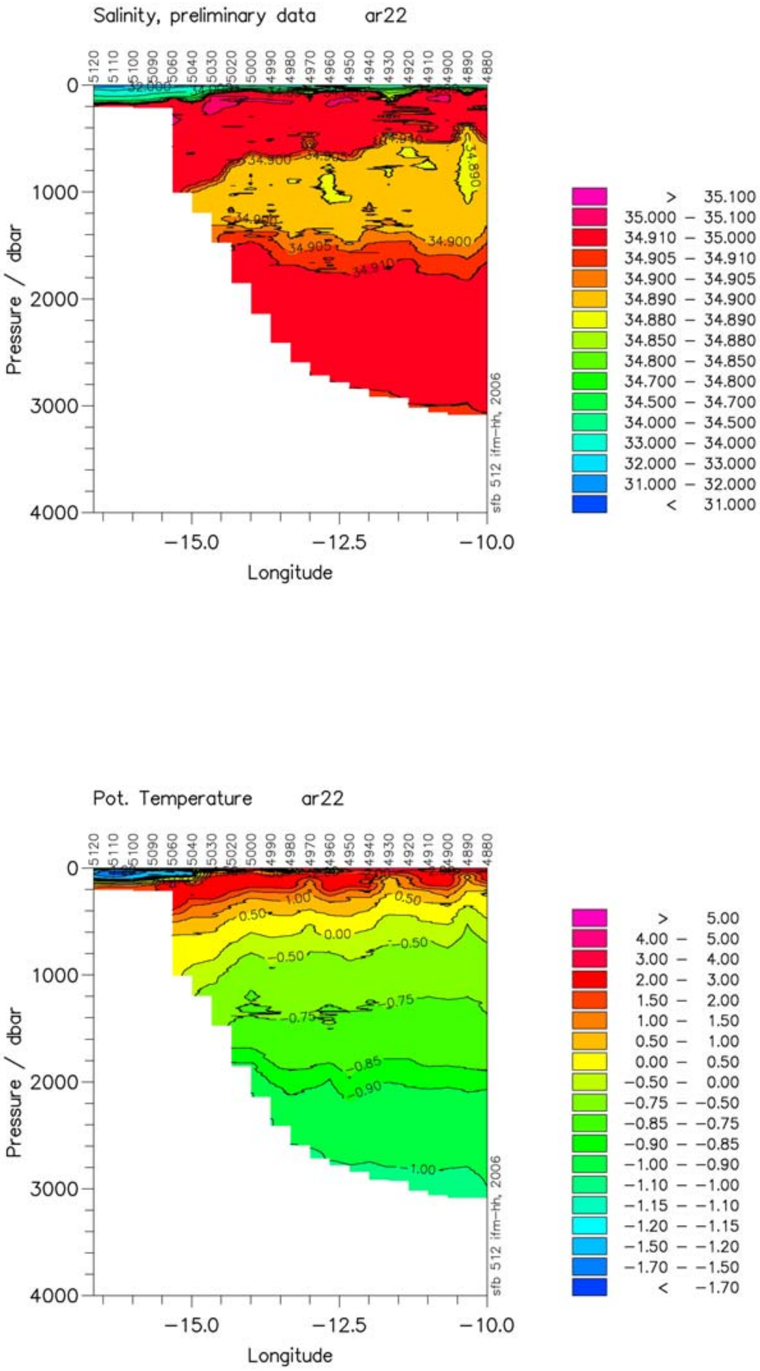


Fig. 2.5: Hydrographic section along 74°N from the East Greenland shelf into the deep basin of the Greenland Sea. Top: salinity, bottom: temperature.

The section from July 2006 shows the typical distribution of water masses with cold and fresh Polar Water in the western part on the shelf reaching a layer thickness of approx. 100 m from the surface downward, father east on the slope only covering the upper 10 to 20m. Below the Recirculating Atlantic Water (RAW) is observed, consisting of the warmest and most saline water in that region. In the past year there was a distinct core of RAW above the slope, but in summer 2006 the layer has extended from the slope (14°W) to as far east as 11°W with a depth of 800 to 1000m, demonstrating the untypical high amount of RAW on the section. Below the Arctic Intermediate Water (AIW) – marked by the lower salinity – and the Arctic Deep Water occurred.

2.5.2 Long term variability of the hydrographic structure, convection and transports in the Greenland Sea (LOTEVA-GS)

Gereon Budéus

The Greenland Sea is one of the few open ocean sites worldwide where waters, which have recently been in contact with the atmosphere, can sink to great depth or to the ocean bottom. These sites, including the Weddell Sea, the Labrador Sea, and the European Mediterranean, supply most of the deep waters of the world ocean and receive increasing interest with the focus of earth sciences on climate changes because of their role with respect to the global oceanic conveyor belt.

Physical processes in the Polar Oceans receive increased attention also because of their high sensibility and positive feedback mechanisms against climatic changes. This includes the hydrographic development in the Greenland Sea, where parent end members (in the TS-space) of a number of Arctic water masses are found. Oceanic field work in the Greenland Sea has long been conducted only sporadically because the dynamic nature of changes in the Arctic had not been recognized. Since the late 80s, field observations have been performed on a more regular basis (GSP, EU-projects ESOP I and II, CONVECTION, TRACTOR) revealing unexpected results with respect to most initial assumptions.

The classical view had to be altered with respect to the regularity of the ventilation events in the late eighties, when it became evident that deep reaching convection did not occur since the early eighties. Later, namely during the late nineties, also the concept of a vertically homogeneous deep water dome reaching close to the surface had to be skipped because observations showed a prevailing density stratification at intermediate depth. The vertical structure is now dominated by an intermediate temperature maximum which is combined with an enhanced salinity and density gradient. Observations show that this density gradient is not static but is slowly displaced vertically. It was found at about 900 m in 1993 and descended to roughly 1800 m in 2005. This interface between the upper and lower layer of the two-parted structure limits convection depths by the increased stability associated with the enhanced density/salinity gradient.

With this situation, the main modification processes in the upper layer are winter convection, succeeded by lateral exchange for which the most important constituents are the import of Atlantic Waters, Return Atlantic Waters, and Polar Waters. These inputs are then distributed vertically during the next winter convection phase. It is clear from this cycle, that a correct determination of winter convection depths is essential in order to attribute observed modifications to the related process. Changes in the deep waters can be explained by the combined action of lateral exchange (responsible for a salinity increase due to the input of deep Arctic Waters which are introduced from the rims surroundig the Greenland Basin) and vertical processes. It is proposed that a vertical shift of the water column is the main cause for the deep water changes in temperature.

Winter convection in the 'background', i.e. in the prevailing hydrographic conditions of the basin, is contrasted by convection within so called Submesoscale Coherent Vortices (SCVs). These are remarkably small eddies with diameters of only about 20 km, so that their size is adverse to their easy detection, but they severely spoil averaged profiles when accidentally met by a station or two. First indications of their occurance stem from drifter data, floating in about 1000 m depth and showing long periods of constant speed rotations (Gascard, 2002). Subsequent CTD investigations showed their hydrographic structure which departs largely from the background (Wadhams 2002, Budéus 2004). The interiour is outstandingly homogeneous with respect to all measured physical, biological and chemical properties in the upper part (i.e.: above the pycnocline) of the eddy (Budéus 2004, Wadhams 2004). This part extends to depths considerably below the level of the pycnocline in the background. Typical recent depth levels of the pycnocline are 1800 m for the background versus 2700 m for the SCV.

Due to the large spatial gradients and relatively small spatial scales involved (Rossby radius about 20 km) it is indispensable to perform measurements with a small station spacing. Otherwise spatial and temporal differences cannot be distinguished and any derived trend is most likely heavily biased. According to this, the transects are performed with a station spacing of 10 nautical miles or less. Naturally, the survey of the SCV involves much smaller spatial scales according to its above mentioned diameter.

