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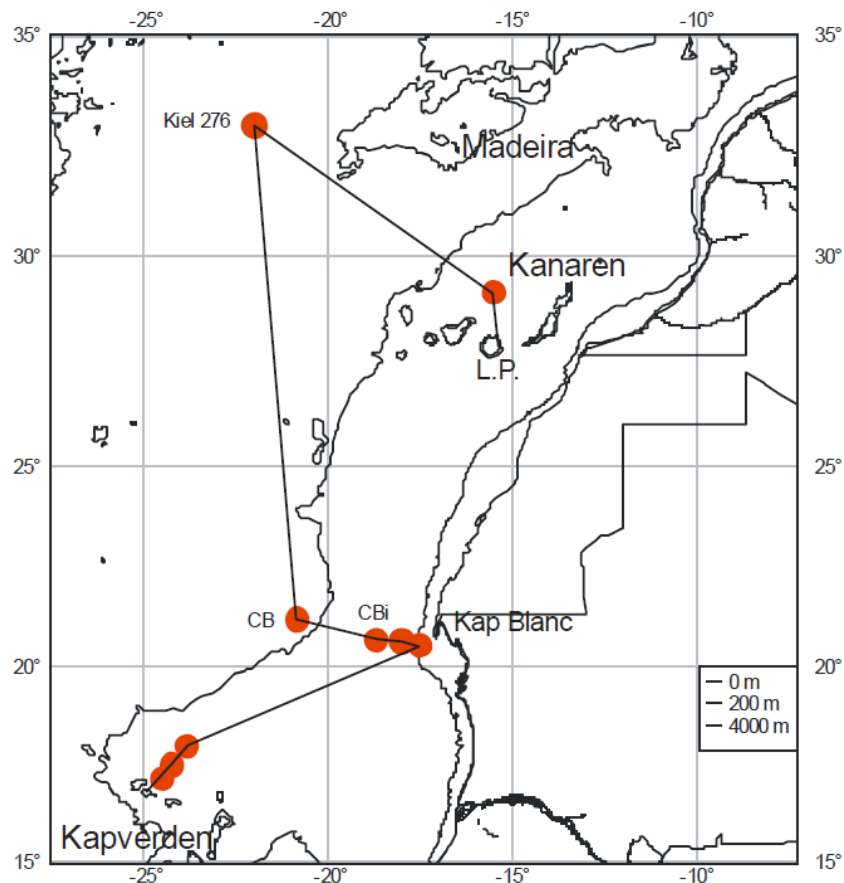
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**Short Cruise Report**  
**Maria S. Merian MSM18/1**

**Las Palmas - Mindelo**  
**17.04.2011 – 08.05.2011**

**Chief Scientist: PD Dr. habil. Joanna Waniek**

**Captain: Friedhelm von Staa**



*Particle dynamics in subtropical and tropical Northeast Atlantic*

## Objectives

The objectives of the cruise MSM 18/1 were:

- 1) to investigate the pelagic bacterial communities off Cape Blanc
- 2) to investigate bacterial communities on marine snow aggregates)
- 3) to investigate the distribution and the lipid-biomarker composition of particulate organic matter (POM) in the water column of the NW-African upwelling system with special focus on alteration during sinking and the influence of lateral transport in nepheloid layers.
- 4) investigate particle fluxes/degradation and transport in the coastal upwelling off Cape Blanc (Mauritania) and north of the Cape Verde Islands and in the Madeira Basin
- 5) to find out if the data acquired by CTD-turbidity-sensor & the Particle-Camera (ParCa) can also be observed with Parasound acoustical measurement
- 6) to recover and deploy the moorings Kiel276, CB and CBI
- 7) to perform trials of the ROV based on DNS (Druckneutrale Systeme) in deep sea (>5000m)

## Narrative

**14.04.2011** Maria S. Merian was scheduled to departure from Las Palmas today. However, due to problems with the pods the MSM18/1 will start with a delay of three days.

**17.04.2011** In the afternoon all scientist are allowed to embark the vessel and start the preparation of the laboratories for the cruise. At 11:00pm Maria S. Merian sails to our first working area around the Kiel276 in the Madeira Basin in the Northeast Atlantic.

**18-19.04.2011** We are heading towards 36°N, 22°W. During the day we have finished the preparation of the laboratories. In the evening we have hold our first meeting to discuss the working plan, any special requirements and to introduce ourselves to each other.

**19.04.2011** In the morning, because of the prevailing strong winds, the slow progress of the vessel and the prediction that the weather will improved next day, we decided to change the course and omit the station work along 22°W. Instead we are directly heading to the Kiel276 position (33°N, 22°W), to make sure we can start the recovery of Kiel276-27 under good weather conditions.

**20.04.2011** Station work in the vicinity of Kiel276 (33°N, 22°W) including CTD, particle camera (ParCa), ROV

**21.04.2011** At 08:00 am we are at the Kiel276 position and have released the mooring (276-27). The top buoyancy was sighted approximately 30 minutes later and the recovery of the mooring started. At 03:30 pm 5200m of line, 46 buoyancy spheres, 6

Aanderaa current meters, 2 sediment traps and two releasers were successfully recovered after a two years long deployment. Quick inspection of all recovered instruments and both of the traps showed that we have obtained a full set of data. For calibration of the records from the RCM a deep CTD cast (full depth, 5200 m) was obtained immediately after recovery of the Kiel276-27.

**22.04.-23.04.2011** Both days were filled with station work under good weather conditions including CTD casts, ParCa and ROV deployments and preparation of the KIEL276-28 deployment.

**24.04.2011** In the morning we have successfully deployed KIE276-28 (33° 5.58 N, 21°58.90 W) for another period of 2 years and run a deep CTD cast after that. In the evening we have had a small party to celebrate the successful mooring work and Easter. Around midnight Merian started transit to our second major working area near Cape Blanc.

**25.04.2011** At 31°N, 22°W we have deployed the CTD and ROV with the TMS. Unfortunately during the ROV deployment we have faced some difficulties as the cable connecting the TMS to ROV was broken, we have lost the possibility to operate the system and almost lost the equipment. When the ROV surfaced we have realized that ERNO was above the TMS and not below as it should be. We were relieved to get both parts back on deck.

**26.04.2011** Because of the problems with the ROV system we have decided to continue our transit to the second working area, and give the ROV team time to solve the problems and renew some of the broken parts.

**27.04.2011** Our ROV team managed to get the system running again so we have decided to make the next dive. At 27°N, 22°W the ROV and TMS were deployed again aiming to dive to the bottom. This time problems started near the bottom and we had again to abandon the dive. After discussing the possibilities for recovery of the system, we have started bringing the system back to the surface. On the way back we have lost the ROV, for reasons which were not clear at that moment. The recovery of the TMS few hours later showed that the cable broke again and we have lost the ROV. We have no possibility to recover it during that cruise.

**28.04.2011** We continue our transit to our second working area.

**29.04.-30.04.2011** Both days were filled with CTD casts, ParCa and mooring work at CBI (20°44.56N, 18°42.72W). We have recovered (29.04) and deployed CBI (30.04) for one year deployment (20°46.72N, 18°44.12W). Both sediment traps have worked, so we have obtained full record of particle flux at this position.

**01.05.2011** We are in the upwelling area at Cape Blanc. The day was filled with all kinds of instrument deployments (CTD, ParCa, Light measurements, floating sediment trap) and test of the modem systems using Merians rib.

**02.05.-05.05.2011** We are working at CB (21°16.50N, 20°51.14W). Here some

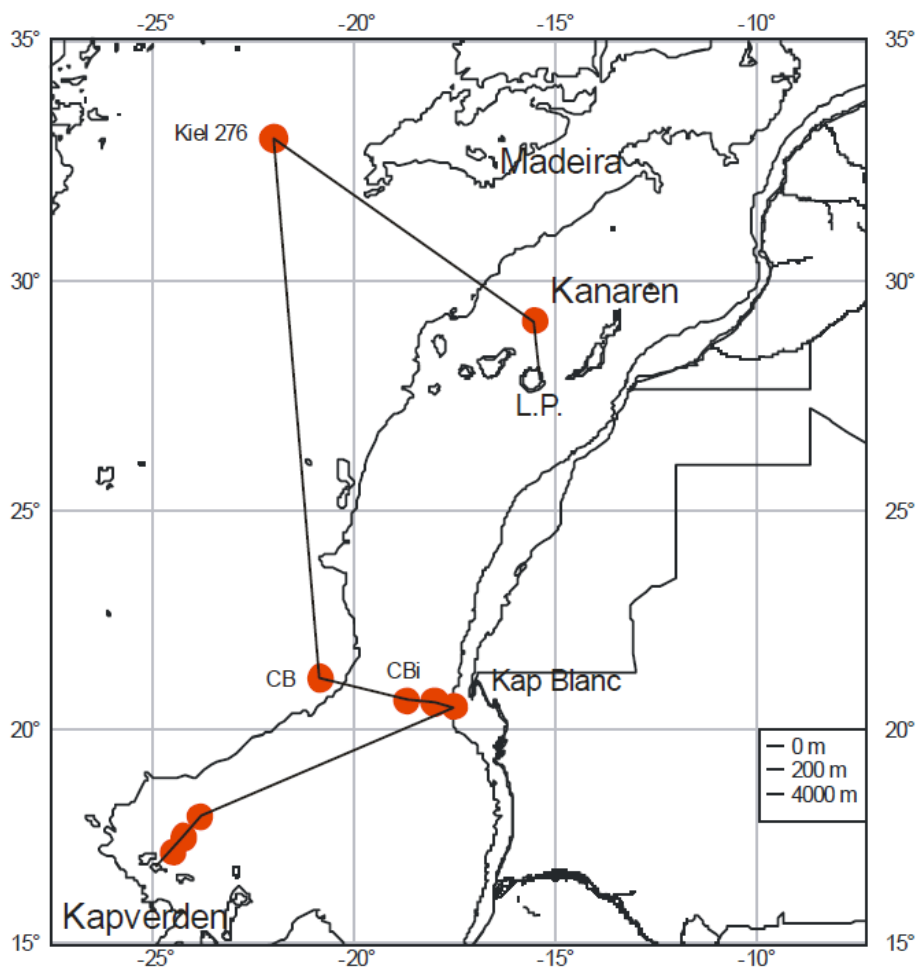
hydrographical measurements using CTD, ParCa and some additional tests of the DNS system were done, before we have recovered the CB-8) mooring on the 03.05. On the 05.05 we have successfully deployed the CB-9 for another year deployment (21°16.10N, 21°16.10W). After finishing our station work and some PARASOUND lines Merian started transit towards CVOO (17.59°N, 24.25°W;).

