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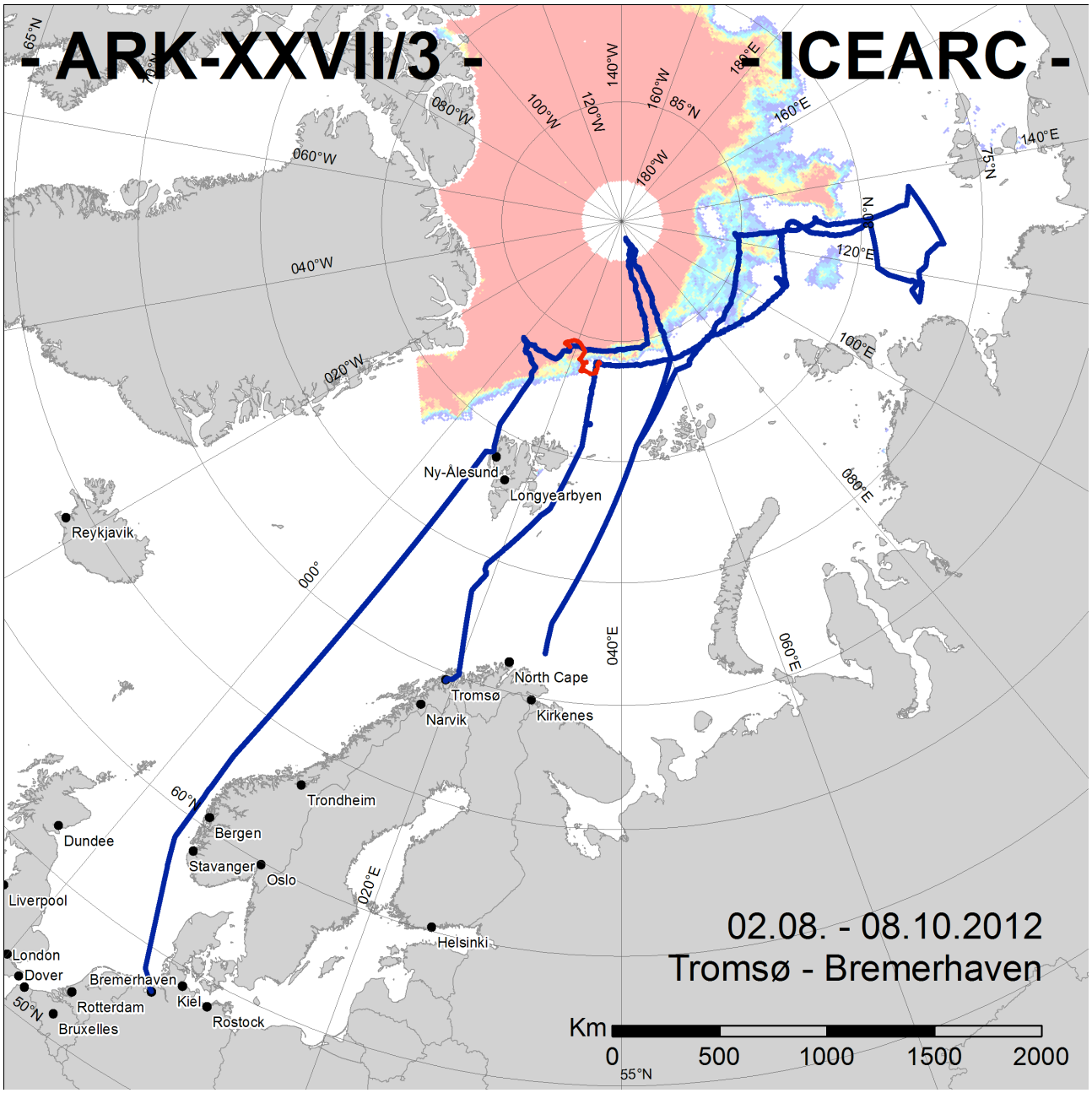
# Short Cruise Report
# Polarstern ARK27-3

## Tromsø - Bremerhaven
## 02.08.2012 – 08.10.2012
## Chief Scientist: Antje Boetius
## Captain: Uwe Pahl




Map with ship track of Expedition IceArc (RV Polarstern ARK27-3), including ice concentrations in September 2012

## Objectives

The expedition ARK-XXVII/3 “IceArc” (Sea ice - ocean - seafloor interactions in the changing Arctic) started 2 August 2012 in Tromsø, Norwegen. 54 international scientists and technical teams investigated the biology, chemistry and physics of sea ice and the impact of sea ice loss on the entire Arctic Ocean system. The expedition IceArc has focused on the interactions between hydrography, ice physics, biogeochemistry and biodiversity in the Arctic system, from the sea ice to the deep-sea floor, using a number of new technologies for under ice research. By integrated process studies, sites in the central Arctic with varying ice cover were compared. Ice-, ocean- and seafloor moorings were deployed to observe sea ice thickness, circulation of Atlantic water and corresponding particle flux throughout the year. RV Polarstern traveled 12,000 kilometers and completed 306 stations during the mission.

Many of the measurements carried out dealt with the consequences of the shrinking sea ice forming a new minimum in summer 2012. Surveys with the EM Bird system of 3500 km sea ice showed that not only the ice cover has further declined but also ice thickness. The entire Laptev Sea area was ice free in July 2012. Accordingly the surface waters showed a considerable proportion of melt water. A new under ice trawl was used to study the distribution of ice-associated fauna like the polar cod. An under ice ROV recorded light and energy transmission as well as oceanographic parameters and the distribution of sub-ice algal communities. Dense sub-ice aggregations of the diatom Melosira arctica were found for the first time also under first year ice in the Central Arctic basins. Deep-sea photo- and video-surveys showed that these algae had sedimented to the seafloor as a consequence of the large ice melt in 2012. Measurements with benthic landers under the ice showed high respiration rates fueled by the fresh algal deposits, and aggregations of mobile megafauna feeding on the algae, including ophiurids and holothurians. Oceanographic transects found a further warming and salting of deep Atlantic water. The warm atmospheric temperatures, sea ice decline and increasing light availability had shifted the productive period to earlier in the year, as indicated by sediment traps recovered with long term moorings. Because of the substantial sea ice retreat, RV Polarstern was able to operate far north in September, supporting measurements of the freeze-up of thin, new ice, which will form a significant proportion of the future Arctic sea ice. Results of the expedition IceArc will help to better understand and quantify the effects of changes in sea ice cover on the Arctic Ocean and its ecosystems. The expedition ended 8 October 2012 in Bremerhaven.

**Narrative**

The expedition „IceArc - Sea ice - Ocean - Seafloor Interactions in the Changing Arctic“ (ARK27-3) started in the morning of the 2nd August in Tromsø, Norway. We steamed 3 days from Tromsø to North of Svalbard into the ice. Station work started the morning of the 5 August at 08:00 with station PS80/199, at 81°N and 30°E on the Barents Sea Shelf, at water depths of 200 m. During 5 August we tested all larger equipment in open water, including the procedure for deployment and recovery of the benthic lander system attached to a rope and surface buoy, for recovery in ice. We continued sampling every half-degree latitude with the CTD-rosette for assessing the hydrographical and chemical conditions as well as primary production and the composition of the plankton. We arrived at the ice edge at about 82°30'N und 30°E in the early morning of 7th August. A large ice floe was identified at 84° 0.4'N and 30°20'E for the first ice station of Expedition IceArc, lasting from 9-11 August. Autonomous instruments were deployed for the duration of the expedition, to be recollected at the end of the mission. Ice stations are a main focus of the expedition, involving 2/3 of the science party. They started with the deployment of three benthic chamber lander systems close to the ice floe, which need incubation times of 72 hours. Then the ship anchored at the ice floe and drifted along, and all other winch-operated instruments were deployed in parallel to the work on the ice and in the air. Survey instruments like the photo sledge OFOS, and the TV-guided multiple corer were operated exploiting the wind-drift of the ice between 0.1 and 0.5 knots. The under-ice trawl SUIT and the Agassiz bottom trawls were deployed before or after the ice station.