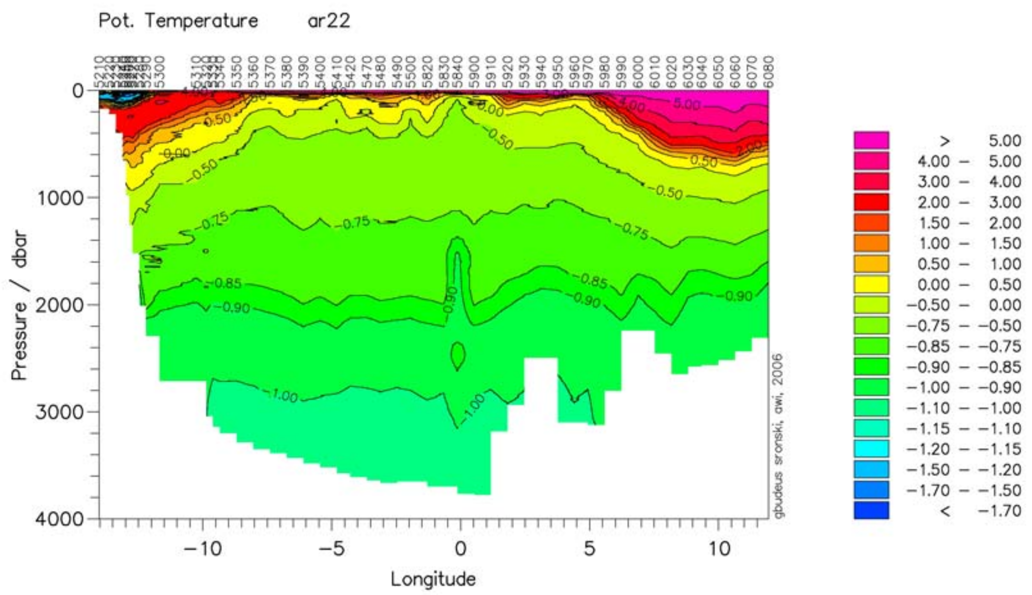
2.5.2.1 Zonal transect at 75ºN

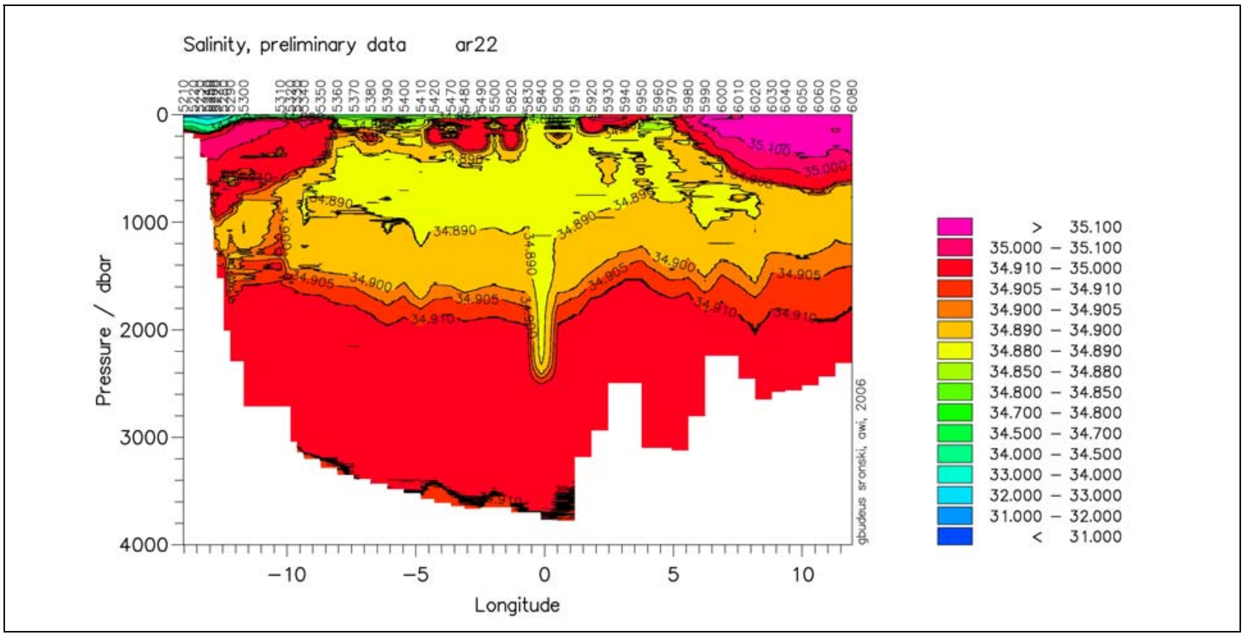
The CTD data have to be finally calibrated for a precise evaluation. Due to the high primary data quality, preliminary conclusions can be stated already to date. The distribution of the basic physical parameters is shown below, complemented by the oxygen distribution (uncorrected sensor values).

To start with the oxygen distribution, there are three features which are immediately evident. The first is the slow sensor time drift which is evident from the gradient deep sea, which is artificial. As no chemical analysis has been possible during the cruise, suitable assumptions have to be made in order to correct for the drift. As it is smooth and shows no jumps this poses no problem. The second is the interruption of the even structure at about 0ºE which belongs to an SCV. here, the higher oxygen contents extend to a depth of about 2500 m. This proofs that the waters within the deep part of the SCV are ventilated more recently than its surroundings. The third, and most important, feature is the two layer structure with an efficient vertical isolation of the deeper layer (below 2000 m). No direct evidence for last winter's convection depth is given by this distribution. For a determination of this, a comparison to the structure of the previous year is necessary.

The temperature distribution, too, shows no evidence of winter convection. the waters in the upper layer (down to about 2000 m) show increasing temperatures to such a degree, that the persistent temperature maximum at the interface between the upper and the lower layer cannot be discerned in the contour plot. This is no sign of a lacking winter convection, as this may result in an input of warmer waters to the ventilated water volumes. A slight depression of the isotherms in the centre of the gyre can be recognised, corroborating a downward vertical velocity component there.

The salinity distribution is striking with respect to several aspects. First, the deep waters show almost no waters any more with salinities below 34.910. Only a small remnant close to the bottom remains which posesses slightly lower salinities. Second is the low salinities within the SCV, third is the increasingly saline upper layer of the two parted structure (again, this being of no evidence for winter convection or its absence, as waters of higher salintiy can be distributed to greater depth by winter convection), and forth is the large amout of Atlantic water derivatives in the layer between the surface and about 400 m. Also, the area coverd by Return Atlantic Waters and Atlantic Waters is remarkably large. The time evolution of the salinity field (mean between 40 and 200m) shows that a trend to extremely high amounts of Atlantic Water derivatives (high salinities) started already between 2004 and 2005.




Salinity, preliminary data ar22
Pressure / dbar
Longitude
gbudeus sronski, awi, 2006
> 35.100
35.000 – 35.100
34.910 – 35.000
34.905 – 34.910
34.900 – 34.905
34.890 – 34.900
34.880 – 34.890
34.850 – 34.880
34.800 – 34.850
34.700 – 34.800
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31.000 – 32.000
< 31.000

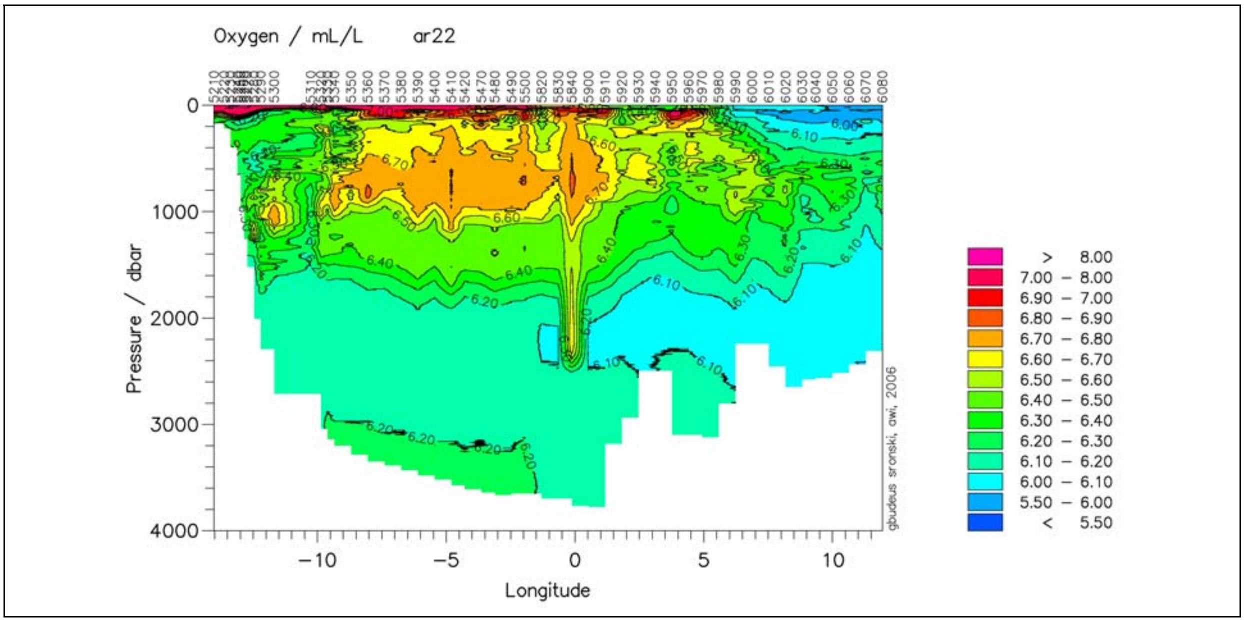
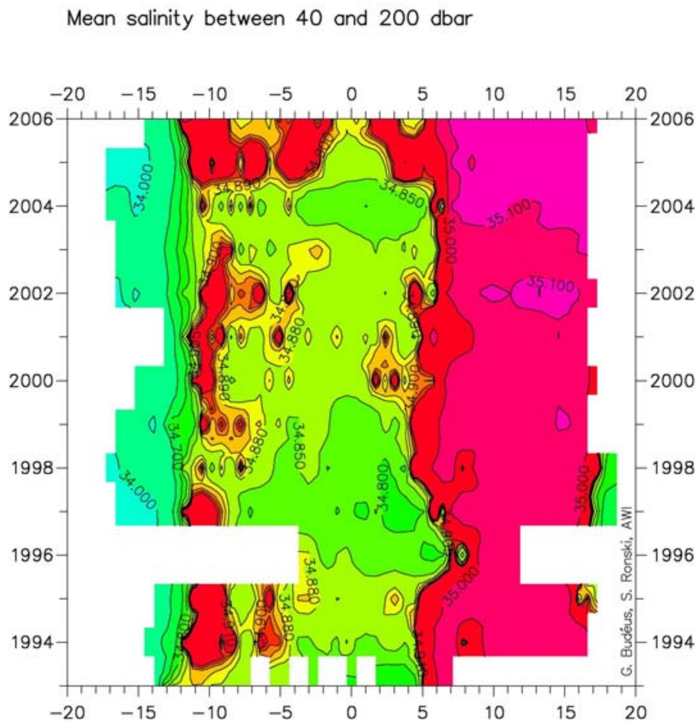

Oxygen / mL/L ar22
Pressure / dbar
Longitude
gbudeus sronski, awi, 2006
> 8.00
7.00 – 8.00
6.90 – 7.00
6.80 – 6.90
6.70 – 6.80
6.60 – 6.70
6.50 – 6.60
6.40 – 6.50
6.30 – 6.40
6.20 – 6.30
6.10 – 6.20
6.00 – 6.10
5.50 – 6.00
< 5.50

Fig. 2.6:

Fig. 2.7:



Winter convection depths for this year can be inferred only from the stability evolution. The comparison between multiple profiles performed in 2005 and 2006 shows the there is an area between 500 and 1200 m with smaller stabilities in 2006 than found in 2005. The downward limit of this low stability area shows a local stability maximum which is slightly more stable than the water column at the interface between the two main layers. Future convection is therefore affected already at relatively shallow levels with the resistance of considerably stable waters.

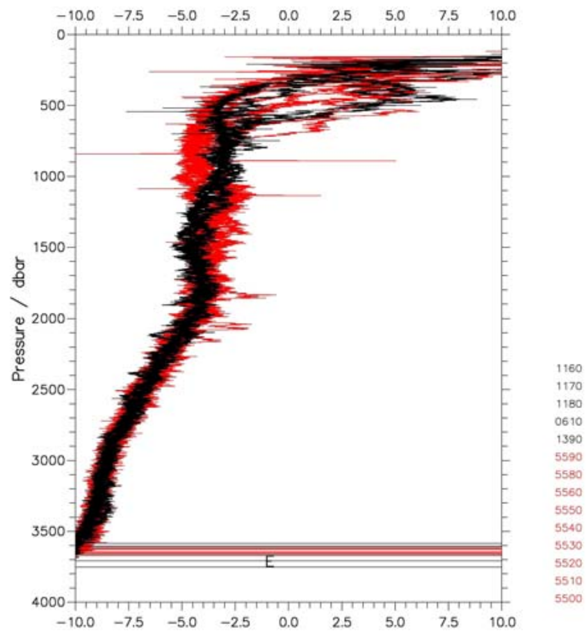


Fig. 2.8 Stability profiles for 2005 (black) and 2006 (red) from the central gyre

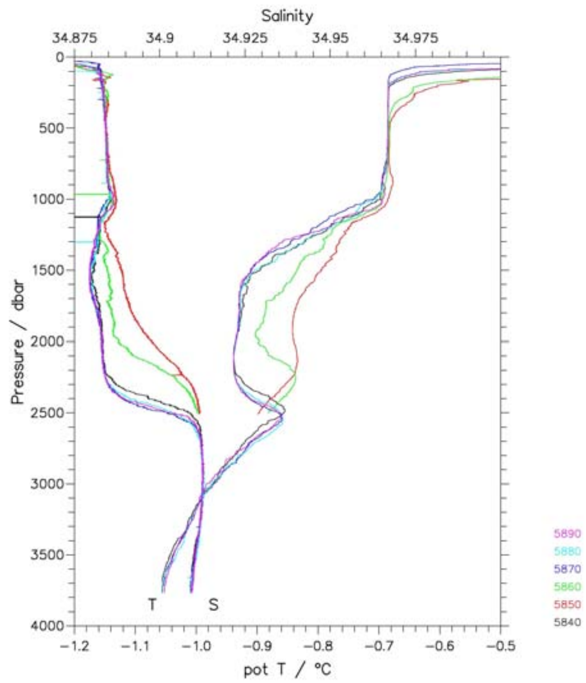


Fig. 2.9: Profiles of potential temperature and salinity within the SCV and on its boundary

2.5.2.2 SCV

Due to the late stage of the cruise, little time could be afforded for a survey of the accidentally met SCV. Profiles on the border of the SCV have been stopped when the vertical interface was met. Only the main properties of the SCV shall be outlined here. Its extent down to 2500 m has already been mentioned above. More interesting is the fact that the feature has not been homogenised vertically during the last winter, as is evidenced by the structured profile below 1200m. It seems that the upper 1200 m have been ventilated recently - this depth resembling the background ventilation depth. Nevertheless, the SCV is intact, indicating directly a lifetime longer than a year.