**06.05.-07.05.2011** We are at CVOO and carrying out some work in the water column using CTD and ParCa. All station work finished around 7:00pm and Merian sailed towards Mindelo.

**08.05.2011** At 08:00 am Merian arrived in Mindelo and the cruise terminates. During the day we have finished packing our containers, cleaning the laboratories and cabins.

**09.05.2011** Early afternoon all scientists disembark Merian and flew back to Germany.

### Cruise track



Main working areas of the MSM18/1 cruise with the three moorings KIEL276, CB and CBi.

## Acknowledgements

We are grateful to the Captain Friedhelm von Staa, officers and crew of R/V MARIA S. MERIAN for their continuous support of our very intensive interdisciplinary measurement program and the creation of a very friendly and supportive atmosphere on board. We thank also DFG (WA2157/4-1), MARUM and IOW for the financial support of our work while on board.

## Participants

1. PD. Dr. habil. Joanna Waniek	Fahrtleiter / Chief Scientist	IOW
2. Birte Fründt	CTD / RCMs	IOW
3. Ines Hand	In situ pumps	IOW
4. Uwe Hehl	Moorings	IOW
5. Dr. Carl Thiede	ROV ERNO	Enitech
6. Hans-Michael Körner	ROV ERNO	Enitech
7. Gerhard Körner	ROV ERNO	Enitech
8. Hartmut Huth	CTD	IOW
9. Tino Schmidt	ROV ERNO	TU Berlin
10. Maksym Komar	Acoustics	Evologics
11. Sergey Yakovlev	Acoustics	Evologics
12. Dr. Gerhard Fischer	Moorings	GeoB/Marum
13. Klann, Marco	Labor, Moorings	Marum
14. Dr. Iversen, Morten	Labor-Experimente	Marum
15. Ruhland, Götz	Moorings, ROV	Marum
16. Basse, Andreas	in situ pumps	Marum/AWI
17. Thiele, Stefan	Experiments	MPI Bremen
18. Grotheer, Hendrik	in situ pumps	GeoB
19. Preu, Benedikt	Hydroacoustics	GeoB
20. Eckhard, Tim	VOCs	ZMAW

**Participating Institutions and Companies**

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**EvoLogics GmbH**, Ackerstraße 76, 13355 Berlin, Germany, <http://www.evologics.de>

**Fachbereich Geowissenschaften, Univ. Bremen (GeoB)**, Klagenfurter Strasse, 28359 Bremen, Germany, <http://www.uni-bremen.de>

**Max Planck Institute for Marine Microbiology (MPI Bremen)**, Department Molecular Ecology, Celsiusstr. 1, D-28359 Bremen, <http://www.mpi-bremen.de>

## Stationslist

Station No.	Date	Time [UTC]	Position Lat	Position Lon	Depth [m]	Windstrength [m/s]	Course [°]	Speed [kn]	Gear Abbreviation	Action	Comment
MSM18/595-1	18.04.2011	07:08	29° 4,71' N	16° 37,49' W	3785	SW 15	101,8	0,2	CTD/RO	surface	Teststation
MSM18/595-1	18.04.2011	07:48	29° 4,72' N	16° 37,49' W	3501,8	SW 13	12,8	0,3	CTD/RO	at depth	216 m
MSM18/595-1	18.04.2011	07:55	29° 4,72' N	16° 37,49' W	0	SW 12	57,5	0,1	CTD/RO	on deck	
MSM18/596-1	20.04.2011	08:52	32° 57,32' N	22° 12,10' W	5259,1	N 8	299	0,7	CTD/RO	surface	
MSM18/596-1	20.04.2011	10:30	32° 57,33' N	22° 12,10' W	5258,8	NNW 8	236,2	4	CTD/RO	at depth	SL max. 5214 m
MSM18/596-1	20.04.2011	13:16	32° 57,33' N	22° 12,10' W	5261,4	NNW 11	357,8	0,9	CTD/RO	on deck	
MSM18/596-2	20.04.2011	14:50	32° 57,33' N	22° 12,10' W	5259,8	NNW 12	155,9	0,3	CTD/RO	surface	
MSM18/596-2	20.04.2011	15:50	32° 57,33' N	22° 12,10' W	5261,4	NW 12	170,4	1,1	CTD/RO	at depth	SL max 2008m
MSM18/596-2	20.04.2011	16:32	32° 57,33' N	22° 12,10' W	5260,1	NNW 11	341,9	0,7	CTD/RO	on deck	
MSM18/596-3	20.04.2011	16:52	32° 57,33' N	22° 12,10' W	5263,6	NNW 14	172,4	0,6	ISP	into water	
MSM18/596-3	20.04.2011	17:17	32° 57,33' N	22° 12,10' W	5261,4	NW 13	322,2	1	ISP	pump at depth	SL max.500m, Pumpen auf 500m & auf 65m
MSM18/596-3	21.04.2011	04:04	32° 57,32' N	22° 12,10' W	5262,3	NNW 12	64,7	3	ISP	Begin to heave	
MSM18/596-3	21.04.2011	04:21	32° 57,32' N	22° 12,10' W	5264,9	NNW 12	3,2	2,5	ISP	on deck	
MSM18/597-1	21.04.2011	05:29	32° 55,03' N	22° 0,18' W	5240,9	NNW 14	10,3	7,2	MB+PS	alter course	neuer Kurs 187°
MSM18/597-1	21.04.2011	05:31	32° 55,31' N	22° 0,13' W	5244,4	NW 12	8,7	6,4	MB+PS	start track	Kurs 007°
MSM18/597-1	21.04.2011	06:36	32° 59,33' N	22° 0,53' W	5237,2	NNW 11	330,6	10,1	MB+PS	profile end	
MSM18/597-2	21.04.2011	08:29	32° 59,62' N	22° 0,67' W	0	NW 8	163,9	0,9	MOR	Hydrophone into the water	
MSM18/597-2	21.04.2011	08:33	32° 59,62' N	22° 0,67' W	0	NNW 8	266,8	0,4	MOR	Hydrophone on Deck	
MSM18/597-2	21.04.2011	08:36	32° 59,63' N	22° 0,67' W	0	NNW 11	359,8	1,6	MOR	Information	verholen zur neuen Position
MSM18/597-2	21.04.2011	08:58	32° 58,50' N	21° 59,62' W	0	NW 10	318,3	0,6	MOR	Hydrophone into the water	
MSM18/597-2	21.04.2011	09:03	32° 58,50' N	21° 59,61' W	0	NW 11	3,3	1,5	MOR	Hydrophone on Deck	
MSM18/597-2	21.04.2011	09:30	32° 57,66' N	21° 59,30' W	0	NW 10	349,9	2,3	MOR	Hydrophone into the water	
MSM18/597-2	21.04.2011	09:35	0° 0,00' N	0° 0,00' E	0	N 0	0	0	MOR	released	
MSM18/597-2	21.04.2011	09:36	32° 57,67' N	21° 59,27' W	0	NW 9	336	1,7	MOR	Hydrophone on Deck	
MSM18/597-2	21.04.2011	09:46	32° 57,67' N	21° 59,25' W	0	NNW 10	186	0,4	MOR	Hydrophone into the water	
MSM18/597-2	21.04.2011	09:53	32° 57,68' N	21° 59,25' W	0	N 9	11,6	2,4	MOR	on the surface	
MSM18/597-2	21.04.2011	09:53	32° 57,68' N	21° 59,25' W	0	N 9	11,6	2,4	MOR	Hydrophone on Deck	
MSM18/597-2	21.04.2011	10:52	32° 58,68' N	22° 0,24' W	0	NNW 8	194,8	2	MOR	Information	Kopfboje an Deck
MSM18/597-2	21.04.2011	11:03	32° 58,86' N	22° 0,27' W	0	NNW 8	358,8	0,8	MOR	Information	8 Benthoskugeln an Deck
MSM18/597-2	21.04.2011	11:03	32° 58,86' N	22° 0,27' W	0	NNW 8	358,8	0,8	MOR	Information	RCM-8 an Deck
MSM18/597-2	21.04.2011	11:26	32° 59,06' N	22° 0,57' W	0	NNW 10	217,4	2,8	MOR	Information	6 Benthoskugeln an Deck