After a two day transit from 12-13 August with daily CTDs and XCTDs we carried out the second ice station on 14-17 August, at 84° N and 78°E longitude. Interestingly, the OFOS images from the seafloor showed clumps of freshly deposited in almost 4000 m water depth at this and all subsequent ice stations. On 19 and 20 August, two long-term moorings deployed almost one year ago by Polarstern expedition ARK26-3 "TransArc" were successfully recovered. They were deployed west of the Gakkel Ridge, in the Nansen Basin at 3600 m water depth (82.5°N; 108.5°E). At the third ice station (20-23. 8.; 82.5°N, 109°E), even more algal deposits are observed at the deep sea floor as well as abundant megafauna. Next, three further moorings were recovered from over 4000 m deep in the Amundsen Basin, east of the Gakkel Ridge (83.3°N, 125.2° E). The recovery of the last mooring from ice rubble needed a lot of ice-breaking and searching, but all was safely retrieved. Besides oceanographical equipment to assess the hydrography of deep-water masses in the Arctic, the 5 moorings recovered included 2 sediment traps deployed at 200 m below surface and above the seafloor, to assess particle export from the productive ocean layers to the deep sea. The fourth week of the Expedition IceArc included the fourth ice station from 26-28 August at 82.5°N and 130°E. On 29 August we left the ice for an excursion to the Laptev Sea continental margin, to sample two time series sections along 130° and 120°E with CTD casts and TV-Multicorer. These transects spanned from the continental rise at 3500 m to the Laptev Sea shelf edge at 60m. In addition we had hoped to recover long-term moorings on the outer Laptev shelf for the Russian-German Laptev Sea-Project (30.08.-01.09.). All four moorings were located by the hydrophone, but since they had lost their top flotation buoy, they apparently collapsed at the seafloor. Only one was recovered successfully by dredging. The fifth week of the expedition started with the retrieval of our three benthic lander systems deployed in open water not far from the ice edge, at 79.7°N 130.5°E, and 3500 m water depth (03.09.). A day later we reached the next ice station #6 (04.-05.09.) at 81.7°N and 131°E – still in mostly thin first year ice, with large openings between the floes.

We then steamed further north to reach the multiyear ice at around 85°N. On 7th September we selected a multiyear ice floe, marking the 6th ice station at 85°N and

124°E. First we re-deployed the benthic landers, next was the ice-station work. But unfortunately, during a routine safety exercise with one of Polarstern's rescue boats, an accident occurred and several people were hurt. Besides some smaller injuries, one scientist broke his arm and wrist, and needed a transfer to a hospital on land. We finalized the 6$^{th}$ ice station in the morning of the 10$^{th}$ September and then steamed back to Kirkenes. After a transit of 3.5 days in rather rough seas, we reached the coast of northern Norway in the early morning of September 14, luckily with good weather conditions for the transfer by helicopter. Already around noon we steamed northwards again. On Sunday 16 September we were back at the ice edge at 84° and 60°N, and the deviation to Kirkenes was officially terminated. We steamed further north as fast as possible, towards our next planned ice station at 88°N and 60°E. On Tuesday we arrived at our 7th ice station (18.-19.9.) at 88°N and 60°E. It was planned as a short station of only 30 hours, without lander deployments. Next was the transit north, to reach the North pole before the end of the week (20.-21.9.). Our goal was to achieve the first deep sea in situ measurements at 90°N and > 4100 m water depth, and to provide high-resolution seafloor images. But due to southerly winds strongly compressing the ice floes, and a substantial snow cover, the average travel speed dropped to 1-2 kn, and just 45 miles away from the pole, the ship got stuck in the ice several times in 24 hrs. In the early morning hours of Friday (21.9.) we had to give up on reaching the Pole and turned south on 50° E longitude, to carry out another ice station in multiyear ice. The 8th ice station took place at 88° 49' N and 58°E from 22.-24. September, with air temperatures already dropping below -12°C and frozen melt ponds. Our eighth and northernmost ice station ended on 23. September with an exciting experiment: the deployment of our free falling lander on a rope. Ice conditions at the site were too difficult for an autonomous deployment. We deployed the lander with weights and floatation on a rope connected to the ship at over 4 km water depth, and paid out further rope with the drift. In the early morning hours of 24 September, the lander was successfully retrieved back on deck, with highly interesting data.

Then we started the last CTD transect southwards, along 52°E longitude, with 10 CTDs planned from 24-27 September towards 84° 45'N. On 27 September we completed this transect and steamed to the final ice station at 84°22'N and 17°30'E. The GPS positions of the buoys led the ship directly to the spot. All instruments could be recovered and the data retrieved – except from one sediment trap which was torn off by the ice. The 9th and final ice station lasted till the evening of the 29 September. It ended with a successful SUIT under-ice trawl. At that time we had received an email from the research hovercraft RH Sabvabaa, asking for support by Polarstern. Its position was 83° 44' N and 02° 36' W, and it could not make progress during its return trip to Svalbard, as winds had pressed the thin ice floes to rubble fields, and low clouds and fogs caused white-outs. We got the permission to assist the RH Sabvabaa by retrieving it, and managed to reach it by 30 September, at 83° 41'N, 00° 17'W. By midnight it was lifted onto POLARSTERN's helicopter deck. We then steamed in southeastern direction towards the ice edge north of Svalbard, and left the ice in the morning of 02 September. The RH Sabvabaa was lifted back into the water outside Kongsfjorden, Svalbard, at 20:30 hours on 02 October. The transit back to Bremerhaven took till the 8 October at 6 am, when Polarstern anchored at the pier in Bremerhaven.

**Acknowledgements**

We thank captain and crew of Polarstern as well as the Helicopter and meteorology teams for the excellent support with work at sea, and the friendly cooperation during expedition IceArc (ARK27-3).

## List of Participants

| Name/ Last name | Vorname / First name | Institut/ Institute | Beruf/ Profession |
|---|---|---|---|
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| Attard | Karl | SDU | Biogeochemist |
| Bakker | Karel | NIOZ | Geochemist |
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| Boetius | Antje | AWI/MPI | Scientist (Chief Scientist) |
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| Degen | Renate | AWI | Biologist |
| Felden | Janine | AWI/MPI/MARUM | Biogeochemist |
| Fernandez | Mar | AWI/MPI | Biologist |
| Flores | Hauke | AWI | Biologist |
| Galgani | Luisa | IFM GEOMAR | Biologist |
| Hammrich | Klaus | HeliService | Pilot |
| Hempelt | Juliane | DWD | Technician, Meteorology |
| Hendricks | Stefan | AWI | Physicist |
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| Schiller | Martin | AWI | Technician, Sea Ice Physics |
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| Sorensen | Scott | UAF | Physicist |
| Sørensen | Heidi Louise | SDU | Biogeochemist |
| Stecher | Anique | AWI | Biologist |
| Stiens | Rafael | AWI/MPI | Technician, Biogeochemistry |
| Thuroczy | Charles-Edouard | NIOZ | Geochemist |
| Uhlig | Christiane | AWI, U Konstanz | Biologist |
| van Dorssen | Michiel | v.D. Metaalbew./AWI | Technician, Biology |
| Wenzhöfer | Frank | AWI/MPI | Biogeochemist |
| Xiao | Xiaotong | AWI | Geologist |

## List of Participating Institutions

| | Address |
|---|---|
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| AARI | Arctic and Antarctic Research Institute,<br>199397 Beringa st. 38, St-Petersburg,<br>Russia |
| DWD | Deutscher Wetterdienst<br>Geschäftsbereich Wettervorhersage<br>Seeschifffahrtsberatung, Bernhard Nocht Str. 76<br>20359 Hamburg Germany |
| Fielax | FIELAX Gesellschaft fuer wissenschaftliche<br>Datenverarbeitung mbH<br>Schleusenstr. 14, 27568 Bremerhaven,<br>Germany |
| HeliService | HeliService international GmbH<br>Am Luneort 15<br>D-27572 Bremerhaven / Germany |
| GEOMAR | GEOMAR \| Helmholtz-Zentrum für Ozeanforschung<br>Kiel<br>Düsternbrooker Weg 20, D-24109 Kiel,<br>Germany |
| IMARES | Institute for Marine Resources and Ecosystem<br>Studies, The Netherlands<br>P.O. Box 167, 1790 AD Den Burg (Texel) |
| IORAS | P.P. Shirshov Institute of Oceanology Russian<br>Academy of Science, Russland<br>36 Nachimovsky prospect, Moscow, 117851,<br>Russland, |
| MPI | Max Planck Institute for Marine Microbiology,<br>Deutschland<br>Celsiusstr. 1, 28359 Bremen, USA |
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| SDU | University of Southern Denmark<br>Institute of Biology, Campusvej 55, DK-5230<br>Odense M, Denmark |
| UAB/ICTA | Institut de Ciència i Tecnologia Ambientals<br>(ICTA)<br>Universitat Autònoma de Barcelona, Spain<br>08193 Bellaterra. Spain |
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## Stationsliste