2.5.2.3 EP/CC Moorings

The autonomously profiling EP/CC moorings are equipped with modified SBE-16 CTDs with Digiquartz pressure sensors. They deliver complete profiles every other day, traveling between the parking position at roughly 100 m and the ocean bottom at 3700m. Vertical speed is about 1 m/s during the downcast and much less during the upcast. Measurements are recorded during the downcast only. The demand for profiling instruments in the ocean has increased in recognition that the description of oceanic processses based on only a few instruments located at fixed depths in the water column is not adequate to most problems investigated today. While some 15 years ago there were few attempts to construct and utilize autonomous profiling instruments, there exists a large variety of designs today. Applications range from infrequently profiling drifters (e.g. ARGOS floats) and futile attempts to combine these with mooring ropes or tethered platforms to dedicated instruments intended originally for moorings. Deep sea applications frequently dictate a particular design. Small depth ranges can be covered by designs which incorporate a winch or which are driven by near surface forcings (like the Seahorse moored profiler). Profilers for deep sea applications make use of bouyance changes or propell themselves along the mooring line (WHOI/McLane moored profiler). All solutions have different advantages and shortcomings, but when thinking in terms of many profiles (typically 200-400) to great depths (typically 3000 to 6000 m) a problem common to all designs is energy consumption. The mutual tradeoffs are immediately apparent, as, e.g., more energy carried along inside the profiling vehicle implies greater vehicle volumes in order to balance the additional weight, and this in turn implies smaller velocities for the same applied force, leading to higher energy consumption. We use here a design for an autonomous deep sea profiler which is intended for many fast and deep casts and departs substantially from previous solutions with respect to the energy management. It is designed and built by AWI.

One of the particular properties of the instrument is its high velocity during the downcast which is achieved by the smallest cross section area possible. This dimension is determined mainly by the SBE-16 diameter of 99mm. When thinking about a design for an autonomous deep sea profiler, we considered it somewhat impractical to store the whole energy needed for all of the up- and downcasts of the profiler within the vehicle and carry it along on the many profiles up and down. A considerable amount of additional energy is needed when doing so. The weight of the batteries (as the common storing means of energy) implies an increase of required buoyancy through a bigger volume, which in turn increases the flow resistance. With a given force to drive the movement, this reduces the velocity of the vehicle and results therefore in a a longer profiling time to span the water column which increases the necessary battery power. To alternatively remain at the same speed while increasing the flow resistance also requires more battery power. Consequently, much care has been applied to the design to realize a slim, low drag, and low mass device.

It is indeed not really necessary to carry more energy along with the vehicle than is needed for one single profile. The only complication in comparison to a self contained internally powered design is the transfer of energy from an energy storage unit to the profiling vehicle. While this problem is not easily solved under subsurface ocean conditions as long as one thinks in terms of electricity, a mechanical solution provides little difficulty. In addition, gravity serves as a highly reliable driving means.

Therefore, a vehicle/control unit-pair has been constructed which consists of a bouyant vehicle that is ballasted by a weight which is supplied by the control unit, one weight for each profiling cast. With this weight, the downcast is performed with the potential energy of the weight providing the driving means. At the bottom, the weight is detached from the vehicle and the latter moves back to the surface, driven by its own buoyancy. Back at the control unit, the vehicle waits for the next supply of a weight which is dispensed according to the chosen time schedule. It is immediately apparent that this method is particularly well suited for deep-sea applications since the size of the driving weights needs no alteration for increasingly deeper dives because the available energy increases automatically with greater depths.

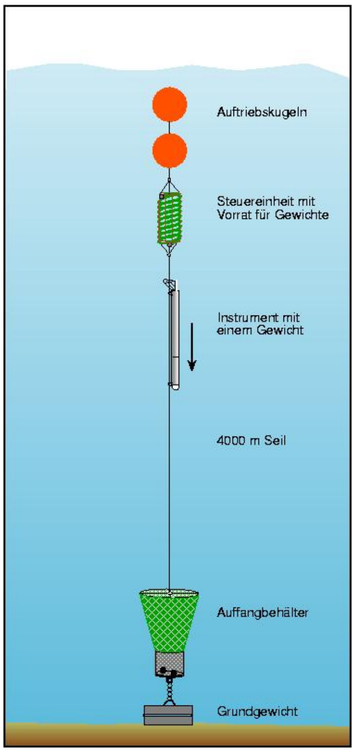


Fig.2.10: Schematic figure of the deep sea profiler moored in the central Greenland Sea

With this design, only one electrical consumer exists in the vehicle, namely the measuring instrument. Its total electrical consumption for one profile is directly dependent on the profile duration and hence on the profiling speed. A high profiling speed is therefore desirable in order to maximize the number of possible profiles for a given on-board battery. As measurements are taken only during the downcast, the use of mechanical force available for driving the vehicle can be optimized. Specifically, a larger force can be used for the downcast than for the upcast (which will be correspondingly slower). When thinking of daily profiles with a time period of about 1.5 h for a downcast to 4000 m, 22.5 hours would in principal be available for the upcast. For deep sea applications, it is very advantageous to adjust the vehicle's overall compressibility to compensate for the in situ density stratification in the ocean, and consequently this has been done.

The instrument works with a 1 Hz sampling rate. With 1 dbar bins, the noise is larger than for the pumped ship based CTDs but overall accuracy is high, in part due to the precision pressure sensor. It has been recognised that drifts of all sensors are extremely small, partly due to the quality of the instrument, partly due to the parking position below the euphotic zone.

The time series contain extremely detailed information about the prevailing processes which modify the hydrographic situation. The Hovmoeller diagramms of temperature and salinity reveal only a rough outline of these. Profiles are indicated by tickmarks on the upper axis. The most pronounced signal during the shown year is the salt input from above by winter convection into the deeper parts of the ventilated volumes. Another remarkable signal is the disappearance of the cold water pool above the interface between the upper and lower main layer. The latter is an outstandingly smooth process which shows no particular events or seasonal dependencies.

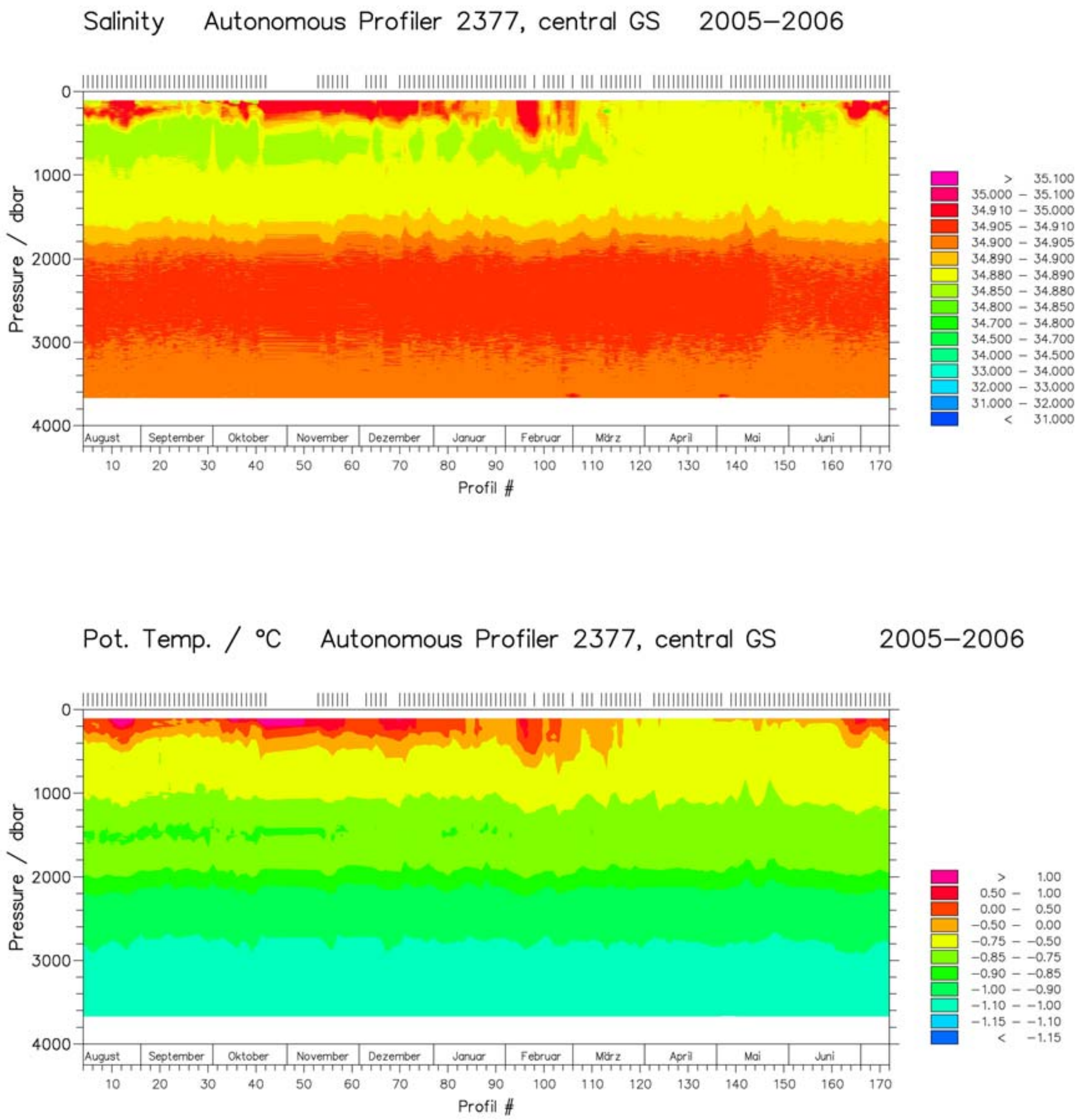


Fig. 2.11:

2.6 Station list

Station	Date	Time	PositionLat	PositionLon	Depth [m]	Gear Abbreviation	Action
MSM2/486-1	04.07.2006	01:08	70° 59,76' N	7° 29,88' W	1451,7	MB_PS	start track
MSM2/486-1	04.07.2006	02:56	71° 13,49' N	7° 29,83' W	1838,6	MB_PS	alter course
MSM2/486-1	04.07.2006	04:18	71° 11,93' N	7° 59,94' W	1542,1	MB_PS	alter course
MSM2/486-1	04.07.2006	05:46	71° 23,11' N	7° 59,56' W	1943,3	MB_PS	alter course
MSM2/486-1	04.07.2006	07:30	71° 10,15' N	7° 39,13' W	2138,5	MB_PS	profile end

MSM2/486-2	04.07.2006	08:06	71° 12,25' N	7° 42,25' W	1884,2	CTD/RO	surface
MSM2/486-2	04.07.2006	08:53	71° 12,25' N	7° 42,22' W	1883,6	CTD/RO	at depth
MSM2/486-2	04.07.2006	09:35	71° 12,25' N	7° 42,22' W	1883,8	CTD/RO	on deck
MSM2/486-3	04.07.2006	09:54	71° 12,20' N	7° 39,09' W	1943,1	MOORY	at surface
MSM2/486-3	04.07.2006	10:23	71° 12,27' N	7° 42,37' W	1885,5	MOORY	released
MSM2/487-1	05.07.2006	00:48	74° 0,01' N	10° 0,00' W	3117,2	CTD/RO	surface
MSM2/487-1	05.07.2006	01:50	74° 0,12' N	9° 58,94' W	3119,2	CTD/RO	at depth
MSM2/487-1	05.07.2006	02:39	73° 59,96' N	9° 58,14' W	3118,5	CTD/RO	on deck
MSM2/488-1	05.07.2006	03:35	73° 59,98' N	10° 19,92' W	3083,7	CTD/RO	surface
MSM2/488-1	05.07.2006	04:32	73° 59,79' N	10° 20,05' W	3085,2	CTD/RO	at depth
MSM2/488-1	05.07.2006	05:19	73° 59,57' N	10° 20,32' W	3085,6	CTD/RO	on deck
MSM2/489-1	05.07.2006	06:00	73° 59,98' N	10° 40,07' W	3098,2	CTD/RO	surface
MSM2/489-1	05.07.2006	06:57	73° 59,72' N	10° 40,63' W	3068,4	CTD/RO	at depth
MSM2/489-1	05.07.2006	07:57	73° 59,34' N	10° 42,06' W	3051,9	CTD/RO	on deck
MSM2/490-1	05.07.2006	08:34	74° 0,01' N	11° 0,59' W	3062,6	CTD/RO	surface
MSM2/490-1	05.07.2006	09:31	73° 59,76' N	11° 3,05' W	3045,5	CTD/RO	at depth
MSM2/490-1	05.07.2006	10:30	73° 59,59' N	11° 5,41' W	3021,7	CTD/RO	on deck
MSM2/491-1	05.07.2006	10:37	73° 59,62' N	11° 6,57' W	3021,2	CTD/RO	surface
MSM2/492-1	05.07.2006	11:05	74° 0,07' N	11° 20,02' W	3014	CTD/RO	surface
MSM2/492-1	05.07.2006	11:59	73° 59,96' N	11° 22,08' W	3008,4	CTD/RO	at depth
MSM2/492-1	05.07.2006	12:45	74° 0,05' N	11° 23,31' W	3002,7	CTD/RO	on deck
MSM2/493-1	05.07.2006	13:25	74° 0,00' N	11° 40,15' W	2929,5	CTD/RO	surface
MSM2/493-1	05.07.2006	14:19	73° 59,94' N	11° 41,23' W	2924,4	CTD/RO	at depth
MSM2/493-1	05.07.2006	15:15	73° 59,94' N	11° 41,23' W	2924,5	CTD/RO	on deck
MSM2/494-1	05.07.2006	15:59	73° 59,89' N	12° 0,33' W	2916,7	CTD/RO	surface
MSM2/494-1	05.07.2006	16:54	73° 59,50' N	12° 1,35' W	2911,8	CTD/RO	at depth
MSM2/494-1	05.07.2006	17:42	73° 59,15' N	12° 2,60' W	2907,5	CTD/RO	on deck
MSM2/495-1	05.07.2006	18:19	73° 59,95' N	12° 20,42' W	2847,1	CTD/RO	surface
MSM2/495-1	05.07.2006	19:13	73° 59,72' N	12° 22,40' W	2839,9	CTD/RO	at depth
MSM2/495-1	05.07.2006	20:07	73° 59,60' N	12° 24,58' W	2830,8	CTD/RO	on deck
MSM2/496-1	05.07.2006	20:47	73° 59,95' N	12° 40,21' W	2780,7	CTD/RO	surface
MSM2/496-1	05.07.2006	21:38	73° 59,45' N	12° 41,27' W	2769,7	CTD/RO	at depth
MSM2/496-1	05.07.2006	22:30	73° 59,45' N	12° 42,50' W	2754,3	CTD/RO	on deck

MSM2/497-1	05.07.2006	23:03	74° 0,05' N	13° 0,09' W	2725,5	CTD/RO	surface
MSM2/497-1	05.07.2006	23:51	74° 0,13' N	13° 1,50' W	2717,9	CTD/RO	at depth
MSM2/497-1	06.07.2006	00:42	74° 0,11' N	13° 1,59' W	2717,4	CTD/RO	on deck
MSM2/498-1	06.07.2006	01:23	74° 0,01' N	13° 19,71' W	2595,9	CTD/RO	surface
MSM2/498-1	06.07.2006	02:13	73° 59,89' N	13° 20,18' W	2594,2	CTD/RO	at depth
MSM2/498-1	06.07.2006	02:56	73° 59,77' N	13° 20,59' W	2588,9	CTD/RO	on deck
MSM2/499-1	06.07.2006	03:38	74° 0,03' N	13° 39,88' W	2408,6	CTD/RO	surface
MSM2/499-1	06.07.2006	04:27	73° 59,92' N	13° 39,69' W	2413	CTD/RO	at depth
MSM2/499-1	06.07.2006	05:09	73° 59,84' N	13° 39,58' W	2415,3	CTD/RO	on deck
MSM2/500-1	06.07.2006	05:58	73° 59,94' N	14° 0,11' W	2150,3	CTD/RO	surface
MSM2/500-1	06.07.2006	06:42	73° 59,74' N	14° 1,05' W	2144,8	CTD/RO	at depth
MSM2/500-1	06.07.2006	07:22	73° 59,65' N	14° 2,03' W	2138,3	CTD/RO	on deck
MSM2/501-1	06.07.2006	08:30	74° 0,04' N	14° 3,78' W	0	MOORY	released
MSM2/501-1	06.07.2006	08:32	74° 0,04' N	14° 3,80' W	0	MOORY	sighted
MSM2/501-1	06.07.2006	08:57	73° 59,95' N	14° 3,18' W	0	MOORY	start heaving on deck
MSM2/501-1	06.07.2006	10:00	74° 0,33' N	14° 7,55' W	2043,6	MOORY	on deck
MSM2/502-1	06.07.2006	10:38	73° 59,81' N	14° 20,60' W	1859,8	CTD/RO	surface
MSM2/502-1	06.07.2006	11:14	73° 59,65' N	14° 21,05' W	1859,3	CTD/RO	at depth
MSM2/502-1	06.07.2006	11:48	73° 59,44' N	14° 21,81' W	1850,7	CTD/RO	on deck
MSM2/503-1	06.07.2006	12:40	74° 0,01' N	14° 39,90' W	1479,3	CTD/RO	surface
MSM2/503-1	06.07.2006	13:12	73° 59,79' N	14° 40,80' W	1481,2	CTD/RO	at depth
MSM2/503-1	06.07.2006	13:38	73° 59,69' N	14° 41,63' W	1473,9	CTD/RO	on deck
MSM2/504-1	06.07.2006	15:09	73° 59,97' N	15° 0,34' W	1199,3	CTD/RO	surface
MSM2/504-1	06.07.2006	15:30	73° 59,98' N	15° 0,34' W	1200,4	CTD/RO	at depth
MSM2/504-1	06.07.2006	15:54	73° 59,84' N	15° 0,44' W	1215	CTD/RO	on deck
MSM2/505-1	06.07.2006	23:06	73° 59,44' N	15° 12,56' W	0	MOORY	released
MSM2/505-1	06.07.2006	23:29	73° 59,19' N	15° 13,61' W	1075,8	MOORY	start heaving on deck
MSM2/505-1	07.07.2006	00:14	73° 58,75' N	15° 15,22' W	1080,6	MOORY	on deck
MSM2/506-1	07.07.2006	01:02	73° 59,11' N	15° 19,09' W	1009,5	CTD/RO	surface
MSM2/506-1	07.07.2006	01:23	73° 58,94' N	15° 19,30' W	1013	CTD/RO	at depth
MSM2/506-1	07.07.2006	01:39	73° 58,80' N	15° 19,58' W	1011,8	CTD/RO	on deck