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MSM18/597-2	21.04.2011	11:26	32° 59,06' N	22° 0,57' W	0	NNW	10	217,4	2,8	MOR	Information	RCM-8 an Deck
MSM18/597-2	21.04.2011	11:38	32° 59,29' N	22° 0,65' W	0	NNW	9	331,6	1,8	MOR	Information	2 Benthoskugeln an Deck
MSM18/597-2	21.04.2011	11:59	32° 59,60' N	22° 0,97' W	0	NNW	10	282,7	1,4	MOR	Information	4 Benthoskugel an Deck
MSM18/597-2	21.04.2011	11:59	32° 59,60' N	22° 0,97' W	0	NNW	10	282,7	1,4	MOR	Information	RCM-8 an Deck
MSM18/597-2	21.04.2011	12:24	33° 0,13' N	22° 1,19' W	0	NW	10	325,4	1,3	MOR	Information	3 Benthos an Deck
MSM18/597-2	21.04.2011	12:24	33° 0,13' N	22° 1,19' W	0	NW	10	325,4	1,3	MOR	Information	RCM-8 an Deck
MSM18/597-2	21.04.2011	12:40	33° 0,47' N	22° 1,26' W	0	NW	11	335,8	2,7	MOR	Information	5 Benthos an Deck
MSM18/597-2	21.04.2011	12:44	33° 0,56' N	22° 1,28' W	0	NNW	11	356,5	2,3	MOR	Information	trap an Deck
MSM18/597-2	21.04.2011	13:16	33° 1,10' N	22° 1,97' W	0	NW	9	293,2	0,8	MOR	Information	5 Benthos an Deck
MSM18/597-2	21.04.2011	13:16	33° 1,10' N	22° 1,97' W	0	NW	9	293,2	0,8	MOR	Information	RCM-8 an Deck
MSM18/597-2	21.04.2011	13:21	33° 1,17' N	22° 2,05' W	0	NNW	10	311,9	1,1	MOR	Information	trap an Deck
MSM18/597-2	21.04.2011	13:25	33° 1,21' N	22° 2,11' W	0	NNW	8	301,1	0,9	MOR	Information	Verankerung nach Falle gerissen
MSM18/597-2	21.04.2011	13:54	32° 59,76' N	22° 1,24' W	0	NW	10	235,9	3,3	MOR	Information	2er Benthos gefunden
MSM18/597-2	21.04.2011	14:05	32° 59,84' N	22° 1,17' W	0	NW	8	111,6	1,4	MOR	Information	2 Benthos an Deck
MSM18/597-2	21.04.2011	15:00	33° 0,97' N	22° 2,02' W	0	NNW	7	337,6	0,7	MOR	Information	2 Benthos an Deck
MSM18/597-2	21.04.2011	15:18	33° 1,26' N	22° 2,21' W	0	NNW	8	305,9	2	MOR	Information	2er Benthos an Deck
MSM18/597-2	21.04.2011	15:23	33° 1,34' N	22° 2,26' W	0	NNW	7	318,9	1,3	MOR	mooring on deck	6er Benthos an Deck mit RCM-8 und AR-2 an Deck
MSM18/598-1	21.04.2011	17:03	33° 1,48' N	22° 2,36' W	5246,3	NW	9	271,5	0,5	CTD/RO	surface	
MSM18/598-1	21.04.2011	18:42	33° 1,48' N	22° 2,35' W	5243,6	NNW	8	357,1	1,5	CTD/RO	at depth	SL max. 5212m
MSM18/598-1	21.04.2011	20:30	33° 1,48' N	22° 2,35' W	5244,1	NNW	11	111,2	0,6	CTD/RO	on deck	
MSM18/598-2	21.04.2011	20:46	33° 1,47' N	22° 2,36' W	5248,1	NNW	10	67,1	0,9	PAC	Surface	
MSM18/598-2	21.04.2011	21:18	33° 1,48' N	22° 2,36' W	5245,1	NNW	9	193,6	0,7	PAC	At working depth	SL max. 500 m
MSM18/598-2	21.04.2011	21:31	33° 1,47' N	22° 2,35' W	5241,1	NW	9	144,8	1	PAC	On deck	
MSM18/598-3	21.04.2011	21:42	33° 1,48' N	22° 2,36' W	5244,9	NNW	8	228,9	1,1	ISP	into water	
MSM18/598-3	21.04.2011	21:59	33° 1,48' N	22° 2,35' W	5242,7	NW	12	350,2	0,7	ISP	pump at depth	SL max. 500 m, Pumpen auf 500m & auf 65m
MSM18/598-3	22.04.2011	08:00	33° 1,47' N	22° 2,36' W	5242	WNW	13	90,4	0,4	ISP	Begin to heave	
MSM18/598-3	22.04.2011	08:14	33° 1,48' N	22° 2,35' W	5247	WNW	11	97,6	1	ISP	on deck	
MSM18/598-4	22.04.2011	08:24	33° 1,48' N	22° 2,36' W	5266,7	WNW	9	116,3	0,4	CTD/RO	surface	
MSM18/598-4	22.04.2011	10:03	33° 1,48' N	22° 2,36' W	5243,8	WNW	11	166	0,3	CTD/RO	at depth	SL max. 5210 m
MSM18/598-4	22.04.2011	10:05	33° 1,47' N	22° 2,35' W	5243,8	WNW	10	179,3	3	CTD/RO	Information	Hydrophon zum Releasertest zu Wasser
MSM18/598-4	22.04.2011	10:12	33° 1,47' N	22° 2,36' W	5243,1	WNW	10	351,4	0,4	CTD/RO	Information	Hydrophon an Deck
MSM18/598-4	22.04.2011	12:05	33° 1,47' N	22° 2,36' W	0	NNW	11	198,8	0,4	CTD/RO	on deck	
MSM18/598-5	22.04.2011	13:01	33° 1,48' N	22° 2,36' W	0	NNW	8	10,3	1,3	ROV	surface	
MSM18/598-5	22.04.2011	13:06	33° 1,48' N	22° 2,35' W	0	N	8	140,6	0,1	ROV	Information	Post launch test
MSM18/598-5	22.04.2011	15:27	33° 1,48' N	22° 2,36' W	5247,6	NNW	11	92,7	1,7	ROV	at depth	SL max 5259m



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MSM18/598-5	22.04.2011	15:27	33° 1,48' N	22° 2,36' W	5247,6	NNW	11	92,7	1,7	ROV	Information	Check vor Auskoppeln
MSM18/598-5	22.04.2011	15:38	33° 1,48' N	22° 2,35' W	5242,5	NNW	10	167,4	0,3	ROV	Information	Auskopperversuch
MSM18/598-5	22.04.2011	16:00	33° 1,48' N	22° 2,36' W	5246	N	10	19,1	0,9	ROV	start rising to the surface	
MSM18/598-5	22.04.2011	18:31	33° 1,48' N	22° 2,36' W	5245,5	N	10	154,4	0,8	ROV	ROV on deck	
MSM18/598-6	22.04.2011	19:07	33° 1,48' N	22° 2,36' W	5248,1	N	12	160,2	1,3	ISP	into water	
MSM18/598-6	22.04.2011	19:43	33° 1,48' N	22° 2,36' W	5243,5	N	12	356,6	0,6	ISP	pump at depth	SL max. 1200m, Pumpen bei 1200m & 750m
MSM18/598-6	23.04.2011	08:00	33° 1,48' N	22° 2,36' W	5245,9	NNE	11	127,9	0,4	ISP	Begin to heave	
MSM18/598-6	23.04.2011	08:11	33° 1,48' N	22° 2,36' W	5245,5	NNE	14	139	1,3	ISP	on deck	1. ISP
MSM18/598-6	23.04.2011	08:24	33° 1,48' N	22° 2,36' W	5245,2	NE	11	214,2	0,7	ISP	on deck	2. ISP
MSM18/598-6	23.04.2011	08:41	33° 1,48' N	22° 2,36' W	5244,4	NE	9	82,4	1,3	CTD/RO	surface	
MSM18/598-6	23.04.2011	10:19	33° 1,48' N	22° 2,36' W	5245,9	NNE	11	95,3	1	CTD/RO	at depth	SL max. 5216 m
MSM18/598-6	23.04.2011	10:21	33° 1,48' N	22° 2,36' W	0	NNE	10	1,4	0,8	CTD/RO	Information	Hydrophon zum Releasertest zu Wasser
MSM18/598-6	23.04.2011	10:29	33° 1,48' N	22° 2,36' W	0	NNE	7	27,8	1,3	CTD/RO	Information	Hydrophon an Deck
MSM18/598-6	23.04.2011	12:08	33° 1,47' N	22° 2,36' W	5243,9	NE	11	150,4	0,7	CTD/RO	on deck	
MSM18/598-7	23.04.2011	12:25	33° 1,47' N	22° 2,36' W	5245,2	NNE	11	267	0,7	LM	start	
MSM18/598-7	23.04.2011	12:31	33° 1,48' N	22° 2,36' W	5247,8	NNE	10	133,3	0,1	LM	end	
MSM18/598-8	23.04.2011	12:42	33° 1,47' N	22° 2,36' W	5244,7	NE	10	109	1	LM	start	
MSM18/598-8	23.04.2011	13:06	33° 1,47' N	22° 2,36' W	5247,3	NNE	10	204,5	1,2	LM	end	
MSM18/598-9	23.04.2011	14:38	33° 1,47' N	22° 2,36' W	5244,4	NNE	9	328,9	0,7	ROV	surface	
MSM18/598-9	23.04.2011	14:45	33° 1,48' N	22° 2,36' W	5247	NNE	9	130,1	3,1	ROV	Information	ROV klinkt unbeabsichtigt aus
MSM18/598-9	23.04.2011	15:13	33° 1,47' N	22° 2,36' W	5243	NNE	9	346,6	1,8	ROV	ROV on deck	
MSM18/598-10	23.04.2011	15:26	33° 1,47' N	22° 2,36' W	5242,8	NNE	10	289,9	0,4	CTD/RO	surface	
MSM18/598-10	23.04.2011	17:00	33° 1,47' N	22° 2,36' W	5240,3	NNE	8	6,9	0,9	CTD/RO	at depth	SL max. 5209m
MSM18/598-10	23.04.2011	19:18	33° 1,47' N	22° 2,36' W	5240,7	NNE	9	20,9	0,5	CTD/RO	on deck	
MSM18/598-11	23.04.2011	19:47	33° 1,47' N	22° 2,36' W	5246,8	NE	8	319,3	0,7	ISP	into water	
MSM18/598-11	23.04.2011	21:09	33° 1,48' N	22° 2,36' W	5244,3	NE	7	268,1	1,7	ISP	pump at depth	SL max. 3000m, Pumpen auf 2000m & 3000m
MSM18/598-11	24.04.2011	07:12	33° 1,48' N	22° 2,36' W	5243,6	NE	10	20,3	0,1	ISP	Begin to heave	
MSM18/598-11	24.04.2011	08:02	33° 1,47' N	22° 2,36' W	5243,3	NE	9	308,7	1,6	ISP	on deck	
MSM18/598-11	24.04.2011	08:31	33° 1,51' N	22° 2,33' W	5243	NE	11	15,2	0,9	MOR	Information	Kopfboje zu Wasser
MSM18/598-12	24.04.2011	08:31	33° 1,51' N	22° 2,33' W	5244	NE	11	15,2	0,9	MOR	Information	Kopfboje zu Wasser
MSM18/598-12	24.04.2011	08:43	33° 1,71' N	22° 2,14' W	5244,3	NE	8	54,3	2,8	MOR	Information	8 Benthoskugeln und RCM-8 zu Wasser
MSM18/598-12	24.04.2011	09:06	33° 2,26' N	22° 1,64' W	5244,1	NE	10	29	3	MOR	Information	6 Benthoskugeln und RCM-8 zu Wasser
MSM18/598-12	24.04.2011	09:17	33° 2,55' N	22° 1,38' W	5247,8	NE	10	36,1	1,5	MOR	Information	2 Benthoskugeln zu Wasser
MSM18/598-12	24.04.2011	09:31	33° 2,92' N	22° 1,05' W	5247	NE	10	47,5	2,8	MOR	Information	4 Benthoskugeln und RCM-8 zu Wasser
MSM18/598-12	24.04.2011	09:46	33° 3,32' N	22° 0,68' W	5247,6	NE	10	50,8	3,3	MOR	Information	3 Benthoskugeln und RCM-8 zu Wasser