Gear abbrevations:

| | | | |
|---|---|---|---|
| AGT | Agassiz Trawl | MOR | Mooring Oceanography |
| BONGO | Bongo Net | OFOS | Ocean Floor Observation System |
| CTD | CTD | PS | Parasound Sediment Echosounder |
| HS | Hydrosweep Multibeam Echosounder | RO | Rosette water sampler |
| ICE | Ice Floe Station | ROV | ROV SONIA |
| ISP | In situ pump | SUIT | Under Ice Trawl |
| LANDER | Chamber/Profiler Lander | TVMUC | TV-Multicorer |
| MG | Multi Grab | XCTD | Expendable CTD |
| MN | Multiple Net | | |

| Station | Date | Time | Gear | Action | Position Lat | Position Lon | Water depth [m] |
|---|---|---|---|---|---|---|---|
| PS80/199-1 | 03.08.2012 | 08:55 | CTD/RO | on ground/max depth | 73°4.90'N | 18°11.96'E | 437 |
| PS80/200-1 | 05.08.2012 | 06:26 | CTD/RO | on ground/max depth | 80°29.88'N | 29°59.76'E | 372 |
| PS80/201-1 | 05.08.2012 | 10:19 | CTD/RO | on ground/max depth | 81°0.21'N | 29°58.90'E | 160 |
| PS80/202-1 | 05.08.2012 | 13:03 | CTD/RO | on ground/max depth | 81°20.02'N | 30°1.17'E | 201 |
| PS80/202-2 | 05.08.2012 | 13:51 | XCTD | on ground/max depth | 81°23.89'N | 30°5.49'E | 247 |
| PS80/203-1 | 05.08.2012 | 15:50 | LANDER | on ground/max depth | 81°26.85'N | 31°6.81'E | 398 |
| PS80/204-1 | 05.08.2012 | 16:40 | SUIT | profile start | 81°27.27'N | 31°4.76'E | 464 |
| PS80/204-1 | 05.08.2012 | 17:05 | SUIT | profile end | 81°28.54'N | 31°1.83'E | 589 |
| PS80/205-1 | 05.08.2012 | 18:33 | AGT | profile start | 81°28.81'N | 31°1.51'E | 615 |
| PS80/205-1 | 05.08.2012 | 18:43 | AGT | profile end | 81°28.97'N | 31°2.02'E | 628 |
| PS80/206-1 | 05.08.2012 | 20:21 | OFOS | profile start | 81°27.197'N | 31°11.975'E | 418 |
| PS80/206-1 | 05.08.2012 | 21:32 | OFOS | profile end | 81°27.543'N | 31°11.80'E | 469 |
| PS80/207-1 | 05.08.2012 | 22:57 | TVMUC | on ground/max depth | 81°27.20'N | 31°13.56'E | 400 |
| PS80/207-2 | 05.08.2012 | 23:36 | TVMUC | on ground/max depth | 81°27.13'N | 31°13.25'E | 392 |
| PS80/207-3 | 06.08.2012 | 00:25 | TVMUC | on ground/max depth | 81°27.12'N | 31°13.25'E | 392 |
| PS80/208-1 | 06.08.2012 | 01:52 | CTD/RO | on ground/max depth | 81°27.74'N | 31°3.26'E | 530 |
| PS80/208-2 | 06.08.2012 | 02:56 | CTD/RO | on ground/max depth | 81°27.77'N | 31°5.84'E | 510 |
| PS80/208-3 | 06.08.2012 | 04:05 | CTD/RO | on ground/max depth | 81°27.60'N | 31°6.25'E | 501 |
| PS80/208-4 | 06.08.2012 | 05:09 | CTD/RO | on ground/max depth | 81°27.58'N | 31°5.89'E | 500 |
| PS80/209-1 | 06.08.2012 | 07:04 | CTD/RO | on ground/max depth | 81°29.61'N | 30°10.33'E | 709 |
| PS80/209-2 | 06.08.2012 | 14:28 | XCTD | on ground/max depth | 81°30.03'N | 30°0.08'E | 789 |
| PS80/209-3 | 06.08.2012 | 15:17 | XCTD | on ground/max depth | 81°37.50'N | 29°59.97'E | 2274 |
| PS80/210-1 | 06.08.2012 | 08:12 | MN | on ground/max depth | 81°29.73'N | 30°11.03'E | 718 |
| PS80/211-1 | 06.08.2012 | 10:26 | POS | profile start | 81°28.24'N | 30°47.26'E | 588 |
| PS80/211-1 | 06.08.2012 | 10:26 | POS | profile end | 81°28.24'N | 30°47.26'E | 588 |
| PS80/212-1 | 06.08.2012 | 16:42 | CTD/RO | on ground/max depth | 81°39.99'N | 29°59.81'E | 2528 |
| PS80/212-2 | 06.08.2012 | 18:25 | XCTD | on ground/max depth | 81°46.61'N | 30°0.03'E | 2984 |
| PS80/213-1 | 06.08.2012 | 20:10 | CTD/RO | on ground/max depth | 81°50.15'N | 29°57.23'E | 3152 |
| PS80/213-2 | 06.08.2012 | 21:48 | XCTD | on ground/max depth | 81°55.42'N | 29°59.85'E | 3244 |
| PS80/214-1 | 06.08.2012 | 23:42 | CTD/RO | on ground/max depth | 82°0.15'N | 29°59.90'E | 3374 |
| PS80/214-2 | 07.08.2012 | 01:49 | XCTD | on ground/max depth | 82°7.97'N | 30°0.04'E | 3377 |
| PS80/214-2 | 07.08.2012 | 01:57 | XCTD | on ground/max depth | 82°9.31'N | 30°0.01'E | 3397 |
| PS80/215-1 | 07.08.2012 | 05:32 | CTD/RO | on ground/max depth | 82°29.71'N | 30°0.18'E | 3627 |
| PS80/216-1 | 07.08.2012 | 07:17 | SUIT | profile start | 82°29.18'N | 30°0.41'E | 3617 |
| PS80/216-1 | 07.08.2012 | 07:43 | SUIT | profile end | 82°30.39'N | 29°53.82'E | 3648 |
| PS80/217-1 | 07.08.2012 | 10:16 | ROV | profile start | 82°39.37'N | 30°1.35'E | 3707 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| PS80/217-1 | 07.08.2012 | 10:17 | ROV | profile end | 82°39.38’N | 30°1.41’E | 3706 |
| PS80/218-1 | 07.08.2012 | 15:32 | CTD/RO | on ground/max depth | 82°59.40’N | 30°3.23’E | 3850 |
| PS80/219-1 | 08.08.2012 | 00:02 | CTD/RO | on ground/max depth | 83°28.59’N | 29°55.76’E | 3994 |
| PS80/220-1 | 08.08.2012 | 09:28 | CTD/RO | on ground/max depth | 83°59.97’N | 30°1.26’E | 4016 |
| PS80/221-1 | 08.08.2012 | 11:22 | LANDER | in the water | 84°0.03’N | 30°4.44’E | 4011 |
| PS80/221-2 | 08.08.2012 | 14:03 | LANDER | in the water | 83°59.92’N | 29°52.61’E | 4016 |
| PS80/221-3 | 08.08.2012 | 17:05 | LANDER | in the water | 83°59.75’N | 29°44.46’E | 4013 |
| PS80/222-1 | 09.08.2012 | 00:26 | AGT | profile start | 84°2.26’N | 30°9.72’E | 4012 |
| PS80/222-1 | 09.08.2012 | 01:03 | AGT | profile end | 84°2.28’N | 30°11.27’E | 4013 |
| PS80/223-1 | 09.08.2012 | 04:12 | SUIT | profile start | 84°4.11’N | 30°28.25’E | 4019 |
| PS80/223-1 | 09.08.2012 | 04:27 | SUIT | profile end | 84°3.75’N | 30°32.75’E | 4014 |
| PS80/224-1 | 09.08.2012 | 08:08 | ICE | information | 84°3.03’N | 31°6.83’E | 4014 |
| PS80/224-1 | 11.08.2012 | 12:23 | ICE | on ground/max depth | 84°2.03’N | 31°6.57’E | 4011 |
| PS80/225-1 | 09.08.2012 | 10:35 | TVMUC | on ground/max depth | 84°2.839'N | 31°11.558'E | 4019 |
| PS80/225-2 | 09.08.2012 | 13:51 | TVMUC | on ground/max depth | 84°1.998'N | 31°14.678'E | 4010 |
| PS80/226-1 | 09.08.2012 | 17:08 | MN | on ground/max depth | 84°1.60’N | 31°13.81’E | 4011 |
| PS80/227-1 | 09.08.2012 | 19:25 | CTD/RO | on ground/max depth | 84°1.46’N | 31°13.66’E | 4011 |
| PS80/228-1 | 10.08.2012 | 07:27 | OFOS | profile start | 84°0.509'N | 31°21.883'E | 4010 |
| PS80/228-1 | 10.08.2012 | 11:45 | OFOS | profile end | 83°59.873'N | 31°25.564'E | 4011 |
| PS80/229-1 | 10.08.2012 | 14:00 | MG | on ground/max depth | 83°59.61’N | 31°22.45’E | 4009 |
| PS80/229-2 | 10.08.2012 | 16:25 | MG | on ground/max depth | 83°59.83’N | 31°19.07’E | 4008 |
| PS80/230-1 | 11.08.2012 | 06:12 | CTD/RO | on ground/max depth | 84°1.34’N | 31°13.14’E | 4011 |
| PS80/231-1 | 11.08.2012 | 07:08 | CTD/RO | on ground/max depth | 84°1.48’N | 31°12.60’E | 4013 |
| PS80/231-2 | 11.08.2012 | 08:40 | CTD/RO | on ground/max depth | 84°1.66’N | 31°11.67’E | 4056 |
| PS80/232-1 | 11.08.2012 | 09:44 | ISP | on ground/max depth | 84°1.76’N | 31°10.71’E | 4012 |
| PS80/233-1 | 11.08.2012 | 13:43 | SUIT | profile start | 84°2.52’N | 31°16.55’E | 4011 |
| PS80/233-1 | 11.08.2012 | 14:08 | SUIT | profile end | 84°1.85’N | 31°7.22’E | 4012 |
| PS80/234-1 | 12.08.2012 | 12:10 | CTD/RO | on ground/max depth | 83°59.40’N | 39°28.42’E | 3977 |
| PS80/234-2 | 12.08.2012 | 13:01 | XCTD | on ground/max depth | 83°59.71’N | 40°0.94’E | 3966 |
| PS80/234-3 | 12.08.2012 | 19:17 | XCTD | on ground/max depth | 83°58.58’N | 46°46.51’E | 3932 |
| PS80/234-4 | 13.08.2012 | 03:30 | XCTD | on ground/max depth | 83°58.58’N | 55°5.84’E | 3780 |
| PS80/235-1 | 13.08.2012 | 09:37 | CTD/RO | on ground/max depth | 83°55.36’N | 60°39.31’E | 3574 |
| PS80/235-2 | 13.08.2012 | 12:48 | XCTD | on ground/max depth | 83°52.56’N | 63°32.40’E | 3437 |
| PS80/235-3 | 13.08.2012 | 21:36 | XCTD | on ground/max depth | 83°54.38’N | 71°56.26’E | 4807 |
| PS80/236-1 | 14.08.2012 | 05:27 | LANDER | in the water | 83°55.39’N | 78°18.03’E | 3470 |
| PS80/236-2 | 14.08.2012 | 07:52 | LANDER | in the water | 83°55.20’N | 78°34.24’E | 3464 |
| PS80/236-3 | 14.08.2012 | 10:26 | LANDER | in the water | 83°55.35’N | 78°41.87’E | 3466 |
| PS80/237-1 | 14.08.2012 | 13:10 | ICE | action | 83°59.19’N | 78°6.20’E | 3485 |
| PS80/237-1 | 16.08.2012 | 18:42 | ICE | on ground/max depth | 83°56.02’N | 75°30.28’E | 3425 |
| PS80/238-1 | 14.08.2012 | 13:32 | CTD/RO | on ground/max depth | 83°59.10’N | 78°5.39’E | 3485 |
| PS80/239-1 | 14.08.2012 | 15:17 | OFOS | profile start | 83°58.682'N | 78°0.421'E | 3477 |
| PS80/239-1 | 14.08.2012 | 20:32 | OFOS | profile end | 83°58.115'N | 77°33.415'E | 3469 |
| PS80/240-1 | 15.08.2012 | 07:50 | TVMUC | on ground/max depth | 83°56.84’N | 76°52.32’E | 4808 |
| PS80/240-2 | 15.08.2012 | 10:38 | TVMUC | on ground/max depth | 83°57.03’N | 76°48.31’E | 3446 |
| PS80/240-3 | 15.08.2012 | 13:00 | MUC | on ground/max depth | 83°56.61’N | 76°46.73’E | 3442 |
| PS80/241-1 | 15.08.2012 | 14:50 | MG | on ground/max depth | 83°55.94’N | 76°42.68’E | 3432 |
| PS80/242-1 | 16.08.2012 | 07:17 | CTD/RO | on ground/max depth | 83°54.32’N | 76°0.37’E | 3413 |
| PS80/243-1 | 16.08.2012 | 09:30 | MN | on ground/max depth | 83°54.93’N | 75°57.86’E | 3420 |
| PS80/244-1 | 16.08.2012 | 10:26 | CTD/RO | on ground/max depth | 83°55.10’N | 75°58.26’E | 3420 |
| PS80/245-1 | 16.08.2012 | 11:25 | CTD/RO | on ground/max depth | 83°55.14’N | 75°58.89’E | 3420 |
| PS80/246-1 | 16.08.2012 | 12:48 | CTD/RO | on ground/max depth | 83°54.96’N | 75°59.31’E | 3466 |
| PS80/247-1 | 16.08.2012 | 13:56 | ISP | on ground/max depth | 83°54.69’N | 75°57.92’E | 3420 |
| PS80/248-1 | 16.08.2012 | 18:48 | SUIT | profile start | 83°56.03’N | 75°30.44’E | 3423 |
| PS80/248-1 | 16.08.2012 | 19:54 | SUIT | profile end | 83°57.02’N | 75°30.90’E | 3431 |
| PS80/249-1 | 17.08.2012 | 02:05 | AGT | profile start | 83°58.04’N | 77°40.88’E | 3470 |
| PS80/249-1 | 17.08.2012 | 02:35 | AGT | profile end | 83°58.09’N | 77°47.67’E | 3470 |
| PS80/249-2 | 17.08.2012 | 17:28 | AGT | profile start | 83°58.32’N | 77°40.95’E | 3471 |