MSM2/507-1	07.07.2006	08:34	74° 2,52' N	15° 37,86' W	206,8	MOORY	at surface
MSM2/507-1	07.07.2006	08:54	74° 2,81' N	15° 38,32' W	204,8	MOORY	action
MSM2/507-1	07.07.2006	10:45	74° 3,11' N	15° 37,47' W	209,4	MOORY	start heaving on deck
MSM2/507-1	07.07.2006	10:46	74° 3,11' N	15° 37,46' W	209,5	MOORY	on deck
MSM2/507-2	07.07.2006	12:40	74° 2,60' N	15° 37,32' W	207,8	MOORY	at surface
MSM2/507-2	07.07.2006	12:48	74° 2,59' N	15° 37,63' W	207,5	MOORY	at depth
MSM2/507-2	07.07.2006	13:13	74° 2,60' N	15° 38,42' W	201,3	MOORY	action
MSM2/507-2	07.07.2006	13:26	74° 2,58' N	15° 38,76' W	199,7	MOORY	released
MSM2/508-1	07.07.2006	15:18	74° 1,57' N	15° 31,29' W	367,2	MOORY	released
MSM2/508-1	07.07.2006	15:21	74° 1,56' N	15° 31,30' W	369,1	MOORY	sighted
MSM2/508-1	07.07.2006	15:44	74° 1,54' N	15° 31,51' W	368,9	MOORY	start heaving on deck
MSM2/508-1	07.07.2006	16:15	74° 1,33' N	15° 31,25' W	421,5	MOORY	on deck
MSM2/508-2	07.07.2006	16:42	74° 1,29' N	15° 30,85' W	441,1	MOORY	at surface
MSM2/508-2	07.07.2006	17:11	74° 1,67' N	15° 30,86' W	374,4	MOORY	released
MSM2/509-1	07.07.2006	18:40	74° 0,35' N	15° 39,30' W	226,6	CTD/RO	surface
MSM2/509-1	07.07.2006	18:50	74° 0,35' N	15° 39,37' W	224	CTD/RO	at depth
MSM2/509-1	07.07.2006	18:59	74° 0,35' N	15° 39,47' W	221,8	CTD/RO	on deck
MSM2/510-1	07.07.2006	22:00	74° 0,03' N	15° 59,77' W	221	CTD/RO	surface
MSM2/510-1	07.07.2006	22:09	74° 0,06' N	16° 0,17' W	225,1	CTD/RO	at depth
MSM2/510-1	07.07.2006	22:16	74° 0,04' N	16° 0,40' W	226,5	CTD/RO	on deck
MSM2/511-1	08.07.2006	02:20	74° 0,18' N	16° 19,78' W	213,7	CTD/RO	surface
MSM2/511-1	08.07.2006	02:29	74° 0,21' N	16° 19,75' W	213,9	CTD/RO	at depth
MSM2/511-1	08.07.2006	02:37	74° 0,25' N	16° 19,79' W	214,7	CTD/RO	on deck
MSM2/512-1	08.07.2006	06:15	74° 0,14' N	16° 39,70' W	230,5	CTD/RO	surface
MSM2/512-1	08.07.2006	06:25	74° 0,12' N	16° 39,81' W	229,8	CTD/RO	at depth
MSM2/512-1	08.07.2006	06:34	74° 0,09' N	16° 39,91' W	229,3	CTD/RO	on deck
MSM2/513-1	08.07.2006	15:18	73° 59,98' N	15° 59,03' W	226,2	MOORY	at surface
MSM2/513-1	08.07.2006	15:27	73° 59,98' N	15° 58,89' W	224,6	MOORY	released
MSM2/514-1	09.07.2006	09:46	74° 0,05' N	10° 0,81' W	0	CTD/RO	surface
MSM2/514-1	09.07.2006	10:43	73° 59,88' N	10° 1,51' W	3118,4	CTD/RO	at depth
MSM2/514-1	09.07.2006	11:42	73° 59,81' N	10° 2,33' W	3117,2	CTD/RO	on deck

MSM2/515-1	09.07.2006	13:02	74° 9,97' N	9° 39,09' W	3184,4	CTD/RO	surface
MSM2/515-1	09.07.2006	14:02	74° 9,88' N	9° 40,60' W	3180	CTD/RO	at depth
MSM2/515-1	09.07.2006	14:52	74° 9,89' N	9° 41,97' W	3177,1	CTD/RO	on deck
MSM2/516-1	09.07.2006	16:19	74° 19,91' N	9° 19,92' W	3244,3	CTD/RO	surface
MSM2/516-1	09.07.2006	17:18	74° 20,18' N	9° 20,93' W	3242,7	CTD/RO	at depth
MSM2/516-1	09.07.2006	18:14	74° 20,23' N	9° 21,74' W	3238,8	CTD/RO	on deck
MSM2/517-1	09.07.2006	19:34	74° 29,89' N	9° 0,10' W	3284,8	CTD/RO	surface
MSM2/517-1	09.07.2006	20:33	74° 29,96' N	9° 0,50' W	3284,3	CTD/RO	at depth
MSM2/517-1	09.07.2006	21:29	74° 30,09' N	9° 1,00' W	3282,9	CTD/RO	on deck
MSM2/518-1	09.07.2006	22:42	74° 40,04' N	8° 41,89' W	3317,5	CTD/RO	surface
MSM2/518-1	09.07.2006	23:41	74° 39,84' N	8° 42,17' W	3317,7	CTD/RO	at depth
MSM2/518-1	10.07.2006	00:32	74° 39,65' N	8° 42,04' W	3317,9	CTD/RO	on deck
MSM2/519-1	10.07.2006	02:02	74° 49,95' N	8° 25,40' W	3349,5	CTD/RO	surface
MSM2/519-1	10.07.2006	03:05	74° 49,72' N	8° 25,79' W	3340,8	CTD/RO	at depth
MSM2/519-1	10.07.2006	03:56	74° 49,74' N	8° 25,95' W	3340,8	CTD/RO	on deck
MSM2/520-1	10.07.2006	05:14	75° 0,05' N	8° 0,00' W	3384,1	CTD/RO	surface
MSM2/520-1	10.07.2006	06:16	74° 59,92' N	8° 1,19' W	3382,3	CTD/RO	at depth
MSM2/520-1	10.07.2006	07:18	74° 59,74' N	8° 2,89' W	3380,7	CTD/RO	on deck
MSM2/521-1	10.07.2006	20:54	74° 50,51' N	14° 1,49' W	182,6	CTD/RO	surface
MSM2/521-1	10.07.2006	21:02	74° 50,48' N	14° 1,64' W	179,9	CTD/RO	at depth
MSM2/521-1	10.07.2006	21:08	74° 50,48' N	14° 1,79' W	182,2	CTD/RO	on deck
MSM2/522-1	11.07.2006	00:00	74° 52,11' N	13° 37,80' W	233,1	CTD/RO	surface
MSM2/522-1	11.07.2006	00:11	74° 52,25' N	13° 38,03' W	228,7	CTD/RO	at depth
MSM2/522-1	11.07.2006	00:19	74° 52,34' N	13° 38,21' W	227,1	CTD/RO	on deck
MSM2/523-1	11.07.2006	01:09	74° 51,96' N	13° 20,37' W	410,7	CTD/RO	surface
MSM2/523-1	11.07.2006	01:22	74° 52,10' N	13° 20,57' W	406,5	CTD/RO	at depth
MSM2/523-1	11.07.2006	01:31	74° 52,15' N	13° 20,69' W	406,1	CTD/RO	on deck
MSM2/524-1	11.07.2006	02:19	74° 52,22' N	13° 2,24' W	664,3	CTD/RO	surface
MSM2/524-1	11.07.2006	02:36	74° 52,21' N	13° 2,26' W	663,2	CTD/RO	at depth
MSM2/524-1	11.07.2006	02:48	74° 52,20' N	13° 2,31' W	663,2	CTD/RO	on deck
MSM2/525-1	11.07.2006	03:23	74° 49,94' N	12° 56,74' W	1001,3	CTD/RO	surface
MSM2/525-1	11.07.2006	03:41	74° 49,94' N	12° 57,18' W	988	CTD/RO	at depth
MSM2/525-1	11.07.2006	04:00	74° 49,93' N	12° 57,65' W	973,4	CTD/RO	on deck

MSM2/526-1	11.07.2006	04:28	74° 47,88' N	12° 53,48' W	1276,2	CTD/RO	surface
MSM2/526-1	11.07.2006	04:54	74° 47,79' N	12° 54,31' W	1261,6	CTD/RO	at depth
MSM2/526-1	11.07.2006	05:17	74° 47,72' N	12° 55,08' W	1242	CTD/RO	on deck
MSM2/527-1	11.07.2006	05:45	74° 45,68' N	12° 50,53' W	1523,2	CTD/RO	surface
MSM2/527-1	11.07.2006	06:18	74° 45,41' N	12° 51,48' W	1526,5	CTD/RO	at depth
MSM2/527-1	11.07.2006	06:49	74° 45,22' N	12° 52,28' W	1534,6	CTD/RO	on deck
MSM2/528-1	11.07.2006	07:37	74° 42,52' N	12° 36,89' W	2009,9	CTD/RO	surface
MSM2/528-1	11.07.2006	08:17	74° 42,33' N	12° 38,45' W	2009	CTD/RO	at depth
MSM2/528-1	11.07.2006	08:56	74° 42,15' N	12° 40,20' W	1999,8	CTD/RO	on deck
MSM2/529-1	11.07.2006	10:00	74° 41,04' N	12° 18,54' W	2301,4	CTD/RO	surface
MSM2/529-1	11.07.2006	10:48	74° 40,74' N	12° 20,26' W	2297,7	CTD/RO	at depth
MSM2/529-1	11.07.2006	10:48	74° 40,74' N	12° 20,26' W	2297,7	CTD/RO	on deck
MSM2/530-1	11.07.2006	12:54	74° 39,73' N	11° 49,36' W	2731,7	CTD/RO	surface
MSM2/530-1	11.07.2006	13:44	74° 39,61' N	11° 50,24' W	2729	CTD/RO	at depth
MSM2/530-1	11.07.2006	14:32	74° 39,53' N	11° 51,00' W	2723,4	CTD/RO	on deck
MSM2/531-1	11.07.2006	16:41	74° 59,99' N	11° 2,07' W	2713,7	CTD/RO	surface
MSM2/531-1	11.07.2006	17:31	74° 59,97' N	11° 2,51' W	2710,4	CTD/RO	at depth
MSM2/531-1	11.07.2006	18:21	74° 59,75' N	11° 3,31' W	2711,5	CTD/RO	on deck
MSM2/532-1	11.07.2006	19:00	74° 59,99' N	10° 40,15' W	3345,7	CTD/RO	surface
MSM2/532-1	11.07.2006	20:00	75° 0,16' N	10° 39,70' W	3039,5	CTD/RO	at depth
MSM2/532-1	11.07.2006	20:59	75° 0,32' N	10° 39,18' W	3041	CTD/RO	on deck
MSM2/533-1	11.07.2006	21:39	74° 59,86' N	10° 19,16' W	3135	CTD/RO	surface
MSM2/533-1	11.07.2006	22:36	74° 59,90' N	10° 19,23' W	3134,3	CTD/RO	at depth
MSM2/533-1	11.07.2006	23:37	75° 0,05' N	10° 19,38' W	3133,4	CTD/RO	on deck
MSM2/534-1	12.07.2006	00:25	74° 59,99' N	10° 0,00' W	3194,5	CTD/RO	surface
MSM2/534-1	12.07.2006	01:25	74° 59,92' N	9° 59,96' W	3195,5	CTD/RO	at depth
MSM2/534-1	12.07.2006	02:16	74° 59,86' N	10° 0,12' W	3194,7	CTD/RO	on deck
MSM2/535-1	12.07.2006	03:33	74° 59,94' N	9° 19,32' W	3280,3	CTD/RO	surface
MSM2/535-1	12.07.2006	04:33	74° 59,86' N	9° 19,46' W	3278,7	CTD/RO	at depth
MSM2/535-1	12.07.2006	05:26	74° 59,84' N	9° 19,28' W	3280,1	CTD/RO	on deck
MSM2/536-1	12.07.2006	06:34	75° 0,00' N	8° 40,32' W	3344,3	CTD/RO	surface
MSM2/536-1	12.07.2006	07:35	75° 0,25' N	8° 41,00' W	3341,5	CTD/RO	at depth
MSM2/536-1	12.07.2006	08:39	75° 0,37' N	8° 41,79' W	3340,1	CTD/RO	on deck