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MSM18/598-12	24.04.2011	09:57	33° 3,61' N	22° 0,42' W	5244,3	NE 9	31,8	1,9	MOR	Information	5 Benthoskugeln zu Wasser
MSM18/598-12	24.04.2011	10:04	33° 3,80' N	22° 0,25' W	5247	NE 9	26,4	2,5	MOR	Information	Sedimentfalle zu Wasser
MSM18/598-12	24.04.2011	10:32	33° 4,53' N	21° 59,58' W	5248,6	NE 8	41,5	2	MOR	Information	5 Benthoskugeln und RCM-8 zu Wasser
MSM18/598-12	24.04.2011	10:38	33° 4,69' N	21° 59,43' W	5250,7	NE 9	37,3	1,4	MOR	Information	Sedimentfalle zu Wasser
MSM18/598-12	24.04.2011	10:50	33° 5,01' N	21° 59,15' W	5245,7	NNE 8	39,4	1,4	MOR	Information	2 Benthoskugeln zu Wasser
MSM18/598-12	24.04.2011	11:13	33° 5,62' N	21° 58,59' W	5250	NE 9	19,5	1,8	MOR	Information	2 Benthoskugeln zu Wasser
MSM18/598-12	24.04.2011	11:29	33° 6,00' N	21° 58,27' W	5248,3	NE 8	28,4	1,9	MOR	Information	2 Benthoskugeln zu Wasser
MSM18/598-12	24.04.2011	11:38	33° 6,19' N	21° 58,11' W	5250	NE 8	20,2	1,3	MOR	Information	6 Benthoskugeln und RCM-8 zu Wasser
MSM18/598-12	24.04.2011	11:42	33° 6,25' N	21° 58,06' W	5249,5	NE 8	32,9	0,5	MOR	Information	AR-2 zu Wasser
MSM18/598-12	24.04.2011	11:51	33° 6,36' N	21° 57,98' W	5245,9	NE 8	32,7	0,6	MOR	slipped	Ankerstein geslipt
MSM18/598-12	24.04.2011	12:48	33° 5,58' N	21° 58,90' W	5250,2	NE 8	20,9	2,2	MOR	on the ground	Kopfboje abgetaucht
MSM18/599-1	24.04.2011	13:32	33° 0,43' N	21° 59,45' W	5239,9	NE 5	16	0,9	CTD/RO	surface	
MSM18/599-1	24.04.2011	15:09	33° 0,43' N	21° 59,44' W	5239,6	NE 8	315,6	0,1	CTD/RO	at depth	SL max 5211m
MSM18/599-1	24.04.2011	16:39	33° 0,43' N	21° 59,44' W	5240,1	NE 8	14,2	0,5	CTD/RO	on deck	
MSM18/600-1	25.04.2011	06:51	32° 0,00' N	22° 0,00' W	5075,6	ENE 7	37,7	1,5	TMS	at surface	Gerät von der TU Berlin
MSM18/600-1	25.04.2011	08:20	32° 0,00' N	22° 0,00' W	5075,7	E 7	93,5	0,5	TMS	at depth	SL max. 5000 m
MSM18/600-1	25.04.2011	08:21	32° 0,00' N	22° 0,00' W	5075,9	ENE 8	109	1,1	TMS	Start of measurement	
MSM18/600-1	25.04.2011	08:23	32° 0,00' N	22° 0,00' W	5075,1	E 8	137,6	1,4	TMS	End of measurement	
MSM18/600-1	25.04.2011	10:00	32° 0,00' N	22° 0,00' W	5075,6	ENE 6	284,9	0,8	TMS	on deck	
MSM18/600-2	25.04.2011	10:58	32° 0,00' N	22° 0,00' W	0	ENE 8	147,6	1,5	TRIMM	surface	Trimmtest von AUV Beacons
MSM18/600-2	25.04.2011	11:03	32° 0,00' N	22° 0,00' W	0	ENE 8	30	0,5	TRIMM	on deck	
MSM18/600-2	25.04.2011	11:08	32° 0,00' N	22° 0,00' W	0	ENE 7	137,9	0,9	TRIMM	surface	
MSM18/600-2	25.04.2011	11:11	32° 0,00' N	22° 0,00' W	0	ENE 7	35,7	1,3	TRIMM	on deck	
MSM18/600-2	25.04.2011	11:16	32° 0,00' N	22° 0,00' W	0	ENE 6	61,1	0,3	TRIMM	surface	
MSM18/600-2	25.04.2011	11:20	32° 0,00' N	22° 0,00' W	0	ENE 5	195,6	1,5	TRIMM	on deck	
MSM18/600-3	25.04.2011	11:35	32° 0,00' N	22° 0,00' W	0	ENE 5	32,3	0,8	LM	start	
MSM18/600-3	25.04.2011	12:07	32° 0,00' N	22° 0,00' W	0	ENE 6	258,4	0	LM	end	
MSM18/600-4	25.04.2011	12:24	32° 0,00' N	22° 0,00' W	0	ENE 6	33,9	0,4	CTD/RO	surface	
MSM18/600-4	25.04.2011	14:04	32° 0,00' N	22° 0,00' W	5075,9	E 4	76,2	0,4	CTD/RO	at depth	SL max 5007m
MSM18/600-4	25.04.2011	16:07	32° 0,00' N	22° 0,00' W	5076,9	ENE 5	255,2	0,3	CTD/RO	on deck	
MSM18/600-5	25.04.2011	16:36	32° 0,00' N	22° 0,00' W	5076	ESE 8	163,9	0,3	ROV	surface	
MSM18/600-5	25.04.2011	18:12	32° 0,00' N	22° 0,00' W	5075,1	N 2	210,4	0,7	ROV	at depth	SL max. 5090 m
MSM18/600-5	25.04.2011	18:44	32° 0,00' N	22° 0,00' W	5076,4	N 3	0,9	0,9	ROV	Information	Kommunikationsprobleme mit ROV
MSM18/600-5	25.04.2011	18:59	32° 0,00' N	22° 0,00' W	5076,3	N 3	40,6	0,4	ROV	Information	Abbruch des Einsatzes, Kommunikationsprobleme mit ROV bestehen weiter
MSM18/600-5	25.04.2011	21:55	32° 0,28' N	22° 0,38' W	5087,1	NE 5	304,1	1,9	ROV	ROV on deck	