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| PS80/249-2 | 17.08.2012 | 17:43 | AGT | profile end | 83°58.24’N | 77°37.89’E | 3473 |
| PS80/250-1 | 18.08.2012 | 08:13 | CTD/RO | on ground/max depth | 83°35.29’N | 87°27.11’E | 3508 |
| PS80/250-2 | 18.08.2012 | 08:34 | XCTD | on ground/max depth | 83°35.33’N | 87°36.27’E | 3513 |
| PS80/251-1 | 19.08.2012 | 10:18 | LANDER | in the water | 82°38.74’N | 108°35.38’E | 3557 |
| PS80/251-2 | 19.08.2012 | 12:11 | LANDER | in the water | 82°38.97’N | 108°45.43’E | 3560 |
| PS80/251-3 | 19.08.2012 | 14:01 | LANDER | in the water | 82°38.19’N | 108°52.05’E | 3605 |
| PS80/252-1 | 19.08.2012 | 18:27 | MOR | on deck | 82°38.73’N | 108°28.56’E | 3555 |
| PS80/253-1 | 20.08.2012 | 04:13 | MOR | on deck | 82°41.60’N | 109°6.11’E | 3568 |
| PS80/254-1 | 20.08.2012 | 06:02 | CTD/RO | on ground/max depth | 82°42.52’N | 109°8.62’E | 3570 |
| PS80/255-1 | 20.08.2012 | 08:48 | ICE | action | 82°40.24’N | 109°35.37’E | 3569 |
| PS80/255-1 | 22.08.2012 | 11:49 | ICE | on deck | 83°8.54’N | 109°55.76’E | 3608 |
| PS80/256-1 | 20.08.2012 | 09:07 | CTD/RO | on ground/max depth | 82°40.45’N | 109°35.38’E | 3571 |
| PS80/257-1 | 20.08.2012 | 10:34 | OFOS | profile start | 82°41.161'N | 109°35.866'E | 3572 |
| PS80/257-1 | 20.08.2012 | 14:30 | OFOS | profile end | 82°43.664'N | 109°36.365'E | 3575 |
| PS80/258-1 | 20.08.2012 | 16:50 | SUIT | profile start | 82°44.44’N | 109°38.65’E | 3574 |
| PS80/258-1 | 20.08.2012 | 17:15 | SUIT | profile end | 82°43.85’N | 109°34.99’E | 3547 |
| PS80/259-1 | 20.08.2012 | 21:16 | AGT | profile start | 82°42.54’N | 109°34.66’E | 3575 |
| PS80/259-1 | 20.08.2012 | 22:11 | AGT | profile end | 82°43.41’N | 109°33.75’E | 3576 |
| PS80/260-1 | 21.08.2012 | 07:44 | TVMUC | off ground | 82°52.61’N | 109°51.75’E | 3589 |
| PS80/260-2 | 21.08.2012 | 10:35 | TVMUC | on ground/max depth | 82°54.01’N | 109°48.78’E | 3591 |
| PS80/260-3 | 21.08.2012 | 13:36 | TVMUC | on ground/max depth | 82°55.78’N | 109°50.05’E | 3595 |
| PS80/261-1 | 21.08.2012 | 15:32 | MN | on ground/max depth | 82°56.65’N | 109°53.16’E | 3598 |
| PS80/262-1 | 21.08.2012 | 18:42 | MG | on ground/max depth | 82°57.66’N | 109°57.73’E | 3598 |
| PS80/262-2 | 21.08.2012 | 20:32 | MG | on ground/max depth | 82°58.57’N | 109°55.12’E | 3601 |
| PS80/263-1 | 22.08.2012 | 05:14 | CTD/RO | on ground/max depth | 83°4.73’N | 110°8.99’E | 3606 |
| PS80/264-1 | 22.08.2012 | 06:17 | CTD/RO | on ground/max depth | 83°4.89’N | 110°8.49’E | 3605 |
| PS80/265-1 | 22.08.2012 | 07:21 | CTD/RO | on ground/max depth | 83°5.17’N | 110°5.98’E | 3605 |
| PS80/266-1 | 22.08.2012 | 08:35 | ISP | on ground/max depth | 83°5.76’N | 110°1.99’E | 3606 |
| PS80/267-1 | 23.08.2012 | 04:30 | XCTD | in the water | 82°40.75’N | 109°27.11’E | 3570 |
| PS80/267-2 | 23.08.2012 | 08:23 | CTD/RO | on ground/max depth | 82°47.98’N | 110°48.77’E | 3584 |
| PS80/267-3 | 23.08.2012 | 12:21 | XCTD | in the water | 82°51.34’N | 111°56.49’E | 3589 |
| PS80/267-4 | 23.08.2012 | 13:26 | XCTD | in the water | 82°54.17’N | 112°46.49’E | 3609 |
| PS80/268-1 | 23.08.2012 | 15:56 | CTD/RO | on ground/max depth | 82°56.90’N | 113°43.64’E | 3628 |
| PS80/268-2 | 23.08.2012 | 18:24 | XCTD | in the water | 83°0.24’N | 114°45.53’E | 3282 |
| PS80/268-3 | 23.08.2012 | 19:32 | XCTD | in the water | 83°4.87’N | 115°46.44’E | 4021 |
| PS80/269-1 | 23.08.2012 | 22:15 | CTD/RO | on ground/max depth | 83°7.43’N | 116°56.05’E | 4410 |
| PS80/269-2 | 24.08.2012 | 00:36 | XCTD | in the water | 83°9.15’N | 117°34.19’E | 3560 |
| PS80/269-3 | 24.08.2012 | 01:18 | XCTD | in the water | 83°10.15’N | 118°23.43’E | 3636 |
| PS80/270-1 | 24.08.2012 | 03:45 | CTD/RO | on ground/max depth | 83°12.38’N | 119°26.66’E | 3575 |
| PS80/270-2 | 24.08.2012 | 05:51 | XCTD | in the water | 83°13.59’N | 120°29.37’E | 3846 |
| PS80/270-3 | 24.08.2012 | 06:48 | XCTD | in the water | 83°15.85’N | 121°29.08’E | 3535 |
| PS80/271-1 | 24.08.2012 | 09:09 | CTD/RO | on ground/max depth | 83°16.62’N | 122°26.58’E | 3831 |
| PS80/271-2 | 24.08.2012 | 11:43 | XCTD | in the water | 83°17.27’N | 123°24.22’E | 4239 |
| PS80/272-1 | 24.08.2012 | 14:16 | MOR | action | 83°16.22’N | 124°51.01’E | 4237 |
| PS80/273-1 | 24.08.2012 | 17:04 | MOR | on ground/max depth | 83°17.08’N | 124°31.01’E | 4260 |
| PS80/274-1 | 24.08.2012 | 21:25 | MOR | action | 83°22.13’N | 125°13.79’E | 4247 |
| PS80/275-1 | 25.08.2012 | 00:43 | CTD/RO | on ground/max depth | 83°23.02’N | 125°5.33’E | 4244 |
| PS80/276-1 | 25.08.2012 | 06:50 | SUIT | profile start | 83°4.38’N | 129°7.76’E | 4189 |
| PS80/276-1 | 25.08.2012 | 07:28 | SUIT | profile end | 83°3.97’N | 129°4.25’E | 4189 |
| PS80/277-1 | 25.08.2012 | 10:33 | ICE | in the water | 82°52.95’N | 130°7.77’E | 4161 |
| PS80/277-1 | 26.08.2012 | 17:36 | ICE | on deck | 82°53.69’N | 129°46.58’E | 4173 |
| PS80/277-2 | 25.08.2012 | 11:57 | TVMUC | on ground/max depth | 82°52.78’N | 130°3.72’E | 4166 |
| PS80/277-3 | 25.08.2012 | 16:46 | TVMUC | on ground/max depth | 82°53.48’N | 129°54.76’E | 4166 |
| PS80/277-4 | 25.08.2012 | 19:45 | TVMUC | on ground/max depth | 82°53.49’N | 129°57.54’E | 4166 |
| PS80/278-1 | 25.08.2012 | 14:10 | MG | on ground/max depth | 82°52.96’N | 129°57.29’E | 4167 |
| PS80/279-1 | 25.08.2012 | 21:55 | MN | on ground/max depth | 82°53.06’N | 129°57.88’E | 4166 |
| PS80/280-1 | 26.08.2012 | 04:19 | CTD/RO | on ground/max depth | 82°53.38’N | 129°48.68’E | 4173 |