MSM2/537-1	12.07.2006	09:54	74° 59,91' N	8° 1,31' W	3413,5	CTD/RO	surface
MSM2/537-1	12.07.2006	10:55	74° 59,81' N	8° 3,44' W	3411,8	CTD/RO	at depth
MSM2/537-1	12.07.2006	11:59	74° 59,39' N	8° 5,75' W	3409,4	CTD/RO	on deck
MSM2/538-1	12.07.2006	13:32	75° 0,01' N	7° 22,06' W	3453,9	CTD/RO	surface
MSM2/538-1	12.07.2006	14:34	75° 0,17' N	7° 23,91' W	3451,8	CTD/RO	at depth
MSM2/538-1	12.07.2006	15:30	75° 0,27' N	7° 25,12' W	3450,2	CTD/RO	on deck
MSM2/539-1	12.07.2006	16:59	75° 0,04' N	6° 43,17' W	3503,6	CTD/RO	surface
MSM2/539-1	12.07.2006	18:03	75° 0,53' N	6° 44,46' W	3501,4	CTD/RO	at depth
MSM2/539-1	12.07.2006	19:12	75° 0,89' N	6° 46,44' W	3499,3	CTD/RO	on deck
MSM2/540-1	12.07.2006	20:40	74° 59,95' N	6° 4,40' W	3540,1	CTD/RO	surface
MSM2/540-1	12.07.2006	21:43	75° 0,08' N	6° 5,42' W	3538,5	CTD/RO	at depth
MSM2/540-1	12.07.2006	22:52	74° 59,92' N	6° 6,18' W	3538,7	CTD/RO	on deck
MSM2/541-1	13.07.2006	00:10	74° 59,91' N	5° 25,08' W	3591,5	CTD/RO	surface
MSM2/541-1	13.07.2006	01:18	74° 59,87' N	5° 25,33' W	3591,4	CTD/RO	at depth
MSM2/541-1	13.07.2006	02:23	74° 59,86' N	5° 25,84' W	3590,9	CTD/RO	on deck
MSM2/542-1	13.07.2006	03:46	75° 0,01' N	4° 47,11' W	3629,1	CTD/RO	surface
MSM2/542-1	13.07.2006	04:52	75° 0,01' N	4° 47,12' W	3628,6	CTD/RO	at depth
MSM2/542-1	13.07.2006	04:56	75° 0,01' N	4° 47,12' W	3628,5	CTD/RO	on deck
MSM2/543-1	13.07.2006	06:40	74° 54,79' N	4° 33,22' W	3633,3	MOORY	released
MSM2/543-1	13.07.2006	06:41	74° 54,77' N	4° 33,28' W	3632,8	MOORY	sighted
MSM2/543-1	13.07.2006	07:09	74° 54,82' N	4° 33,05' W	3508,4	MOORY	start heaving on deck
MSM2/543-1	13.07.2006	07:31	74° 54,79' N	4° 33,31' W	3592,1	MOORY	start heaving on deck
MSM2/543-1	13.07.2006	10:00	74° 56,21' N	4° 40,34' W	3631,6	MOORY	on deck
MSM2/544-1	13.07.2006	10:49	74° 54,74' N	4° 26,04' W	3640,5	MOORY	released
MSM2/544-1	13.07.2006	10:52	74° 54,69' N	4° 26,18' W	3640,4	MOORY	sighted
MSM2/544-1	13.07.2006	11:13	74° 54,82' N	4° 25,62' W	3641,2	MOORY	start heaving on deck
MSM2/544-1	13.07.2006	11:43	74° 55,13' N	4° 26,00' W	3638,2	MOORY	on deck
MSM2/545-1	13.07.2006	13:05	74° 54,81' N	4° 17,90' W	3650,2	MOORY	released
MSM2/545-1	13.07.2006	13:08	74° 54,80' N	4° 17,89' W	3650,2	MOORY	sighted
MSM2/545-1	13.07.2006	13:25	74° 54,88' N	4° 18,06' W	3650,4	MOORY	start heaving on deck

MSM2/545-1	13.07.2006	13:47	74° 54,56' N	4° 15,93' W	3651,3	MOORY	on deck
MSM2/546-1	13.07.2006	14:40	74° 55,11' N	4° 37,27' W	3631,2	MOORY	at surface
MSM2/546-1	13.07.2006	17:15	74° 55,17' N	4° 37,45' W	3630,8	MOORY	released
MSM2/547-1	13.07.2006	18:28	74° 59,93' N	4° 8,12' W	3654,6	CTD/RO	surface
MSM2/547-1	13.07.2006	20:40	74° 59,93' N	4° 8,11' W	3657,6	CTD/RO	at depth
MSM2/547-1	13.07.2006	20:40	74° 59,93' N	4° 8,11' W	3657,6	CTD/RO	on deck
MSM2/548-1	13.07.2006	21:44	75° 0,00' N	3° 30,64' W	3682,1	CTD/RO	surface
MSM2/548-1	13.07.2006	22:50	75° 0,00' N	3° 30,63' W	3682,2	CTD/RO	at depth
MSM2/548-1	13.07.2006	23:55	75° 0,00' N	3° 30,64' W	3683,2	CTD/RO	on deck
MSM2/549-1	14.07.2006	01:09	74° 59,92' N	2° 51,06' W	3708,9	CTD/RO	surface
MSM2/549-1	14.07.2006	02:08	74° 59,92' N	2° 51,06' W	3708	CTD/RO	at depth
MSM2/549-1	14.07.2006	03:13	74° 59,92' N	2° 51,06' W	3706,3	CTD/RO	on deck
MSM2/550-1	14.07.2006	04:22	74° 59,89' N	2° 13,22' W	3664,1	CTD/RO	surface
MSM2/550-1	14.07.2006	05:20	74° 59,89' N	2° 13,22' W	3662,7	CTD/RO	at depth
MSM2/550-1	14.07.2006	06:28	74° 59,89' N	2° 13,22' W	3663	CTD/RO	on deck
MSM2/551-1	14.07.2006	08:25	75° 5,07' N	3° 27,52' W	0	MOORY	released
MSM2/551-1	14.07.2006	08:27	75° 5,05' N	3° 27,50' W	3680,9	MOORY	sighted
MSM2/551-1	14.07.2006	08:44	75° 4,79' N	3° 27,21' W	3681,1	MOORY	start heaving on deck
MSM2/551-1	14.07.2006	10:56	75° 5,11' N	3° 27,03' W	3681,1	MOORY	on deck
MSM2/551-2	14.07.2006	11:06	75° 5,00' N	3° 27,01' W	3681,6	CTD/RO	surface
MSM2/551-2	14.07.2006	12:13	75° 4,99' N	3° 27,06' W	3682,1	CTD/RO	at depth
MSM2/551-2	14.07.2006	13:14	75° 4,96' N	3° 27,14' W	3682,3	CTD/RO	on deck
MSM2/551-3	14.07.2006	13:33	75° 4,96' N	3° 27,16' W	3682,4	MOORY	at surface
MSM2/551-3	14.07.2006	16:03	75° 4,96' N	3° 27,17' W	3682,2	MOORY	released
MSM2/552-1	14.07.2006	16:56	75° 1,56' N	3° 50,51' W	3665,9	CTD/RO	surface
MSM2/552-1	14.07.2006	18:01	75° 1,56' N	3° 50,51' W	3665,8	CTD/RO	at depth
MSM2/552-1	14.07.2006	19:10	75° 1,56' N	3° 50,50' W	3665,4	CTD/RO	on deck
MSM2/553-1	14.07.2006	20:04	74° 58,51' N	4° 14,86' W	3652,1	CTD/RO	surface
MSM2/553-1	14.07.2006	21:09	74° 58,51' N	4° 14,86' W	3652	CTD/RO	at depth
MSM2/553-1	14.07.2006	22:17	74° 58,51' N	4° 14,86' W	3652,4	CTD/RO	on deck
MSM2/554-1	14.07.2006	23:07	74° 53,83' N	3° 55,59' W	3649	CTD/RO	surface
MSM2/554-1	15.07.2006	00:12	74° 53,83' N	3° 55,58' W	3634,5	CTD/RO	at depth

MSM2/554-1	15.07.2006	01:13	74° 53,83' N	3° 55,58' W	3648,5	CTD/RO	on deck
MSM2/555-1	15.07.2006	02:25	74° 52,01' N	3° 14,16' W	3691,5	CTD/RO	surface
MSM2/555-1	15.07.2006	03:31	74° 52,01' N	3° 14,14' W	3690,6	CTD/RO	at depth
MSM2/555-1	15.07.2006	04:30	74° 52,01' N	3° 14,15' W	3690,4	CTD/RO	on deck
MSM2/556-1	15.07.2006	05:30	74° 54,09' N	2° 42,38' W	3710,7	CTD/RO	surface
MSM2/556-1	15.07.2006	06:30	74° 54,09' N	2° 42,38' W	3710,5	CTD/RO	at depth
MSM2/556-1	15.07.2006	07:35	74° 54,09' N	2° 42,38' W	3710,3	CTD/RO	on deck
MSM2/557-1	15.07.2006	08:20	74° 50,36' N	2° 28,01' W	3771,8	MOORY	released
MSM2/557-1	15.07.2006	08:22	74° 50,39' N	2° 28,16' W	3638,3	MOORY	sighted
MSM2/557-1	15.07.2006	08:32	74° 50,27' N	2° 28,68' W	3713,7	MOORY	start heaving on deck
MSM2/557-1	15.07.2006	10:45	74° 49,27' N	2° 30,78' W	3710,3	MOORY	on deck
MSM2/557-2	15.07.2006	11:03	74° 49,73' N	2° 29,37' W	3712,7	CTD/RO	surface
MSM2/557-2	15.07.2006	12:04	74° 49,73' N	2° 29,37' W	3712,5	CTD/RO	at depth
MSM2/557-2	15.07.2006	13:05	74° 49,73' N	2° 29,37' W	3713,4	CTD/RO	on deck
MSM2/557-3	15.07.2006	13:18	74° 49,73' N	2° 29,37' W	3713,7	MOORY	at surface
MSM2/557-3	15.07.2006	15:47	74° 49,73' N	2° 29,38' W	3705,9	MOORY	released
MSM2/558-1	15.07.2006	17:06	74° 57,80' N	2° 56,96' W	3302,9	CTD/RO	surface
MSM2/558-1	15.07.2006	18:12	74° 57,80' N	2° 56,96' W	3703,3	CTD/RO	at depth
MSM2/558-1	15.07.2006	19:18	74° 57,80' N	2° 56,96' W	3703,5	CTD/RO	on deck
MSM2/559-1	15.07.2006	19:54	75° 1,21' N	3° 11,89' W	3692,6	CTD/RO	surface
MSM2/559-1	15.07.2006	21:05	75° 1,21' N	3° 11,89' W	3692,4	CTD/RO	at depth
MSM2/559-1	15.07.2006	22:07	75° 1,21' N	3° 11,89' W	3692,1	CTD/RO	on deck
MSM2/560-1	15.07.2006	23:50	75° 14,10' N	3° 51,03' W	3664,4	CTD/RO	surface
MSM2/560-1	16.07.2006	00:49	75° 14,22' N	3° 51,03' W	3665	CTD/RO	at depth
MSM2/560-1	16.07.2006	01:47	75° 14,22' N	3° 51,03' W	3665	CTD/RO	on deck
MSM2/561-1	16.07.2006	02:56	75° 22,62' N	4° 12,93' W	3667,2	CTD/RO	surface
MSM2/561-1	16.07.2006	03:54	75° 22,62' N	4° 12,93' W	3667,5	CTD/RO	at depth
MSM2/561-1	16.07.2006	04:55	75° 22,62' N	4° 12,93' W	3667,5	CTD/RO	on deck
MSM2/562-1	16.07.2006	05:59	75° 30,85' N	4° 34,73' W	3625,6	CTD/RO	surface
MSM2/562-1	16.07.2006	06:55	75° 30,85' N	4° 34,73' W	3625,1	CTD/RO	at depth
MSM2/562-1	16.07.2006	08:01	75° 30,85' N	4° 34,73' W	3624,5	CTD/RO	on deck
MSM2/563-1	16.07.2006	09:05	75° 38,98' N	4° 56,90' W	3568	CTD/RO	surface