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MSM18/600-5	25.04.2011	21:58	32° 0,29' N	22° 0,38' W	5085,3	ENE 4	37,3	0,8	ROV	Information	ROV Basis an Deck
MSM18/601-1	26.04.2011	06:08	31° 0,00' N	22° 0,00' W	5031,6	SE 3	342,6	0,9	CTD/RO	surface	
MSM18/601-1	26.04.2011	07:39	31° 0,00' N	22° 0,00' W	5030,9	ESE 6	342,3	1,3	CTD/RO	at depth	SL max. 5026m
MSM18/601-1	26.04.2011	09:26	31° 0,00' N	22° 0,00' W	5030,7	NNE 3	179,7	1,1	CTD/RO	on deck	
MSM18/601-2	26.04.2011	09:51	31° 0,00' N	22° 0,00' W	5029,1	NNW 3	218	0,7	ROV	surface	Trimmtest
MSM18/601-2	26.04.2011	10:12	31° 0,00' N	22° 0,00' W	5028,1	N 2	119,6	0,2	ROV	ROV on deck	
MSM18/602-1	27.04.2011	07:47	26° 54,99' N	21° 59,32' W	4842	SW 5	302,6	0,5	ROV	surface	
MSM18/602-1	27.04.2011	09:26	26° 54,99' N	21° 59,33' W	4843,1	WSW 6	226,6	1,1	ROV	at depth	4861 m
MSM18/602-1	27.04.2011	10:16	26° 54,99' N	21° 59,33' W	4843,5	SW 6	141,1	0,8	ROV	Information	ankuppeln an Basis nicht möglich
MSM18/602-1	27.04.2011	10:17	26° 54,99' N	21° 59,33' W	4844,2	WSW 7	139,9	0,1	ROV	start rising to the surface	
MSM18/602-1	27.04.2011	11:00	26° 54,99' N	21° 59,33' W	4844,6	SW 6	149,8	0,5	ROV	Information	Keine Verbindung zwischen ROV und Basis, Rov geht auf Tiefe
MSM18/602-1	27.04.2011	11:15	26° 54,99' N	21° 59,33' W	4840,6	SW 7	141,6	1	ROV	Information	Basis wird zur Positionsbestimmung gefiert
MSM18/602-1	27.04.2011	15:09	26° 54,98' N	21° 59,27' W	4830,3	WSW 9	163,1	1,4	ROV	Information	Kontakt Modem-ROV verloren, TMS wieder hieven und an Deck
MSM18/602-1	27.04.2011	16:41	26° 54,95' N	21° 59,27' W	4840,6	NW 5	331,7	0,4	ROV	Information	TMS vom ROV an Deck
MSM18/602-2	27.04.2011	16:48	26° 55,01' N	21° 59,28' W	4840,7	WNW 6	336,8	1	TD	surface	Test Driftende Falle, weiter fest mit dem Schiff verbunden
MSM18/602-2	27.04.2011	17:18	26° 55,20' N	21° 59,61' W	4844,5	WNW 5	282	0,6	TD	on deck	Test beendet
MSM18/603-1	29.04.2011	01:26	20° 44,60' N	18° 42,87' W	2714,7	NNW 6	151	13,6	MB+PS	start track	+ADCP Kurs 154°
MSM18/603-1	29.04.2011	02:53	20° 33,64' N	18° 37,01' W	2183,5	NNW 6	155,1	8,1	MB+PS	alter course	neuer Kurs 270°
MSM18/603-1	29.04.2011	03:34	20° 32,83' N	18° 42,01' W	2632,3	NNW 6	270,3	8	MB+PS	alter course	Kursänderung auf 000° EM 120 ausgeschaltet
MSM18/603-1	29.04.2011	05:27	20° 47,52' N	18° 42,72' W	2642,9	NNW 7	0,1	7,9	MB+PS	profile end	
MSM18/603-2	29.04.2011	06:02	20° 46,50' N	18° 42,67' W	7,4	NNW 5	296,1	0,2	PAC	Surface	
MSM18/603-2	29.04.2011	08:38	20° 46,50' N	18° 42,67' W	2684,9	N 6	359,7	0,1	PAC	At working depth	SL max. 2630 m
MSM18/603-2	29.04.2011	09:40	20° 46,50' N	18° 42,67' W	2684	N 6	181,1	0,6	PAC	On deck	
MSM18/603-3	29.04.2011	10:09	20° 43,73' N	18° 42,71' W	2731,4	N 6	164,6	0,5	MOR	Hydrophone into the water	
MSM18/603-3	29.04.2011	10:16	20° 43,72' N	18° 42,71' W	2731,7	NNW 6	151	0,2	MOR	released	
MSM18/603-3	29.04.2011	10:16	20° 43,72' N	18° 42,71' W	2731,7	NNW 6	151	0,2	MOR	Hydrophone on Deck	
MSM18/603-3	29.04.2011	10:36	20° 43,72' N	18° 42,71' W	2731,9	N 6	186,5	0,5	MOR	on the surface	
MSM18/603-3	29.04.2011	10:50	20° 44,56' N	18° 42,72' W	2730,2	N 6	303,6	1,4	MOR	Information	Kopfboje an Deck
MSM18/603-3	29.04.2011	10:55	20° 44,61' N	18° 42,89' W	2735	N 7	286,6	1,9	MOR	Information	12 Benthoskugeln an Deck
MSM18/603-3	29.04.2011	11:00	20° 44,68' N	18° 43,04' W	2738,3	N 7	310,4	1,9	MOR	Information	Falle an Deck
MSM18/603-3	29.04.2011	11:20	20° 44,95' N	18° 43,46' W	2750,7	N 6	312,7	1,3	MOR	Information	6 Benthoskugeln an Deck
MSM18/603-3	29.04.2011	11:25	20° 45,00' N	18° 43,56' W	2752,8	N 7	291,2	1,1	MOR	Information	Falle an Deck
MSM18/603-3	29.04.2011	11:46	20° 45,14' N	18° 44,01' W	2760,7	N 7	279	1	MOR	Information	4 Benthoskugel an Deck

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MSM18/603-3	29.04.2011	11:54	20° 45,12' N	18° 44,17' W	2766,8	N 7	256,6	0,8	MOR	on deck	Releaser an Deck
MSM18/603-4	29.04.2011	12:12	20° 45,10' N	18° 44,21' W	2768,6	NNW 7	339	0,2	LM	start	
MSM18/603-4	29.04.2011	12:31	20° 45,10' N	18° 44,21' W	2768,2	N 6	333,5	0,1	LM	end	
MSM18/603-5	29.04.2011	12:37	20° 45,10' N	18° 44,21' W	2768,8	NNW 7	28,2	0,3	CTD/RO	surface	
MSM18/603-5	29.04.2011	13:38	20° 45,10' N	18° 44,21' W	2767,7	N 7	347,4	0,4	CTD/RO	at depth	SL max 2703m
MSM18/603-5	29.04.2011	15:01	20° 45,10' N	18° 44,21' W	2767	N 6	67,5	0,2	CTD/RO	on deck	
MSM18/603-6	29.04.2011	15:45	20° 45,22' N	18° 44,26' W	2766,9	N 8	333	0,4	LD	surface	shortterm!
MSM18/603-6	29.04.2011	15:55	20° 45,26' N	18° 44,27' W	2765,2	N 7	96,2	0,4	TD	information	Gerät vertreibt ca 190°
MSM18/603-7	29.04.2011	18:45	20° 50,16' N	18° 44,34' W	2691,4	NNW 8	131,9	0,6	CTD/RO	surface	
MSM18/603-7	29.04.2011	19:35	20° 50,16' N	18° 44,34' W	2691,9	N 7	191,4	0,1	CTD/RO	at depth	SL max. 2605m
MSM18/603-7	29.04.2011	20:36	20° 50,16' N	18° 44,34' W	2692,8	N 8	60,7	0,5	CTD/RO	on deck	
MSM18/603-8	29.04.2011	20:47	20° 50,16' N	18° 44,34' W	2692,1	N 8	25,2	0,1	PAC	Surface	
MSM18/603-8	29.04.2011	22:43	20° 50,16' N	18° 44,34' W	2692,1	N 8	108,1	0,6	PAC	At working depth	SL max. 1013 m
MSM18/603-8	29.04.2011	23:05	20° 50,16' N	18° 44,34' W	2691,8	N 8	88	0,5	PAC	On deck	
MSM18/603-9	29.04.2011	23:38	20° 50,16' N	18° 44,34' W	2691,8	N 8	205,3	0,3	ISP	into water	
MSM18/603-9	30.04.2011	00:48	20° 50,16' N	18° 44,34' W	2691,8	N 9	66	0,3	ISP	pump at depth	SL max 2150m; Pumpen bei 250m, 900m, 1190m, 2100m, 2150m
MSM18/603-9	30.04.2011	07:30	20° 50,16' N	18° 44,34' W	2691,5	N 4	2,6	0,3	ISP	Begin to heave	
MSM18/603-9	30.04.2011	08:46	20° 50,16' N	18° 44,34' W	2691,5	NNW 4	153,4	0,4	ISP	on deck	
MSM18/603-10	30.04.2011	08:58	20° 50,16' N	18° 44,34' W	2691,9	NNW 4	343,5	0,3	TMS	at surface	Gerät von der TU B
MSM18/603-10	30.04.2011	09:17	20° 50,16' N	18° 44,34' W	2691,7	NW 4	161,7	0,2	TMS	Information	Probleme mit TMS, Gerät wird gehievt
MSM18/603-10	30.04.2011	09:41	20° 50,16' N	18° 44,34' W	2692,4	NW 4	50,3	0,5	TMS	on deck	
MSM18/603-11	30.04.2011	12:02	20° 44,76' N	18° 42,78' W	2731	NW 4	156,9	0,4	LM	start	
MSM18/603-11	30.04.2011	12:23	20° 44,76' N	18° 42,78' W	2730,8	NW 3	77,4	0,2	LM	end	
MSM18/603-12	30.04.2011	12:59	20° 45,84' N	18° 43,44' W	2730,5	NW 3	327	1	MOORY	information	Kopfboje zu Wasser
MSM18/603-12	30.04.2011	13:00	20° 45,85' N	18° 43,45' W	2730,5	NW 2	329,5	1,5	MOORY	information	10 Benthos gelb zu Wasser
MSM18/603-12	30.04.2011	13:08	20° 45,97' N	18° 43,55' W	2728,7	NW 3	317,9	2	MOORY	information	MSD platform FSI-CTD-video zu Wasser
MSM18/603-12	30.04.2011	13:11	20° 46,02' N	18° 43,58' W	2728,1	WNW 3	344,7	1,7	MOORY	information	6 Benthos orange zu Wasser
MSM18/603-12	30.04.2011	13:22	20° 46,21' N	18° 43,66' W	2727,2	WNW 4	333,6	1	MOORY	information	S/MT 243 NE (Titan) zu Wasser
MSM18/603-12	30.04.2011	13:37	20° 46,48' N	18° 43,81' W	2726,8	WNW 5	331,9	0,9	MOORY	information	6er Benthos Orange zu Wasser
MSM18/603-12	30.04.2011	13:44	20° 46,60' N	18° 43,87' W	2724,5	WNW 5	334,7	1,2	MOORY	information	S/MT 234 NE#930057 zu Wasser
MSM18/603-12	30.04.2011	14:11	20° 47,10' N	18° 44,13' W	2715,7	WNW 4	327	1,7	MOORY	information	4 Benthos orange zu Wasser
MSM18/603-12	30.04.2011	14:15	20° 47,16' N	18° 44,16' W	2715,1	WNW 5	337,6	1,5	MOORY	information	Auslöser AR 661 B1S zu Wasser
MSM18/603-12	30.04.2011	14:23	20° 47,30' N	18° 44,25' W	2711,4	WNW 4	326,5	2,2	MOORY	at surface	Grundgewicht 3 Eisenbahnräder
MSM18/603-12	30.04.2011	14:44	20° 46,72' N	18° 44,12' W	2727,8	WNW 5	29	0,9	MOORY	information	abgetaucht
MSM18/604-1	30.04.2011	18:15	20° 35,16' N	18° 0,32' W	776,2	NW 6	103,4	10,4	MB+PS	start track	Kurs 107°