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| PS80/281-1 | 26.08.2012 | 05:36 | CTD/RO | on ground/max depth | 82°53.62’N | 129°49.91’E | 4223 |
| PS80/282-1 | 26.08.2012 | 07:32 | OFOS | profile start | 82°53.632'N | 129°52.933'E | 4168 |
| PS80/282-1 | 26.08.2012 | 12:00 | OFOS | profile end | 82°52.774'N | 129°51.508'E | 4172 |
| PS80/283-1 | 26.08.2012 | 14:15 | ISP | on ground/max depth | 82°52.94’N | 129°46.84’E | 4173 |
| PS80/284-1 | 26.08.2012 | 17:18 | CTD/RO | on ground/max depth | 82°53.65’N | 129°46.15’E | 4173 |
| PS80/285-1 | 26.08.2012 | 18:15 | SUIT | profile start | 82°53.65’N | 129°49.38’E | 4170 |
| PS80/285-1 | 26.08.2012 | 18:40 | SUIT | profile end | 82°53.36’N | 129°46.24’E | 4172 |
| PS80/286-1 | 26.08.2012 | 22:20 | AGT | profile start | 82°47.43’N | 129°52.66’E | 4158 |
| PS80/286-1 | 26.08.2012 | 23:33 | AGT | profile end | 82°46.68’N | 129°50.80’E | 4159 |
| PS80/287-1 | 27.08.2012 | 03:23 | XCTD | in the water | 82°38.07’N | 129°13.86’E | 4136 |
| PS80/287-2 | 27.08.2012 | 06:09 | XCTD | in the water | 82°22.49’N | 127°57.17’E | 4099 |
| PS80/287-3 | 27.08.2012 | 09:38 | CTD/RO | on ground/max depth | 82°9.94’N | 126°58.18’E | 4820 |
| PS80/287-4 | 27.08.2012 | 13:21 | XCTD | in the water | 81°48.08’N | 126°38.48’E | 4043 |
| PS80/287-5 | 27.08.2012 | 15:04 | XCTD | action | 81°31.16’N | 126°36.68’E | 4010 |
| PS80/287-6 | 27.08.2012 | 17:47 | XCTD | in the water | 81°13.10’N | 126°23.81’E | 3943 |
| PS80/288-1 | 27.08.2012 | 22:23 | CTD/RO | on ground/max depth | 80°51.30’N | 126°33.63’E | 3784 |
| PS80/288-2 | 28.08.2012 | 01:26 | XCTD | in the water | 80°39.29’N | 126°56.37’E | 3786 |
| PS80/288-3 | 28.08.2012 | 03:39 | XCTD | in the water | 80°25.86’N | 127°14.22’E | 3672 |
| PS80/288-4 | 28.08.2012 | 05:22 | XCTD | in the water | 80°12.63’N | 128°1.65’E | 3599 |
| PS80/289-1 | 28.08.2012 | 08:01 | CTD/RO | on ground/max depth | 80°0.26’N | 128°29.03’E | 3549 |
| PS80/289-2 | 28.08.2012 | 10:54 | XCTD | in the water | 79°49.31’N | 129°47.27’E | 3471 |
| PS80/290-1 | 28.08.2012 | 12:04 | LANDER | in the water | 79°42.16’N | 130°35.34’E | 3420 |
| PS80/290-2 | 28.08.2012 | 13:50 | LANDER | in the water | 79°40.87’N | 130°35.58’E | 3401 |
| PS80/290-3 | 28.08.2012 | 15:36 | LANDER | in the water | 79°39.86’N | 130°35.09’E | 3398 |
| PS80/291-1 | 28.08.2012 | 18:41 | CTD/RO | on ground/max depth | 79°39.01’N | 130°34.77’E | 3389 |
| PS80/291-2 | 29.08.2012 | 01:38 | XCTD | in the water | 79°32.93’N | 130°47.43’E | 3324 |
| PS80/291-3 | 29.08.2012 | 02:15 | XCTD | in the water | 79°26.54’N | 131°0.76’E | 3262 |
| PS80/292-1 | 28.08.2012 | 21:22 | TVMUC | on ground/max depth | 79°38.989'N | 130°35.848'E | 3387 |
| PS80/292-2 | 28.08.2012 | 23:54 | TVMUC | on ground/max depth | 79°39.033'N | 130°35.889'E | 3390 |
| PS80/293-1 | 29.08.2012 | 04:07 | CTD/RO | on ground/max depth | 79°20.92’N | 131°12.43’E | 3229 |
| PS80/293-2 | 29.08.2012 | 05:55 | XCTD | in the water | 79°14.36’N | 131°24.96’E | 3200 |
| PS80/293-3 | 29.08.2012 | 06:31 | XCTD | in the water | 79°8.08’N | 131°36.95’E | 3116 |
| PS80/294-1 | 29.08.2012 | 08:21 | CTD/RO | on ground/max depth | 79°3.01’N | 131°46.78’E | 3079 |
| PS80/294-2 | 29.08.2012 | 10:08 | XCTD | in the water | 78°56.93’N | 131°57.57’E | 3025 |
| PS80/294-3 | 29.08.2012 | 10:43 | XCTD | in the water | 78°50.82’N | 132°8.58’E | 3004 |
| PS80/295-1 | 29.08.2012 | 12:28 | CTD/RO | on ground/max depth | 78°44.73’N | 132°19.54’E | 2968 |
| PS80/295-2 | 29.08.2012 | 14:13 | XCTD | in the water | 78°38.50’N | 132°34.61’E | 2838 |
| PS80/295-3 | 29.08.2012 | 14:49 | XCTD | in the water | 78°32.71’N | 132°48.65’E | 2632 |
| PS80/296-1 | 29.08.2012 | 16:32 | TVMUC | on ground/max depth | 78°23.317'N | 133°12.09’E | 1986 |
| PS80/297-1 | 29.08.2012 | 19:12 | CTD/RO | on ground/max depth | 78°22.37’N | 133°11.77’E | 1921 |
| PS80/297-2 | 29.08.2012 | 20:56 | XCTD | in the water | 78°15.10’N | 133°15.53’E | 1305 |
| PS80/298-1 | 29.08.2012 | 22:10 | CTD/RO | on ground/max depth | 78°8.07’N | 133°20.51’E | 791 |
| PS80/299-1 | 29.08.2012 | 23:16 | TVMUC | on ground/max depth | 78°8.169'N | 133°19.967'E | 787 |
| PS80/300-1 | 30.08.2012 | 05:09 | MOR | action | 77°58.55’N | 136°57.48’E | 68 |
| PS80/301-1 | 30.08.2012 | 12:12 | CTD/RO | on ground/max depth | 77°58.52’N | 136°58.24’E | 69 |
| PS80/301-2 | 30.08.2012 | 15:30 | XCTD | in the water | 77°45.06’N | 135°8.57’E | 67 |
| PS80/301-3 | 30.08.2012 | 17:50 | XCTD | in the water | 77°32.45’N | 133°28.15’E | 63 |
| PS80/301-4 | 30.08.2012 | 20:16 | XCTD | in the water | 77°19.60’N | 131°47.55’E | 69 |
| PS80/301-5 | 30.08.2012 | 22:42 | XCTD | in the water | 77°6.72’N | 130°8.34’E | 63 |
| PS80/301-6 | 31.08.2012 | 01:02 | XCTD | in the water | 76°54.17’N | 128°33.32’E | 78 |
| PS80/301-7 | 31.08.2012 | 03:20 | XCTD | in the water | 76°41.68’N | 127°0.13’E | 71 |
| PS80/302-1 | 30.08.2012 | 12:52 | TVMUC | on ground/max depth | 77°58.279'N | 136°58.061'E | 68 |
| PS80/303-1 | 31.08.2012 | 05:10 | MOR | action | 76°34.18’N | 126°4.73’E | 58 |
| PS80/304-1 | 31.08.2012 | 08:53 | MOR | action | 76°47.98’N | 125°59.81’E | 80 |
| PS80/305-1 | 31.08.2012 | 11:09 | CTD/RO | on ground/max depth | 76°48.04’N | 126°0.68’E | 79 |
| PS80/305-2 | 31.08.2012 | 14:07 | XCTD | in the water | 77°7.64’N | 124°26.13’E | 292 |
| PS80/305-3 | 31.08.2012 | 16:29 | XCTD | in the water | 77°13.01’N | 122°46.18’E | 114 |