MSM2/563-1	16.07.2006	10:01	75°	38,98' N	4°	56,90' W	3512,3	CTD/RO	at depth
MSM2/563-1	16.07.2006	11:02	75°	38,98' N	4°	56,90' W	3512,4	CTD/RO	on deck
MSM2/564-1	16.07.2006	12:22	75°	48,32' N	5°	20,44' W	3356,3	CTD/RO	surface
MSM2/564-1	16.07.2006	13:15	75°	48,32' N	5°	20,43' W	3356,1	CTD/RO	at depth
MSM2/564-1	16.07.2006	14:15	75°	48,32' N	5°	20,43' W	3356,3	CTD/RO	on deck
MSM2/565-1	16.07.2006	15:45	75°	56,73' N	5°	42,76' E	3057,2	CTD/RO	surface
MSM2/565-1	16.07.2006	16:35	75°	56,73' N	5°	42,76' W	3057,2	CTD/RO	at depth
MSM2/565-1	16.07.2006	17:32	75°	56,73' N	5°	42,76' W	3057,3	CTD/RO	on deck
MSM2/566-1	16.07.2006	18:41	76°	5,16' N	6°	5,16' W	3673	CTD/RO	surface
MSM2/566-1	16.07.2006	19:25	76°	5,16' N	6°	5,16' W	2828,3	CTD/RO	at depth
MSM2/566-1	16.07.2006	20:15	76°	5,16' N	6°	5,16' W	2828,4	CTD/RO	on deck
MSM2/567-1	16.07.2006	21:25	76°	13,42' N	6°	27,73' W	2466,3	CTD/RO	surface
MSM2/567-1	16.07.2006	22:11	76°	13,07' N	6°	29,04' W	2469,3	CTD/RO	at depth
MSM2/567-1	16.07.2006	22:57	76°	12,63' N	6°	30,41' W	2452,8	CTD/RO	on deck
MSM2/568-1	17.07.2006	00:16	76°	21,85' N	6°	50,56' W	1877,7	CTD/RO	surface
MSM2/568-1	17.07.2006	00:51	76°	21,56' N	6°	51,09' W	1903,6	CTD/RO	at depth
MSM2/568-1	17.07.2006	01:20	76°	21,32' N	6°	51,63' W	1744,3	CTD/RO	on deck
MSM2/569-1	17.07.2006	02:02	76°	25,23' N	7°	0,43' W	1505,4	CTD/RO	surface
MSM2/569-1	17.07.2006	02:41	76°	25,12' N	7°	1,23' W	1492,2	CTD/RO	at depth
MSM2/569-1	17.07.2006	03:03	76°	25,09' N	7°	1,36' W	1489,1	CTD/RO	on deck
MSM2/570-1	17.07.2006	04:13	76°	30,55' N	7°	16,86' W	999,9	CTD/RO	surface
MSM2/570-1	17.07.2006	04:33	76°	30,55' N	7°	16,86' W	1000,2	CTD/RO	at depth
MSM2/570-1	17.07.2006	04:50	76°	30,55' N	7°	16,86' W	1000,3	CTD/RO	on deck
MSM2/571-1	17.07.2006	05:34	76°	33,03' N	7°	24,02' W	751,1	CTD/RO	surface
MSM2/571-1	17.07.2006	05:52	76°	32,93' N	7°	24,33' W	753,5	CTD/RO	at depth
MSM2/571-1	17.07.2006	06:08	76°	32,91' N	7°	24,55' W	750,7	CTD/RO	on deck
MSM2/572-1	17.07.2006	07:17	76°	35,59' N	7°	31,44' W	395,8	CTD/RO	surface
MSM2/572-1	17.07.2006	07:30	76°	35,49' N	7°	31,62' W	401,5	CTD/RO	at depth
MSM2/572-1	17.07.2006	07:40	76°	35,42' N	7°	31,65' W	408,1	CTD/RO	on deck
MSM2/573-1	20.07.2006	01:55	76°	0,04' N	0°	0,10' E	2646,2	CTD/RO	surface
MSM2/573-1	20.07.2006	02:37	76°	0,04' N	0°	0,10' E	2646,5	CTD/RO	at depth
MSM2/573-1	20.07.2006	03:24	76°	0,04' N	0°	0,10' E	2648	CTD/RO	on deck
MSM2/574-1	20.07.2006	04:20	75°	52,01' N	0°	12,76' W	4098,3	CTD/RO	surface

MSM2/574-1	20.07.2006	04:57	75° 52,01' N	0° 12,76' W	4092,8	CTD/RO	at depth
MSM2/574-1	20.07.2006	05:34	75° 52,01' N	0° 12,76' W	2049,3	CTD/RO	on deck
MSM2/575-1	20.07.2006	06:33	75° 45,01' N	0° 24,93' W	3703,8	CTD/RO	surface
MSM2/575-1	20.07.2006	07:32	75° 45,01' N	0° 24,94' W	3703,2	CTD/RO	at depth
MSM2/575-1	20.07.2006	08:41	75° 45,01' N	0° 24,94' W	3703	CTD/RO	on deck
MSM2/576-1	20.07.2006	09:48	75° 37,02' N	0° 36,62' W	3702,6	CTD/RO	surface
MSM2/576-1	20.07.2006	10:44	75° 37,01' N	0° 36,63' W	3702,9	CTD/RO	at depth
MSM2/576-1	20.07.2006	10:44	75° 37,01' N	0° 36,63' W	3702,9	CTD/RO	on deck
MSM2/577-1	20.07.2006	12:48	75° 29,98' N	0° 48,98' W	3695,3	CTD/RO	surface
MSM2/577-1	20.07.2006	13:47	75° 29,98' N	0° 48,99' W	3695,4	CTD/RO	at depth
MSM2/577-1	20.07.2006	14:58	75° 29,98' N	0° 48,99' W	3695,8	CTD/RO	on deck
MSM2/578-1	20.07.2006	15:58	75° 22,02' N	0° 59,68' W	3691,7	CTD/RO	surface
MSM2/578-1	20.07.2006	16:57	75° 22,02' N	0° 59,68' W	3692	CTD/RO	at depth
MSM2/578-1	20.07.2006	18:09	75° 22,02' N	0° 59,68' W	3691,8	CTD/RO	on deck
MSM2/579-1	20.07.2006	19:00	75° 15,00' N	1° 12,94' W	3970,4	CTD/RO	surface
MSM2/579-1	20.07.2006	20:06	75° 15,00' N	1° 12,94' W	3684,7	CTD/RO	at depth
MSM2/579-1	20.07.2006	21:07	75° 15,00' N	1° 12,94' W	3684,7	CTD/RO	on deck
MSM2/580-1	20.07.2006	21:08	75° 15,00' N	1° 12,94' W	3684,7	CTD/RO	surface
MSM2/580-1	20.07.2006	22:58	75° 7,58' N	1° 23,85' W	3673,8	CTD/RO	at depth
MSM2/580-1	21.07.2006	00:07	75° 7,59' N	1° 23,85' W	3673,6	CTD/RO	on deck
MSM2/581-1	21.07.2006	01:51	75° 0,03' N	2° 12,93' W	3587,4	CTD/RO	surface
MSM2/581-1	21.07.2006	02:48	75° 0,04' N	2° 12,91' W	3573,2	CTD/RO	at depth
MSM2/581-1	21.07.2006	03:53	75° 0,03' N	2° 12,91' W	3574	CTD/RO	on deck
MSM2/582-1	21.07.2006	04:59	74° 59,93' N	1° 34,96' W	3668	CTD/RO	surface
MSM2/582-1	21.07.2006	05:57	74° 59,93' N	1° 34,96' W	3667,6	CTD/RO	at depth
MSM2/582-1	21.07.2006	07:08	74° 59,93' N	1° 34,96' W	3667,3	CTD/RO	on deck
MSM2/583-1	21.07.2006	08:10	75° 0,08' N	0° 56,10' W	3613,8	CTD/RO	surface
MSM2/583-1	21.07.2006	09:12	75° 0,08' N	0° 56,11' W	3614,7	CTD/RO	at depth
MSM2/583-1	21.07.2006	10:17	75° 0,08' N	0° 56,11' W	3690,7	CTD/RO	on deck
MSM2/584-1	21.07.2006	11:25	75° 0,02' N	0° 18,27' W	3703,4	CTD/RO	surface
MSM2/584-1	21.07.2006	12:22	75° 0,02' N	0° 18,28' W	3701,2	CTD/RO	at depth
MSM2/584-1	21.07.2006	13:28	75° 0,02' N	0° 18,28' W	3701,7	CTD/RO	on deck
MSM2/585-1	21.07.2006	14:23	74° 58,63' N	0° 12,37' W	3703,8	CTD/RO	surface