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MSM18/604-1	30.04.2011	20:00	20° 30,46' N	17° 42,39' W	240,5	WNW 4	106,7	10	MB+PS	alter course	Neuer Kurs 003°
MSM18/604-1	30.04.2011	20:01	20° 30,42' N	17° 42,22' W	236,6	WNW 4	98,8	10,1	MB+PS	alter course	Neuer Kurs 003°
MSM18/604-1	30.04.2011	20:30	20° 34,86' N	17° 41,24' W	225,7	WNW 5	1	10,3	MB+PS	alter course	Neuer Kurs 269°
MSM18/604-1	30.04.2011	22:18	20° 35,19' N	17° 59,98' W	767,7	NW 3	263,1	9,3	MB+PS	profile end	
MSM18/604-1	30.04.2011	22:25	20° 35,13' N	18° 0,33' W	778,1	NW 4	181,2	0,4	PAC	Surface	
MSM18/604-1	30.04.2011	23:51	20° 35,13' N	18° 0,33' W	777,9	NW 5	13,5	0,2	PAC	At working depth	SL max. 758 m
MSM18/604-1	01.05.2011	00:11	20° 35,13' N	18° 0,33' W	777,8	NW 5	16,1	0,3	PAC	On deck	
MSM18/604-2	01.05.2011	00:22	20° 35,13' N	18° 0,33' W	777,5	WNW 4	127,6	0,2	ISP	into water	
MSM18/604-2	01.05.2011	00:57	20° 35,13' N	18° 0,33' W	778	NW 5	338,2	0,4	ISP	pump at depth	SL max 750m Pumpen auf: 0m 200m 300m 400m 600m 730m Drahtlänge
MSM18/604-2	01.05.2011	07:04	20° 35,13' N	18° 0,33' W	777,7	WNW 4	5,8	0,3	ISP	Begin to heave	
MSM18/604-2	01.05.2011	07:34	20° 35,13' N	18° 0,32' W	778	WNW 6	130,3	0,1	ISP	on deck	
MSM18/604-3	01.05.2011	08:18	20° 35,14' N	18° 0,32' W	777,9	NW 4	75	0,4	CTD/RO	surface	
MSM18/604-3	01.05.2011	08:39	20° 35,14' N	18° 0,32' W	778,2	NNW 3	91,8	0,3	CTD/RO	at depth	SL max. 756 m
MSM18/604-3	01.05.2011	09:06	20° 35,14' N	18° 0,32' W	777,9	NNW 3	107,3	0,4	CTD/RO	on deck	
MSM18/604-4	01.05.2011	09:55	20° 35,14' N	18° 0,32' W	778,5	NNW 2	48,9	0,2	CTD/RO	surface	
MSM18/604-4	01.05.2011	10:18	20° 35,14' N	18° 0,32' W	778,5	N 2	58,3	0,2	CTD/RO	at depth	SL max. 753 m
MSM18/604-4	01.05.2011	10:41	20° 35,14' N	18° 0,33' W	778	NW 2	176,5	0,4	CTD/RO	on deck	
MSM18/604-5	01.05.2011	10:52	20° 35,14' N	18° 0,32' W	778,1	NW 2	180	0,4	LM	start	
MSM18/604-5	01.05.2011	11:10	20° 35,14' N	18° 0,32' W	778,4	NW 2	226,3	0,3	LM	end	
MSM18/604-6	01.05.2011	11:26	20° 35,14' N	18° 0,32' W	0	WNW 1	338,4	0,2	TMS	at surface	Gerät von der TU B
MSM18/604-6	01.05.2011	12:25	20° 35,14' N	18° 0,33' W	770	W 2	339,3	0,4	TMS	on deck	
MSM18/604-6	01.05.2011	14:39	20° 35,14' N	18° 0,33' W	777,5	NNW 3	342,8	0,4	TMS	Information	TMS Modem-Test
MSM18/604-6	01.05.2011	14:41	20° 35,14' N	18° 0,32' W	777,5	NW 3	44,3	0,6	TMS	at surface	
MSM18/604-6	01.05.2011	15:05	20° 35,14' N	18° 0,32' W	0	NNW 3	176,5	0,5	TMS	Start of measurement	in 300 m bis 500 m
MSM18/604-6	01.05.2011	15:25	20° 35,14' N	18° 0,33' W	0	N 4	190,1	0,6	TMS	at depth	SL max 500 m
MSM18/604-6	01.05.2011	15:40	20° 35,14' N	18° 0,32' W	0	N 4	29	0,3	TMS	End of measurement	
MSM18/604-6	01.05.2011	15:48	20° 35,14' N	18° 0,32' W	0	N 4	325,1	0,4	TMS	on deck	
MSM18/605-1	01.05.2011	18:33	20° 39,96' N	18° 20,10' W	1358,3	N 3	250,6	0,3	CTD/RO	surface	
MSM18/605-1	01.05.2011	19:00	20° 39,96' N	18° 20,10' W	1358,2	N 3	76,7	0,2	CTD/RO	at depth	SL max. 1313m
MSM18/605-1	01.05.2011	19:29	20° 39,96' N	18° 20,10' W	1358,3	N 3	299,7	0,1	CTD/RO	on deck	
MSM18/605-2	01.05.2011	19:40	20° 39,96' N	18° 20,10' W	1358,2	N 3	117,6	0,2	PAC	Surface	
MSM18/605-2	01.05.2011	21:04	20° 39,96' N	18° 20,10' W	1357,8	NNE 4	108,2	0,7	PAC	At working depth	SL max. 1320 m
MSM18/605-2	01.05.2011	21:33	20° 39,96' N	18° 20,10' W	1357,6	N 5	148,5	1,1	PAC	On deck	
MSM18/606-1	02.05.2011	00:22	20° 47,24' N	18° 46,00' W	2768,9	N 4	13,5	0,6	PAC	Surface	
MSM18/606-1	02.05.2011	01:32	20° 47,24' N	18° 46,00' W	2769,1	N 3	140,9	0,6	PAC	At working depth	SL max 1115m

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MSM18/606-1	02.05.2011	01:55	20° 47,24' N	18° 46,00' W	2769	NNE 3	359,2	0,5	PAC	On deck	
MSM18/607-1	02.05.2011	01:57	20° 47,24' N	18° 46,00' W	2769,5	NNE 4	114,6	0,2	MB+PS	start track	Kurs 180°
MSM18/607-1	02.05.2011	02:10	20° 46,44' N	18° 46,00' W	2792,1	NNE 4	181,3	7,5	MB+PS	alter course	neuer Kurs 090°
MSM18/607-1	02.05.2011	02:56	20° 45,98' N	18° 40,42' W	2604,2	NNE 5	90,6	7,6	MB+PS	alter course	neuer Kurs 180°
MSM18/607-1	02.05.2011	03:11	20° 44,38' N	18° 39,98' W	2639,5	NNE 4	180	7,3	MB+PS	alter course	neuer Kurs 270°
MSM18/607-1	02.05.2011	04:11	20° 43,98' N	18° 47,53' W	2883,5	NNE 3	267,4	7,5	MB+PS	alter course	neuer Kurs 180°
MSM18/607-1	02.05.2011	04:26	20° 42,41' N	18° 48,01' W	2890,1	NNE 3	180	7,3	MB+PS	alter course	neuer Kurs 090°
MSM18/607-1	02.05.2011	05:27	20° 41,99' N	18° 40,39' W	2638,4	NNE 3	91,1	7	MB+PS	alter course	neuer Kurs 181°
MSM18/607-1	02.05.2011	05:40	20° 40,48' N	18° 40,03' W	2595,1	NE 3	175,9	8,2	MB+PS	alter course	meuer Kurs 270°
MSM18/607-1	02.05.2011	06:40	20° 39,98' N	18° 47,55' W	2839,5	ENE 3	269,8	7,2	MB+PS	alter course	neuer Kurs 180°
MSM18/607-1	02.05.2011	06:58	20° 38,01' N	18° 47,99' W	2865,8	ENE 3	179,4	7,4	MB+PS	alter course	neuer Kurs 090°
MSM18/607-1	02.05.2011	07:21	20° 37,67' N	18° 45,20' W	2743,7	NE 2	94,8	7,2	MB+PS	profile end	
MSM18/608-1	02.05.2011	07:33	20° 37,95' N	18° 44,13' W	2689	NE 2	6,2	2,6	TD	information	Gesichtet
MSM18/608-1	02.05.2011	08:15	20° 38,70' N	18° 43,86' W	2678	NE 3	144,8	0,7	TD	information	Kopfboje an Deck
MSM18/608-1	02.05.2011	08:20	20° 38,64' N	18° 43,77' W	2674	NNE 2	128,4	1,6	TD	information	15 Fischerkugeln an Deck
MSM18/608-1	02.05.2011	08:20	20° 38,64' N	18° 43,77' W	2674	NNE 2	128,4	1,6	TD	information	2 Benthoskugeln an Deck
MSM18/608-1	02.05.2011	08:25	20° 38,59' N	18° 43,68' W	2669,2	NNE 3	116,4	1	TD	information	Driftfalle an Deck
MSM18/608-1	02.05.2011	08:45	20° 38,45' N	18° 43,57' W	2662,4	NE 3	162,9	0,4	TD	on deck	Driftfalle mit Grundgewicht an Deck
MSM18/608-2	02.05.2011	09:00	20° 38,19' N	18° 43,39' W	2656,4	NNE 3	131,4	1,5	MB+PS	start profil	Kurs 355°
MSM18/608-2	02.05.2011	09:58	20° 46,69' N	18° 44,22' W	2730,9	NNE 2	306,8	8,1	MB+PS	alter course	Neuer Kurs 282°
MSM18/608-2	02.05.2011	10:40	20° 48,20' N	18° 51,39' W	2972,1	E 2	281,9	10,4	MB+PS	Information	erhöhen Geschwindigkeit auf 12 KN
MSM18/609-1	02.05.2011	13:27	20° 54,99' N	19° 25,01' W	3453,9	ENE 3	352,6	0,3	LM	start	
MSM18/608-2	02.05.2011	13:27	20° 54,99' N	19° 25,01' W	3453,9	ENE 3	352,6	0,3	MB+PS	profile end	
MSM18/609-1	02.05.2011	13:45	20° 54,99' N	19° 25,01' W	3451,9	NE 2	351,5	0,2	LM	end	
MSM18/609-2	02.05.2011	13:51	20° 54,99' N	19° 25,00' W	3451,1	ENE 2	10,2	0,2	CTD/RO	surface	
MSM18/609-2	02.05.2011	14:52	20° 55,00' N	19° 25,02' W	3448,9	NE 2	340,4	0,6	CTD/RO	at depth	SL max 3407m
MSM18/609-2	02.05.2011	16:07	20° 55,00' N	19° 25,02' W	3449,2	NNE 4	182,4	0,8	CTD/RO	on deck	
MSM18/609-3	02.05.2011	16:18	20° 55,00' N	19° 25,02' W	3449,8	NNE 5	230,5	0,5	PAC	Surface	
MSM18/609-3	02.05.2011	19:10	20° 55,00' N	19° 25,02' W	3455,2	NNE 7	340,3	0,2	PAC	At working depth	SL max. 3139m
MSM18/609-3	02.05.2011	20:36	20° 55,00' N	19° 25,02' W	3453,1	NNE 6	349	0,3	PAC	On deck	
MSM18/609-4	02.05.2011	22:05	20° 55,00' N	19° 25,02' W	3452,5	NNE 5	180	0,1	ISP	into water	
MSM18/609-4	02.05.2011	23:28	20° 55,00' N	19° 25,02' W	3451,1	NNE 6	8	1,1	ISP	pump at depth	SL max. 3400 m, Pumpen auf 800 m 2000 m 2960 m Drahtlänge
MSM18/609-4	03.05.2011	06:02	20° 55,00' N	19° 25,02' W	3453,1	NE 4	338,6	0,2	ISP	Begin to heave	
MSM18/609-4	03.05.2011	07:26	20° 55,00' N	19° 25,02' W	3449,5	NE 4	143,6	0,3	ISP	on deck	
MSM18/610-1	03.05.2011	13:22	21° 14,27' N	20° 50,86' W	4153,7	NE 3	39,4	0,5	MOR	Hydrophone into the water	