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| PS80/305-4 | 31.08.2012 | 18:50 | XCTD | in the water | 77°19.85’N | 121°4.56’E | 398 |
| PS80/305-5 | 31.08.2012 | 21:27 | XCTD | in the water | 77°23.78’N | 119°20.43’E | 638 |
| PS80/305-6 | 01.09.2012 | 00:08 | XCTD | in the water | 77°29.07’N | 117°35.74’E | 540 |
| PS80/305-7 | 01.09.2012 | 03:15 | XCTD | in the water | 77°23.53’N | 115°48.81’E | 78 |
| PS80/306-1 | 31.08.2012 | 11:23 | HS_PS | profile start | 76°48.40’N | 125°57.85’E | 81 |
| PS80/306-1 | 01.09.2012 | 05:04 | HS_PS | profile end | 77°10.22’N | 114°55.08’E | 71 |
| PS80/307-1 | 01.09.2012 | 06:10 | MOR | information | 77°10.23’N | 114°55.14’E | 71 |
| PS80/308-1 | 01.09.2012 | 10:00 | CTD/RO | on ground/max depth | 77°10.29’N | 114°55.20’E | 70 |
| PS80/309-1 | 01.09.2012 | 10:42 | TVMUC | on ground/max depth | 77°10.15’N | 114°54.96’E | 70 |
| PS80/310-1 | 01.09.2012 | 15:51 | TVMUC | on ground/max depth | 77°15.118'N | 118°33.271'E | 24 |
| PS80/311-1 | 01.09.2012 | 17:34 | CTD/RO | on ground/max depth | 77°23.81’N | 118°11.75’E | 530 |
| PS80/311-2 | 01.09.2012 | 20:04 | XCTD | in the water | 77°30.33’N | 118°20.35’E | 982 |
| PS80/311-3 | 01.09.2012 | 20:47 | XCTD | in the water | 77°37.60’N | 118°30.22’E | 1362 |
| PS80/312-1 | 01.09.2012 | 19:05 | TVMUC | off ground | 77°23.796'N | 118°0.00’E | 529 |
| PS80/313-1 | 01.09.2012 | 22:11 | TVMUC | on ground/max depth | 77°40.805'N | 118°0.00’E | 1489 |
| PS80/314-1 | 02.09.2012 | 00:05 | CTD/RO | on ground/max depth | 77°42.95’N | 118°18.99’E | 1508 |
| PS80/314-2 | 02.09.2012 | 01:32 | XCTD | in the water | 77°49.92’N | 118°22.16’E | 1682 |
| PS80/314-3 | 02.09.2012 | 02:08 | XCTD | in the water | 77°56.38’N | 118°24.85’E | 1807 |
| PS80/315-1 | 02.09.2012 | 03:33 | CTD/RO | on ground/max depth | 78°1.94’N | 118°27.29’E | 1895 |
| PS80/315-2 | 02.09.2012 | 05:02 | XCTD | in the water | 78°8.04’N | 118°29.88’E | 2006 |
| PS80/315-2 | 02.09.2012 | 05:07 | XCTD | in the water | 78°8.93’N | 118°30.29’E | 2015 |
| PS80/315-3 | 02.09.2012 | 05:41 | XCTD | in the water | 78°15.03’N | 118°32.95’E | 2133 |
| PS80/316-1 | 02.09.2012 | 07:14 | CTD/RO | on ground/max depth | 78°21.00’N | 118°36.00’E | 2226 |
| PS80/316-2 | 02.09.2012 | 08:49 | XCTD | in the water | 78°27.78’N | 118°38.77’E | 2342 |
| PS80/316-3 | 02.09.2012 | 09:23 | XCTD | in the water | 78°33.83’N | 118°41.61’E | 2466 |
| PS80/317-1 | 02.09.2012 | 11:01 | CTD/RO | on ground/max depth | 78°39.98’N | 118°44.58’E | 2570 |
| PS80/317-2 | 02.09.2012 | 14:33 | XCTD | in the water | 78°45.96’N | 118°56.83’E | 2684 |
| PS80/317-3 | 02.09.2012 | 15:09 | XCTD | in the water | 78°51.91’N | 119°9.26’E | 2768 |
| PS80/317-4 | 02.09.2012 | 15:46 | XCTD | in the water | 78°58.04’N | 119°22.24’E | 2851 |
| PS80/317-5 | 02.09.2012 | 16:22 | XCTD | in the water | 79°3.95’N | 119°34.83’E | 2936 |
| PS80/318-1 | 02.09.2012 | 13:12 | TVMUC | on ground/max depth | 78°40.034'N | 118°44.39’E | 2570 |
| PS80/319-1 | 02.09.2012 | 18:11 | CTD/RO | on ground/max depth | 79°9.75’N | 119°47.08’E | 3006 |
| PS80/320-1 | 02.09.2012 | 20:39 | TVMUC | on ground/max depth | 79°9.696'N | 119°47.258'E | 3003 |
| PS80/321-1 | 04.09.2012 | 07:22 | SUIT | profile start | 81°43.18’N | 130°2.09’E | 4012 |
| PS80/321-1 | 04.09.2012 | 07:48 | SUIT | profile end | 81°43.80’N | 130°5.67’E | 4015 |
| PS80/322-1 | 04.09.2012 | 08:38 | BUOY | on ground/max depth | 81°45.79’N | 130°0.08’E | 4020 |
| PS80/323-1 | 04.09.2012 | 11:00 | ICE | in the water | 81°55.53’N | 131°7.72’E | 4031 |
| PS80/323-1 | 05.09.2012 | 15:00 | ICE | on ground/max depth | 81°53.08’N | 130°53.25’E | 4032 |
| PS80/324-1 | 04.09.2012 | 11:24 | CTD/RO | on ground/max depth | 81°55.50’N | 131°6.34’E | 4040 |
| PS80/325-1 | 04.09.2012 | 14:50 | ISP | on ground/max depth | 81°55.61’N | 130°56.43’E | 4043 |
| PS80/326-1 | 04.09.2012 | 16:15 | MG | on ground/max depth | 81°55.62’N | 130°55.00’E | 4038 |
| PS80/327-1 | 04.09.2012 | 18:59 | OFOS | profile start | 81°55.066'N | 130°55.49’E | 4042 |
| PS80/327-1 | 04.09.2012 | 23:09 | OFOS | profile end | 81°53.363'N | 130°53.361'E | 4033 |
| PS80/328-1 | 05.09.2012 | 06:59 | MN | on ground/max depth | 81°53.31’N | 130°49.14’E | 4035 |
| PS80/329-1 | 05.09.2012 | 10:44 | CTD/RO | on ground/max depth | 81°52.55’N | 130°52.65’E | 4032 |
| PS80/330-1 | 05.09.2012 | 13:03 | MUC | on ground/max depth | 81°52.578'N | 130°51.528'E | 4034 |
| PS80/331-1 | 05.09.2012 | 16:05 | SUIT | profile start | 81°54.25’N | 130°51.35’E | 4037 |
| PS80/331-1 | 05.09.2012 | 16:30 | SUIT | profile end | 81°53.89’N | 130°46.34’E | 4036 |
| PS80/332-1 | 05.09.2012 | 19:53 | AGT | profile start | 81°54.56’N | 130°52.60’E | 4038 |
| PS80/332-1 | 05.09.2012 | 20:09 | AGT | profile end | 81°54.37’N | 130°50.59’E | 4039 |
| PS80/333-1 | 06.09.2012 | 06:13 | SUIT | profile start | 82°59.46’N | 127°5.47’E | 4187 |
| PS80/333-1 | 06.09.2012 | 06:39 | SUIT | profile end | 83°0.20’N | 127°8.36’E | 4187 |
| PS80/333-2 | 06.09.2012 | 07:18 | CTD/RO | on ground/max depth | 83°0.17’N | 127°10.77’E | 4190 |
| PS80/333-3 | 06.09.2012 | 19:09 | XCTD | in the water | 84°31.81’N | 124°21.05’E | 4331 |
| PS80/334-1 | 07.09.2012 | 00:15 | LANDER | in the water | 85°9.79’N | 123°0.02’E | 4356 |
| PS80/334-2 | 07.09.2012 | 02:16 | LANDER | in the water | 85°8.94’N | 123°10.16’E | 4354 |
| PS80/334-3 | 07.09.2012 | 04:05 | LANDER | in the water | 85°7.92’N | 123°9.16’E | 4356 |