MSM2/585-1	21.07.2006	15:08	74° 58,63' N	0° 12,37' W	3704,6	CTD/RO	at depth
MSM2/585-1	21.07.2006	15:45	74° 58,63' N	0° 12,36' W	3703,9	CTD/RO	on deck
MSM2/586-1	21.07.2006	16:19	74° 58,64' N	0° 23,29' W	3700,4	CTD/RO	surface
MSM2/586-1	21.07.2006	17:06	74° 58,64' N	0° 23,30' W	3700,7	CTD/RO	at depth
MSM2/586-1	21.07.2006	17:48	74° 58,64' N	0° 23,30' W	3700,4	CTD/RO	on deck
MSM2/587-1	21.07.2006	18:15	75° 1,34' N	0° 24,00' W	3698,5	CTD/RO	surface
MSM2/587-1	21.07.2006	19:13	75° 1,34' N	0° 23,99' W	3700,1	CTD/RO	at depth
MSM2/587-1	21.07.2006	20:20	75° 1,34' N	0° 23,99' W	3699,4	CTD/RO	on deck
MSM2/588-1	21.07.2006	20:41	75° 0,79' N	0° 20,53' W	3701,8	CTD/RO	surface
MSM2/588-1	21.07.2006	21:40	75° 0,79' N	0° 20,53' W	3701,3	CTD/RO	at depth
MSM2/588-1	21.07.2006	22:46	75° 0,79' N	0° 20,52' W	3701	CTD/RO	on deck
MSM2/589-1	21.07.2006	23:02	75° 1,38' N	0° 17,73' W	3702,5	CTD/RO	surface
MSM2/589-1	22.07.2006	00:02	75° 1,38' N	0° 17,74' W	3701,1	CTD/RO	at depth
MSM2/589-1	22.07.2006	01:08	75° 1,38' N	0° 17,73' W	3702	CTD/RO	on deck
MSM2/590-1	22.07.2006	02:19	75° 0,08' N	0° 21,08' E	3710,5	CTD/RO	surface
MSM2/590-1	22.07.2006	03:25	75° 0,08' N	0° 21,08' E	3708,5	CTD/RO	at depth
MSM2/590-1	22.07.2006	04:03	75° 0,08' N	0° 21,08' E	3710	CTD/RO	on deck
MSM2/591-1	22.07.2006	05:30	75° 0,07' N	0° 59,28' E	3712,5	CTD/RO	surface
MSM2/591-1	22.07.2006	06:28	75° 0,07' N	0° 59,28' E	3712,8	CTD/RO	at depth
MSM2/591-1	22.07.2006	07:41	75° 0,07' N	0° 59,28' E	3712,4	CTD/RO	on deck
MSM2/592-1	22.07.2006	08:47	75° 0,07' N	1° 37,94' E	0	CTD/RO	surface
MSM2/592-1	22.07.2006	09:41	75° 0,07' N	1° 37,94' E	3079,6	CTD/RO	at depth
MSM2/592-1	22.07.2006	10:39	75° 0,07' N	1° 37,94' E	3079,7	CTD/RO	on deck
MSM2/593-1	22.07.2006	11:45	74° 59,97' N	2° 16,64' E	2905,3	CTD/RO	surface
MSM2/593-1	22.07.2006	12:34	74° 59,97' N	2° 16,64' E	2905,1	CTD/RO	at depth
MSM2/593-1	22.07.2006	13:31	74° 59,97' N	2° 16,64' E	2904,8	CTD/RO	on deck
MSM2/594-1	22.07.2006	14:39	74° 59,99' N	2° 56,29' E	2477,7	CTD/RO	surface
MSM2/594-1	22.07.2006	15:20	75° 0,00' N	2° 56,26' E	2475,7	CTD/RO	at depth
MSM2/594-1	22.07.2006	16:09	75° 0,00' N	2° 56,26' E	2475,7	CTD/RO	on deck
MSM2/595-1	22.07.2006	17:21	75° 0,06' N	3° 35,38' E	3425,6	CTD/RO	surface
MSM2/595-1	22.07.2006	18:15	75° 0,07' N	3° 35,38' E	3426,2	CTD/RO	at depth
MSM2/595-1	22.07.2006	19:24	75° 0,07' N	3° 35,39' E	3425,9	CTD/RO	on deck
MSM2/596-1	22.07.2006	19:37	74° 59,98' N	3° 40,09' E	3491,9	CTD/RO	surface

MSM2/596-1	22.07.2006	21:25	74° 59,97' N	4° 13,96' E	3042,9	CTD/RO	at depth
MSM2/596-1	22.07.2006	22:23	74° 59,97' N	4° 13,96' E	3042,1	CTD/RO	on deck
MSM2/597-1	22.07.2006	22:25	74° 59,97' N	4° 13,97' E	3042,7	CTD/RO	surface
MSM2/597-1	23.07.2006	00:25	74° 59,95' N	4° 51,77' E	3170,9	CTD/RO	at depth
MSM2/597-1	23.07.2006	01:27	74° 59,95' N	4° 51,77' E	3187,8	CTD/RO	on deck
MSM2/598-1	23.07.2006	02:41	75° 0,01' N	5° 30,14' E	3067,5	CTD/RO	surface
MSM2/598-1	23.07.2006	03:31	75° 0,01' N	5° 30,14' E	3067,4	CTD/RO	at depth
MSM2/598-1	23.07.2006	04:27	75° 0,01' N	5° 30,14' E	3067,4	CTD/RO	on deck
MSM2/599-1	23.07.2006	05:33	75° 0,14' N	6° 8,36' E	2769,5	CTD/RO	surface
MSM2/599-1	23.07.2006	06:18	75° 0,14' N	6° 8,36' E	2769,5	CTD/RO	at depth
MSM2/599-1	23.07.2006	07:11	75° 0,14' N	6° 8,36' E	2769,4	CTD/RO	on deck
MSM2/600-1	23.07.2006	08:15	75° 0,01' N	6° 47,25' E	2211,7	CTD/RO	surface
MSM2/600-1	23.07.2006	08:54	75° 0,01' N	6° 47,25' E	2212	CTD/RO	at depth
MSM2/600-1	23.07.2006	09:37	75° 0,01' N	6° 47,25' E	2212,9	CTD/RO	on deck
MSM2/601-1	23.07.2006	10:44	75° 0,01' N	7° 25,94' E	2434,6	CTD/RO	surface
MSM2/601-1	23.07.2006	11:26	75° 0,02' N	7° 25,94' E	2434,7	CTD/RO	at depth
MSM2/601-1	23.07.2006	12:07	75° 0,01' N	7° 25,94' E	2434,6	CTD/RO	on deck
MSM2/602-1	23.07.2006	13:15	75° 0,08' N	8° 5,02' E	3474,8	CTD/RO	surface
MSM2/602-1	23.07.2006	14:10	75° 0,08' N	8° 5,02' E	3474,4	CTD/RO	at depth
MSM2/602-1	23.07.2006	15:12	75° 0,08' N	8° 5,02' E	3474,3	CTD/RO	on deck
MSM2/603-1	23.07.2006	16:18	75° 0,00' N	8° 44,16' E	2621,7	CTD/RO	surface
MSM2/603-1	23.07.2006	17:01	75° 0,00' N	8° 44,16' E	2621,8	CTD/RO	at depth
MSM2/603-1	23.07.2006	17:48	75° 0,00' N	8° 44,16' E	2621,8	CTD/RO	on deck
MSM2/604-1	23.07.2006	18:54	75° 0,03' N	9° 21,83' E	2551,5	CTD/RO	surface
MSM2/604-1	23.07.2006	19:38	75° 0,03' N	9° 21,83' E	2551,6	CTD/RO	at depth
MSM2/604-1	23.07.2006	20:26	75° 0,03' N	9° 21,83' E	2551,8	CTD/RO	on deck
MSM2/605-1	23.07.2006	21:26	75° 0,03' N	10° 0,03' E	2617,1	CTD/RO	surface
MSM2/605-1	23.07.2006	22:10	75° 0,03' N	10° 0,04' E	2536,5	CTD/RO	at depth
MSM2/605-1	23.07.2006	22:57	75° 0,03' N	10° 0,04' E	2536,6	CTD/RO	on deck
MSM2/606-1	24.07.2006	00:00	75° 0,04' N	10° 39,04' E	2492,5	CTD/RO	surface
MSM2/606-1	24.07.2006	00:39	75° 0,03' N	10° 39,04' E	2492,5	CTD/RO	at depth
MSM2/606-1	24.07.2006	01:23	75° 0,03' N	10° 39,04' E	2492,3	CTD/RO	on deck
MSM2/607-1	24.07.2006	02:28	74° 59,99' N	11° 18,13' E	2414,9	CTD/RO	surface

MSM2/607-1	24.07.2006	03:07	74°	59,99' N	11°	18,54' E	2412,9	CTD/RO	at depth
MSM2/607-1	24.07.2006	03:52	74°	59,99' N	11°	18,54' E	2412,8	CTD/RO	on deck
MSM2/608-1	24.07.2006	05:17	75°	0,01' N	11°	56,28' E	2294	CTD/RO	surface
MSM2/608-1	24.07.2006	05:57	75°	0,01' N	11°	56,28' E	2292,8	CTD/RO	at depth
MSM2/608-1	24.07.2006	06:40	75°	0,01' N	11°	56,28' E	2292,9	CTD/RO	on deck
MSM2/609-1	24.07.2006	07:42	74°	59,94' N	12°	35,08' E	2148,5	CTD/RO	surface
MSM2/609-1	24.07.2006	08:19	74°	59,94' N	12°	35,08' E	2148,4	CTD/RO	at depth
MSM2/609-1	24.07.2006	08:55	74°	59,94' N	12°	35,08' E	2146,6	CTD/RO	on deck
MSM2/610-1	24.07.2006	09:58	74°	59,97' N	13°	12,87' E	1983,7	CTD/RO	surface
MSM2/610-1	24.07.2006	10:33	74°	59,97' N	13°	12,87' E	1984,3	CTD/RO	at depth
MSM2/610-1	24.07.2006	11:07	74°	59,97' N	13°	12,87' E	1982,7	CTD/RO	on deck
MSM2/611-1	24.07.2006	12:10	74°	59,96' N	13°	51,71' E	1774,6	CTD/RO	surface
MSM2/611-1	24.07.2006	12:40	74°	59,96' N	13°	51,71' E	1772,6	CTD/RO	at depth
MSM2/611-1	24.07.2006	13:10	74°	59,96' N	13°	51,70' E	1772,3	CTD/RO	on deck
MSM2/612-1	24.07.2006	14:20	75°	0,00' N	14°	31,09' E	1403,4	CTD/RO	surface
MSM2/612-1	24.07.2006	14:46	75°	0,00' N	14°	31,09' E	1406,7	CTD/RO	at depth
MSM2/612-1	24.07.2006	15:10	75°	0,00' N	14°	31,09' E	1403,2	CTD/RO	on deck
MSM2/613-1	24.07.2006	16:18	75°	0,12' N	15°	9,43' E	1009,7	CTD/RO	surface
MSM2/613-1	24.07.2006	16:39	75°	0,12' N	15°	9,43' E	1009,1	CTD/RO	at depth
MSM2/613-1	24.07.2006	16:57	75°	0,12' N	15°	9,43' E	1009,6	CTD/RO	on deck
MSM2/614-1	24.07.2006	18:04	75°	0,01' N	15°	50,29' E	258,9	CTD/RO	surface
MSM2/614-1	24.07.2006	18:14	75°	0,00' N	15°	50,29' E	258,8	CTD/RO	at depth
MSM2/614-1	24.07.2006	18:24	75°	0,00' N	15°	50,29' E	259,1	CTD/RO	on deck
MSM2/615-1	24.07.2006	19:31	74°	59,98' N	16°	30,03' E	228,3	CTD/RO	surface
MSM2/615-1	24.07.2006	19:40	74°	59,98' N	16°	30,03' E	229,6	CTD/RO	at depth
MSM2/615-1	24.07.2006	19:48	74°	59,98' N	16°	30,03' E	229,1	CTD/RO	on deck

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