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MSM18/610-1	03.05.2011	13:27	21° 14,27' N	20° 50,86' W	4155,4	NE 3	271,5	0,6	MOR	released	
MSM18/610-1	03.05.2011	13:32	21° 14,27' N	20° 50,86' W	0	ENE 3	179,4	0,5	MOR	Hydrophone on Deck	
MSM18/610-1	03.05.2011	13:42	21° 14,27' N	20° 50,86' W	0	NE 3	133,6	0,2	MOR	spotted	
MSM18/610-1	03.05.2011	14:24	21° 16,50' N	20° 51,14' W	0	NE 3	97,1	1,5	MOR	Information	Kopfboje an Deck
MSM18/610-1	03.05.2011	14:27	21° 16,52' N	20° 51,04' W	0	NE 3	69,3	2	MOR	Information	12 Benthos an Deck
MSM18/610-1	03.05.2011	14:31	21° 16,53' N	20° 50,92' W	0	NE 4	94,6	1,8	MOR	Information	Falle S/MT 234NE #910015 an Deck
MSM18/610-1	03.05.2011	15:47	21° 15,97' N	20° 49,54' W	0	N 0	0	0	MOR	Information	Falle S/MT 243 NE (Titan) an Deck
MSM18/610-1	03.05.2011	16:35	21° 15,37' N	20° 49,07' W	0	NNE 3	180,7	0,9	MOR	Information	8 Benthos an Deck
MSM18/610-1	03.05.2011	16:48	21° 15,20' N	20° 49,05' W	0	NNE 4	177,2	0,8	MOR	Information	4 Benthos an Deck
MSM18/610-1	03.05.2011	16:52	21° 15,15' N	20° 49,04' W	0	NNE 4	209	0,8	MOR	on deck	Auslöser AR 661 B1S No. 475 No.477
MSM18/610-2	03.05.2011	18:03	21° 15,15' N	20° 49,02' W	0	NNE 4	125,7	0,3	PAC	Surface	
MSM18/610-2	03.05.2011	21:05	21° 15,15' N	20° 49,02' W	4155,9	NNE 4	90	0,3	PAC	At working depth	SL max. 3985 m
MSM18/610-2	03.05.2011	22:22	21° 15,16' N	20° 49,02' W	4157,8	NNE 5	344,6	0,3	PAC	On deck	
MSM18/610-3	03.05.2011	22:31	21° 15,15' N	20° 49,02' W	4158,1	NNE 5	227,1	0,7	CTD/RO	surface	
MSM18/610-3	03.05.2011	23:47	21° 15,15' N	20° 49,02' W	4157,2	NNE 5	144,2	0,4	CTD/RO	at depth	SL max. 4109 m
MSM18/610-3	04.05.2011	01:23	21° 15,15' N	20° 49,02' W	4155,9	NNE 5	163	0,1	CTD/RO	on deck	
MSM18/610-4	04.05.2011	01:28	21° 15,15' N	20° 49,02' W	4157,4	NNE 6	182,5	0,4	ISP	into water	Pumpe auf 0m Draht
MSM18/610-4	04.05.2011	01:52	21° 15,15' N	20° 49,02' W	4157,3	NNE 5	104,5	0,7	ISP	Information	Pumpe auf 1150m Draht
MSM18/610-4	04.05.2011	02:19	21° 15,15' N	20° 49,02' W	4155,6	NE 5	145,3	0,4	ISP	Information	Pumpe auf 2420m Draht
MSM18/610-4	04.05.2011	02:31	21° 15,16' N	20° 49,02' W	4155,8	NE 5	16,5	0,4	ISP	Information	Pumpe auf 2910m Draht
MSM18/610-4	04.05.2011	02:38	21° 15,15' N	20° 49,02' W	4157,2	NNE 6	350,6	0,3	ISP	Information	Pumpe auf 3170m Draht
MSM18/610-4	04.05.2011	02:43	21° 15,15' N	20° 49,02' W	4156,6	NNE 5	28,1	0,6	ISP	Information	Pumpe auf 3240m Draht
MSM18/610-4	04.05.2011	02:45	21° 15,15' N	20° 49,02' W	4156,6	NE 5	149,3	0,1	ISP	pump at depth	SL max 3300m
MSM18/610-4	04.05.2011	09:10	21° 15,15' N	20° 49,02' W	4157,5	N 7	19	0,4	ISP	Begin to heave	
MSM18/610-4	04.05.2011	10:36	21° 15,15' N	20° 49,02' W	4157,6	NNE 6	154,8	0,4	ISP	on deck	
MSM18/610-5	04.05.2011	10:41	21° 15,15' N	20° 49,02' W	4157,8	NNE 6	36	0,2	CTD/RO	surface	
MSM18/610-5	04.05.2011	11:58	21° 15,15' N	20° 49,02' W	4157,3	NNE 6	2,8	0,2	CTD/RO	at depth	SL max. 4110 m
MSM18/610-5	04.05.2011	13:41	21° 15,15' N	20° 49,02' W	4157,9	NNE 7	161	0,7	CTD/RO	on deck	
MSM18/610-6	04.05.2011	13:50	21° 15,16' N	20° 49,02' W	0	NNE 7	133,1	1	TMS	at surface	
MSM18/610-6	04.05.2011	13:52	21° 15,15' N	20° 49,02' W	0	NE 7	249,5	0,3	TMS	Information	Kommunikationsverlust mit dem Gerät
MSM18/610-6	04.05.2011	13:58	21° 15,15' N	20° 49,02' W	0	NNE 7	35,7	0,5	TMS	at surface	Kommunikation wieder hergestellt
MSM18/610-6	04.05.2011	14:27	21° 15,15' N	20° 49,02' W	0	NNE 7	63,9	0,3	TMS	at depth	SL max 300m
MSM18/610-6	04.05.2011	14:29	21° 15,16' N	20° 49,02' W	0	NE 7	340,9	0,3	TMS	Information	Kommunikationsverlust
MSM18/610-6	04.05.2011	14:38	21° 15,15' N	20° 49,02' W	0	NNE 7	23,6	0,9	TMS	on deck	
MSM18/610-6	04.05.2011	14:43	21° 15,15' N	20° 49,02' W	0	NNE 7	350,4	0,6	TMS	at surface	