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| PS80/335-1 | 07.09.2012 | 07:47 | ICE | on ground/max depth | 85°6.11’N | 122°14.72’E | 4355 |
| PS80/335-1 | 09.09.2012 | 15:12 | ICE | on deck | 85°13.56’N | 123°44.31’E | 4354 |
| PS80/336-1 | 07.09.2012 | 09:44 | CTD/RO | on ground/max depth | 85°5.66’N | 122°15.97’E | 4355 |
| PS80/337-1 | 07.09.2012 | 12:25 | MN | on ground/max depth | 85°5.56’N | 122°16.65’E | 4356 |
| PS80/338-1 | 07.09.2012 | 14:51 | TVMUC | on ground/max depth | 85°5.636'N | 122°20.199'E | 4357 |
| PS80/338-2 | 07.09.2012 | 18:22 | TVMUC | on ground/max depth | 85°5.154'N | 122°29.434'E | 4354 |
| PS80/339-1 | 08.09.2012 | 08:49 | MG | on ground/max depth | 85°3.44’N | 122°44.17’E | 4352 |
| PS80/340-1 | 08.09.2012 | 11:43 | OFOS | profile start | 85°3.519'N | 122°41.60’E | 4351 |
| PS80/340-1 | 08.09.2012 | 19:35 | OFOS | profile end | 85°5.126'N | 122°50.085'E | 4354 |
| PS80/341-1 | 09.09.2012 | 08:06 | CTD/RO | on ground/max depth | 85°9.54’N | 123°21.54’E | 4353 |
| PS80/342-1 | 09.09.2012 | 09:08 | CTD/RO | on ground/max depth | 85°9.89’N | 123°25.87’E | 4354 |
| PS80/343-1 | 09.09.2012 | 10:22 | CTD/RO | on ground/max depth | 85°10.38’N | 123°28.85’E | 4353 |
| PS80/344-1 | 09.09.2012 | 11:31 | ISP | on ground/max depth | 85°10.97’N | 123°31.24’E | 4353 |
| PS80/345-1 | 09.09.2012 | 16:29 | SUIT | profile start | 85°15.25’N | 123°53.21’E | 4354 |
| PS80/345-1 | 09.09.2012 | 16:59 | SUIT | profile end | 85°14.78’N | 124°4.30’E | 4353 |
| PS80/346-1 | 09.09.2012 | 20:55 | AGT | profile start | 85°4.35’N | 122°42.42’E | 4353 |
| PS80/346-1 | 09.09.2012 | 21:10 | AGT | profile end | 85°4.13’N | 122°41.49’E | 4354 |
| PS80/347-1 | 17.09.2012 | 16:27 | HS_PS | profile start | 86°12.70’N | 60°17.22’E | 4014 |
| PS80/347-1 | 17.09.2012 | 19:57 | HS_PS | profile end | 86°36.26’N | 61°50.13’E | 3099 |
| PS80/348-1 | 17.09.2012 | 17:15 | XCTD | in the water | 86°18.38’N | 60°7.91’E | 3024 |
| PS80/348-2 | 17.09.2012 | 20:16 | XCTD | in the water | 86°38.39’N | 61°49.98’E | 2571 |
| PS80/348-3 | 17.09.2012 | 23:36 | XCTD | in the water | 87°0.07’N | 61°38.17’E | 2080 |
| PS80/348-4 | 18.09.2012 | 02:57 | XCTD | in the water | 87°20.22’N | 60°28.72’E | 1078 |
| PS80/348-5 | 18.09.2012 | 06:20 | XCTD | in the water | 87°41.86’N | 60°49.04’E | 3999 |
| PS80/349-1 | 18.09.2012 | 09:38 | ICE | action | 87°56.01’N | 61°13.04’E | 4380 |
| PS80/349-1 | 19.09.2012 | 14:20 | ICE | on ground/max depth | 87°55.47’N | 61°7.45’E | 4384 |
| PS80/350-1 | 18.09.2012 | 11:25 | TVMUC | on ground/max depth | 87°56.003'N | 61°10.175'E | 4381 |
| PS80/350-2 | 18.09.2012 | 14:51 | TVMUC | on ground/max depth | 87°55.92’N | 61°2.572'E | 4384 |
| PS80/350-3 | 18.09.2012 | 18:37 | TVMUC | on ground/max depth | 87°55.972'N | 60°59.23’E | 4382 |
| PS80/351-1 | 18.09.2012 | 20:59 | MN | on ground/max depth | 87°55.94’N | 61°0.11’E | 4382 |
| PS80/352-1 | 18.09.2012 | 22:30 | ISP | on ground/max depth | 87°55.81’N | 61°0.95’E | 4383 |
| PS80/353-1 | 19.09.2012 | 01:52 | CTD/RO | on ground/max depth | 87°55.52’N | 60°58.07’E | 4384 |
| PS80/354-1 | 19.09.2012 | 04:12 | CTD/RO | on ground/max depth | 87°55.49’N | 60°56.60’E | 4382 |
| PS80/355-1 | 19.09.2012 | 06:48 | MG | on ground/max depth | 87°55.61’N | 61°0.73’E | 4381 |
| PS80/356-1 | 19.09.2012 | 09:31 | OFOS | profile start | 87°55.561'N | 61°7.584'E | 4384 |
| PS80/356-1 | 19.09.2012 | 12:31 | OFOS | profile end | 87°55.439'N | 61°8.955'E | 4383 |
| PS80/357-1 | 19.09.2012 | 14:11 | CTD/RO | on ground/max depth | 87°55.47’N | 61°7.50’E | 4382 |
| PS80/358-1 | 19.09.2012 | 15:55 | SUIT | profile start | 87°52.41’N | 59°37.09’E | 4384 |
| PS80/358-1 | 19.09.2012 | 16:20 | SUIT | profile end | 87°53.42’N | 59°46.31’E | 4423 |
| PS80/359-1 | 19.09.2012 | 20:05 | AGT | profile start | 87°53.53’N | 59°23.32’E | 4380 |
| PS80/359-1 | 19.09.2012 | 20:20 | AGT | profile end | 87°53.77’N | 59°20.81’E | 4380 |
| PS80/360-1 | 22.09.2012 | 05:24 | ICE | action | 88°49.66’N | 58°51.81’E | 4374 |
| PS80/360-1 | 23.09.2012 | 22:10 | ICE | on ground/max depth | 88°44.53’N | 55°6.16’E | 4375 |
| PS80/361-1 | 22.09.2012 | 07:45 | TVMUC | on ground/max depth | 88°49.605'N | 58°37.651'E | 4373 |
| PS80/362-1 | 22.09.2012 | 11:18 | TVMUC | on ground/max depth | 88°49.22’N | 58°13.59’E | 4374 |
| PS80/363-1 | 22.09.2012 | 14:31 | TVMUC | on ground/max depth | 88°48.872'N | 57°44.301'E | 4375 |
| PS80/364-1 | 22.09.2012 | 17:31 | CTD/RO | on ground/max depth | 88°48.54’N | 57°15.27’E | 4377 |
| PS80/365-1 | 22.09.2012 | 20:25 | CTD/RO | on ground/max depth | 88°48.18’N | 57°2.95’E | 4375 |
| PS80/366-1 | 22.09.2012 | 21:15 | ISP | on ground/max depth | 88°48.05’N | 56°59.77’E | 4376 |
| PS80/367-1 | 23.09.2012 | 01:30 | MN | on ground/max depth | 88°47.39’N | 56°33.31’E | 4376 |
| PS80/368-1 | 23.09.2012 | 03:14 | MG | on ground/max depth | 88°47.19’N | 56°22.32’E | 4374 |
| PS80/369-1 | 23.09.2012 | 06:08 | OFOS | profile start | 88°46.839'N | 56°8.376'E | 4373 |
| PS80/369-1 | 23.09.2012 | 08:45 | OFOS | profile end | 88°46.493'N | 56°1.457'E | 4375 |
| PS80/370-1 | 23.09.2012 | 10:25 | CTD/RO | on ground/max depth | 88°46.24’N | 55°55.61’E | 4377 |
| PS80/371-1 | 23.09.2012 | 13:19 | LANDER | on ground/max depth | 88°45.77’N | 55°40.39’E | 4369 |
| PS80/372-1 | 24.09.2012 | 13:55 | CTD/RO | on ground/max depth | 88°24.47’N | 52°19.79’E | 4384 |
| PS80/373-1 | 25.09.2012 | 00:31 | CTD/RO | on ground/max depth | 87°47.98’N | 49°59.91’E | 4381 |

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| PS80/373-2 | 25.09.2012 | 03:04 | XCTD | in the water | 87°39.11’N | 49°58.69’E | 3737 |
| PS80/374-1 | 25.09.2012 | 04:24 | SUIT | profile start | 87°35.82’N | 50°2.77’E | 4255 |
| PS80/374-1 | 25.09.2012 | 04:28 | SUIT | profile end | 87°35.93’N | 50°3.97’E | 4364 |
| PS80/375-1 | 25.09.2012 | 08:19 | CTD/RO | on ground/max depth | 87°30.22’N | 52°0.66’E | 4177 |
| PS80/376-1 | 25.09.2012 | 12:11 | SUIT | profile start | 87°20.42’N | 52°36.07’E | 3481 |
| PS80/376-1 | 25.09.2012 | 12:18 | SUIT | profile end | 87°20.25’N | 52°33.46’E | 3450 |
| PS80/377-1 | 25.09.2012 | 15:25 | CTD/RO | on ground/max depth | 87°12.64’N | 51°50.58’E | 3655 |
| PS80/377-2 | 25.09.2012 | 18:33 | XCTD | in the water | 87°2.23’N | 51°37.18’E | 4844 |
| PS80/378-1 | 25.09.2012 | 21:43 | CTD/RO | on ground/max depth | 86°53.00’N | 52°17.22’E | 4939 |
| PS80/378-2 | 26.09.2012 | 01:14 | XCTD | in the water | 86°45.51’N | 52°14.68’E | 4432 |
| PS80/379-1 | 26.09.2012 | 04:26 | CTD/RO | on ground/max depth | 86°35.87’N | 52°39.07’E | 4842 |
| PS80/379-2 | 26.09.2012 | 07:34 | XCTD | in the water | 86°26.96’N | 52°11.31’E | 3762 |
| PS80/380-1 | 26.09.2012 | 10:56 | CTD/RO | on ground/max depth | 86°19.10’N | 52°11.51’E | 3589 |
| PS80/381-1 | 26.09.2012 | 16:50 | CTD/RO | on ground/max depth | 86°1.45’N | 52°33.02’E | 3933 |
| PS80/382-1 | 27.09.2012 | 00:47 | CTD/RO | on ground/max depth | 85°24.62’N | 52°16.31’E | 3928 |
| PS80/383-1 | 27.09.2012 | 08:25 | CTD/RO | on ground/max depth | 84°48.13’N | 52°6.29’E | 3910 |
| PS80/384-1 | 28.09.2012 | 12:23 | ICE | in the water | 84°22.49’N | 17°27.22’E | 3513 |
| PS80/384-1 | 29.09.2012 | 15:10 | ICE | on deck | 84°20.79’N | 17°48.96’E | 4025 |
| PS80/385-1 | 28.09.2012 | 13:31 | TVMUC | on ground/max depth | 84°22.37’N | 17°28.80’E | 3617 |
| PS80/386-1 | 28.09.2012 | 15:48 | MN | on ground/max depth | 84°22.17’N | 17°30.67’E | 3786 |
| PS80/387-1 | 28.09.2012 | 18:07 | CTD/RO | on ground/max depth | 84°22.07’N | 17°31.51’E | 3897 |
| PS80/388-1 | 28.09.2012 | 20:04 | BONGO | on ground/max depth | 84°22.03’N | 17°33.33’E | 3998 |
| PS80/389-1 | 28.09.2012 | 20:55 | BONGO | on ground/max depth | 84°21.98’N | 17°34.63’E | 4020 |
| PS80/390-1 | 28.09.2012 | 21:40 | CTD/RO | on ground/max depth | 84°21.91’N | 17°35.87’E | 4020 |
| PS80/391-1 | 28.09.2012 | 22:52 | ISP | on ground/max depth | 84°21.77’N | 17°37.74’E | 4023 |
| PS80/392-1 | 29.09.2012 | 02:48 | OFOS | profile start | 84°21.196'N | 17°42.419'E | 4049 |
| PS80/392-1 | 29.09.2012 | 04:02 | OFOS | profile end | 84°21.097'N | 17°42.817'E | 4067 |
| PS80/393-1 | 29.09.2012 | 06:18 | MG | on ground/max depth | 84°21.07’N | 17°42.97’E | 4024 |
| PS80/394-1 | 29.09.2012 | 08:45 | TVMUC | off ground | 84°21.00’N | 17°44.17’E | 4023 |
| PS80/394-2 | 29.09.2012 | 13:21 | TVMUC | on ground/max depth | 84°20.78’N | 17°48.16’E | 4024 |
| PS80/395-1 | 29.09.2012 | 11:08 | MG | on ground/max depth | 84°20.88’N | 17°46.32’E | 4023 |
| PS80/396-1 | 29.09.2012 | 14:59 | CTD/RO | on ground/max depth | 84°20.79’N | 17°48.92’E | 4025 |
| PS80/397-1 | 29.09.2012 | 18:41 | SUIT | profile start | 84°10.05’N | 17°55.75’E | 4026 |
| PS80/397-1 | 29.09.2012 | 19:01 | SUIT | profile end | 84°9.93’N | 17°50.40’E | 4028 |
| PS80/397-2 | 29.09.2012 | 19:09 | XCTD | in the water | 84°10.01’N | 17°50.67’E | 4027 |