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MSM18/610-6	04.05.2011	15:18	21° 15,15' N	20° 49,02' W	0	N 7	266,9	0,1	TMS	at depth	SL max 2000m
MSM18/610-6	04.05.2011	16:15	21° 15,15' N	20° 49,02' W	0	NNE 8	231,4	0,6	TMS	on deck	
MSM18/611-1	04.05.2011	20:00	21° 7,97' N	20° 7,03' W	3867,3	NNE 9	189,1	0,6	PLA	Plankton net into the water	
MSM18/611-1	04.05.2011	20:06	21° 7,97' N	20° 7,03' W	3868,1	NNE 9	348,9	0,5	PLA	Plankton net on deck	
MSM18/611-2	04.05.2011	20:08	21° 7,97' N	20° 7,03' W	3868,1	NNE 9	322,3	0,2	PLA	Plankton net into the water	
MSM18/611-2	04.05.2011	20:26	21° 7,97' N	20° 7,03' W	3867,1	NNE 9	31,4	0,4	PLA	Plankton net on deck	
MSM18/611-3	04.05.2011	20:36	21° 7,97' N	20° 7,03' W	3867,6	NNE 9	128,6	0,4	PAC	Surface	
MSM18/611-3	04.05.2011	23:41	21° 7,97' N	20° 7,02' W	3868,2	NNE 11	185,1	0,5	PAC	At working depth	SL max. 3835 m
MSM18/611-3	05.05.2011	01:02	21° 7,97' N	20° 7,02' W	3867,5	NNE 9	250,4	0,6	PAC	On deck	
MSM18/611-4	05.05.2011	01:11	21° 7,97' N	20° 7,02' W	3867,2	NNE 10	326	0,7	CTD/RO	surface	
MSM18/611-4	05.05.2011	02:19	21° 7,97' N	20° 7,02' W	3866,6	NNE 8	110,1	0,1	CTD/RO	at depth	SL max 3800m
MSM18/611-4	05.05.2011	03:34	21° 7,97' N	20° 7,02' W	3867,9	NNE 10	30,6	0,2	CTD/RO	on deck	
MSM18/611-5	05.05.2011	03:37	21° 7,99' N	20° 7,01' W	3868,9	NNE 11	23,9	3	MB+PS	start profil	Eindreihen auf Profilkurs 281°
MSM18/611-5	05.05.2011	07:14	21° 15,74' N	20° 51,23' W	4161,6	NE 10	279,7	12,5	MB+PS	alter course	neuer Kurs 000°
MSM18/611-5	05.05.2011	07:20	21° 16,39' N	20° 51,98' W	4170,8	NNE 10	0,4	11,2	MB+PS	alter course	neuer Kurs 090°
MSM18/611-5	05.05.2011	07:25	21° 16,87' N	20° 51,37' W	4173,2	NNE 12	87,8	10,8	MB+PS	alter course	neuer Kurs 180°
MSM18/611-5	05.05.2011	07:39	21° 14,52' N	20° 50,94' W	4156,4	NNE 9	182,4	11,9	MB+PS	profile end	
MSM18/612-1	05.05.2011	08:02	21° 14,04' N	20° 52,32' W	4155,7	NE 9	23,4	0,7	MOR	surface	Kopfboje zu Wasser
MSM18/612-1	05.05.2011	08:05	21° 14,07' N	20° 52,30' W	4156,3	NNE 10	50,4	1,3	MOR	Information	12 Benthoskugeln zu Wasser
MSM18/612-1	05.05.2011	08:13	21° 14,16' N	20° 52,22' W	4157,1	NE 8	26,9	0,9	MOR	Information	Sedimentfalle zu Wasser
MSM18/612-1	05.05.2011	09:46	21° 15,69' N	20° 50,87' W	4161,5	NE 9	53,2	1,3	MOR	Information	8 Benthoskugeln zu Wasser
MSM18/612-1	05.05.2011	09:52	21° 15,78' N	20° 50,79' W	4162,2	NNE 10	37,1	1,4	MOR	Information	Sedimentfalle zu Wasser
MSM18/612-1	05.05.2011	10:14	21° 16,12' N	20° 50,49' W	4166,2	NE 9	33,3	1,3	MOR	Information	4 Benthoskugeln zu Wasser
MSM18/612-1	05.05.2011	10:23	21° 16,26' N	20° 50,36' W	4171,7	NNE 10	44,8	1,1	MOR	surface	Releaser und Kette zu Wasser
MSM18/612-1	05.05.2011	10:26	21° 16,31' N	20° 50,32' W	4171,9	NE 10	22,3	1,7	MOR	slipped	Ankerstein geslipt
MSM18/612-1	05.05.2011	11:11	21° 16,10' N	20° 50,99' W	4168,6	NNE 8	53,4	1,3	MOR	Information	Kopfboje abgetaucht
MSM18/612-2	05.05.2011	11:29	21° 15,26' N	20° 51,70' W	4160,8	NNE 9	305	0,7	LM	start	
MSM18/612-2	05.05.2011	11:49	21° 15,25' N	20° 51,70' W	4160,7	NNE 10	51,8	0,5	LM	end	
MSM18/613-1	06.05.2011	08:01	18° 0,00' N	24° 0,02' W	3645,3	NNE 11	42,4	0,9	CTD/RO	surface	
MSM18/613-1	06.05.2011	09:06	18° 0,00' N	24° 0,02' W	3644,6	NNE 10	347,3	0,2	CTD/RO	at depth	SL max. 3638 m
MSM18/613-1	06.05.2011	10:24	18° 0,00' N	24° 0,02' W	3642,9	NNE 10	72,2	0,7	CTD/RO	on deck	
MSM18/613-2	06.05.2011	10:31	18° 0,00' N	24° 0,02' W	3644,9	NNE 10	311,2	0,9	LM	start	
MSM18/613-2	06.05.2011	10:52	18° 0,02' N	24° 0,07' W	3645,8	NNE 11	334,3	0,9	LM	end	
MSM18/613-3	06.05.2011	11:03	18° 0,02' N	24° 0,08' W	3645,2	NNE 10	259,7	0,8	PAC	Surface	
MSM18/613-3	06.05.2011	14:08	18° 0,03' N	24° 0,09' W	3644,3	NNE 9	269,5	0,7	PAC	At working depth	SL max 3632m



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MSM18/613-3	06.05.2011	14:59	18° 0,03' N	24° 0,10' W	3644,4	NNE	10	156,9	0,6	PAC	On deck	
MSM18/613-4	06.05.2011	15:26	18° 0,03' N	24° 0,10' W	3643,8	NNE	10	314,8	0,5	CTD/RO	surface	
MSM18/613-4	06.05.2011	16:32	18° 0,03' N	24° 0,10' W	3642,7	NNE	10	202,8	0,7	CTD/RO	at depth	SL max. 3502m
MSM18/613-4	06.05.2011	17:56	18° 0,03' N	24° 0,10' W	3643,8	NNE	11	190,7	0,6	CTD/RO	on deck	
MSM18/613-5	06.05.2011	18:19	17° 59,96' N	23° 59,60' W	3644,2	NNE	9	239,5	6,6	MB+PS	start profil	Kurs 236°
MSM18/613-5	06.05.2011	21:31	17° 45,44' N	24° 22,63' W	3635,2	NNE	10	217,4	7,9	MB+PS	alter course	neuer Kurs 090°
MSM18/613-5	07.05.2011	00:04	17° 45,07' N	24° 0,45' W	3591,5	NNE	12	88,7	7,3	MB+PS	alter course	neuer Kurs 180°
MSM18/613-5	07.05.2011	01:08	17° 36,26' N	23° 59,98' W	3553,6	NNE	9	179,2	8,7	MB+PS	alter course	neuer Kurs 270°
MSM18/613-5	07.05.2011	03:48	17° 35,86' N	24° 22,88' W	3609,3	NNE	8	267	7,8	MB+PS	alter course	neuer Kurs 000°
MSM18/613-5	07.05.2011	04:21	17° 39,73' N	24° 23,32' W	3618,8	NE	8	21,4	6,1	MB+PS	alter course	neuer Kurs 090°
MSM18/613-5	07.05.2011	05:57	17° 40,00' N	24° 12,13' W	3595,1	NNE	10	93,4	4,6	MB+PS	profile end	
MSM18/614-1	07.05.2011	06:08	17° 39,99' N	24° 12,04' W	3593,7	NNE	9	336,3	0,4	CTD/RO	surface	
MSM18/614-1	07.05.2011	07:15	17° 39,99' N	24° 12,04' W	3595,1	NNE	9	334,8	0,4	CTD/RO	at depth	SL max. 3587m
MSM18/614-1	07.05.2011	08:31	17° 39,99' N	24° 12,04' W	3595,3	NE	8	196,2	0,7	CTD/RO	on deck	
MSM18/614-2	07.05.2011	08:45	17° 39,99' N	24° 12,04' W	3594,8	NNE	9	308	1	PAC	Surface	
MSM18/614-2	07.05.2011	11:45	17° 39,99' N	24° 12,04' W	3594,6	NE	10	70,8	0,7	PAC	At working depth	SL max. 3595 m
MSM18/614-2	07.05.2011	13:09	17° 39,99' N	24° 12,04' W	3593,9	NE	9	356,6	0,9	PAC	On deck	
MSM18/614-3	07.05.2011	13:31	17° 39,98' N	24° 12,04' W	3595,7	NE	10	132,2	1	TMS	at surface	
MSM18/614-3	07.05.2011	14:48	17° 39,98' N	24° 12,04' W	3595,9	NNE	10	19,9	1	TMS	Information	Testbeginn SL max 3500m
MSM18/614-3	07.05.2011	15:26	17° 39,98' N	24° 12,04' W	3595	NNE	10	179,3	0,2	TMS	Information	Tests beendet
MSM18/614-3	07.05.2011	16:31	17° 39,99' N	24° 12,04' W	3593,9	NNE	9	267,4	0,2	TMS	on deck	
MSM18/614-4	07.05.2011	16:46	17° 39,98' N	24° 12,04' W	3593,4	NE	9	305,2	1,3	TRIMM	surface	
MSM18/614-4	07.05.2011	16:49	17° 39,99' N	24° 12,04' W	3593,9	NE	9	322,3	0,4	TRIMM	Information	Mehrmals mit verschiedenen Gewichten zu Wasser und wieder an Deck
MSM18/614-4	07.05.2011	18:01	17° 40,03' N	24° 12,30' W	3595,6	NE	7	321	1	TRIMM	on deck	
MSM18/614-5	07.05.2011	18:02	17° 40,03' N	24° 12,31' W	3595	NE	7	291,5	0,8	MB+PS	start profil	Kurs 213°
MSM18/614-5	07.05.2011	20:12	17° 24,39' N	24° 22,89' W	3569,4	NE	6	214,5	8,3	MB+PS	alter course	neuer Kurs 090 °
MSM18/614-5	07.05.2011	22:38	17° 23,65' N	23° 59,93' W	3519,5	NNE	8	150,8	9,3	MB+PS	alter course	neuer Kurs 180°
MSM18/614-5	07.05.2011	23:00	17° 20,09' N	23° 59,92' W	3511,8	NNE	8	214,4	9,1	MB+PS	alter course	neuer Kurs 270°
MSM18/614-5	08.05.2011	01:39	17° 19,93' N	24° 23,11' W	3543,4	NE	6	266,1	7,8	MB+PS	end of track	